

ARE YOU POSITIVE?

*A Novel by
Stephen Davis*

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Chapter One

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On November 1, 2011, the Arizona Tribune ran an article in their Sunday Feature section telling the story of Sarah Meadows, a health writer for the paper who lost her brother to AIDS in 1990. Sarah had been covering the AIDS trial in Phoenix, which had taken on a special meaning for her personally.

PHOENIX, AZ – The heart of her story is not unique. In fact, it is shared by hundreds of thousands of men and women who lost a loved one to AIDS in the last thirty years.

Sarah Meadows, born Sarah Noyes in Greenwich, Connecticut, 1967, was accustomed to the finer things in life. Her father was a well-known doctor, prominent in Republican politics both statewide and nationally. Her mother was a graduate of Wellesley College and had blue blood coursing through her veins. Sarah lacked for nothing, from comfort and money to the finest education and friends that money could buy.

It was a perfect life, an American dream come true; that is, until her senior year in high school, when her 15-year-old brother Greg announced that he was gay.

“My dream suddenly turned into a nightmare,” Sarah recalls. “My parents simply couldn’t deal with it. Most of my friends deserted me, like I had done something wrong. But worse than that, everyone abandoned Greg, as if he had leprosy.”

Sarah was the only one who stood by her little brother, gently persuading her parents over the next year that homosexuality was not a disease or a curse, and easing him back into the family. She became his guardian, his mentor, his best friend.

When Sarah graduated and left home to attend Amherst College for a degree in Journalism, she made Greg promise to stay in Greenwich and finish his last two years of high school. Sarah would drive home every other weekend to visit Greg and support him. It meant that Sarah had virtually no social life for her entire freshman and much of her sophomore years.

“That was okay with me,” Sarah admits. “I kind of slacked off in high school a little, didn’t apply myself as I should have, and it was good to focus on my studies and on Greg and forget about sororities and boyfriends for a while. Besides, Greg would have done the same thing for me if the tables had been turned. There was no way I could just leave him hanging.”

It was during Greg’s senior year when the devastating news surfaced. It was a routine physical for life insurance his parents wanted to take out on him before he left for college, a simple blood test that normally means nothing.

“I remember when Greg called me to tell me he was HIV-positive. I was on a date, but ten minutes later I was driving south, hoping to get home before our parents found out.” Sarah’s voice gives only a hint of the desperation she felt at the time.

None of the rest of the family tested positive for HIV. Just Greg. He had three homosexual lovers, but they too all turned out to be HIV-negative.

“This was early 1988, and we weren’t exactly sure what to do. Like an awful lot of people, we believed what we were being told by the ‘experts’ – that HIV caused AIDS, and that AIDS was always fatal – so we had no other choice but to accept the fact that Greg would be dead in two or three years unless the HIV could be stopped.”

They took Greg to their family doctor. Then they took him to an AIDS specialist in New York City, and finally to the Mayo Clinic in Rochester. The story was the same everywhere.

“They all told Greg to start taking AZT, the drug that had been approved just the year before to treat AIDS.” Sarah winces as she remembers. “They said it would kill the HIV and prevent him from

getting AIDS, or at a minimum prolong his life. Since there was no contrary information being widely publicized, we had no reason to doubt this advice. It turns out that Greg was part of the first group of HIV-positives who had no symptoms of AIDS but were prescribed AZT anyway, despite assurances from the drug company to the FDA approval committee that they wouldn't do that. But we didn't know that!"

There were two problems, however. Greg hated taking pills. He always had. It had been a battle to try to get him to take vitamins when he was younger, and finally the family had given up. Apparently it wasn't some philosophical stand against drugs as much as a physical abhorrence to swallowing a pill. Or perhaps it was completely psychological. At any rate, he would choke violently anytime he tried.

The second problem was that Greg was in perfect health, and it was hard for him to believe he needed medication. Hard for anyone to believe, for that matter. Though not big into competitive team sports, Greg loved cycling and wanted to ride in Connecticut's annual 100-mile bkm/Steelcase Bike Tour to help raise money to fight MS that June.

"I would say that in March of 1988, at eighteen years of age, Greg was in top physical condition. Strong, muscular, toned, and aerobically fit," Sarah offers. "He could easily ride his bike for 5 or 6 hours straight and not show any signs of weakness or exhaustion."

But the doctors were unanimous. It was just a matter of time before his HIV brought on the symptoms of AIDS, and Greg needed to take AZT if he had any chance of surviving.

"I got a call from my mother at Amherst. She was hysterical and at her wit's end. Greg was refusing to take his AZT and no one had been able to convince him otherwise." Sarah hesitates for a moment, trying to hold back the emotion that was building. "I told Mother that I would drive down that weekend and have a talk with Greg, and that he would listen to me and do what I told him."

By Sunday night they had a compromise. Greg would ride in the MS Bike Tour drug-free, and then start taking the AZT when it was over. It was the best Sarah could do, and it wasn't easy.

"I had to remind Greg who it was that stood by him the last few years through all the trouble, and basically called in all the favors he owed me. I won't say that I blackmailed him into taking AZT, but I pulled out all the stops and put on all the pressure I could to get his commitment. After all, at the time I thought it was the only way I could keep my brother alive, and I figured he was just too young or too stubborn or too much in denial to realize the seriousness of the situation." Sarah bows her head for a minute, seemingly torn between the grief and anger. "I never gave any credence to the idea that Greg's own intuition was telling him not to take the AZT."

Greg left that August to attend the San Francisco Art Institute, to follow his passion and his dream of being a world-famous sculptor. He and Sarah would talk frequently on the phone, and Sarah even visited Greg during Spring Break of her junior year.

"He didn't look as good as I remembered him," she recalls. "I just thought he was a little run down, maybe partying too hard, enjoying his new-found freedom from the confines of Connecticut. After all, he was finally surrounded with people who understood and loved him, and I would have expected him to revel in these new friendships."

But it wasn't just the late nights or the lovers. At the end of his first year at the Art Institute, Greg was too sick to continue. He returned to his family in Greenwich and went to bed. Never a whiner, Greg began to complain daily about the headaches and muscle aches and nausea. The doctors, of course, said that his HIV had caught up with him and he was now in full-blown AIDS.

"My senior year at Amherst is a blur: Monday through Thursday in classes, then drive home and be with Greg on the weekends. He just got worse and worse. He never had Kaposi's Sarcoma or anything like that, but he eventually developed PCP – opportunistic pneumonia." Sarah's eyes began to water and her voice started to crack. "There was nothing else we could do except watch him die."

Which he did on April 4, 1990. He was twenty years old. Sarah couldn't go back to school after the funeral and withdrew from that semester. She stayed away for a year and ended up transferring to

Stanford University in Palo Alto, California where she not only finished her Journalism degree but also got a B.S. in Alternative Health after meeting her future husband at Palmer West Chiropractic College.

“I wanted to be close to San Francisco, where Greg had felt at home, and I immersed myself in my studies to try to get over his death. I also offered my help at a local AIDS clinic as often as I could. But it wasn’t easy, and it took a long time for me to feel even somewhat normal again.” Sarah looked out the window as she said, “I loved my brother very much...and he was so talented...”

Did she blame herself for his death?

“I blamed a lot of people, including myself. I blamed his lovers for giving him AIDS, even though I knew they didn’t. I blamed the doctors who couldn’t cure him. I blamed God for creating a world where bad things happen to good people. I mean, it just wasn’t fair, to Greg, to me, or to our family. My parents have never really recovered, to this day.”

The anger began to make its way to the surface.

“Of course I was angry. I was incensed back then, almost paralyzed with the rage from time to time. But I have to say that it was nothing compared to what I have felt listening to the testimony in the AIDS trial. However angry I was in 1990 pales in comparison.”

The intensity of her voice, the energy of her words told a story beyond description.

“I now have even more people to be angry at – Dr. Robert Gallo, for lying to us about HIV; the FDA for so carelessly approving AZT; Burroughs Wellcome for its greed and manipulation; and the entire medical community who turned out to be a bunch of mindless puppets. I mean, where were the doctors of this country, the very people who should have known better, or the ones who at least should have stood up in sufficient numbers and asked the right questions? But especially, where were the press and the media – my own peers – and our investigative journalists?”

She laughs through her tears at the irony of what comes out next. “Where was 60 Minutes when we really needed them? Is everyone so afraid these days of losing their jobs if they rock the boat, that someone like Robert Gallo can get away with killing hundreds of thousands of people because of incompetence, or pride, or just plain arrogance?”

Sarah blows her nose and wipes her eyes and sits back in her chair. She talks about knowing now that the right information had been there all along, even before Greg died, but how hard it was to get to it through the media blackout that prevailed.

Can she forgive them all?

“I’m working on it. There’s a New Age saying that people are doing the best they can with what they’ve got. Mostly I think that’s bullshit. You could use that to excuse Hitler if you wanted to – he was just doing the best he could with what he had. I don’t believe it. I mean, I can’t believe that the people we trust the most with our health – our government, the FDA, the drug companies, and especially our doctors – couldn’t do better than this for the last thirty years.”

Sarah bows her head and almost whispers.

“But the hardest person to forgive is myself.” She pauses. “It’s funny. There are a lot of people out there who are in my same position; they lost someone they loved dearly to AIDS, and many of them needlessly, and solely because they took a lethal drug at the urging of the people they counted on for help. I have no trouble forgiving any of them for what they did or the advice they gave. I’m even sure, in this case, they were doing the best they could with what they had. So why is it so hard to forgive myself the same way?”

Does she wish the AIDS trial had never happened?

“No, I’m glad the truth is finally coming out. Yes, it was really, really rough to live through it all again – really tough to realize the role I had played in Greg’s tragic and unnecessary death. But it would have been worse to keep all of this a secret. If nothing else, we – the American people – better wake up and smell the coffee. Enron and Tyco and HealthSouth and Adelphia and WorldCom and Rite Aid should be enough to prove that there are obviously criminals in high places who care more about money and power than human life, and we better start to question everything that comes our way from

our government and from the so-called medical and pharmaceutical industries. And I do mean everything.”

What does Sarah intend to do now?

“My best answer is this: I want to redeem myself and my brother’s death. I don’t want Greg to have died in vain. But it’s not just about Greg. They’ve literally killed thousands of people – more than 400,000 HIV-positives in the U.S. alone in the last twenty years. It was murder. It was genocide. And now there’s proof! So I am dedicating my life and my energy to making sure nothing like this can ever happen again.”

Exactly what form will that take?

“I can’t answer that specifically. Most immediately, I want to help make sure the whole world knows what happened in the AIDS trial, and I’m in a pretty good position to do that at the moment, right where I am. After that, who knows? Maybe I’ll write a book about it some day.”

Chapter Two

“Sam? Are you busy?”

Sarah Meadows stands in the open doorway to her boss’ office. Strategically positioned near the center of the large newsroom, all four walls of the office are glass from floor to ceiling so that Sam Moretti can see everything going on around him. A middle-aged, over-weight son of an Italian immigrant with a rough and tough exterior, he runs a tight ship at the Tribune; but he’s well respected and liked, and his door is always open.

As Sarah arrives, Sam is staring at his computer screen, intently focused on something. He simply holds up his hand and motions for her to sit without saying a word. His hand stays in the air, in case he needs it to keep Sarah from talking while he finishes. Sarah knows better than to interrupt and quietly takes a seat in front of Sam’s desk. She watches and waits, until Sam raises his other hand and ceremoniously hits “Enter” on the keyboard, sending the story to be formatted for the evening edition. Then he turns slightly and smiles at Sarah.

“What can I do for you, Sarah?”

Sam has always had a soft spot for Sarah. She had been his student in high school, and when he took over as chief news editor at the Tribune, he hired her as a part-time health correspondent, against the wishes of his superiors since she had virtually no experience. But her weekly column, *HEALTH MATTERS*, had become a regular feature for the paper, and some of her best research work had also become known internationally, thanks to the Internet.

The other reason Sarah is welcome in Sam’s office any time is her big scoop two months ago about the settlement in the AIDS trial. It not only made Sarah famous, but was a feather in Sam’s cap as well. Still, Sam is not quite sure himself why he treats Sarah more like a daughter than one of his employees.

“Sam, I’d like to take some time off.”

Sam wasn’t really surprised at the request. Sarah had been spending many more hours than usual for the last few months covering, first, the AIDS trial, and now the ongoing AZT trial, and he knew it had taken a toll on her family life as well. With three children and a successful chiropractor for a husband, Sarah had been quite willing to spend ten or fifteen hours a week researching and writing her health column. But since the AIDS trial started last October, it had been more like forty to fifty hours a week; and Sam knew that was too much. Regardless, he had hoped she would keep at it just a little longer.

“The AZT trial’s not over, Sarah...”

Sarah interrupts by leaning forward on his desk. “I know, Sam. But Gene can handle it. He’s come a long way in a couple months, and he’s filing some good stories.”

“But his name is not Sarah Meadows – the one who broke the story on the AIDS trial settlement. You know, you might just win a Pulitzer for that!”

Sarah blushes and tries to dismiss the idea. “I was just in the right place at the right time.”

“And they give awards for that, Sarah.”

“Let’s not talk about that now. This new trial for GlaxoSmithKline and AZT is pretty much a rehash of what we heard earlier, and I don’t think there will be many surprises. I feel totally confident that Gene is capable of handling it.”

Sam rolls his chair around and looks Sarah straight in the eye. “Do you think they’re going to get away with it?” he asks, almost under his breath.

Sarah ponders the question for a minute. “No, Sam, I don’t. Gladstone is not presenting any evidence to contradict what Messick and Baker had established in the first trial, and although Gladstone is putting on a strong defense this time – and I think he thought he could get a different

outcome – it's still pretty obvious that 90% of the AIDS cases in this country up until 1997 were caused by AZT, not HIV. No," she pauses, "I think he's going to lose just like Crawley did, and the jury is going to award a lot more money to the families of those who died from taking AZT."

"You're one of those families, Sarah. Don't you want to stay with this trial until it's over?"

"You know the money's not important to me, Sam. It can't bring my brother back. Besides, I just found out there's another trial that may be even more important for me to cover."

Sam looks genuinely surprised this time. "Another trial? You're not going to go home to your family and rest?"

"No, I'm not. As a matter of fact, I'm going to leave in two days for South Carolina."

Now Sam is completely baffled. "What in God's name is so important that you have to go to South Carolina? Don't they still fly the confederate flag there?"

Sarah is enjoying watching Sam squirm. He always wanted to be one step ahead of his employees and was clearly uncomfortable that Sarah knew something he didn't. It was fun for her to be in this position for once.

"Sam, the AIDS trial dealt with the people who were killed in this country through 1997. As important as that is, there's another tragedy going on today – right now – that I'm just finding out about, and that I think we should be covering."

"Are you talking about what's happening with AIDS in Africa, because while it's tragic – and I agree that it is – it's really not something our readers seem to care that much about."

Sarah winces at the sad truth, wishing it weren't so. "Do you know what I just heard today, Sam? Bono's Red Campaign to fight AIDS in Africa only raised 18 million dollars in its entire first year. And they spent 100 million to advertise it."

Sam leans back in his chair. He isn't sure how he feels about the Red Campaign. On one hand, it's a sign of the times that most Americans pay so little attention and give so little of themselves to people in other countries who really needed our help. On the other hand, since Clinton and Bono and Oprah and Gates and company are still stuck on the idea that HIV causes AIDS – despite the outcome of the AIDS trial – and their solution is to send more lethal drugs to give to unsuspecting Africans, part of him is glad the Red Campaign is failing.

"But if you're not talking about AIDS in Africa, what are you talking about?"

Sarah leans forward in her chair and puts her forearms on the front of Sam's desk. "I'm talking about the fact that we continue to diagnose people in this country as HIV-Positive, and continue to pressure them into taking highly toxic drugs, even though it's now been proven that HIV doesn't cause AIDS. But that's still only half the story."

Sarah leans back again and pauses long enough for Sam to get impatient. When she doesn't speak, but instead gets a glazed look in her eyes, Sam asks, "Are you going to make me beg for the other half?"

Sarah laughs. "Sorry, Sam. No. I just got lost chasing a fleeting thought for a second. The other half is this. Ever since people knew I was involved in the AIDS trial, I've been getting lots of emails about different aspects of HIV and AIDS. Some of them are from kooks and conspiracy theorists. But some of them have made me realize that there are as many questions to be raised about the accuracy of the HIV tests as there were about the theory that HIV causes AIDS."

"I'm not sure I'm following you."

"Let me put it this way, Sam. In the last twenty-four hours, and I mean that literally, more than one-hundred people in the United States alone have been told they are HIV-Positive based on getting a positive HIV test, according to the estimates from the Centers for Disease Control and Prevention. That's one-hundred people right now who are going through hell, whose lives have been changed in an instant, whose hopes and dreams for the future are totally crushed, whose families are in turmoil, and whose friends may never speak to them again. I know what it means to be diagnosed HIV-Positive. I went through it with my brother, Greg. It truly is a living hell. But the worst part is, it looks like the

HIV tests may be very unreliable and diagnosing many of these people incorrectly. So the tragedy is compounded.”

Sam is thrown off balance once again. “That’s the first I’ve heard of the HIV tests being wrong. Are you sure of this?”

“No, I’m not. Not yet,” Sarah admits. “And that’s why I want to do a lot more research to find out what’s true and what’s not. But there’s even more to the story, Sam.”

This time he waits until Sarah is ready to talk again. He can see some emotion in her face, can hear it in her voice, and he wants to give her the time and space to get it all out.

“Sam, I’ve read some reports that these people who are being told they are HIV-Positive are being pressured into taking what may still be highly toxic drugs.”

“I thought we stopped giving AZT to people years ago.”

“True, at least not by itself in the high doses it used to be prescribed. But there’s still some AZT apparently in a couple of the drug cocktails used today.”

“And people are still dying from it?”

“Again, Sam, I don’t know anything for sure yet. All I know is that even the AIDS ‘experts’ are admitting that about 25 people are dying every day from the side effects of these newer HIV drugs, and not from any AIDS-related illness.”

Sam is suddenly losing his own cool. “Wait a minute. You’re saying that we’re telling one-hundred people a day they are HIV-Positive, and there’s a chance many of them got the wrong diagnosis, and twenty-five of them are admittedly dying from the drugs they’re told to take anyway?”

“That’s what it looks like to me right now. But I want to verify that.”

Sam pops up out of his chair. “Damn right, you should. And I get to print this story when you’re done. I’m tired of these guys getting away with this bullshit. How long will it take you?”

It’s very seldom that Sarah sees Sam display any kind of emotion, or express his own opinion about any issue; and in this case, he’s jumped the gun. “Hang on, Sam.”

“For what? The answer’s ‘Yes,’ you can have the time off for this. Let’s work out the details.”

“Please wait a minute, Sam.”

Sam looks carefully at Sarah and sees that she’s on the verge of tears. Finally he puts two and two together.

“Sarah, I’m sorry.” He gives Sarah a few minutes to regain her composure. “This is about your brother again, isn’t it?”

Sarah nods, but doesn’t speak. Finally, “I’ve been through the worst of it, Sam, realizing that it was the AZT that killed him, and it was I who played a big part in his taking that awful drug. But now I’m wondering: Was Greg even HIV-Positive to begin with? Was this whole thing a big mistake? If the HIV tests really aren’t very accurate at all, how many others have lost loved ones because of another lie from these AIDS ‘experts’? I’ve got to know, Sam. I’ve got to know for sure.”

“I don’t blame you, Sarah. Take all the time you need. Is this why you’re going to South Carolina?”

Sarah takes out a tissue and dabs at her eyes, being careful not to smear her mascara. “I got a call over the weekend from an old friend. There’s a trial that just started in Greenville...”

“Greenville, South Carolina?”

“It’s pronounced *Greenvul*, Sam, not *Green-ville*. And the town next to it, Greer, is pronounced *Grrrr* – in two syllables.”

“Whatever. What’s this trial about?”

“You know that a lot of states have recently passed laws making it a crime to have sex with someone without telling them you are HIV-Positive.”

“I’ve heard that, yes.”

“Well, this trial goes beyond that. A man is being charged with first degree murder for sleeping with a woman, not telling her he was HIV-Positive, and then she got AIDS and died.”

Apparently it was a day for Sam to be caught flatfooted more than once.

“Murder?”

“Yes, first degree murder. And the defense apparently is going to claim that the HIV-tests that diagnosed him are wrong most of the time, and that there’s no real scientific proof that he, or the girl that died, were actually infected with HIV. So this will be a case, like the AIDS trial, where all the evidence will come out about the HIV tests.”

“Perfect!”

“And it’s possible that the girl died from the drugs she took after she was diagnosed HIV-Positive, so that story will come out in sworn testimony as well.”

“Double perfect!” Sam is elated at the possibility of another huge scoop for the paper; and then he comes back to reality. “But we’ve got a few problems, Sarah.”

“What?”

“There’s no way I can talk the Tribune into paying to send you to South Carolina to cover this trial, way out of our coverage, especially when we don’t know how long it will take.”

“That’s okay, Sam. I’m not asking for that. This friend who called me...”

Suddenly worried, Sam interrupts. “How did he find out about the trial?”

“It’s a ‘she,’ and she now lives about thirty minutes from Greenville, near Spartanburg, South Carolina. We met when I lived in California. She was a student in the same class as my husband, Bill, at Palmer West Chiropractic College, and now she’s teaching at a chiropractic college called Sherman.”

Sam was disappointed. “So it’s already all over the papers back east?”

“No, Sam. Gwen – Dr. Gwen Turner... one of the reasons we became such good friends is that she also lost a brother to AIDS a few years ago. So she’s been following this issue, and she found out about this trial and let me know. She’s still single and living alone in a house on a lake, and she’s invited me to stay with her as long as I want. And I’m willing to pay my own expenses to get there and back. The Tribune doesn’t have to spend a penny on this.”

That was one problem solved; but there were others.

“What about your weekly column?”

“I can always write it and send it to you from wherever I am in the world; and I already have columns planned for the next month, in case I’m gone that long.”

“On what?”

“Remember when I said that there were one-hundred people a day still being diagnosed HIV-Positive in this country?”

“It wasn’t that long ago, Sarah, and I’m not that old – yet. Of course I remember.”

“I think our readers should know what these people go through when they’re told they’re HIV-Positive, what happens to them and to their lives from that point on. And some of the emails I’ve gotten have been from Positives who want to tell their own true stories. So I’m going to do some in depth interviews with a few of them and use them as my column for the next few weeks.”

“Sarah, do you really think most people really want to read about that?”

“Yes, I do, Sam. For one thing, people seem to love to hear true-life stories about other people; and look at the response that came in after the feature article was printed about me last November. It was amazing.”

“True.”

“And these one-hundred people a day being diagnosed HIV-Positive are not limited to a small number of gay men or drug addicts any more. In fact, since the Centers for Disease Control and Prevention announced their new protocol last May to have everyone in this country tested for HIV, more and more people are being diagnosed HIV-Positive who are not gay and who have not used drugs – white soccer moms, Little League coaches, high-powered executives. In fact, my first column next week will be about a sixty-year-old woman from rural Texas, mother of eight children. Sam, it’s

important for us to tell everyone that if this keeps up, no one is safe from having an HIV diagnosis touch them very close to home. Maybe it won't be them, but it will be their family, or a loved one, or someone they work with. Yes, I think people should be told about this, and read about what it means to be labeled HIV-Positive, especially if that label is wrong."

"Alright. We can at least try it for a week or two and see what the response is. Just make sure I've got your column by close every Monday so I can have it ready for your usual Tuesday placement. When do you leave?"

"Day after tomorrow. I'll go to the AZT trial with Gene tomorrow morning and make sure he's comfortable to take over on his own. And then I fly out Wednesday around noon."

"But what about your family?"

"Bill has been really great about this and we made all the arrangements this weekend to make sure the kids are taken care of."

"No idea how long you'll be gone?"

"Not at the moment. The trial actually started last Wednesday. Right now the prosecution is still calling its own witnesses. Gwen is faxing me the transcripts of the opening statements so I can read them before I get there."

Chapter Three

Bill was seeing patients all day, so Sarah took the shuttle to Sky Harbor rather than pay to park for the length of time she would be gone. She really didn't like the Phoenix airport very much, eighth-busiest in the U.S. and fourteenth busiest in the world. It had grown too fast, with too little planning. Fifteen-hundred planes handling more than 100,000 people arrive and depart every day, mostly from the newer Terminals 3 and 4. Many first-time visitors are surprised to discover there is no Terminal 1; it was torn down in 1990 and its number "retired" like a sports hero's jersey in honor of its service since the airport opened in 1935.

Sarah always preferred to use Terminal 2 anyway, when she could. It was older and smaller, with shorter lines and more convenient and better parking. That meant taking United Airlines or Continental most places. She was still angry at United for losing her luggage on the last trip to New York and not offering her adequate compensation, so she swore she'd never fly them again. She had chosen Continental for this trip, with a stop in Houston. Besides, Continental had those adjustable headrests on their seats, even in coach, with the wings that came out on either side that kept your head from falling over when you dozed off. Why every airline couldn't provide that kind of comfort and thoughtfulness was still a mystery to her.

She had waited until she got her V8 from the beverage cart and heard the pilot's prediction of a smooth ride for the rest of the three-hour flight. Now she opens her briefcase and pulls out the trial transcripts Gwen had faxed yesterday. There is a cover letter that had come with them.

Dear Sarah,

Here are the court-reporter transcripts of the opening statements delivered last Wednesday on the first day of the trial. And here are some barebones details you probably need to know for background....

The defendant's name is Tyree Johnson, African-American, now twenty-six years old. He has been charged with first-degree murder for the death of Beth Ann Brooks, white, just eighteen years old when they started having sex, twenty when she died. He faces the death penalty if found guilty.

You asked for the name of the District Attorney prosecuting the case. In South Carolina, they're called "Solicitor," and the Solicitor for the 13th Judicial Circuit, which includes Greenville, is Richard Armand. Because of the nature of the case, Armand himself has taken charge and delivered the prosecution's opening statement.

The defense attorney is Bernard Campbell III. His father, Bernard Campbell II, apparently was a famous lawyer in Greenville for many years, and their law firm is well respected. The father's nickname was "Bernie," the son's is "Nard." Campbell is doing this case pro bono and actually had to get the court's permission to represent Mr. Johnson instead of the usual public defender.

The jury is 4 white women, 3 white men, 3 black women, and 2 black men.

The judge is Byron Stevenson, white, mid-fifties, on the bench for fourteen years.

See you tomorrow night...

Gwen

Sarah reaches up, turns on the overhead light, and closes the air vent. She takes out her yellow highlighter and skims through the first part of the transcript, skipping over the opening remarks by the judge and other court formalities, until she reaches the place where the Solicitor begins his opening statement.

ARMAND: Good morning, ladies and gentlemen of the jury. My name is Richard Armand, and I am Solicitor for the 13th Judicial Circuit.

I don't usually try criminal cases myself. But this case is different. This case is going to set a precedent for the rest of the country; and it's high time we took a strong stand on this issue, because we will prove to you that the defendant – Tyree Johnson, seated right over there – murdered an innocent teenage girl, Beth Ann Brooks, just as surely as if he had taken a gun and shot her in the head.

In this case, however, it wasn't a gun that Mr. Johnson used. It was a deadly virus called HIV, the virus we know causes AIDS. Mr. Johnson knew he carried this lethal virus in his blood, knew that he could infect any women he slept with and give them HIV as well, and knew that they could get sick and die from AIDS. And yet he didn't tell Beth Ann Brooks that he was HIV-Positive, didn't give her the chance to refuse to have sex with him, didn't warn her that she could get a fatal disease from him if she did. And he didn't use a condom, either.

This is nothing short of premeditated murder – murder in the first degree.

Beth Ann Brooks had been the Homecoming Queen in her senior year at Riverside High School. She was a cheerleader, a Merit Scholar, and president of the Central Spirit Committee. She went to church with her family every Sunday and sang in the choir. She was a freshman at Furman University, on her way to a degree in sociology. She wanted to work with the homeless and the poor. Beth Ann Brooks had the brightest of all possible futures and would have brought hope and joy to so many people.

That is, until Tyree Johnson knowingly infected her with HIV, the virus which caused her to contract AIDS and die.

Rest assured that we will be bringing witnesses to that chair who will provide you with all the information you will need to find this man guilty of murder. You will hear his doctor confirm that Tyree Johnson had indeed tested HIV-Positive. You will hear Beth Ann Brooks' doctor confirm that, after having sex with Mr. Johnson, she too tested HIV-Positive. You will hear the Greenville County Coroner confirm that Beth Ann Brooks died from AIDS at the age of twenty, less than two years after her sexual encounters with Mr. Johnson.

I wish you could have seen Beth Ann Brooks for the last year of her life. Gone was her joy, gone was her beauty, gone was the light of life from her eyes. AIDS is a terrible way to die – long and painful and ugly. Her face was sunken, her abdomen was swollen, she had humps on her back and her neck. She was so nauseous she couldn't eat and wasted away to nothing.

The evidence will prove that the defendant – Tyree Johnson – is the one responsible for her hell on earth. That man over there is the one who caused her tragic and horrible year-long losing battle and finally, her death. Honestly, if Beth Ann Brooks had to die, it would have been kinder had Mr. Johnson actually taken a gun and shot her in the head. At least she would not have suffered so much for so long.

CAMPBELL: Objection. Inflammatory.

JUDGE: Sustained. Tone it down, Mr. Armand.

ARMAND: Ladies and gentleman, please forgive my anger and outrage. In this case, I happen to believe that it's well justified, and when you hear the testimony we will present, I hope you will feel the same way. Over the course of this trial, we will give you all the evidence you need to decide, beyond the shadow of a doubt, that Mr. Johnson knowingly had sex with Beth Ann Brooks, knowingly withheld from her the fact that he carried the deadly HIV, the virus that causes AIDS, and knowingly infected her with that virus, causing her death.

After hearing all the evidence, it will be your duty to find Mr. Johnson guilty of murder. But more than that, it will be your responsibility to send a message to rest of the country – indeed, to the rest of

the world – that those who are HIV-Positive have a moral and ethical responsibility to protect other innocent people who they contact from the possibility of infecting them with this deadly disease; and that if they ignore or violate that responsibility, they must pay the highest price possible for their crime.

Sarah sits back and lets the transcript fall on the open tray table in front of her. She understood this man's anger; she had carried her own rage for years about her brother's death, wishing those responsible for giving him HIV could have been found and prosecuted for cutting his life short – a life just as promising and full of potential as Beth Ann Brooks'.

She also knows that there will be thousands of others – perhaps hundreds of thousands – who agree with Armand, and that if this trial were decided by popular vote, Tyree Johnson wouldn't stand a chance, for many reasons. She picks up her pen and writes in the column of the transcript: "Follow up on racial issue – black man, white woman, South Carolina," then closes her eyes for a minute.

It must have been more than a minute, because the flight attendant is back, handing out a snack box containing nothing that Sarah would ever consider putting in her mouth. But it does give her the chance to grab another V8 on the way by. She picks up the transcript again and starts reading the opening statement by the defense, which apparently came after the court recessed for lunch.

CAMPBELL: Good afternoon. That was an impassioned speech from Mr. Armand this morning. I don't blame you for being moved.

I agree with Mr. Armand that this will be a very unique trial, for many reasons. In fact, you may well be involved in a truly historic event.

But this is a murder trial, and your decision about the guilt or innocence of my client cannot be based on emotions, especially when we are dealing with the lives of two young people – Tyree Johnson and Beth Ann Brooks. We have the greatest sympathy for the family of Ms. Brooks; the loss of her life is truly a tragedy, to be taken so young.

But the question you have to decide is how her life was taken. Did Mr. Johnson in fact murder Ms. Brooks? Is he really the one responsible for her death, as Mr. Armand claims?

I'm sure many of you have watched enough shows on television to know that in any murder trial, the prosecution has to prove motive, opportunity, and method beyond any reasonable doubt in order to find someone guilty of such a heinous crime.

What was Mr. Johnson's motive? Is there any proof that he wished to intentionally harm Ms. Brooks? Even the Solicitor is going to stipulate that Mr. Johnson and Ms. Brooks made love together as two consenting adults, a number of times as a matter of fact, over the course of a couple months. There is no suggestion of a forced sexual assault, or that there was anything except mutual admiration and good will between Mr. Johnson and Ms. Brooks – no evidence of any animosity between the two of them, and no reason for Mr. Johnson to want to harm Ms. Brooks at all. In short, there was no motive for murder.

Opportunity? Yes, we agree that when the two of them made love, there was an opportunity for lots of things to happen.

But the real issue in this trial is the method. Despite Mr. Armand's attempts to make it sound like it, my client did not take a gun and shoot Beth Ann Brooks in the head. He did not take a knife and stab her to death. He did not tie her up, or rape her, or violently interact with Ms. Brooks in any way, shape or form. Quite the contrary. He made love with her, with her agreement.

So let's be clear from the start, ladies and gentlemen, that if there was a murder, the murder weapon in this case is a virus called HIV that is said to cause AIDS. My client is alleged to have HIV, and to have infected Ms. Brooks with it through sexual intercourse. In fact, the one and only reason we are here today is that Mr. Johnson was diagnosed to be HIV-Positive as a result of what is called an

HIV test. If Mr. Johnson were not HIV-Positive – if he didn't have the virus Mr. Armand claims he has – there would be no murder, and no murder trial.

Remember too that the defendant is innocent until proven guilty. In other words, it is Mr. Armand who has the responsibility of proving that Mr. Johnson is in fact HIV-Positive – that he indeed carries a deadly virus called HIV; because if Mr. Armand cannot prove that, we have no murder weapon, and no crime committed. Stated very simply, this whole trial hinges on whether or not the State can prove to you beyond a reasonable doubt that Mr. Johnson is infected with HIV, and whether he could then infect Ms. Brooks with it.

Now, as Mr. Armand told you this morning, he is going to bring a few witnesses up here who will testify that Mr. Johnson and Ms. Brooks tested HIV-Positive; and they will tell you things you undoubtedly have heard for years from the so-called AIDS experts and the mass media. This is going to be your most difficult task during this trial – to decide who and what you are going to believe; because, after Mr. Armand gets finished, it will be my turn, and I am going to prove to you that there is no scientific evidence – none whatsoever – that Mr. Johnson, or Beth Ann Brooks, for that matter, are or were infected with the virus we call HIV.

I can see the looks of amazement on your faces already, and I don't blame you. Everything we have been told for two decades has convinced us that someone who tests Positive on a so-called HIV test has the virus called HIV and can infect someone else with it, especially through sexual intercourse. But I ask you to consider this: What if everything we've been told about these so-called HIV tests is wrong? What if everything you've heard is not supported by the scientific evidence? What if HIV has never been proven in various scientific studies to be transmitted by heterosexual intercourse? And what if Beth Ann Brooks did not die from HIV or AIDS at all, but instead from the side effects of the drugs she was prescribed to allegedly treat her infection?

You're going to hear exactly that from quite a few expert witnesses I will present who will offer you not just theories and speculation, but numerous scientific studies to prove that the so-called HIV tests do not accurately diagnose anyone as having HIV, that HIV has not been proven to be transmitted by heterosexual intercourse, and that more people diagnosed HIV-Positive today are dying from the side effects of the drugs they are taking than from any AIDS-related illness.

Sound unbelievable, after all we've been told? Sound like some wild story made up by a few kooks on the Internet? Well, you will learn that these experts are not a bunch of lunatics, or some fringe element of society. In fact, two of them are Nobel Prize winners in medicine and chemistry. Some are members of the U.S. National Academy of Sciences. Still others are well-credentialed, published scientists who are part of an organization called The Group for the Scientific Reappraisal of the HIV/AIDS Hypothesis. You're also going to learn why you may never have heard of them or the scientific studies they will discuss.

But the first thing that may surprise you is that the so-called HIV tests used to diagnose Mr. Johnson as HIV-Positive are so inaccurate that they are virtually useless. In fact, you will hear testimony that the Food and Drug Administration has never approved a test – any test – to diagnose HIV infection. Let me say that another way. The HIV tests that both Mr. Johnson and Beth Ann Brooks took have never been approved by the FDA to diagnose infection with the HIV virus.

Sarah suddenly sits up, startled by this line. She highlights the words “never been approved by the FDA” and writes: “Is this true? Check this out!” in the column of the transcript. She finishes her V8 and continues reading.

Then what is this so-called HIV test? It is a test that is supposed to find the antibodies to HIV. It is, in fact, called an HIV Antibody Test, as you will see on the actual test kit packages we will introduce into evidence.

What exactly does that mean – an “HIV antibody test?” It means that the test is supposedly designed to find antibodies to HIV in a person’s blood; and if it finds them, you are said to be HIV-Positive, when in actuality you are HIV-Antibody-Positive.

Until HIV came along, having the antibodies to a virus meant that we were immune from any disease that virus could cause, which is the entire theory of vaccinations. I’ll be asking some expert witnesses why, all of a sudden and for the first time in medical history, having the antibodies to HIV means that you will get AIDS and probably die.

Once again Sarah makes a note: “Good question. Why have I never heard this asked before?”

But that’s not the only problem with these HIV tests.

You’re going to hear testimony that a Dr. Robert Gallo, who worked at the United States’ National Institutes of Health, announced at a press conference in 1984 that a virus he claimed he discovered, which was later to be named HIV, was the probable cause of AIDS. There were lots of problems with that announcement that came out later in various investigations, including an investigation by a congressional subcommittee proving that Dr. Gallo had stolen the virus he said he discovered from a French scientist by the name of Dr. Luc Montagnier. Dr. Gallo, just a few hours before this press conference, had also filed a patent application for these HIV tests that we’re talking about. Trouble is, it was also proven that he lied on that patent application.

Today, the HIV tests being used are based on the very same patent Dr. Gallo filed in 1984, for which he has been paid over a million dollars in royalties. The tests have not changed one bit; and there are lots of other problems with them as well. We’ve subpoenaed Dr. Gallo to come here and tell you exactly how he came up with the so-called HIV test, and we hope that he tells the truth this time.

ARMAND: Objection. Prejudicial.

JUDGE: Sustained. The jury will ignore the last remark.

CAMPBELL: All right. Let’s start with what we know to be true. There’s one kind of so-called HIV test known as an ELISA. It’s usually the first test anyone takes, mainly because it’s the cheapest. Sometimes it’s the only test some people take, although it’s never supposed to be. You’ll hear more about that from our witnesses.

There are a myriad of problems with this ELISA test that our expert witnesses will discuss in detail. For now, I will simply tell you that there is no scientific evidence that this ELISA test is accurately finding antibodies to HIV in anyone’s blood.

For example, none of the proteins used in the ELISA test have ever been proven to be unique or specific to the HIV virus. So when an ELISA test comes up Positive, there is absolutely no way to tell what it’s Positive for, and certainly no proof that it’s Positive for HIV.

This will be very important testimony for you to understand, because it is Mr. Armand’s job to convince you that the test which diagnosed the defendant as being HIV-Positive must be a test that reacts specifically and only with the virus we call HIV, or else the test he took could have been reacting with some other antibodies he had that have nothing to do with HIV. In that case, there’s no proof he was infected with HIV, and no murder weapon, and no murder.

Sarah highlights “reacts specifically and only with the virus we call HIV” and writes “Good point!”

Very early on, the AIDS ‘experts’ admitted that the HIV Test had problems; so they said that if someone reacts Positive on a so-called HIV ELISA test, they should be given another test, called a

Western Blot, to confirm the results. But this Western Blot test has a myriad of problems, too – so many problems, in fact, that Great Britain and some other countries refuse to use it.

Sarah's note in the left hand column says: "Call Ian in London to confirm."

Now, you're going to hear a lot of statistics thrown around during this trial, and I'm going to do my best not to confound you with numbers. But the scientific studies have shown that, because the ELISA and Western Blot proteins are not specific or unique for HIV, there can be as many as 90% false positive reactions to these tests. That means that nine out of ten test results can be wrong; and I will challenge the Solicitor to prove to you that Mr. Johnson's HIV test results were part of the 10% that might be correct, and to offer whatever scientific proof he thinks he has for that.

One of the reasons why there are so many false positive reactions to these tests is that scientific studies have found more than 70 conditions that a person can have that will cross-react with the HIV ELISA test. If someone had a recent flu shot or a tetanus shot before taking the so-called HIV test, they can get a false positive result. If they had a cold when they took the test, they can get a false positive. If they had a Hepatitis vaccination, they can get a false positive. If they had Hepatitis, or Tuberculosis, or Herpes some time in their life, they can get a false positive. The list is very long, and you will see more than fifty scientific studies entered into evidence that prove each and every one of them.

So before you can find the defendant guilty of murder, you are going to have to be 100% convinced that Mr. Johnson's HIV test results were not a false positive reaction to one or more of these 70 things other than HIV.

These are some of the reasons why these so-called HIV tests have never been validated, and this is perhaps the most important problem of all. Here's what I mean. With any antibody test, like the so-called HIV Antibody test, the test itself must be validated to prove its accuracy. You're going to hear what the standard procedure is to validate any antibody test, including the HIV antibody test, and the fact that that procedure has never been done.

In fact, I challenge Mr. Armand here and now to produce scientific evidence that any of these HIV tests have been validated, and therefore proven to be accurate and specific.

But that's not all. We're going to show you that these HIV Western Blot tests get very different results from different laboratories that process them. With this kind of inconsistency, I have no idea how Mr. Armand is going to prove to you that the so-called HIV tests the defendant and Ms. Brooks took were processed correctly by the laboratory they were sent to.

And now we come to the way these test results are interpreted – how someone makes a determination about which results are Positive and which are not. Right now there are ten different ways to interpret a so-called HIV Western Blot Antibody test. You're going to see a chart of these ten different ways, and how someone can test Positive using one set of criteria and not test Positive using another set. That's a big problem for Mr. Armand if he wants to prove that my client was correctly diagnosed as HIV-Positive, and therefore had the means of infecting – and murdering – Beth Ann Brooks.

Sarah had trouble reading those last few lines as the plane hit some unexpected turbulence. The captain's voice on the intercom is apologetic, requesting that everyone return to their seats and fasten their seatbelts while they try to find some smoother air. Sarah checks her own seatbelt, which she had never unfastened, and gives a little tug on the short end to tighten it just a bit. Then she goes back to her reading.

Let me mention just one more thing, and then we're going to leave these awful so-called HIV-Antibody tests and move on to other issues. You're going to meet Dr. Robert Richardson, one of our expert witnesses. Dr. Richardson worked in collaboration with the company that developed the first so-

called HIV tests – the ELISA test. Dr. Richardson is going to tell you that these tests cannot be used to diagnose HIV infection. He’s also going to show you the printed inserts included in each test kit where the manufacturers admit that their test is not guaranteed to establish the presence or absence of HIV antibodies in human blood, let alone HIV itself.

The turbulence is worse, not better, and Sarah gives up trying to read. She doses off again, and wakes up realizing how easily and peacefully she can sleep on an airplane for some reason. Maybe it’s the altitude; I don’t know. The plane is now steady and the seat belt light turned off. She picks up where she left off in the transcript.

As a result of the very poor performance of these ELISA and Western Blot HIV Antibody tests, there are other tests being run today that are supposed to find HIV. They are called viral load tests. I don’t want to go into detail now, because you’ll hear a lot of testimony about these viral load tests during the trial, particularly from the man who won the Nobel Prize for inventing the most commonly used viral load test procedure. He’s going to tell you that his test can not be used to measure the viral load of HIV, and why.

You might be interested to know that very few laboratories will run a viral load test on you unless you have tested HIV-Antibody-Positive on an ELISA or a Western Blot first. In fact, the FDA has never approved a viral load test to be run on anyone who has not previously tested Positive on an ELISA and a Western Blot. Why? Because too many people who were HIV-Negative were having high viral load test results. In other words, the viral load test was finding HIV in people who were not supposed to have HIV at all. That can be very embarrassing for the AIDS experts, because it shows just how inaccurate these tests can be.

As she was reading, Sarah had highlighted “very few laboratories will run the viral load test on you unless you have tested HIV-Antibody-Positive on an ELISA or a Western Blot first.” Her note says: “Ask Gwen to make an appointment for me to take a viral load test.”

There is one other test being used today by the AIDS Industry I will mention very briefly. It’s called a CD4 cell count, and it’s supposed to measure the strength of a person’s immune system. AIDS, of course, is Acquired Immune Deficiency Syndrome, and if someone has tested HIV-Antibody-Positive and has a low CD4 cell count, they are being diagnosed with AIDS – even if they have no symptoms of any disease at all. Today, more than half of the people being diagnosed with AIDS in the United States fall into this category – HIV-Positive, not sick, but have a low CD4 cell count.

But Canada, for one, doesn’t recognize this definition of AIDS, by the way. Don’t you find it a little strange that a disease can change its definition simply by crossing an arbitrary line drawn on a map? For someone in the United States to be cured of AIDS, if they were diagnosed because they were HIV-Antibody-Positive and had a low CD4 cell count, all they have to do is move to Canada and they no longer have AIDS. They’re cured! Amazing, isn’t it?

ARMAND: Objection. Relevance.

JUDGE: Counselor?

CAMPBELL: Well, Your Honor, I don’t know that this little tidbit is directly relevant to this case, other than it points up the absurdity of some of the theories about HIV and AIDS. But I find it interesting and peculiar myself.

JUDGE: Then drop it, Mr. Campbell.

CAMPBELL: Very well, Your Honor. As I said when I started, all of this may go against everything you thought you knew about HIV and AIDS, against everything you've heard and everything you've been told up until now. But when you look at the scientific evidence itself, which we will present to you, you find out that the truth is actually far different from what you're being told. And your job, ladies and gentlemen, is to discern the truth in this case.

If Mr. Armand cannot prove that the so-called HIV antibody tests that the defendant took were 100% accurate – if there is reasonable doubt in your mind when you've heard all the evidence and seen all the scientific studies that he is unquestionably HIV-Positive – then you're going to have to conclude that he could not have murdered Beth Ann Brooks, because being HIV-Positive is the weapon the Solicitor says he used. And if they can't prove he had that weapon, then he could not have committed this crime.

Sarah must have slept longer than she thought when she dozed off, because the flight attendant is announcing their descent into the Houston airport. There are not many pages left to read, so she decides to try to finish before they land.

So much for the defendant. Let's talk for a minute about the victim, Beth Ann Brooks.

First of all, remember that everything I have said about Mr. Johnson's so-called HIV test results applies to hers as well. You will learn that there is absolutely no scientific evidence to support an HIV-Positive diagnosis for Beth Ann Brooks either.

But there's a more critical flaw in the Solicitor's case, and that is that Mr. Armand claims the defendant infected Beth Ann Brooks with HIV. He simply cannot prove that. In order to prove that, he would have to prove that Ms. Brooks was HIV-Negative prior to having sex with Mr. Johnson. You can't say that Mr. Johnson infected her unless you can show that she was not infected before having sex with the defendant.

But you will learn that Beth Ann Brooks had never taken an HIV test before she had sex with Mr. Johnson. She only did so at the request of her father, Dr. Marcus Brooks, after she started dating my client. So there is no proof that she was HIV-Negative before then, and therefore no proof that she became HIV-Positive only after having sex with Mr. Johnson.

And there's another problem with the theory that Mr. Johnson infected Beth Ann Brooks by having sex with her. You will hear testimony about the largest and longest scientific study of its kind, published in 1997, which essentially proves that HIV is not transmitted through heterosexual intercourse. If that's true, and there is no other evidence to say that it's not, how was Beth Ann Brooks infected with HIV by making love with the defendant?

Again, I realize that this flies in the face of what you've heard about heterosexuals being infected through sex. But the fact is that it's simply not true, and we'll prove that to you.

So what did Beth Ann Brooks die from? It's a good question, and one that goes to the heart of this murder trial. Rather than dying from AIDS as a result of an HIV infection, we will prove to you that Beth Ann Brooks died from the drugs she was prescribed to take for her HIV. Unfortunately, when someone is diagnosed HIV-Positive today, they are put under extreme pressure to take very toxic and often lethal drugs called Highly Active Anti-Retroviral Therapy (HAART).

The problem is that even the AIDS 'experts' admits that somewhere around 8,000 people are dying every year from the side effects of these drugs – from organ failure, in particular. And we will present the scientific studies which prove this.

You will also hear from the Greenville County Coroner that Ms. Brooks died from liver failure. But liver failure is not a symptom of AIDS. It is a side effect of the AIDS drugs she was taking. The bottom line is that Beth Ann Brooks is listed as having died of AIDS solely because she was deemed to be HIV-Positive, and not from the actual cause of her death – in the same way that someone who dies

in a car accident is listed as an AIDS death if they happen to be HIV-Positive. I can see that you're shocked at that, but it's true.

Ladies and gentlemen, the evidence will show that Beth Ann Brooks died, tragically, because she followed her doctor's orders and took drugs that were supposed to fight her HIV infection, and not because the defendant made love with her. If anyone should be charged with murder in this case, it's the doctors and pharmaceutical companies who intimidate people into taking these highly toxic drugs as soon as they are diagnosed HIV-Positive.

ARMAND: Objection!

CAMPBELL: I'll withdraw that last comment. And I have only one last thing. You might hear the Solicitor's witnesses saying many of the same things you've heard on television for years about HIV and AIDS. You'll also hear me, in cross examination, challenge them to produce the scientific evidence for what they are saying, as I will be doing throughout this case; because we're not here to listen to speculation, or theory, or well-worn media sound bites. For years these people have uttered words that have no basis in fact, and in this trial I'm going to make them put up or shut up. And if they can't produce the scientific studies to support their claims, I hope you will take what they say with a grain of salt.

A man's life is in your hands, and I'm sure you want to make a decision about that life based on actual evidence and not on rumor.

Thank you.

Chapter Four

“Gwen, it’s Sarah.... I’m in the Houston airport waiting to board my flight for Greenville-Spartanburg.... They came through perfectly late last night, and I read them on the plane just now.... Yes, it sounds like it’s going to be a very interesting trial, to say the least. I’m so glad you told me about it.... No, they didn’t go into anything about the HIV tests in the AIDS trial in Phoenix, just the question of whether HIV can cause AIDS, and the lethal effects of AZT.... Already? That was quick. The Solicitor must think he’s got a cut-and-dried case. When does Campbell start his defense?... Well it’s a good thing I flew today, then. How long will it take me to get to the Greenville courthouse in the morning?... That’s not bad.... It’ll take me some time to get my luggage and the rental car, so I should probably be at your place by 10.... I won’t want much, but of course I couldn’t eat anything they served on the plane, and I don’t have time to get something here in Houston before my next flight... No, I printed out directions on Yahoo, so I should be okay. I’ll call you if I get lost.... It’ll be great to see you again, too. And thanks again for letting me stay with you.... See you soon....”

Sarah then dials another number on her cell phone, but gets an answering machine.

“Sam, it’s Sarah. I’m just about to get on another plane in Houston, so there’s no point in trying to call me back. I just found out that the prosecution has already rested their case and the defense starts theirs tomorrow. I don’t know yet how long this trial will take, but from the sounds of the opening statement by the defense attorney, he’s going to call a lot of expert witnesses and try to disprove the accuracy of the HIV tests, among other things. So it could take a while. I’ll make sure I email you the first true-life story of an HIV-Positive for my column so that it’s on your computer by Monday morning. That should be plenty of time, because you know, Sam, you never need to edit my stuff; it’s always perfect the first time I submit it! Bye, Sam. I’ll stay in touch.”

Chapter Five

Built in 1825, the old Greenville County Courthouse is a red brick building featuring a typical southern portico with large white pillars located on East North Street in the center of this fast-growing city. Situated on Interstate 85 about halfway between Atlanta, Georgia and Charlotte, North Carolina, Greenville lies at the base of the Blue Ridge Mountains and serves as a premiere location for high performance automotive companies, as well as the home to more international manufacturing investment per capita than any other region in the U.S.

In 1994, Greenville County built a new annex attached to the courthouse, and this is where the trial is being held. Courtroom 8 is the largest of all the courtrooms and as modern and well-equipped as you could hope for, with the latest in audio and video equipment. It can seat over one-hundred spectators in wooden “pews,” has its own locked Evidence Room, and includes an adjoining area for jury deliberation.

As Sarah sits in the gallery facing the judge, the jury box is on the right wall with two rows of wooden swivel chairs mounted to the floor. Sarah wonders how comfortable those chairs would be after a few hours of trial.

The Solicitor’s table is on the right, closest to the jury, occupied at this moment with Mr. Armand and someone who Sarah guesses must be his assistant. On the left side, seated at the defendant’s table, is Bernard Campbell III, with Tyree Johnson, the defendant, next to him.

Sarah had arrived a half-hour early to try to get comfortable in her new surroundings. After almost three months of covering the AIDS trial in Phoenix, she knew the Federal Courthouse there like the back of her hand. This was different – not only the architecture and surroundings, but the culture as well. She never spent much time in the south, despite being raised in Connecticut. A couple of spring breaks in Florida as a teenager were about the extent of her exposure to this distinctly different way of life.

Not to mention the food. They’d deep fry a salad if they could, she thinks.

“All rise.” The bailiff’s voice has that typical, deep resonance that fills the courtroom. Well, at least that’s the same.

Judge Stevenson, walking quickly up the steps to his oversized chair on the podium, is a distinguished-looking man, glasses, a full head of shocking white hair, and a build that looks like he might have played football in his younger days.

“Be seated.” His voice is also firm and strong, with a pronounced southern accent.

“Mr. Campbell, is the defense ready with your first witness?”

“We are, Your Honor. We’d like to call Dr. Robert Richardson.”

Bernard Campbell III, “Nard,” seems like he was cut from the same mold as the judge, except his hair is still dark. Same build, same accent. They must make them all that way in these parts, Sarah muses to herself with a poor southern accent, and then laughs quietly about the typical local slang she slipped into so easily.

As Dr. Richardson is sworn in, Sarah looks over the jury and the others around her who had come to watch. The first thing that struck her was how long it had been since she had seen so many black people in one place. Living in Arizona for the last fifteen years, she just wasn’t used to it. She wonders how much she’s missed, and the kids have missed, not having a more diverse environment around them.

She is also stunned by the small number of reporters who seem to be present. The gallery is only half-full to begin with, and most of them appear to be part of the defendant’s family or the family of Beth Ann Brooks. Either this trial has not been very well publicized, she thinks, or people here don’t care about it. She really can’t blame them. According to the CDC’s own estimates, HIV affects less

than .4 percent (4 out of 1000) of the U.S. population; so unless someone is touched personally by HIV or AIDS, as Sarah has been since she was seventeen, there's not much reason to care.

That's fine with me. Maybe I can give Sam another scoop!

With the swearing in formalities over, Campbell asks his first question of Dr. Richardson.

"You're a doctor, but not an M.D.?"

"Correct. I have a Ph.D. in bio-organic chemistry from the University of Colorado."

"When did you graduate?"

"1982."

"Just when AIDS was starting to be the center of attention for the medical and scientific world."

"Yes."

"And what did you do after you got your degree?"

"I went to work for a company called Applied Molecular Genetics."

"That company is now known by another name, correct?"

"Yes. Amgen. It's the largest biotech company in the world."

"What were you doing at Amgen?"

"I was hired to develop bigger, better, cheaper, safer, and faster diagnostic products for infectious diseases."

"And what happened in 1984?"

"That was the year Amgen went into a joint venture with Abbott Laboratories to develop HIV tests based on the patent Dr. Gallo had filed just hours before he announced that HIV caused AIDS."

"I'm not sure I understand...."

"Abbott had secured a license from the government to make the first HIV test, based on Gallo's patent, and they sub-contracted with Amgen to help them create it. Is that any clearer?"

"Yes, thank you. And your job at Amgen was to work on developing this new HIV test?"

Richardson shifted his position in the chair. He was there to cooperate fully with Campbell, and he didn't like not being able to respond completely and honestly. "I'm afraid I can't answer that question, Mr. Campbell."

"Why not?"

"I, along with all the other people working at Amgen, signed confidentiality agreements with Abbott, preventing us from disclosing certain details about our work, so I would be liable for breach of contract. I can tell you that the Abbott and Amgen scientists shared all the developments – good and bad – surrounding the creation of the HIV ELISA test, so I was definitely privy to this information."

"I assume you can admit that you hold several patents for viral testing?"

"Of course. That's a matter of public record."

"Well, I can't think of anyone more qualified to tell us about these HIV tests than the man who was there when they were created, can you?"

Armand is out of his chair in an instant. "Objection. Dr. Richardson has already been accepted as an expert witness, and Mr. Campbell is just grandstanding for the jury."

"Sustained." The judge looks directly at Campbell. "We're all duly impressed with Dr. Richardson, Mr. Campbell. Now move on."

Campbell had been walking around, moving close to the jury box, then to the witness stand, and finally standing directly in front of the Solicitor's table. He now moves back to the lawyer's lectern and reviews his notes.

"Dr. Richardson, what is this test called that Abbott created when you were working with them?"

"It's an Enzyme-Linked Immunosorbent Assay, usually referred to as an EIA, but more commonly called an ELISA."

"Is there more than one ELISA test?"

"Yes, quite a few. An ELISA test can be used to detect antibodies to different kinds of viruses and bacteria, for example. It's even used in finding potential food allergens and..."

Campbell wants to be very careful not to get too technical too soon and risk losing the jury, especially with this witness. He interrupts quickly.

“Dr. Richardson, we are obviously most interested today in one particular kind of ELISA test. So let me ask you: Is there an ELISA test for HIV?”

Richardson hesitates a moment before answering. “There is an HIV ELISA test, yes.”

“And is the HIV ELISA test the best test to use if you want to detect the presence of the Human Immunodeficiency Virus?”

“No, it’s not. In fact, an ELISA would be the third choice – and the least accurate test – if you wanted to detect HIV in someone.”

“What would be the first choice?”

It didn’t take long for Richardson to relax and warm to his role. Besides, he had explained this hundreds of times before in lectures and seminars over the years.

“If you were looking for HIV in a patient, the first choice – and most accurate – would be to isolate the virus itself from a patient’s blood or tissues. That’s called Direct Proof.”

“So why aren’t we using Direct Proof instead of an ELISA test to find out who is HIV-Positive?”

“Because you can’t find HIV very easily, even in patients with full-blown AIDS.”

Campbell searches his mind for the right example. “Dr. Richardson, if I had the flu right now, and you looked at my blood, what would you see?”

“I’d see millions and millions of flu viruses, and that would be Direct Proof that you had the flu.”

“But you’re saying that’s not true for HIV?”

“No. HIV can only be found in 1 out of 500, or 1 out of 10,000 cells, depending on whose study you want to believe. In other words, there isn’t enough of it to find, and it’s too difficult and too expensive to culture. So when the decision was made in 1984 that we needed to test large numbers of people for HIV, Direct Proof was simply not an option.”

A quick glance at the jury lets Campbell know they’re with him. So far, so good. He decides that’s enough about Direct Proof for the moment. He’ll come back to it.

“And what would be the second choice to detect HIV?”

“It’s called Direct Evidence. This is done by finding fragments that are known to belong to the virus.”

“Can you give us an example of what that would mean?”

Richardson was used to making this very simple for anyone to understand. “Let’s say that you were trying to find your car in a crowded parking lot, but you were blindfolded. You could go around feeling all the cars for certain things you knew your own car possessed, like unique hubcaps, a convertible top, a hood ornament, a special steering wheel cover, and such. When you found enough pieces that you knew belonged to your car and probably wouldn’t be found together on anyone else’s car, you’d be nearly certain you had the right car. Direct Evidence is not as accurate as Direct Proof, but it’s the next best thing.”

Campbell is not so sure the jury fully understood. “Dr. Richardson, is there another way you could explain the distinction between Direct Proof and Direct Evidence?”

Richardson pauses for a moment. “To use a different analogy, with Direct Proof you’re looking for a house. With Direct Evidence, you’re looking for the walls and shingles and windows that the house is made of.”

When Campbell sees the faces of the jurors relax, he continues. “So why don’t we use Direct Evidence to detect if someone is HIV-Positive?”

“At that time, in 1984, Direct Evidence was being attempted mainly by trying to measure what is called a p24 antigen level – the forerunner of the so-called viral load test. However, the results of this test were also very disappointing in terms of actually finding HIV, and the test was expensive and difficult to run or duplicate. I should also say that Direct Evidence does not prove the presence of the

virus itself, since it is only finding fragments thought to belong to the virus, in the same way that finding a single wall does not prove that there is a house present.”

Good point, Campbell agrees silently. “So you were left with the ELISA test as the most practical method?”

“Yes, and an ELISA test is called Indirect Evidence. That’s when you look for things other than the virus that should only occur if the virus were present at some point. In other words, if you’re walking through the woods and you see bear tracks on the ground, that’s Indirect Evidence that a bear had been there sometime in the past.”

“And what is the Indirect Evidence you look for in an ELISA test?”

“The antibodies to the virus, and not the virus itself or pieces of the virus. The theory is that if antibodies are present, the virus had to be present some time as well. These antibodies are the bear tracks in the woods. You haven’t found the bear, or even the hair or a claw or any other piece of the bear itself. But you’ve got bear tracks that the bear supposedly produced, and in this case, you’ve got antibodies to a virus that your body would only have produced if the virus had been present at some point.”

Campbell goes to his table and picks up a stack of papers that he holds up toward the judge. “Your Honor, I would like to introduce into evidence the packages from all the different HIV ELISA tests that clearly say that the test is an HIV Antibody test.”

Armand rises from his chair. “Your Honor, I can save the court some time. We will agree that all HIV ELISA tests are called HIV Antibody Tests, and that the HIV ELISA test is designed to find antibodies to HIV....”

“...and is not designed to find the actual virus or pieces of the virus.” Campbell wants that part on the record as well.

“Agreed,” Armand nods.

“Thank you, Mr. Armand.” The judge seems pleased with Armand’s cooperation.

Campbell returns to the lectern to check his yellow pad and decides that it’s time to get into the specifics. “Dr. Richardson, can you tell us briefly and simply how an HIV ELISA test works?”

Richardson knew this question was coming and had spent a few days trying to decide on the best answer that was accurate and yet not over anyone’s head. He is just as anxious as Campbell to make sure the jury understands this process thoroughly.

“In the kind of ELISA test used for HIV, you essentially take a mixture that is thought to contain proteins of the Human Immunodeficiency Virus and test it against a person’s blood. If the test reacts, it is supposed to prove that the person’s immune system has already developed antibodies to the virus.”

Campbell stops him there, not wanting to go past words and concepts the jury could easily misunderstand. “You mentioned a mixture containing ‘proteins.’ Please explain more about these proteins.”

“Well, we know that there are approximately 100,000 different kinds of proteins in the normal human body, and each protein is unique in its size and shape. So if you are trying to work with a specific virus, for example, you can identify certain proteins that belong to that virus.”

“Okay. So you take these proteins that are supposed to belong to HIV....” Campbell is counting on Richardson to finish his sentence. Richardson doesn’t disappoint him.

“...and create a mixture with them that you then test against a person’s blood.”

Campbell looks at the jury. They’re with me. “So these proteins are all mixed together?”

“In an ELISA test, yes.”

“And what happens if the proteins in the test kit react with the person’s blood?”

“You make the test in such a way that the mixture changes color. Then there is a sliding scale to measure the intensity of the color change.”

“You mean that any color change would not translate into a Positive test result?”

“No...or I mean, Yes, you are correct. This is one of the problems with any ELISA test. You have to find the cut-off point on the sliding color scale where the result changes from Negative to Positive.”

“And how do you do that?”

“Basically, by moving the proposed cut-off point until you get the results you want on a sample group of patients.”

Campbell suddenly regrets going into this much detail. He’s afraid he’s starting to lose the jury, but it’s too late to turn back now. “I’m not sure I understand, Dr. Richardson.”

Richardson thinks for a moment before continuing. “You already know the patients who should test Positive and those who should test Negative. In this case, in 1984, there were people who were diagnosed with AIDS, and they better test positive on the HIV ELISA if the test was going to be any good. On the other hand, people who did not have AIDS – and were not in a high-risk group to get AIDS – should test Negative. So you keep moving up and down on this color scale until you find that point where most of your AIDS patients are Positive, but very few of your non-AIDS patients are.”

“So this is a fairly arbitrary decision, this point that makes the difference between Positive and Negative.”

Richardson hesitates on the word “arbitrary.”

“I can’t use that particular word, Mr. Campbell. But what I can say is that the marker between Positive and Negative on an HIV ELISA test was determined by making sure as many AIDS patients as possible tested Positive, and conversely as many non-AIDS patients as possible tested Negative.”

“You mean, not all of the non-AIDS patients would test Negative?”

“No, not all. The HIV ELISA test was being developed to protect the blood supply from contamination, and it was better to err on the side of caution than allow HIV to be passed on in blood transfusions. So the final point on the sliding color scale signifying the change from Positive to Negative was intentionally set to be very sensitive, so as not to miss any anyone who should test Positive. That high sensitivity might create Positive test results for some people who didn’t have HIV, but it wouldn’t miss anyone who did, theoretically.”

Well, I think we got out of that okay. Campbell leaves the lectern and walks over toward the jury.

“Let me see if I have this straight. In general, you create an ELISA test – any ELISA test – by taking certain proteins that are supposed to be associated with a virus and putting them into a mixture that you then combine with a person’s blood, and if the mixture changes to the right color, you have a positive test result. Did I get all that right?”

“Essentially, yes.”

“And having a positive result means?”

“It means that the person has the antibodies to that virus in their blood.”

Campbell turns and looks directly at each member of the jury as he asks the next question.

“And in the specific case of an HIV ELISA test, you take proteins that are supposed to be associated with HIV, put them in a mixture in the test kit, combine that with a patient’s blood, and if the mixture turns a certain color, the person is said to be HIV-Positive?”

Richardson raises both hands immediately. “No, sir.” Then he hesitates, “Well, Yes, but No.”

Campbell leans back against the jury rail and looks at Richardson. “Yes, but No? What did I get wrong this time?”

Richardson leans forward in his chair as if to emphasize his concern. “You are correct about taking proteins that are supposed to be associated with HIV and testing them against a person’s blood. And essentially you are right when you say that if they react, we call that person HIV-Positive. But technically, that’s not a true statement. They are not HIV-Positive, although the mass media and many of the so-called AIDS experts say that.”

“Well, what would be technically correct to say?”

“First, we have to remember that the ELISA is not a test for AIDS, as many people think, and as some very misinformed journalists and reporters call it. It’s not even a test for HIV, even though it’s

called that a lot. It's a test that is supposed to detect the antibodies to HIV. So if the HIV ELISA test has a positive reaction with a person's blood, the only thing we can say is that they are HIV-Antibody-Positive. There's a very big difference in being HIV-Positive and HIV-Antibody-Positive. Unfortunately, most people have been saying the wrong thing for many years now."

"Exactly what's the difference again between saying 'HIV-Positive' and 'HIV-Antibody-Positive'?"

"To say someone is 'HIV-Positive' means that they have been found to have the Human Immunodeficiency Virus in their blood or other tissues, by way of Direct Proof or Direct Evidence. To say someone is 'HIV-Antibody-Positive' means that they have the antibodies to HIV, which is all that the HIV ELISA tests can find by Indirect Evidence. In fact, the FDA has never approved a test for the diagnosis of actual HIV infection."

Campbell had been walking back to the lectern during Richardson's last comment, and he stops dead in his tracks, wheels, and looks at Richardson as if he didn't believe what he just heard.

"What did you just say, Dr. Richardson?"

"I said that the FDA has never approved a test to diagnose HIV infection."

Campbell goes to his table, shuffles through some papers, pulls out the sheet that he wants, and hands it to the witness.

"Dr. Richardson, what did I just hand you?"

"It's from the Center for Biologics Evaluation and Research of the U.S. Food and Drug Administration... it's from the FDA."

"And will you please read the first two sentences from that paper."

"AIDS is a serious disease that can be fatal. The United States Food and Drug Administration (FDA) regulates the tests that detect infection with Human Immunodeficiency Virus-1 (HIV-1), a virus that causes AIDS."

Campbell goes back to his table and finds another sheet of paper, which he also hands to Richardson.

"And what is this?"

"It's apparently from the National HIV Testing Resources, a service of the Centers for Disease Control and Prevention – from the CDC, in other words."

"And would you please read the sentence that is highlighted?"

"HIV testing consists of an initial screening with two types of tests commonly used to detect HIV infection."

"So, Dr. Richardson, don't both these statements from the FDA and the CDC contradict what you just said, that the FDA has never approved a test for the diagnosis of HIV infection?"

"No, they don't, and here's why. The words 'detect' and 'diagnose' have very different meanings. I said the FDA has never approved a test to diagnose HIV infection, and that is true, and no one has ever claimed anything different. To diagnose HIV infection, you would have to test for, and find, the Human Immunodeficiency Virus itself in a person's blood – Direct Proof, in other words. But that is not what the HIV tests do. No one looks for HIV itself, and therefore there is no test to diagnose HIV infection."

"If we're not testing for HIV, what are we testing for?"

"As I said, we're testing to see if someone has the antibodies to HIV."

"But the FDA and the CDC say these tests detect HIV infection..."

"...only because the CDC made an arbitrary decision in 1987 to equate a positive HIV antibody test result with HIV infection."

Again, Campbell looks shocked. "What?"

Richardson is on a roll, finally reaching the core of his expertise. "Okay, here's what happened. On March 14, 1986, after the HIV ELISA test had been in use for a little while, the CDC started to suggest that someone having a positive test result should be 'presumed' – that was the word they used,

‘presumed’ – to be infected with HIV. On May 23, 1986, they changed the word ‘presumed’ and said instead that people with a positive HIV test should be ‘considered’ to be infected – again, their word. On July 18, 1986, researchers from the CDC published a paper in the Journal of the American Medical Association that said having the antibodies to HIV meant being ‘infected’ with HIV. What they did, in fact, was to simply and arbitrarily define a positive antibody test result as being positive for actual infection as well. And finally, on August 14, 1987, without any reference to any scientific study at all, the CDC announced that, from then on, the presence of HIV antibodies would indicate a current infection with HIV.”

“They offered no proof for this assumption?”

“Worse than that, I’m afraid. All the proof suggested otherwise, even from their own papers. For example, in August of 1985, the CDC published a report of a study done on 51,000 blood donors, in which 106 of them had positive HIV ELISA test results. They then did a culture on those 106 people to find evidence of the actual Human Immunodeficiency Virus, and 44% of them had no HIV. They also reported on another study of seventy men in San Francisco who had positive HIV ELISA tests, and only 60% of them had a positive culture for HIV itself. In other words, at least 40% of the time, a positive HIV test result was not an indication of HIV infection.”

“How did they go from that to the claim that all HIV-Positive test results meant infection with HIV itself?”

Richardson reaches into his pocket and takes out a piece of paper. “I thought I might get asked that question. Is it okay for me to read what the CDC itself said?” He looks at the judge for approval and gets it.

“This is from the Morbidity and Mortality Weekly Report, dated March 14, 1986, issued by the Centers for Disease Control and Prevention, and I quote: ‘Since a large proportion of seropositive asymptomatic persons have been shown to be viremic,’ – ‘viremic’ means having the virus in their blood; but remember that they only found anywhere from 56-60% with actual HIV, and I’m not sure that constitutes a ‘large percentage’ – ‘since a large proportion of seropositive asymptomatic persons have been shown to be viremic, all seropositive individuals, whether symptomatic or not, must be presumed capable of transmitting this infection.’”

“I don’t understand. Are you saying that the CDC simply made a pronouncement that since approximately 60% of people who tested positive on an HIV ELISA were found to have the virus itself, all people who tested positive were to be said to have the virus – even though 40% of them didn’t have the virus when they were tested? Is that what you’re saying?”

“That’s not what I’m saying, Mr. Campbell. That’s what the CDC said.”

“But how could they say that? Why would they say that when it clearly wasn’t true?”

“You’ll have to ask the CDC those questions.”

Campbell took this opportunity to let this part of Richardson’s testimony sink in with the jury. He went back to his table, moved some papers around, then went to the lectern, flipped through his yellow pad, and just when the judge was about to caution him for wasting time, he began again.

“Dr. Richardson, is there anybody else in the world who would agree with you that the FDA has never approved a test to diagnose HIV infection?”

“Absolutely. Every company that manufactures an HIV ELISA test agrees with me!”

“Why do you say that?”

“Just look at the printed insert that comes with every test and you’ll see.”

Campbell picks up a small folded piece of paper from his desk and hands it to the witness.

“Dr. Richardson, what is this?”

“It’s one of the printed inserts I was just talking about.”

“Where would I have gotten this?”

“I assume you got it out of an HIV ELISA test kit.”

“And what company does it say made this test and printed this insert?”

“Abbott Laboratories.”

“Isn’t Abbott the company you were working with to develop the HIV test?”

“Yes.”

“And what is the significance of this insert – or any insert that comes with medical tests and medications, for that matter.”

“An insert is the way these companies specify what the test can and cannot do, and in this case, what the test has been approved for.”

“Dr. Richardson, please read the part of that insert highlighted in yellow.”

“At present there is no recognized standard for establishing the presence or absence of antibodies to HIV-1 and HIV-2 in human blood.”

“And exactly what does that mean?”

“It means that Abbott Laboratories recognizes that there is no proven, agreed-upon way to diagnose HIV antibodies, let alone HIV infection, in anyone, and that they are not claiming their test does that. It’s to protect them from lawsuits, among other things.”

“What kind of lawsuits?”

“Well, first of all, if Abbott were to claim that this HIV ELISA test was diagnosing HIV infection in anyone, they’d be violating their FDA approval to make and market the test, which only allows them to make a test to detect HIV antibodies. Secondly, since there is no established way to diagnose HIV infection, they’d be lying if they claimed their test could do that and opening themselves to charges of fraud. And thirdly, Abbott is protecting their ass – excuse me,” and he looks at the judge in apology, “protecting themselves if someone – like a doctor somewhere – tells a patient they are infected with HIV as a result of taking this test. That would not be true, and Abbott is establishing their own innocence and putting the burden squarely on the doctors’ shoulders.”

“But isn’t that exactly how this test is being used – to determine whether someone is infected with HIV or not?”

“Of course it is. But Abbott Laboratories says right in this printed insert that it can not and should not be used for that purpose. So they’re legally off the hook if anyone does, in fact use it that way.”

Campbell goes back and picks up a stack of papers from his desk and holds them in the air.

“Dr. Richardson, do other companies besides Abbott have similar printed inserts?”

“They all do. Or I should say, they all better have, yes. I cannot imagine the legal department of any reputable biotech lab allowing them to sell a product that doesn’t have almost exactly that same disclaimer in every test kit. They’d get themselves in very deep legal trouble.”

“And to your knowledge, Dr. Richardson, do these printed inserts with these disclaimers still say exactly the same thing today that they said when the test was first developed in 1985?”

“Yes, they do. Nothing’s changed, unfortunately.”

Campbell turns to the judge, and then to Armand. “Your Honor, Mr. Solicitor, I would be happy to introduce a number of other test kit inserts from other companies into evidence as proof of what the witness is saying, unless Mr. Armand would again like to save the court a lot of time and stipulate that all FDA-approved HIV ELISA test kits come with the disclaimer that they are not designed and should not be used to diagnose HIV infection, and that there is no established standard for even establishing the presence or absence of antibodies to HIV.”

The judge looks at Armand, who turns to confer with a consultant seated in the row of chairs behind him. Finally he turns back and stands up.

“So stipulated, Your Honor.”

The judge is curious why Armand did not seem to be the least bit agitated by Richardson’s testimony and would give in so easily to such important points. But he wasn’t going to show it. “Then we agree,” the judge instructs the jury, “that all HIV ELISA test kits come with a similar disclaimer. You can put the papers down and go on to another topic, Mr. Campbell.”

“Thank you, Your Honor.”

Campbell puts the stack of papers back on his desk and breathes a sigh of relief. No use overwhelming the jury any more than necessary. They surely got the point.

The trial hasn't been going much more than an hour and Sarah is already very impressed with Campbell, and astonished at the information she has learned herself so far. Why hasn't this been made public before now, she wonders.

"So, Dr. Richardson, let's go back and talk about the test that Abbott Laboratories and Amgen started working together on in 1984. What exactly did the project entail?"

"Dr. Robert Gallo had filed a patent on April 23, 1984, in which he said that he had produced a culture that supposedly contained the Human Immunodeficiency Virus. The job was to take that culture and design a test that would detect the antibodies in a person's blood to the proteins in the culture."

"And how would you know if your test worked?"

"As I explained before, the test was designed to change colors if antibodies to HIV were present."

"Dr. Richardson, in any antibody test, such as the HIV antibody test, what is the most basic premise on which you depend?"

"Obviously, the whole test is based on the proteins used in the test kit being specific and unique to the thing being tested – in this case, specific and unique to HIV."

"Please explain that."

"It's simple logic, Mr. Campbell. If the test results are positive, it means that the person has antibodies that reacted with the test proteins. But you have to know exactly what those test proteins come from in order to know what the antibodies reacted with."

"Let me see if I understand. As long as the proteins in the HIV test kit can only come from HIV itself, a positive test result indicates that the antibodies to HIV are present in the person's blood. Is that correct?"

Richardson hesitates before answering. "I will say, Yes, that's correct – at least according to the theory; but you should ask an antibody expert about the possibility of exceptional cross-reactions."

Campbell certainly doesn't want to get into cross-reactions yet, so he ignores the last part of Richardson's answer. "So the results of any HIV ELISA test are dependent on the most basic assumption that the proteins used in the test kit are specific and unique to HIV. Is that correct?"

"Yes."

"And that's what Dr. Gallo claimed when he filed his patent, isn't it?"

"Yes, it is."

"But is it true, Dr. Richardson? Have the proteins that are used to create the HIV ELISA test actually been proven to be specific and unique to the Human Immunodeficiency Virus – HIV?"

"It took me a couple years to discover this, Mr. Campbell, but no, they haven't. Quite the contrary. Most of those proteins – and particularly the most important ones – have now been proven to belong to things other than HIV."

"Wait a minute. If the proteins used in the HIV ELISA test are not specific and unique to HIV, how can any HIV test be accurate?"

"It can't be, Mr. Campbell. That's the problem."

"Dr. Richardson, this is very hard to believe. Why would Dr. Gallo say that these proteins belonged exclusively to HIV when, in fact, they don't?"

"I can't answer that question, Mr. Campbell. I know that Dr. Gallo has made a lot of money from his patent – well over a million dollars, I'm told. But you'll have to ask him that question."

"I intend to, Dr. Richardson."

Sarah is stunned. She remembers Campbell saying in his opening statement that he had subpoenaed Gallo, but will Gallo actually testify? Will Campbell get him to appear and finally answer questions a lot of people have been wanting to ask for a very long time? Campbell has got some guts, she realizes.

Campbell walks over to a large flipchart set up on an easel in front of the jury and tears off the blank front page, exposing a list of letters and numbers. On the flipchart the jury could see:

gp160
gp120
gp41
p66/68
p51/53
p31/32
p55
p40
p24
p17/18

“Dr. Richardson, what is this?” Campbell asks as he points to the flipchart.

Richardson stares at the page for a minute to make sure. “It appears to be a list of the proteins used in HIV tests.”

“So let’s talk for a minute about these proteins. First of all, why do these proteins have these particular names?”

“The ‘p’ stand for ‘protein’ and the number after it is its molecular weight. Some of them are sometimes called ‘gp’ instead of just ‘p,’ meaning glycoprotein.”

Campbell leaves the flipchart and returns to the lectern. “Dr. Richardson, you said that at least some of these proteins have been proven not to be specific and unique for HIV, is that correct?”

“Yes, that’s correct.”

“Would you please tell us about those proteins?”

“Well, let’s start from the top of your list. Let’s take gp160. gp160 shouldn’t be found in HIV at all, even according to Dr. Gallo himself. It can be found in other cells, but not in HIV itself.”

“gp160 shouldn’t be found in the Human Immunodeficiency Virus? Then why is it on this list?”

“Well, you need to ask Dr. Gallo about that.”

“But why would you test for the antibodies to gp160 if it’s not found in HIV?”

“As I said, Mr. Campbell, that’s the problem.”

“And what about gp120?”

“As early as 1987, a study was published in the Journal of Virological Methods that showed that gp120 is a component only found on the surface of immature HIV particles, and not in the mature virus that is supposed to be causing AIDS. Basically, when HIV matures and goes into circulation where it is supposed to be able to infect other cells, gp120 is no longer present; and it is precisely the mature form of HIV that is used to create the HIV test. So how and why gp120 might be present is a mystery to me.”

“So I have to ask again: Why are we testing for a protein that’s not part of the dangerous virus that we want to detect?”

“And again, I would say that you’ll have to ask Dr. Gallo or others responsible for making this list of proteins.”

“Okay. Let’s keep going. gp41?”

“gp41 has been found to be associated with actin, a very common protein which is found in all cells, as well as bacteria and several other viruses.”

“In other words, definitely not specific or unique to HIV?”

“Definitely not.”

“Rather than go down this entire list, is there one of these proteins that is considered more important than the rest, in terms of detecting HIV, and can you tell us about that one?”

“Well, the most commonly detected protein on one of the HIV tests is p17/18; but, like gp41, p17/18 has been found to be associated with another common cellular protein called ‘myosin.’ So it’s not specific for HIV either. I would say, however, that p24 is the one that has become synonymous with HIV infection.”

“So is p24 specific and unique to HIV?”

“No. p24 has also been found in non-HIV-infected patients with generalized warts, patients with cutaneous T-cell lymphoma and prodrome, and patients with multiple sclerosis. So it’s definitely not unique to HIV.”

“But p24 must at least be found in all AIDS patients, I would think.”

“You would think so, but p24 is not found in all AIDS patients or even in all HIV-Positives. In one study, p24 was only detected in 24% of HIV-Positive patients. If the p24 protein was specific to HIV, it should show up on an HIV test 100% of the time.”

“That makes sense. So what you’re saying is that at least some of the proteins used in the HIV ELISA test – if not all of them – have never been proven to be specific and unique to HIV, and in fact have been shown in scientific studies to be associated with other proteins, other viruses, or other diseases.”

“Correct.”

“Then how could a test that used those proteins be accurate in detecting antibodies to HIV?”

“It can’t, Mr. Campbell. I keep telling you, that’s the problem.”

Campbell moves to his table again, buying time. He doesn’t want to give the jury anything more to digest at this point, and wonders how he can postpone his next set of questions. A quick glance at his watch gives him the answer.

“Your Honor, that’s an awful lot of information to process. May I suggest a lunch recess and let me continue with this witness this afternoon?”

“Mr. Armand, any objection?” asks the judge.

“No, Your Honor.”

“Very well, this court is in recess until two p.m.” The judge bangs his gavel once with great authority.

Not only was it a lot for the jury, it was a lot for Sarah as well, she realizes. She had taken copious notes throughout the morning and is feeling slightly overwhelmed, but excited. This is exactly what she had hoped it would be – another AIDS trial, except focused on the HIV tests themselves. She can’t wait for the afternoon session.

Now, if she could just find something to eat for lunch; or maybe all she needed was a Starbucks. Surely they had a Starbucks nearby with a bran muffin that wasn’t deep-fried....

Chapter Six

Sarah is in her seat by 1:55, ready to go. While she waits for court to resume, she takes time to study the defendant. Although she can only see the back of his head, and sometimes a brief profile of his face, he appears to her to be a clean-cut, nice-looking young black man with a somewhat fearful look in his eyes. But then again, who wouldn't be afraid, facing a possible death sentence.

He's wearing a dark blue sport coat, or maybe it's a suit; she can't tell. Close-cut hair, broad shoulders and good posture – at least seated – he seems to be highly respectful of his attorney during their infrequent whispered conversations. She wonders whether he has a job – or had a job – and what level of education he completed. Who knows; maybe he had been a student at Furman University where Beth Ann Brooks went. Gwen hadn't said. Sarah makes a note to follow up on that.

By 2:15 the judge still hasn't appeared, and the courtroom is getting restless. Finally the Bailiff comes in and announces that the judge has had a family emergency, that he won't be returning this afternoon, and court will be recessed until ten a.m. tomorrow morning.

Campbell actually looks relieved. He's probably glad the jury doesn't have to hear any more testimony today, after all Dr. Richardson had laid on them this morning.

Sarah's not unhappy, either. She has things she wants to find out, and she could use the time to unpack and get settled at Gwen's.

She watches as a sheriff's deputy handcuffs Tyree Johnson to take him back to his cell. Apparently he couldn't afford to make bail, or maybe the judge didn't grant him the option. Probably not, in a first-degree murder case.

On his way out the side door, the defendant suddenly turns to say some last words to Campbell, and Sarah can see that it is a blue suit, with a white shirt and tie, and he's really quite a well-built, very healthy-looking and handsome man with a very kind face.

* * *

“Bill.... Hi, honey.... I miss you, too.... We got out early today. The judge had some kind of family emergency.... It's Thursday. I knew you wouldn't be in your office.... How are the kids?... Oh, Bill, I'm really happy I did this. Thanks so much for helping to make it happen.... It's more than I expected, already.... I know it's just my first day, but the testimony has been – I don't even know the right word – earthshaking, staggering, powerful.... Well, let's just say that the expert witness for the defense today was very believable, and shattered a lot of the myths we've been told for a long time about the HIV tests.... Gwen's fine, but I haven't seen a lot of her yet. I got in fairly late last night and we both had to leave early this morning.... It's a nice house right on Lake Bowen. I'm on my way there now.... I want to finish unpacking and then do some research on the Internet. I have some questions from reading the transcripts of the opening statements, and from this morning's testimony.... Did Peyton get to her dance class yesterday?... And how about Grayson's soccer game today?... Okay, I'll relax and focus. I love you, honey.... Talk to you tomorrow.... Kiss the kids for me....”

Gwen is still at the college when Sarah gets to the house. She puts the rest of her things away, helps herself to a glass of wine, and sits down at the computer. She reads through the notes she took on the plane and in court, spends a couple hours on various websites, and then writes:

The FDA has never approved a test for the diagnosis of HIV infection – TRUE!

All HIV ELISA tests are tests for HIV antibodies, and not HIV itself – TRUE!

All HIV ELISA tests come with printed disclaimers that say there is no recognized standard for establishing the presence or absence of HIV antibodies – TRUE!

The proteins used in the HIV ELISA tests are not specific or unique for HIV – TRUE!

Another hour later and she also has everything she needs on the defendant from stories printed in the local paper:

Tyree Johnson

- ~ born October 25, 1980 in Easley, South Carolina
- ~ One of four children and oldest son of Mr. and Mrs. Leroy Johnson
- ~ graduated Easley High School, May 24, 1999
- ~ lettered in football (wide receiver) and baseball (first base)
- ~ attended Greenville Technical College for two years
- ~ worked nights as security guard at Michelin headquarters, Greenville
- ~ transferred to Furman University effective August 24, 2001 as a sophomore on partial athletic scholarship (baseball)
- ~ signed by a sports agent for professional baseball
- ~ took HIV test as part of paperwork preparation for pro contract in 2003
- ~ was diagnosed HIV-Positive on HIV test
- ~ dismissed by agent and rejected for pro sports
- ~ met Beth Ann Brooks in his senior year, her freshman year
- ~ dated for approximately three months, then he broke it off. Beth Ann Brooks devastated by breakup, by all reports, and got sick soon thereafter
- ~ graduated May 19, 2005 from Furman with B.S. in Health and Exercise Science
- ~ arrested July 14, 2005 for the murder of Beth Ann Brooks who died June 27th of that year. Has been in jail awaiting trial ever since

Sarah sits back and lets it all sink in. Then she writes:

Q: Why are the majority of people being diagnosed HIV-Positive in the U.S. today black?

Q: If Tyree Johnson had been white, and all the rest of the facts of this case were the same, would he have been charged with the first-degree murder of Beth Ann Brooks, or a lesser charge like aggravated sexual assault? Is there a racial component to this trial?

Q: Is Tyree Johnson really HIV-Positive?

Q: Was my brother really HIV-Positive?

She is underlining that last question a few times when she hears Gwen opening the door from the garage.

Chapter Seven

“Dr. Richardson, yesterday morning you talked about the fact that at least some of the proteins on this list, which Dr. Gallo claimed came from HIV, were in fact not proven to be specific or unique for HIV at all.”

Campbell started where he left off the previous morning. The large easel is still in front of the jury with the list of the proteins used in the HIV ELISA test, and Richardson seems anxious to get on with his testimony.

“Isn’t there some way,” Campbell asks, “that we could prove whether an HIV test is accurate or not?”

“Accurate for what?” Richardson wants to know.

“Accurate for diagnosing infection with HIV, which is how the test is being used today,” Campbell clarifies.

“Definitely,” Richardson declares. “It’s actually a very simple process that’s been used to establish the accuracy of virtually every other test used to diagnose infection with any germ. It’s called validation.”

“Please explain to the court what ‘validation’ is.”

“It’s a fairly simple procedure. You run your ELISA antibody test on a large group of subjects, and let’s say you get 1000 people out of that group who test Positive. You take those 1000 people and you culture their blood or their tissues see if you can find the actual virus itself.”

“And if you find some virus?”

“Then you know your ELISA test for the antibodies to the virus matches up with the actual presence of the virus. Remember our analogy from yesterday about the bear tracks? Well, validation is like actually finding a bear in the woods that could have made the tracks. You would then have Direct Proof and ‘validation’ that the bear tracks were indeed a result of the bear having been there. If you can’t find the bear, then there is a distinct possibility that those tracks were made by something else and just looked like bear tracks. In exactly the same way, you have to find the actual virus to know for a fact that the antibodies are associated with it.”

“And if you don’t find the virus?”

“If you don’t find the virus, you can’t claim that a positive test result is synonymous with infection.”

“I see,” Campbell says as he looks at the jury, hoping they ‘saw’ as well.

“So half of the validation procedure is done when you’ve actually found the virus by culture in those people who tested Positive on the ELISA. The other half of the validation test is to take 1000 of those who tested negative on the ELISA and culture their blood or tissues well. And you better not find evidence of past or current viral infection in them, or your ELISA test is equally doomed.”

“So out of 1000 people who tested Positive, you have to find all 1000 with the virus, and out of....”

Richardson interrupts quickly. “No, I didn’t mean to imply that. I don’t know of any validation study that ever found an ELISA test accurate 100% of the time. In fact, this kind of validation study is what is used to determine what are called the ‘specificity’ and ‘sensitivity’ of an ELISA test. You don’t have to find all 1000 with the virus; but you better find a very high percentage, like 98% or more, or your ELISA test is suspect. So if you find the virus in 980 out of 1000 people who tested Positive, for example, then your test is considered to have a ‘specificity’ of 98%. In other words, you have 2% who were false positives. On the other hand, if you do find the virus in 20 of the 1000 who tested Negative, then your test is considered 98% ‘sensitive’ – with 2% false negatives. Validation results like that, in the 98-plus percentile for both specificity and sensitivity, would determine the accurate of your test.”

“And to take that and apply it specifically to the HIV ELISA test?”

“To validate the HIV ELISA as a diagnostic test, you would have to run it on quite a large group of people, since HIV is supposed to infect only about 4 out of 1000 people, and you should have at least 1000 people who test Positive to run any kind of validation study. So we would have to test at least 250,000 people to find 1000 who tested HIV-Antibody-Positive.”

“And then...”

“...and then you do a blood culture on those 1000 to isolate the virus and see how many people who tested Positive actually had HIV. If you could find the actual virus in 990 out of 1000, your test would be said to be 99% specific.”

“And you would also take 1000 people...”

“...who had tested negative on the HIV ELISA test. If you found ten of them, for example, who did have the actual virus – in other words, had a false negative result – your test would be 99% sensitive.”

Campbell pauses for effect, to set the stage for his next, very important question. “Dr. Richardson, was this validation procedure done with the HIV ELISA test?”

“No. Never.”

“Why not?”

“First of all, whenever it was tried, it failed – one of the reasons being that, as I said earlier, HIV is very difficult to find and culture in a patient, even in patients with full-blown AIDS. And secondly, most of the attempts at validation came back with very poor results, finding HIV in only a small percentage of those who had tested Positive on the ELISA. So they quit trying.”

“But I thought you said that this validation procedure was the accepted standard for all diagnostic tests?”

“It was. But ever since HIV came into the picture in the mid ‘80’s, a lot of standard medical science has been thrown out the window. First, to be able to say that HIV causes AIDS, Dr. Gallo had to ignore a set of rules that had been used for over a hundred years to determine the cause of an infectious disease, called Koch’s Postulates. He also ignored standard operating procedure for any new discovery, which was to send your research to your peers for them to test and corroborate prior to announcing your findings to the public as established fact. Instead Dr. Gallo just held a press conference and gave HIV to the world before anyone could see or test his work. Next he dismissed the standard protocol for proclaiming the discovery of a new retrovirus, saying an electron microscopic photograph of in vivo HIV was no longer necessary for isolation. And lastly he did away with needing a gold standard by which to judge the accuracy and efficacy of an antibody test by eliminating the need for validation studies.”

“I’m sorry... you used a term in there... ‘gold standard’? What’s a ‘gold standard’?”

“A gold standard is a test or procedure regarded as definitive proof of something. Actually, the American Medical Association now calls it a criterion standard.”

“And in the case of the HIV ELISA test, what would the gold standard, or criterion standard be?”

“As I just said, it would be a study that shows that when the HIV ELISA test has a positive result, the actual virus can be found in the vast majority of patients, and vice versa.”

“But you said that had never been done.”

“No, it hasn’t.”

“So what is the gold standard being used today for the HIV ELISA test?”

“There is none.”

Sarah is not the only one taken by surprise. She can hear a gasp make its way around the courtroom.

“None?” Campbell asks, almost in disbelief.

“No. There is nothing to prove how accurate or inaccurate the HIV ELISA tests are as a diagnostic test, just like there is nothing to prove that the proteins used in the test are specific or unique to HIV.”

Or maybe I should say that the other way around: since there is no proof that the proteins used in the HIV ELISA test are specific or unique to HIV, and no validation study to cross-check test results with actual virus isolation, there's no way to determine the accuracy of an HIV ELISA test as a diagnostic tool."

Campbell walks to the jury box, stops, turns to the witness, points to the defendant, and asks, "Dr. Richardson, in your expert opinion, if the HIV ELISA test has never been validated, is there any way to say that the defendant, who has supposedly tested Positive, actually has HIV?"

"No, there isn't, Mr. Campbell."

"Or that he even has the antibodies to HIV?"

"No, there isn't, Mr. Campbell."

Campbell then turns to face the jury. "Dr. Richardson, in your expert opinion, if the HIV ELISA test has never been validated, is there any way to say that anyone who has supposedly tested Positive actually has HIV – or the antibodies to HIV?"

"No. There are no peer-reviewed scientific studies to prove that the proteins used in the HIV ELISA test are specific and unique for HIV, and no validation studies to be used as a gold standard for the test."

Sarah is stunned, and quickly realizes that the jury is as well. What surprises her even more is that Armand is not objecting, or even showing any signs of concern. What a poker face, she thinks. Either he expected this testimony, or he's got an Ace of Spades up his sleeve.

Campbell has slowly made his way back to the lectern. Sarah assumed he would end his questions there, with the big bang; but he's obviously not finished with this witness.

"I know you may think this question is redundant, Dr. Richardson, but... why? Why isn't there a gold standard for the HIV test?"

"The best answer I can give you is because HIV itself has never been properly isolated using the accepted protocols in place since 1973 for retroviral research. There is even a group of scientists who claim that it has never been proven that HIV exists; and although I know that sounds like a pretty far-out theory, I have to admit that they make some very good points."

"But everyone agrees that HIV exists and causes AIDS and can be detected by an ELISA test."

"Not everyone. Mr. Campbell. I don't. Many well-respected scientists and doctors don't. There's a list of 2500 of them, along with health care workers, researchers, journalists, chiropractors, and other professionals at a website called RethinkingAIDS.com, including two Nobel Prize winners and members of the U.S. National Academy of Sciences."

"So how did someone – whoever it was – convince us that the HIV tests could accurately detect antibodies to HIV, much less diagnose actual infection with the virus itself?"

"Let me see if I can draw a legal analogy." Richardson pauses to collect his thoughts. "It would be like this jury coming to a conclusion that this defendant was guilty of murder based purely on circumstantial evidence, with no hard proof. Of course, no jury would make that kind of life-changing and far-reaching decision based solely on circumstantial evidence. At least, I hope they wouldn't. But that's exactly what Dr. Gallo and Dr. Luc Montagnier and other so-called AIDS experts are saying, that there's a lot of circumstantial evidence that HIV exists and causes AIDS, so there's no need for the hard proof, like actual virus isolation or a gold standard for the tests. But it's the first time in history that I'm aware of where science has not required Direct Proof for diagnosing infection by indirect means. Instead we have accepted Indirect Evidence as gospel – gospel that is apparently not to be challenged by anyone wanting to ask legitimate questions. That's what a religious cult does, and not what I would expect from scientists."

Campbell pauses to look down the two rows of jurors, giving them time to think about that. Sarah also thinks about it, a lot. She writes herself a note in all capital letters: SCIENCE BECOMES A RELIGION – great title for an article!

Finally, Campbell continues. “Dr. Richardson, you’ve given us a lot of information in these two days. So let me ask just one more thing: When you put someone’s blood on the HIV ELISA test kit mixture, why do their antibodies react with the proteins, assuming they have the antibodies you’re trying to find?”

“When you take some blood from a person, you’re also getting their antibodies in that blood. But those antibodies don’t know they’re not still in your body, so they react as if they were; and when you mix them with a protein from a virus they were designed to recognize, they bind with that protein and make the test kit compound change color.”

Campbell is so pleased with Richardson’s clear explanation that he lets out an audible sigh of relief, and then covers it with the pretense of finally understanding himself.

“Oh, so in the HIV ELISA test, the antibodies in the person’s blood still think they’re in that person’s body, and when they are combined with the test kit proteins – assuming that those proteins actually belong to HIV – they would bind with those proteins; and it’s their binding that we call HIV-Antibody-Positive.”

“The only problem with what you just said is the assumption that the test kit proteins actually belong, as you said, to HIV. As I testified earlier, that has never been proven.”

“I think we need to learn a little more about how antibodies work to fully understand this, Dr. Richardson.”

“It might help. But, of course, I’m not qualified to do that for you. All I can say is that the key to understanding why the HIV ELISA test is very unreliable – not just in detecting HIV infection, but even in detecting HIV antibodies – is that the proteins used in the test have never been proven to be specific or unique for HIV through actual isolation of the virus, and the test itself has never been validated by finding the virus in people who test Positive.”

“Your Honor,” Armand starts his objection on the way out of his chair, “Asked and answered... a lot of times, as a matter of fact.”

The judge is just as quick to respond. “Sustained. Anything more for this witness, Mr. Campbell?”

“No, Your Honor.”

As Campbell sits down at his desk, Armand, already on his feet, goes to the lectern. He looks at his notes, looks at the jury, and finally looks at the witness.

“Dr. Richardson, isn’t it true that the HIV ELISA test was developed mainly to screen the blood supply, to keep people from being infected with HIV through blood transfusions?”

“Very true, Mr. Armand. One of the first things we were told in 1984 was that HIV – if it actually exists – is transmitted through blood; and there was great concern that our blood supply could be contaminated with it. So the ELISA was not developed to diagnose HIV infection in groups at high-risk for AIDS, but to protect the general population who may need to receive blood in emergency medical procedures or surgery, and for hemophiliacs who had to take blood injections on a regular basis. And that’s what the FDA approved the ELISA test for in 1985.”

“So you admit that the HIV ELISA test is designed to be very sensitive when it comes to detecting HIV antibodies.”

“I totally agree. The Red Cross, for example, wanted to have 100% certainty that the blood they were providing did not have any chance of containing HIV, so every effort was made to screen all blood donors who could possibly be infected.”

“You wouldn’t argue, then, that the ELISA test intentionally swung the pendulum to the other side – went out of its way, actually, to find any antibodies for which there was even a remote possibility they could be associated with HIV.”

“No, I wouldn’t argue with that at all.”

“So even if you might be correct in saying that the proteins used in the ELISA test might be associated with things other than HIV, if there is a chance they are also associated with HIV, shouldn’t we use them to make sure the blood supply is clean?”

“I’ll say this much, Mr. Armand... if the ELISA were used solely for the purpose for which it received FDA approval – to make sure our blood supply was not contaminated – I would not have nearly the problem with it that I do – providing that it was validated by finding actual HIV virus in those who tested positive, thereby proving it was a valid test. Otherwise, we could be throwing away or refusing to accept thousands of pints of blood from potential donors who happen to test Positive, causing a severe shortage in our blood supply, which is actually what happened in the early days.”

“But you do admit that in 1985, with AIDS rapidly becoming a deadly epidemic, it was important to have a test that would ensure that HIV was not transmitted to people through blood transfusions.”

“Look, Mr. Armand, if the government had said to us, ‘We want to do everything we can to prevent HIV from spreading through the blood supply, and we’ve developed a test that goes overboard in trying to screen out HIV, and we’re going to use that test to protect everyone, and we are erring on the side of caution, so if you turn out to be Positive on this test, it doesn’t mean you have HIV,’ then I might have understood. But still I would have wanted to see the test validated to prove that it, in fact, could find the antibodies to HIV in blood so we at least knew that we were finding evidence of HIV, even if we were finding antibodies to other things at the same time.”

“But isn’t that exactly why the Western Blot test was developed?”

Campbell jumps up immediately. He doesn’t want to go there yet.

“Objection. Your Honor, there is no basis in my direct examination of this witness that would allow Mr. Armand to ask questions about the Western Blot.”

Armand turns to the judge. “Your Honor, the Western Blot is simply another HIV test, and that’s what we are discussing, is it not? I also want to ask Dr. Richardson about the viral load tests...”

By this time, Campbell has made his way directly in front of the judge’s podium to make sure he is heard loudly and clearly. “Your Honor, I would make the same objection to questions about the viral load tests as well.”

Armand is not giving up so easily. “I specifically recall hearing Dr. Richardson mention the viral load tests early in his testimony....”

“Yes,” Campbell cuts him off. “But only in the generic sense, and not specifically the HIV viral load tests, which I assume is what Mr. Armand’s questions will address.”

“Well, I...”

Campbell is determined not to let Armand win this one. “Your Honor, I will definitely be bringing witnesses forward to talk about the HIV Western Blot and HIV viral load tests. But not now. Not yet. There will be an appropriate time in the presentation of my case for Mr. Armand to ask about them. But I get to choose that time, and since there was no mention of the Western Blot or the HIV viral load test in my direct of Dr. Richardson, Mr. Armand should not be allowed to ask questions about it now.”

It doesn’t take Judge Stevenson very long to make up his mind. “The objection is sustained. You’ll have to wait, Mr. Armand.”

Disappointed, Armand goes back to the lectern and looks over his notes again. Finally, he raises his head and announces, “I have no more questions of this witness, Your Honor.”

Armand makes his way back to his seat, and Campbell gets up for his re-direct.

“Dr. Richardson, you said that you would have no problem if the government had told us... let me read your exact quote: ‘We want to do everything we can to prevent HIV from spreading through the blood supply, and we’ve developed a test that goes overboard in trying to screen out HIV, and we’re going to use that test to protect everyone, and we are erring on the side of caution, so if you turn out to be Positive on this test, it doesn’t mean you have HIV.’ But that’s not what happened, is it?”

“No, not by a long shot, Mr. Campbell.”

“What did happen, in reality?”

“First of all, starting in 1985 when the tests first gained widespread use, tens of thousands of people a year who wanted to donate blood were being told they were HIV-Positive as a result of an ELISA test. These were healthy people –people with no symptoms or signs of any disease at all – and

this presented a very serious problem on both sides. For the person who received a positive test result, it was a serious problem because they were told by the blood collection agencies, 'You may or may not be Positive, we don't know, so please go to your doctor and he will clarify the issue.' However, at that time, doctors had no tools to confirm whether or not these people were infected with HIV – and they still don't, by the way."

"So what happened next?"

"Well, this led to a nightmare, but the blood banks didn't care. They were doing their job of protecting the blood supply, and they said, 'We're just going to throw away all the blood samples that test positive.' But the CDC said, 'No, we must tell all the blood donors who test Positive, because they potentially might be infected with HIV and they will go around infecting other people.' So we had tens of thousands of people that went to donate blood being told they had tested HIV-Positive and suddenly living a life of anxiety about whether they were actually infected with HIV or not. It resulted in social turmoil. It created problems in the family, because how do you go home and tell your spouse or partner that you might be HIV-infected? As you can imagine, it was a mess. The general public was really unaware of all of this, and I think they still are today. But at that time there was no way to resolve whether or not a blood donor was truly infected."

"And how was this problem resolved?"

"As I said earlier, by an arbitrary and highly questionable decision by the CDC in 1987 that said testing Positive automatically meant that a person was infected with HIV, without giving any scientific evidence or studies to back up that claim."

"So all of a sudden, the HIV ELISA test was being used for something it was never approved for: the diagnosis of HIV infection."

"Yes, and it's still being used for that today."

Campbell turns to the judge. "Your Honor, that's all the questions I have for Dr. Richardson pertaining to the HIV ELISA test. I would like to ask more questions of this witness when it comes time," Campbell shoots a glance at Armand, "to discuss other HIV tests, so I would like to reserve the right to recall Dr. Richardson at some point in the future."

The judge looks at Armand. "Any objection, Mr. Armand."

Armand could hardly object now, after expressing his interest in Dr. Richardson's testimony about the Western Blot and viral load tests. "No, Your Honor."

"Very well. The witness is excused for the time being."

As Dr. Richardson leaves the witness stand, and before Campbell could call his next witness, the judge interrupts.

"Ladies and gentlemen, I want to apologize for not returning to court yesterday afternoon. My oldest son and his family were in a car accident, and I wanted to be at the hospital with them. It looks like they will all be alright, nothing critical, but I would appreciate the opportunity to go back to the hospital and be with them this afternoon as well. I also think we've heard a lot of testimony that we could use the time to consider. So I am recessing this trial until ten a.m. Monday morning."

* * *

Sarah dials her cell phone on the drive back to Gwen's. "Paula, it's Sarah Meadows.... I'm fine, thank you.... I'm in South Carolina at the moment. How are you doing?... Are you still willing to tell your story for my newspaper column?... It'll probably take us about an hour or so on the phone. When's a good time for me to call you back to record our conversation?... I'm driving at the moment, but I could call you around four, if that's okay.... Oh, that's right, you're an hour earlier in Texas. So is three o'clock your time alright with you?... Great. I'll talk to you then...."

Chapter Eight

DATE: Sunday afternoon
TO: sam@arizonatribune.com
RE: this week's column

Dear Sam,

Attached is this week's column. I have to turn my cell phone off while I'm in court tomorrow, but if you need me, leave a message and I can get back to you during the lunch break – somewhere between ten and noon your time.

Sarah

Attachment:

HEALTH MATTERS

By Sarah Meadows

Today, and for the next few weeks, this column will be devoted to the true-life stories of those who have been diagnosed HIV-Positive and how it has affected them, their families, and their lives.

For most of us, HIV is something that belongs to somebody else – to “them,” not us. So we are hardly aware of the emotional and psychological trauma, the family stress, the social rejection, and the financial hardship that accompanies an HIV-Positive diagnosis – even if HIV does not lead to AIDS.

But we never know when HIV will strike close to our own lives, either for us, for our family or loved ones, or for someone we work with. As more doctors, hospitals and clinics are implementing the recommendations from the Centers for Disease Control and Prevention to test everyone in the United States for HIV as part of any routine blood exam, the issue will certainly come closer and closer to home.

And what about those whose test results come back Positive? What happens to them? And what might happen to you if, God forbid, you tested Positive yourself? The stories you will read in this column over the next few weeks are not about a small group of sexually-overactive gay men or drug addicts who get AIDS. They’re people like you and me; and like Paula, a sixty-year-old white woman in rural Texas, who was diagnosed HIV-Positive in the year 2000....

Paula was married twenty-one years to the same man and had eight children. She had the last three of them at home with a certified mid-wife, and home-schooled them all – way ahead of her time in her small Texas town.

When her children had side-effects to their vaccinations, Paula started questioning standard medical protocol. In her spare time, she studied alternative health practices and became a certified Herbalist; and then, while working for an herb company, she created a home-based health practice.

After the kids were grown and years of trying to deal with her husband’s alcoholism, Paula got divorced; and then she met Dave. He owned his own ATM business, and they traveled all over the country together in a motor home. They were married for nine years, and Paula thought of him as her best friend as well as her husband. She never dreamed he might have been keeping a secret from her.

In 2000, Dave’s ex-wife told Paula that he was HIV-Positive. “I nearly passed out,” Paula recalls. “I was just dumbfounded, because this woman had always been very sweet to me, and I couldn’t understand why she would make up something like that. And I was certain Dave would have told me, since we shared everything with each other.”

When Dave came home that evening, Paula confronted him with the news. “Sweetheart, I don’t have HIV,” he assured her. “It was something my ex-wife and I cooked up because we were getting a divorce.” And then he told her some wild story she didn’t believe. Paula insisted they both go take an HIV test, and Dave agreed he would as soon as they got back from their next trip to California. “I promise you, Paula, I do not have HIV,” he insisted.

About a month later, while Dave and Paula were teaching a class in California, Dave came down with a fever and chills. The doctor said he had bronchitis. In the nine years that they had been together, Dave had never seen a doctor, had never taken an aspirin or any other medication, and didn’t drink alcohol. True, he drank a pot of coffee every day and smoked cigarettes, but he had always been perfectly healthy.

However, the bronchitis continued to get worse, and Dave’s doctor prescribed antibiotics. Several days passed, and when nothing seemed to be working, Paula insisted that Dave get a chest x-ray. The doctor first diagnosed pneumonia from the x-ray, but Paula was suspicious. She sent the x-ray to

another doctor in Houston who said it was advanced tuberculosis and that Dave needed to get to a hospital immediately.

By this time a couple weeks had passed, and Dave had lost a lot of weight. So Paula took him to the emergency room at the VA hospital in Dallas. She pulled a nurse aside and said, "I need to know if he's HIV-Positive or not." The nurse looked in Dave's medical history and told Paula she can't find a thing in the records "that even looks remotely suspicious." But she suggested that Dave sign a release and get tested again right then.

Dave signed the release and gave his blood for the test. But he was having a very hard time breathing, and the doctors wanted to put a tube down his throat to get oxygen to his lungs. During the intubation procedure, Dave had a heart attack and died. The HIV test was now the last thing on anyone's mind.

It was two weeks later when Paula received a call; Dave had tested HIV-positive. "So not only am I dealing with his death, but that he may have lied to me, too. And why? I just knew with all my heart that this man loved me. How could he have deliberately, willfully lied to me about this? I just couldn't understand it. I was totally devastated. You can't imagine the pain I was dealing with."

Paula decided she needed to get tested herself. She went to a local clinic, but the nurse was too afraid to touch her and refused to take her blood. So the doctor had to do it, and he didn't wear any gloves. In fact, he botched the job so badly that Paula's blood ended up all over his room, which the doctor mopped up with some cotton balls in his bare hands, joking and telling Paula, "I hope you're not contagious!"

Two weeks later the doctor called. "He said, 'I just needed to tell you that your HIV test is positive, and I don't know what to tell you to do.' I asked him if I was supposed to come in for counseling, and he told me he didn't have a clue. And then he hung up on me."

Paula spent the next couple of days crying constantly, not only for the loss of her husband and best friend, but now also for herself. "I didn't know what to do. Was I going to die in just a couple of days? Had I also been exposed to tuberculosis? I happened to remember that I had seen a phone number for something called AIDS Resource in the local newspaper."

Paula called AIDS Resource in tears, and they sent a very nice lady to her house. She asked all sorts of questions about Dave, took some more blood from Paula, and left.

Paula waited another two weeks before the lady returned to the house to tell Paula her test was positive. "'But,' she said, 'don't worry. This is just a screening.' She explained that the ELISA test both she and the first doctor had given me was just a screening test. Of course, the doctor hadn't bothered to tell me that the first time."

AIDS Resource then took more blood to do another ELISA. Paula waited another two weeks. Same result. They took her blood again. "By this time I'm thinking that I'm not going to die from HIV, I'm going to die from a loss of blood!"

This time they did a Western Blot, and it too came back Positive.

"When she arrived at the house to bring me the results, the first thing she said was, 'Paula, I want you to understand something. You are not to tell anyone you are HIV-Positive – not your children, not your family, and not your neighbors – because you never know what their reaction might be. Your neighbors could burn your house down. We just don't know what they will do.'"

"Then she proceeded to tell me that I would be dead within a year, that I would catch a cold or pneumonia, or something like that, and I would just die. But as far as I knew, it was only a few gay men who were getting AIDS, or drug addicts; and never in my life have I ever done anything bad – never done drugs, or been promiscuous. And now I'm supposed to be HIV-Positive? It just didn't make any sense."

"I didn't do what the lady from AIDS Resource told me," Paula admits. "I gathered all my children together and told them. Their first reaction was to be angry with Dave for giving it to me and not telling me. That made me so sad, because they loved him, too. When my daughter told my teenage

grandson, she explained that nothing would change: he would still go see his grandma and kiss her and hug her, like always. He looked at her and said, ‘Well, of course, Ma. It’s not like I’m going to have sex with my grandmother!’”

All Paula’s children have supported her from the beginning and not acted any differently toward her. But Paula went through the normal questions: What did I do to deserve this? What signs did I miss? Why didn’t I pick up on it? And even with all she knew, she still wondered about Dave. Why didn’t Dave tell me the truth? How could he do this to me?

“The toughest part for me was that I didn’t know what would actually happen to me, or when. And nobody would tell me, other than that I would die in a year. It just left me hanging with all these questions and fears.”

Every three months Paula began getting other so-called HIV tests, like a viral load test and CD4 cell counts. “After a couple years, when my viral load was always undetectable and my T-cells were steady in the normal range, they told me to stop coming every three months and just come once a year. I’m probably healthier than the doctors.”

After Paula finally resigned herself to her positive diagnosis, she started driving an hour to a bigger city to go to the weekly AIDS Resource support group meetings. But she didn’t feel like she fit in.

“The only people there were gay, and I wasn’t. My counselor was also gay. Now, I’m not prejudiced, but I just didn’t feel like I belonged there. They soon stopped running the ad in my local newspaper, because it appeared that I was the only one in the whole town who was HIV-Positive!”

Paula remembers how all of the people in the support group were taking lots of drugs. “There was one guy on some experimental drug, sticking himself every day in the abdomen with a needle. All the women who were in that group when I was going are now dead. All of them. And they all were taking the HIV drugs.”

But Paula was never pressured to take the drugs. “When I finally got an appointment with the local Health Department, they said, ‘We’re not going to talk about drugs for you until your viral load is in the 20-30,000 range.’ Of course, that never happened.”

What did happen was a total surprise to Paula. She met a man on one of the online HIV-Positive support groups, and after a few months of computer talk, he came to Texas to meet her. His name was Mel; and he, of course, was also HIV-Positive.

“Dave had been gone well over a year, but I wasn’t ‘looking.’ I told Mel I wasn’t interested, that he should go away. I told him I wasn’t strong enough to fall in love again, get married, and then watch somebody else die. He looked at me asked, ‘Did it ever occur to you that you could go first?’”

Mel took her to the NASCAR races for their first date. “He told me he couldn’t guarantee what would happen the day after tomorrow, but he also told me I couldn’t guarantee him that either. He said he had been divorced and lonely for nine years, and he thought it was a shame not to be happy with someone just because of the fear of what might or might not happen. And he was right.”

Mel left, as Paula asked, but came back and visited a couple more times; and in between they talked daily on the computer. Finally, they both decided they didn’t want to be apart, and Mel moved to Texas.

“I had never been with anybody so sweet and kind and loving, trustworthy, honorable... I had just never been treated so well. Just a wonderful, wonderful man. He could put me in stitches, he would make me laugh so much.”

Mel was very well-read about HIV and had gone to Johns Hopkins every year since he was diagnosed in the early 1980’s. But he admitted to Paula that he had never had an ELISA or a Western Blot. He had been very sick, with a CD4 cell count below 200, and was diagnosed with AIDS, but had never been tested for HIV.

He had tried taking AZT early on, but got “deathly ill.” He tried a lot of other medications as well; each time the drugs would make him sick, he would go back to Johns Hopkins and demand something

else. By the time he met Paula, he was still taking some combinations of HAART (Highly Active Anti-Retroviral Therapy) and was experiencing the usual side effects of diarrhea and nerve damage in his feet.

Paula and Mel would sit down and go over their blood test results together, and ever since Paula met Mel, his viral load was undetectable. When they first got together, his CD4 cells were around 400.

“Mel thought that it was the drugs that were keeping his viral load down and his T-cell count up. More than that, he thought the drugs had saved his life. But I thought something different.”

Mel and Paula started reading a website called AliveAndWell.org, from Alive & Well AIDS Alternatives, and began ordering books like *Positively False* by Joan Shenton. What they found out was enough for Mel to begin questioning things he had believed for the last twenty years. As a result, he began to exercise and change the way he ate, and they both did everything they could think of to bolster their immune systems.

“We just kept getting more and more healthy – both of us,” Paula recalls.

Then life had another surprise in store for Mel and Paula. Two days after Christmas of 2005, a wildfire burned down their home, along with twenty-one others in the neighborhood. They lost everything, including the medications Mel was still taking for his AIDS.

Two days prior to the fire, Mel had gone to his doctor for his usual six-month check-up, but after waiting two hours, he was told the doctor had cancelled all appointments for that day. When he went the next day to try again, he waited another two hours and still didn't get in to see the doctor.

When the fire destroyed all of Mel's remaining drugs, he called the doctor and explained that he needed his prescriptions refilled immediately. The nurse told Mel that the doctor couldn't write new prescriptions without seeing Mel first. Mel explained that he had just twice in the last week tried to see the doctor, but the nurse didn't seem to care and wouldn't budge. When Mel agreed to make a new appointment, he was told the next available time slot was in two months.

Mel confided that he was in a lot of pain from the neuropathy, and had been through a lot of stress with the fire, and pleaded with the nurse for his medicines, or at least an appointment right away. The answer was still No.

For the next three weeks, Mel called every AIDS support group he could find, and every doctor, and every hospital trying to get an appointment to get his prescriptions filled. Finally a doctor agreed to see him, but he needed Mel's medical records transferred from his first doctor. Two weeks later Mel got a call saying, “Sorry, I won't see you because your doctor said you were ‘non-compliant’ and didn't keep your appointments.”

By this time, however, Mel had started to feel better. His feet still hurt from the years of neuropathy from the drugs, but he was sleeping better, he had more energy, and his skin cleared up. One night Paula noticed that the hard, swollen lumps in his breasts were even gone. When a girl-friend of Paula's remarked on how good Mel was looking, he said, “I hate to admit it, but I really do feel better not taking the drugs.”

Meanwhile Paula read everything she could get her hands on about HIV and AIDS, and one day she took all her books and papers in to see her doctor. She explained and showed the doctor the information, but all he could say was, “Well, Paula, I guess you must have a defective gene.”

“I looked at him and asked, ‘Well, seems to me that would be a good thing, then, considering the fact that I'm HIV-positive but as healthy as I can get. I've never had one symptom of HIV infection. I've never even had a yeast infection in my life. Why isn't anybody studying me to figure out how to make other people's genes defective like mine, so they can all live as long as I have with HIV?’ Isn't it ironic that my doctor can look at me, a perfectly healthy woman, and decide that the only reason I'm healthy is because there's something wrong with me!”

Even after all her reading and studying, Paula still has questions. “From the very beginning I have wondered, if AIDS is caused by a virus, and happens mostly to gay men, how does a virus knows

someone is gay? And now they're saying that the poor and uneducated are much more at risk for HIV infection. But how does a virus know someone is poor or uneducated?"

Paula wondered if there was someplace in the world where she could move and take a new test and be HIV-negative this time. Even though the chances are pretty slim, like most HIV-positives, she longs to have the stigma removed.

"Whenever my neighbors come to visit, I have to run around my house hiding all my books and papers that say anything about HIV and AIDS, because I still don't know what their reaction might be. And if it weren't for my positive diagnosis, I would probably be a mid-wife right now, because after all my experience and knowledge, and my love of babies, I could be a good one. But I can't do that. There are a lot of things I could do with my life right now if I didn't have this awful label."

"What I've decided to do instead is help spread the word that you don't have to be gay, you don't have to be a drug addict, you don't have to be poor and uneducated to be diagnosed HIV-Positive. Literally everyone is at risk!"

Paula thought seriously about starting an Alive & Well support group where she lives, but she realized that nobody would come, because according to AIDS Resource, you're not supposed to tell anyone else that you're HIV-Positive.

"If I had cancer, I could talk about it. If I had diabetes, I could talk about it. Heart disease... whatever. And it would be no problem getting a support group going. But HIV? I've got to keep that a secret. It feels like I'm the only person in the world that has it – at least, in my world."

Today, Paula is the only one in her world who is HIV-positive. Three weeks ago, Mel was killed instantly in a head-on car accident. But because he was HIV-Positive, he is listed in the statistics as an "AIDS death."

Chapter Nine

Sarah recognizes Dr. Alan Fowler as he walks to the witness stand. He testified in the AIDS trial a couple months ago in Phoenix; in fact, he was Benjamin Messick's first witness in the case, talking about the human immune system and the definition of AIDS. She hopes she doesn't have to sit through the same presentation again, although she remembers that she learned a lot from it.

Right now Dr. Fowler has been sworn in and taken his seat in the witness chair. Campbell is still fumbling around with his legal pad at the lectern, but the judge doesn't seem to be impatient, yet. Maybe he's a little more lenient on a Monday morning. Ah, here we go.

"Dr. Fowler, how long have you been Chief of Internal Medicine at Johns Hopkins?"

"Almost six years."

"And after you graduated from Harvard Medical School, what did you specialize in?"

"Immunology."

"And have you been published in the field of immunology?"

"Many times."

"Dr. Fowler, will you please tell us how the immune system works in a normal human being?"

"We don't know with 100% certainty..."

Armand is standing. "Your Honor, what exactly is the relevance of a lecture I hear coming about the human immune system?"

Campbell leaves the lectern and walks toward the judge. "Your Honor, we're discussing an HIV test based on detecting antibodies in human blood. Antibodies are a function of the immune system, and I think it is critical that we understand how that immune system works and what antibodies actually do in a human being. In addition, I'm going to present some testimony later about the relationship between the HIV tests and the CD4 cells, or T-cells, of the immune system. So it's very relevant."

This time Judge Stevenson is not so sure. "I'm going to allow this testimony to proceed, but if I find that you're off track, Mr. Campbell, I'm going to stop you. Objection overruled. Ask your questions, Mr. Campbell."

"Thank you, Your Honor."

Campbell repositions himself behind the lectern and scans his notes to refresh his memory.

"Dr. Fowler, you were about to tell us how the immune system works in a normal human being."

"As I started to say, we don't know with 100% certainty. But I brought along some of the teaching aids I created at Johns Hopkins that try to explain our theories in very simple terms, if that will help."

Campbell turns to the Judge. "Your Honor, with the court's permission, we'd like to show the jury a short video presentation."

When neither the judge nor Armand object, Campbell picks up a remote control, pushes a button, and a large roll-up screen descends from the ceiling clearly visible to both the jury and gallery. Sarah has to move only slightly to her right to get an excellent view.

With the touch of another button, the lights in the courtroom dim and the screen comes alive. It is Dr. Fowler's voice on the video.

"The human body has a wonderful and intricate immune system to help it fight off disease. One of the major components of that immune system is a group of cells called T-cells. There are several different kinds of T-cells, each with its own unique function. For example, one group is known as 'Helper' T-cells, or CD4 cells."

While Fowler narrates, high-tech graphics on the screen portray the Helper T-cells in action.

"They're the watchdogs for the body. They continually search throughout the body, looking for anything foreign they don't recognize, and then notify the body about the invader. For example, if you

get a splinter in your finger, the Helper T-cells will find it and then sound the alarm, warning of a possible danger.”

The video shows a young boy getting a splinter, and then the camera zooms in toward his finger and seemingly continues right through his skin to show an animated rendition of the Helper T-cells at work.

“Or if you come in contact with a strange bacterium or virus, the Helper T-cells will activate the body's immune system. In other words, they ‘help’ the body maintain its health.”

Campbell shoots a glance at the jury to make sure they're with him so far. They are.

“When the foreign invader has been identified, the next thing is to figure out how to destroy it. The first step is to find a key that will open the door of the invader's defenses and make it vulnerable to a counter-attack. If no key is available already, the immune system will make a new one.”

The video shows different keys trying to open the lock on a door of a cell. Finally, one succeeds, and the inside of the invading cell is exposed.

“What happens next is that ‘Killer’ T-cells are released by the immune system to storm in and destroy the invader and also any cells in the body which are presently infected by the outside organism.”

The video is very cleverly going back and forth between live shots of actual Killer T-cells and animation of how they operate.

“And finally, the immune system creates an antibody – a kind of ‘memory chip’ that remembers exactly what key was successful in breaking through this particular invader's defenses. The immune system will keep this antibody memory chip for the rest of its life to fight any future invasion by this same intruder. This is the basic theory behind the flu vaccines, or measles vaccine, or any other vaccine.”

The video zooms out from inside the young boy's body, back through his skin, and stops to show him receiving a vaccination in a doctor's office.

“In a smallpox vaccination, for example, a very small amount of the disease organism is introduced in the body intentionally. The Helper T-cells locate the invader and alert the immune system; the right key is found or created to open the small pox cells; the Killer T-cells destroy all the smallpox bacteria and any infected cells; the immune system creates the antibody against the smallpox bacteria; and the body is now ready to defend against any future smallpox invasion. We have virtually succeeded in eradicating small pox from the world mainly through this process of artificially stimulating a large number of human bodies to destroy the small pox virus by way of these vaccinations.”

Campbell interrupts. “I'm going to pause the tape there for a minute.”

As the lights come back up, Campbell turns to the witness. “Dr. Fowler, could you boil all that down to one or two sentences for us?”

Fowler isn't quite sure how he can make it any easier or simpler to understand, but he'll give it a shot. “Well, the immune system of a healthy human body protects us from disease using special cells we call T-cells to alert the body to an invasion and attack the invader. When we've been successful in our defense, those cells that are fighting the invader are called off, and we will have made antibodies to prevent that specific disease from making us sick in the future.”

“And if this system is working correctly?”

“We might have some mild symptoms of a disease, but after a short time our body should return to normal and we will usually not have that same disease again, because the invader has been neutralized and we are now protected. In fact, in most cases we say that we are ‘immune’ from that disease now.”

Campbell looks at the jury again to make sure he's not losing them. They still appear to be okay. At least no one is sleeping or looking confused.

“Dr. Fowler, how do these antibodies actually work?”

“Again, we don’t know exactly how they work, but we have a pretty good idea. It’s all based on... why don’t you let the video explain it, and then I can answer questions again afterwards.”

Campbell dims the lights and starts the tape again.

“The human body is an incredibly efficient machine,” says Dr. Fowler on the video. “But you could also call it very lazy. It wants to do as little work as possible. When something foreign invades the body, it first looks to see if it already has antibodies to fight that particular invader, so it already knows how to defeat it and doesn’t have to go through the whole process again.”

The video is showing graphics of a germ with a lock on its surface making its way through the skin of a young girl, and imaginary antibodies shaped like keys approaching the germ, seeing if they fit into the lock. One by one, the antibody-key images don’t fit and then disappear.

“If the body finds a pre-existing antibody that works against the invader, it will use it open the door and then trigger the Killer T-cells.”

Finally, one of the antibody-keys fits into the lock, turns and unlocks the germ, exposing its insides to thousands of Killer T-cells that then destroy it.

“But if no antibody is found for this particular invader, the immune system must start over from scratch by identifying the invader’s particular protein makeup, making a new key to open up the invader, activating the Killer T-cells that will destroy it, and finally making the antibody memory chip that will protect from a future attack from the same invader.”

Campbell punches the Stop button and turns up the lights. He also retracts the screen, obviously finished with the video presentation.

“Dr. Fowler, can you explain a little bit more about this ‘key’ that winds up being recorded as what you have called an ‘antibody memory chip’?”

“Basically, it has to do with deciphering the protein make-up of the invading organism and how to dismantle those proteins and therefore kill the unwanted cells. Do you need to know more than that?”

Campbell considers the question for a minute and then decides, “Probably not. So can you help us apply what we’ve just learned specifically to HIV antibodies?”

“Yes. If the Human Immunodeficiency Virus should enter a human body, the immune system will first look to see whether it already has an antibody with the right key to unlock the HIV and send out the Killer T-cells to destroy it. If not, it will isolate the HIV, find out what this HIV is made of, create a new key, activate the Killer T-cells, and make a new antibody with that specific key code for the next time HIV appears.”

“So if someone has the antibodies to HIV in their blood...”

“...it means that at some point, HIV was detected and the immune system went through the process of finding out what it had to do to destroy the virus, and created those so-called antibody memory chips when it discovered the correct key.”

Campbell had made a few notes on his yellow pad during Fowler’s last comments. Now he looks up at the witness again.

“Are you saying that HIV antibodies are not produced until the body has figured out how to successfully defeat HIV?”

“Think about it, Mr. Campbell. Why would the body, this incredibly efficient and lazy machine, produce antibodies to something before it had discovered how to destroy it? That would be a waste of time, don’t you think? Why create an antibody that turned out to be the wrong key – that did not result in successfully neutralizing the invader – and take up valuable memory space with useless data?”

“So we don’t have antibodies until we’ve been infected with something that poses some danger to us?”

“I didn’t say that. We inherit some antibodies from our mother at birth, which gives us a head start in fighting diseases for the first eighteen months of our lives – until our own immune system can take over. There are also immune-boosting nutrients in the mother’s breast milk, which is one of the reason breast feeding is so important to the health of a newborn child. In addition, we believe that certain

antibodies might be genetically transmitted from both parents to a child as kind of dormant memory chips that can be activated if the child later encounters the same foreign invader that infected his father or mother. Remember, ‘highly efficient and very lazy.’ All of this is called ‘naturally acquired passive immunity.’”

Campbell decides not to pursue the question of inheriting HIV antibodies; it would simply be too much for the jury to grasp at this point. Besides, he had more important points he wanted to get across. “I assume there are other kinds of immunities as well?”

“Yes, and the kind we’re talking about today is called ‘naturally acquired active immunity,’ when we are exposed to a live pathogen – one of those ‘invading organisms’ I mentioned – and create our own antibodies.”

“So, Dr. Fowler, let’s get back to the specific HIV antibodies. I believe you said they were produced as the last step in the immune system’s process of fighting this virus. What I want to know is: Can we have HIV antibodies if we are currently infected with live and active HIV itself?”

“Technically, yes, we can – but for a limited amount of time. Remember that we don’t produce antibodies until our immune system has figured out how to defeat – and is in the process of destroying – the invading organism. So let’s first talk about someone who already has antibodies to HIV, either created from some past invasion of the virus or inherited from our parents, but they get infected again for some reason. Their existing antibodies would be activated, which would then release the Killer T-cells already proven to be successful against HIV. In this case, we could have HIV antibodies present along with the active HIV itself while the Killer T-cells were doing their job of destroying the virus.”

“But if we don’t have antibodies to HIV already?”

“Then our immune system would have to start from scratch to create the right key to let the Killer T-cells do their job to defeat HIV, and then produce the antibodies before all traces of the active virus were destroyed. In both cases, we can have HIV antibodies and live, active HIV present simultaneously. But as I said, that would be for a limited amount of time – and I mean days or even weeks, maybe; not months, or years. In the vast majority of cases, the presence of HIV antibodies would indicate a past infection rather than a present one.”

That was only half of the answer that Campbell was looking for. “Dr. Fowler, can we create new HIV antibodies without the Killer T-cells being activated, which would mean that our bodies were not destroying the HIV?”

“No. At least, it’s not logical. The immune system would not create antibodies until it knew with 100% certainty that it had found the right key required to successfully defeat the HIV, as evidenced by the actual performance of the Killer T-cells. Remember that a primary function of antibodies is to record exactly what key is required to destroy a particular invading organism, and that won’t occur until the destruction process is clearly working.”

Campbell pauses and looks up at the ceiling for a minute, apparently trying to remember something.

“But aren’t there other diseases where you have the antibodies to a virus like HIV, and also have live and active virus causing damage in the body at the same time?”

“Well, until HIV, there was never a case where a positive antibody test result would be interpreted diagnostically as a current, active infection with a virus. There is a test for syphilis, called a Wasserman, and supposedly you can have a positive Wasserman and still have an active syphilis infection. But syphilis is caused by a bacterium, not a virus. So I will say again that until HIV came along, in the absence of any symptoms, a positive antibody test for a virus meant immunity from the disease it could cause and not a current infection.”

Fowler moves slightly in the witness chair before continuing. “When the CDC decided to equate having the antibodies to HIV with having the active, live virus itself, all previous antibody theory – and vaccination theory, as well – suffered a severe blow. So today you can have something like Hepatitis C, where you can supposedly have the antibodies to HCV and yet at the same time have

Hepatitis itself – which, by the way, is highly questionable, and a lot of scientists still don't agree. But this had never happened before HIV, and it was a very disastrous precedent the CDC set which has literally thrown traditional medical and scientific research into chaos.”

Once again Campbell is careful not to get sidetracked into other issues. “Dr. Fowler, let's get back to the presence of antibodies indicating a past infection, rather than a present one.”

“Yes, let's, because there is definitely more to be said on that subject.”

“The CDC says that having the antibodies to HIV – in other words, testing Positive on an HIV test – means that the person is currently infected with the virus.”

“I beg to differ. As I said, there may be a period of time when active virus and the antibodies to it are present together, but that is very short-lived; and to say that having evidence of HIV antibodies constitutes current infection violates the entire theory of vaccinations, for example.”

“How so?”

“How much do you know about vaccinations, Mr. Campbell.”

“Not enough, obviously.”

“Well, I touched on it a little in the video, but let me elaborate. The first vaccine was developed in 1796 by Edward Jenner who was trying to protect people against the cowpox virus. In fact, the name ‘vaccine’ itself comes from the Latin ‘vacca,’ meaning ‘cow.’ The whole point of a vaccination is to inject a small amount of a dangerous germ – either alive or dead – into the human body to stimulate the immune system into fighting it. The amount is so small that it cannot usually cause a bad case of the disease itself, but large enough for the immune system to consider it a threat and go through the process of developing the Killer T-cells to fight it off and creating the antibodies to protect against future invasions.”

“Please give us a specific example.”

“Let's take something most people are familiar with – the flu vaccine. The idea is to give you a little bit of the flu virus in a flu shot so that your body can make the antibodies to it, so that you won't get the actual flu in the future.”

“You're saying that the point of a vaccination is to fool the body, almost, into turning on its immune system and eventually producing antibodies to that particular germ.”

“You could say it that way, yes. And whenever we get vaccinated against something, if the vaccine was successful, we say that we are now immune from the disease that germ could cause. Case in point again: the world is now immune from the small pox virus; or at least, that's what the World Health Organization declared in 1979, I think. Maybe it was 1980. At any rate, that, in fact, is the only point in getting vaccinated in the first place – to produce immunity, or close to it.”

“So if you have the antibodies to a germ, you're supposed to be immune to the disease it causes?”

“That's right.”

“Then having the antibodies to HIV can only mean that our immune system has done its job, and done it well, defeating the HIV infection and creating immunity to whatever problem HIV might cause in the future.”

“Objection. Leading the witness.”

“Sustained. Rephrase, Mr. Campbell.”

The judge was right, and so was Armand, but Campbell had decided to try it anyway. No problem. Rephrase. “Dr. Fowler, what does it mean, then, to have the antibodies to a virus like HIV?”

“Traditionally, it has meant that our immune system has done its job perfectly, defeating the HIV infection and creating immunity to whatever problem HIV might cause in the future.”

A chuckle started in the jury box and went around the gallery as Fowler repeated, almost word-for-word, the question Campbell had asked.

“So someone who is told they are HIV-Positive as a result of taking an HIV test...”

“...should actually be happy about it. I know that sounds strange, and the thousands of people who have been told they are HIV-Positive are obviously not happy about it. But think for a minute. Testing

HIV-Positive means that you have the antibodies to HIV – not the virus itself, but the antibodies – and having the antibodies has always meant that you have successfully defeated, or are successfully defeating, a dangerous invader and are now immune to any disease it could cause. Frankly, being told you are HIV-Positive would normally be no more serious than being told you had green eyes or brown hair; better actually, because it would signal a healthy immune system, one that was working well and had created immunity for you.”

“I thought HIV was supposed to destroy a person’s immune system.”

“It is. At least that’s what we’ve been told for many years.”

“But do I understand you correctly that we couldn’t have created antibodies to HIV unless our immune system was working properly – as it should?”

“That’s exactly what I’m saying. The fact that we have antibodies to HIV can only mean that our immune system was healthy enough to go through the process of detecting and defeating the Human Immunodeficiency Virus and making antibodies against it for the future. Having antibodies is almost always a sign of a healthy immune system, in other words, not a sick one.”

“But that’s not what we’re being told.”

“You’re right, it isn’t. Instead, people are scared to death when they are told they are HIV-Positive, because the CDC has made it sound like having the antibodies to HIV means that you have active, dangerous virus itself floating around in your blood, ready to multiply exponentially and kill you. And they said that without any proof, by the way.”

“That’s what our last witness said as well.”

Campbell pauses to read his notes and find out where he wants to go from here. But before he can ask his next question, Fowler speaks up.

“Let me ask you a question, Mr. Campbell.”

Campbell feels so confident that Fowler is on his side and wouldn’t be trapping him, he grants this totally unusual request from the witness.

“Yes?”

“The so-called AIDS experts have been saying for years that an HIV vaccine is just around the corner, right?”

Campbell is amazed that Armand would let him get away with this. “Yes, starting with the Secretary of the Department of Health and Human Services at the press conference on April 23, 1984, when she announced that Dr. Gallo had found the probable cause of AIDS. She also announced that she expected a vaccine to be developed ‘within two years’ – her exact words. That was over twenty years ago, with hundreds of billions of dollars spent since in vaccine research.”

“So my question is this.” Fowler looks at the jury rather than at Campbell. “How are we going to know when we have made a successful vaccine against HIV?”

“Your Honor, what is this? Since when do we allow witnesses to ask questions of the attorneys? This is ridiculous!” Armand is looking at Campbell incredulously.

Campbell can’t help but laugh inside. He’s actually getting to like Armand a lot.

The judge doesn’t seem to be as amused as he shoots a disapproving look at the Solicitor. “It took you long enough, Mr. Armand. I was wondering the same thing, and when you were going to object. Knock it off, Mr. Campbell.”

“Very well, Your Honor. Dr. Fowler, let me turn the question around and ask you the same thing. How will we know when we have a successful HIV vaccine?”

“I don’t know the answer to that question, which is why I was asking you.”

“Well, how do we know whenever we have created a new, successful vaccine to any virus?”

“That’s simple. People test Positive on an antibody test after getting the vaccine.”

There is a loud gasp in the courtroom as the reality sinks in. The judge even has to use his gavel to restore quiet again. The shock is something Campbell wants to play up.

“What you’re saying is that people are already testing Positive for HIV antibodies – the very things an HIV vaccine would be designed to create – but an HIV-Positive test result is being interpreted completely differently for some reason; and if we want to produce a successful HIV vaccine, we’d be trying to create antibodies to HIV, which already exist in these people and show up on the HIV tests.”

Fowler nods. “Maybe that’s why, Mr. Campbell, we still don’t have a vaccine after twenty-three years.”

Campbell is flipping pages on his legal pad to decide what questions to ask next when the judge interrupts.

“Mr. Campbell, have you finished with this witness?”

“No, Your Honor. I have quite a few more questions for Dr. Fowler.”

The judge doesn’t look too thrilled with that answer. “Then we’re going to stop here and take a lunch break. You can continue this afternoon, Mr. Campbell. Court is recessed until two p.m.”

Sarah watches Fowler as he leaves the witness stand. He seems different somehow from the way he was at the AIDS trial a few months ago. Then he appeared to be a totally objective expert witness about the human immune system. Now he seems more... what’s the word... opinionated about HIV and AIDS, more convinced that there are severe problems with the HIV=AIDS hypothesis, even critical of those he called the ‘so-called AIDS experts.’ Sarah assumes he’s done his own research since the AIDS trial and come to his own conclusions, putting him ahead of the rest of his peers.

It was too soon for the full effects of the AIDS trial to make its way into mainstream thought, but slowly and surely the scientific community is recognizing the serious flaws in the HIV=AIDS theories and calling for a reevaluation of the real cause of AIDS. Of course, Sarah’s not going to hold her breath waiting for Dr. Gallo, or Dr. Fauci, or the AIDS-Nazis John Moore and Mark Wainberg, to stand up and admit they had made a big mistake for the last twenty-some years. That would probably never happen.

But trials like this one, bringing out the truth about the HIV tests, could go a long way toward stopping the diagnosis of people as HIV-Positive and bringing down the whole HIV house of cards. It’s really only a matter of time, she decides.

Chapter Ten

Sarah had decided to try Walter's Country Kitchen at The Big Chill for lunch. It was within walking distance of the courthouse, and they advertised "meat and three," meaning that you had your choice of a meat dish and three side dishes for one price. She thought she should try southern cooking at some point; and besides, it was a non-smoking restaurant, still unusual in South Carolina, she was told.

She passed on the meat, vegetarian that she was, and actually enjoyed the side dishes quite a bit, especially the mashed potatoes – real mashed potatoes. Maybe southern cooking isn't that bad after all, as long as you remember to ask for "unsweet" tea.

On the walk back to the courthouse, she noticed that the temperature had dropped significantly, maybe even ten or fifteen degrees. At least, it felt like it. Must be a big cold front coming in.

Inside, the courthouse was nice and warm, and the judge wasn't late returning this time. Court resumed promptly at two p.m. and Dr. Fowler is back on the witness stand.

"Dr. Fowler, I want to concentrate for a few minutes on these antibodies that our immune system creates."

"Okay. What would you like to know that I haven't already told you?"

"For example, does the average human being produce a lot of these antibodies?"

"That depends entirely on what kind of life they lead, what kind of life their parents led, and whether they had the good fortune of being breast-fed."

"Will you please explain that?"

"As I said this morning, we can get antibodies at least two different ways. One is to create them when we are invaded by a previously unknown organism; the other is to inherit antibody memory chips from our parents. But our parents also created antibodies only when their bodies felt threatened as well. So, basically, the number of different antibodies anyone has will be mainly dependent on how many dangerous things they and their parents had been exposed to that their immune systems decided needed to be guarded against."

"Are you saying that the more diseases we get, the more antibodies we will create to protect us in the future?"

"Yes, basically. And that makes good common sense, doesn't it? If we get sick, our immune system goes to work to fight the invasive organism; and when it's successful, it creates antibodies to protect us from getting that same illness again. The more often we encounter a new or different disease, the more antibodies we will create. But remember, we don't actually have to get sick to make antibodies."

"Tell us again, please."

"Like with vaccinations, whenever we are exposed to a sufficient amount of a foreign substance – even if it's not enough to create obvious symptoms of disease – our immune system goes through the same process of creating antibodies so we won't get sick in the future."

"You're saying that those who have more illnesses than others, and those exposed to more illnesses even though they don't actually get sick, will have more antibodies."

"As a general rule, yes."

"So someone who has led a normal life, has been careful about their health and their bodies and what they get exposed to, might have a lot fewer antibodies than someone, say, who lives on the street, or lives a dangerous lifestyle, and develops a lot of health problems."

"Absolutely."

"Dr. Fowler, how does this translate when we talk about the HIV tests?"

“I can say it very simply, and then I’ll explain it. The more antibodies someone has – to anything – the more likely they are to test Positive on an HIV Antibody test.”

“Why?”

“First and foremost, because there are more antibodies in their blood to react with the test kit proteins.”

“And why would that make a difference?”

“Because antibodies are not monogamous.”

There’s a buzz in the courtroom, and even a couple jurors turn to each other and ask, “What did he just say?” loud enough for Dr. Fowler to hear.

“I said, antibodies are not monogamous, and I meant that exactly as it sounds. I could have also said it the other way around and maybe that would make more sense: Antibodies are very promiscuous, in that they will try to mate with lots of different invaders.”

The judge gavel the courtroom whispers into silence. “Continue, Dr. Fowler.”

“Look, I have said a number of times that the human body is extremely efficient and very lazy. When a foreign substance enters the body, the first thing the immune system wants to do is find out if it already has an antibody to counteract the attacker. It will send out its entire collection of antibodies, if necessary, to see if there is already one with the right key to fit into the lock, if you remember the video presentation. In other words, antibodies that were created to handle one virus, for example, will try to fit into the lock of a different virus when it appears, thinking that there may be enough of a match to unlock it. Hence, antibodies will try to mate with almost anything when there’s a chance to save the body some work and not make it develop new antibodies from scratch.”

This is such an important point for later testimony that Campbell wants to see how many times he can get Fowler to explain it. “I’m beginning to get the picture, Dr. Fowler. Someone with more antibodies, inherited from their parents or created as a result of exposure to a lot of different illnesses, will stand a better chance of having one of their existing antibodies be enough of a match to deal with a new foreign substance.”

“Right – as long as their immune system is working properly. An antibody created against one kind of flu, for instance, might easily work against another kind of flu; or even against a completely new virus causing a brand new disease we’ve never heard of. So when a foreign invader comes along, these antibodies run around as fast as they can trying to mate with anything they can get their hands on. Therefore, as I said, they are not monogamous. So when you asked about how this translates if we talk about an HIV antibody test, if someone has a lot of antibodies already coursing through their blood, there’s a greater chance that one of those antibodies will find a lock that it fits on one of the test kit proteins – even if it’s not a perfect match – and cause a positive reaction on the test.”

Campbell doesn’t want to get too deep into the question of false positive test results yet, but he can’t let this opportunity go. “I assume, Dr. Fowler, you’re suggesting that those with more antibodies could get more false positive results on an HIV test.”

“More false positives, yes, but also more true positives, if there actually is such a thing.”

“Well, I want to talk to another witness about false positives, but what do you mean when you say ‘more true positives’ as well?”

“I mean that the more antibodies someone has, the more positive results we’re going to get on an HIV test, regardless of whether the test proteins come from the actual Human Immunodeficiency Virus or not, because that person will have more antibodies that could match up with the test proteins and produce a reaction.”

Campbell is not sure he totally understood that. “What exactly did you just say?”

Fowler realizes he wasn’t that clear. “Let me put it this way... if the test kit proteins are not specific or unique to HIV, then these same proteins will be found in other viruses or bacteria as well. The more antibodies someone has, the better the chance that they will test Positive on an HIV test when, in fact, their antibodies were designed for one of these other diseases.”

“Is this just a theory, or is there evidence to support what you’re saying?”

“There’s evidence – no doubt about that. For example, the CDC says that the majority of those testing HIV-Positive in the U.S. today are African-American – at a rate of about 2 to 1 over White Americans. But scientific studies have also found that African-Americans naturally have about twice as many antibodies than White Americans. And, of course, we hear so much about how many Africans are testing HIV-Positive. Well, other studies show that Africans have twice as many antibodies as African-Americans, and four times as many as White Americans.”

Campbell figures that the best he can do at the moment. “Can what you just said explain why those who were drug addicts and high-risk gay men were mostly the ones testing HIV-Positive on the ELISA when it first came out?”

“Very much so. And hemophiliacs as well. Hemophiliacs, for example, had to take injections of other people’s blood about twice a week. That means they were receiving foreign proteins from literally hundreds of other people. The problem with this is that their own bodies would then have to create a whole host of new antibodies in attempt to get rid of these foreign proteins. This would have given them an enormous number of diverse antibodies that could react on an HIV ELISA test.”

“And the drug addicts and high-risk gay men?”

“They both have a lifestyle of contracting quite a lot of diseases, from sexually transmitted diseases to hepatitis to herpes, you name it. Yes, both those groups will have a disproportionately higher number of antibodies, and a wider range of antibodies, than the rest of us.”

“So it didn’t surprise you in the mid-1980’s when these three groups – drug users, high-risk gay men, and hemophiliacs – were the ones who were predominantly testing HIV-Positive?”

“Not in the least. It’s what you would expect from this kind of antibody test.”

“But were they testing positive for HIV?”

“There’s absolutely no way to tell that. I heard your previous witness, Dr. Richardson, explain to you that the test kit itself has never been proven to accurately identify HIV antibodies. Maybe it does; but probably it doesn’t – at least according to the scientific studies I’ve read. The only thing I can add from my perspective is that a virus like HIV is not, by definition, capable of choosing its victims by gender. The fact that drug addicts, who are mostly men; hemophiliacs, who are all men; and sexually-overactive gay men, made up 99-plus percent of those testing HIV-Positive was evidence, at least to me, that one of two things had to be true: first, the HIV ELISA test itself was so overly sensitive that it was reacting with a lot of different antibodies these particular people carried around more than others; or two, the test proteins themselves were not specific or unique to HIV and therefore allowed antibodies created against other diseases to react with the test kit too often. And frankly, I’ve decided that it was probably both.”

Campbell has to remind himself to save the question of false positives for later. “Again, I want to get into this concept of false positives – of antibodies to other things causing a positive reaction on an HIV test – with another witness. But I want to ask you more about the sensitivity of the test to a wide range of antibodies.”

“Well, this is the problem with any antibody test, not just with the HIV test. Whenever you design an antibody test, you have to go through a procedure to try to make the test not react with antibodies other than the ones you want it to.”

“And how is this accomplished?”

Fowler seems pleased that he has the opportunity to repeat what he thought was the most important point in this trial. “First, by ensuring that the proteins used in the test are as specific and unique as they can be to the agent you want to test for. You’ve already heard that this was apparently not done for the HIV test. But you can never be 100% successful with that. So the second way is to dilute the blood sample from the patient you’re testing to limit the number of antibodies that will react with the test kit.”

“Dilute the blood?”

“Yes. Sorry, not clear? Okay, let’s use an example. Let’s say you want to design an antibody test to see whether someone has Antibody A in their blood. First, you do the best you can to make sure the test kit proteins are as specific and unique as possible to Antibody A. Then you run your test, and it comes out positive. But when you do a validation study on it, you find out that the person really didn’t have Antibody A in their blood after all; they had Antibodies B, C, and D instead, which apparently reacted with the test kit protein. So you want to try to get rid of B, C, and D so they don’t cause a positive reaction, because you’re looking for Antibody A. You can often accomplish that by diluting the blood and limiting the number of antibodies that interact with the test kit.”

“Are all antibody tests done on diluted blood?”

“Many of them, yes; otherwise there are too many antibodies available to cause false positive reactions.”

“What kind of dilution are we talking about?”

“Usually 5 to 1, 10 to 1, maybe even 20 to 1. You keep experimenting until you find the best balance between too much sensitivity and too much specificity.”

“And what does the HIV ELISA test call for in terms of diluting the patient’s blood?”

“That’s the amazing thing: It calls for 400 to 1 – many times more than any other antibody test I’m aware of.”

“And why do you think it’s necessary to dilute the blood 400 times for an HIV test?”

“I don’t know the exact answer to that question. I assume that there were too many other antibodies reacting to the test kit at lesser dilutions, creating too many false positives. We also have to remember that the so-called AIDS experts started with the idea that AIDS was caused by HIV, and therefore only people who were getting AIDS should have positive HIV-antibody tests. So they had to keep diluting the blood until at least most of the HIV-Positive test results occurred in the high-risk groups for the disease. And we’ve already discussed the fact that these same high-risk groups were those who would have more antibodies in general, from their exposure to other diseases; so apparently they had to use an astronomical dilution for the test to appear accurate.”

“But you don’t know that for a fact, Dr. Fowler?”

“No, but it makes sense, doesn’t it? What I do know is that an experiment was done by a doctor in New York where he ran HIV ELISA tests on completely undiluted blood from HIV-Negative people, and all of them came out Positive!”

“Everyone was HIV-Positive?”

“That’s correct. If we ran an HIV ELISA test on everyone in this room – including the judge and the jury – without diluting their blood 400 times, we would all test HIV-Positive.”

There’s an audible gasp that makes its way around the room.

“What does that say to you about the HIV ELISA test?”

“It says that the test kit proteins themselves are so generic – so non-specific and non-unique – that a large number of antibodies created to fight things other than HIV will react with them and cause a positive test result.”

Campbell can’t think of a better lead in to his next witness. But is he finished with Fowler? He checks his notes and is still not sure. “Dr. Fowler, before I go on, is there anything else we need to know about the antibodies our immune system creates as they relate to the HIV antibody tests?”

“Actually, yes, there is. I’ve talked about people with higher levels of antibodies in their blood being more likely to test Positive on an HIV ELISA. What I haven’t said, because we don’t know for certain, is that at some point, high levels of antibodies may indicate a broken immune system rather than a healthy one – a bad sign instead of a good one. In other words, it’s possible that if the immune system should start to break down for some reason, it could stop functioning normally – like sending out existing antibodies to fight an unknown invader to see if it already has one that works. Instead it might start producing more and more antibodies from scratch until the system gets overloaded. Frankly, we just don’t know enough yet about how this whole thing works.”

“But that would explain why people whose immune systems are in trouble might also be reacting positively on an HIV test, wouldn’t it – simply from having too many antibodies?”

“That’s a possibility, yes.”

“Well, that brings us to the next topic I want to discuss, and that is the Helper T-cells of the immune system that you described in the video. They have another name, don’t they?”

“Yes, they’re also called CD4 cells.”

“We sometimes count these CD4 cells, don’t we?”

“Yes, sometimes.”

“Why would we count the number of CD4 cells someone has?”

“That’s really a good question. It used to be because we thought that the number of CD4 cells was a direct indication of the health of the immune system.”

“But that’s not true any more?”

“Well, there is a lot of contradictory evidence that suggests maybe there’s not such a direct correlation after all.”

“Such as...”

Fowler pauses to decide where to begin his answer. He looks at the jury to try to see how well they have been following him so far. Since no one’s eyes appear to be completely glazed over, he assumes they can handle a little more technical information.

“As you know, HIV is supposed to be the cause of the demise of the immune system, which then leads to the body being unable to fight off opportunistic diseases; the person gets AIDS and dies. Part and parcel of that definition of AIDS is a broken immune system. So for years – and still today, as a matter of fact – an HIV-Positive’s CD4 cell count was thought to be an indication of progression to AIDS. But a major study in 1991 – I think the researcher’s name was Hill – found that CD4 counts were not really a reliable marker to predict progression to AIDS in HIV-Positive subjects. What Dr. Hill said exactly was that ‘variance in CD4 from... non-HIV related longitudinal fluctuations needs to be accounted for in analysis of the prognostic power of CD4 in HIV infection.’ Since then other studies have found HIV-Negative people to have low CD4 cell counts as well.”

“When you say ‘a low CD4 count,’ what constitutes a normal CD4 cell count?”

“The normal range is usually considered to be between 500 and 1500.”

“500 and 1500 what?”

“Sorry. 500 to 1500 CD4 cells in a cubic millimeter of blood.”

“That’s a fairly wide range, isn’t it?”

“Yes, and a person’s CD4 cell count can vary widely within that range, depending on a lot of factors, even in the course of 24 hours. Just go out and lie on a beach for a while and your CD4 cell count will go down. Any time we don’t need our immune system to be actively fighting some perceived threat, it will rest – take a nap, if you will, and fade into the background.”

It was a really good example that Campbell had never thought about. He’s glad Fowler had.

“What other factors will impact a CD4 cell count, Dr. Fowler?”

“Well, it’s now been well documented that malnutrition is one of the biggest things that can lower a CD4 cell count. Malnutrition, chronic stress and fatigue. On the other hand, infections, and even vaccinations, will make the CD4 count go up as the immune system responds to a foreign invader and builds up its armies. Generally speaking, if you have high CD4 cell counts, your immune system is considered to be doing pretty well; and if you have very low CD4 cell counts, you’re considered to be in trouble.”

“But you said that healthy people who were HIV-Negative could also have low CD4 cell counts.”

“Yes, they can. Another recent study in Africa found HIV-Negative people with lower than normal CD4 cell counts – around 350. That’s why there is so much controversy about using CD4 cell counts to diagnose AIDS or to begin HIV drug therapy.”

“But isn’t that exactly what the CDC has been doing ever since 1993? Doesn’t the CDC define some AIDS cases based solely on the fact that someone is HIV-Positive and has a CD4 cell count of 200 or less?”

“Yes; and frankly, it’s totally ridiculous. There are a lot of very healthy people running around out there with low CD4 counts. But I understand that since the mid-1990’s, more than half of the AIDS diagnoses are based on this CD4 cell count definition. So even though many of these people have no symptoms whatsoever – they’re not sick by any stretch of the imagination – they are being told they have AIDS. And to make matters worse, you only need to have one CD4 count of 200 or less to be diagnosed as an AIDS case. One low count, one time, and you are forever branded. But I would suggest to you that we all probably have a CD4 cell count of 200 or less at some time in our lives, based on the amount of stress we are under, or how much sleep we’ve gotten, or a poor diet, or any number of other factors. Remember that the CD4 count normally goes up if we are under attack by a foreign invader, and goes down when there’s no need for the immune system to be so active. So if we are not sick, or there’s no threat, but we simply haven’t gotten enough sleep or food due to a prolonged stressful situation, it’s quite possible for our CD4 cell count to drop to 200 temporarily. And if we should happen to take a CD4 count at that moment, we’re liable to be told we have AIDS and are likely to die soon – if we have tested HIV-Positive.”

Campbell looks up suddenly, as if he just had a major revelation. “Dr Fowler, what would happen to a person’s CD4 cell count when they are told they are HIV-Positive, especially if they have no symptoms of any disease?”

Fowler thinks for a moment and then has the same look of surprise. “Well, now that you mention it, I can’t think of any more stressful situation than being told you are HIV-Positive! After all, it’s the equivalent of a death sentence – intense emotional and psychological stress, not to mention the family and social stress. It’s easy to imagine someone losing a lot of sleep and not eating well in the coming days and weeks after such a diagnosis, and it wouldn’t surprise me at all if their CD4 cell count plummeted because of it. If they were to take a CD4 count at that time – which most do shortly after a Positive diagnosis – it’s very probable that it would be quite low. Therefore, rather than a low CD4 cell count being the cause of AIDS, it is entirely possible that exactly the opposite is true: an HIV-Positive diagnosis could be the cause of a low CD4 cell count. In fact, as I said before, if HIV were actively attacking the immune system as the so-called AIDS experts want us to believe, you would expect the CD4 cell count to go up, not down.”

Campbell looks back at his notes, wanting to pick up where he left off before that short but very important detour. “Dr. Fowler, in the last few minutes you’ve used words like ‘very probable’ and ‘entirely possible.’ Don’t we know any of these things for sure?”

“Unfortunately, we don’t. One of the reasons is the lack of enough statistical data to make a definitive statement on this topic. For example, we don’t normally run CD4 cell counts on healthy people, unless, of course, they are HIV-Positive. Bottom line is that we simply do not know enough, and there are too many conflicting studies and theories to be able to say with any certainty that a low CD4 cell count has anything to do with HIV or AIDS.”

“You mean, there’s a reasonable doubt?”

“More than a reasonable doubt, Mr. Campbell – a very big doubt.”

“Is that why Canada, for example, doesn’t recognize the CDC’s definition of AIDS based on a low CD4 cell count?”

“I assume so, Mr. Campbell, and it just points out one more absurdity in this whole HIV=AIDS mess. Can you name me one other disease that no longer exists if you drive one hour north from Buffalo, New York? It’s ludicrous!”

Campbell, of course, doesn’t answer Fowler’s rhetorical question. He goes for the key question instead. “Dr. Fowler, the defendant in this case supposedly tested Antibody-Positive on an HIV ELISA test. In your mind, what does that mean?”

“Assuming he really is HIV-Antibody-Positive, which I understand is highly doubtful based on the results of an HIV ELISA test, he should actually be pleased that his immune system was working well enough to defeat the Human Immunodeficiency Virus, if in fact that virus exists and is a dangerous pathogen.”

“And in your expert opinion, does his HIV-Antibody-Positive status pose a threat to anyone – himself, or anyone else?”

“Not according to antibody theory, as we understand it today. No.”

“Thank you, Dr. Fowler. Your witness, Mr. Armand.”

Sarah again notices that Armand does not seem perplexed or upset by Fowler’s testimony. She wonders why, and what he knows that she doesn’t – or what he might have planned to counteract all this damning evidence about the HIV tests. Maybe the other shoe is about to drop on his cross-examination.

“Dr. Fowler, you said in the beginning that... let me quote you,” as Armand consults his legal pad, “‘in the vast majority of cases, the presence of HIV antibodies would indicate a past infection rather than a present one.’ You were testifying that having the antibodies to a foreign invader, as you put it, meant that there was no current infection. Is that correct?”

“I said that having antibodies to a foreign invader would mean that the immune system was working well and that the T-cells had to be doing their job of killing off the pathogen or the antibody would not have been created in the first place.”

“But you do acknowledge that having the antibodies to a disease could also mean having that disease in the present time....”

“No one knows enough about the human immune system to say anything with absolute certainty, Mr. Armand. I, for one, never want to say something is an indisputable fact without the scientific studies to back me up, unlike some other people I know.”

Armand ignores Fowler’s dig at the AIDS experts. “So is it your testimony, Dr. Fowler, that it is possible that someone could have the antibodies to HIV and also have HIV disease at the same time.”

“Possible? Yes, anything’s possible – but highly unlikely; and if it’s true, Mr. Armand, we in the field of immunology must reexamine our theories from the ground up, because, as I said, it would violate the entire premise of vaccinations, for one thing.”

“But you admitted that there are other diseases we know about where we have the antibodies to the disease and yet have an active case of the disease at the same time.”

“There are a couple diseases where we believe we have an accurate positive antibody test result, and there is evidence of concurrent disease symptoms, yes. Not many – I can count them on one hand, Mr. Armand. Plus, most of those antibody tests in question have appeared in the last twenty years or so, after medical science threw out all the usual protocols to establish the accuracy of antibody tests – such as validation studies – in order to vindicate the HIV tests.”

Armand looks directly at Fowler with a piercing stare, as if challenging him to a ‘no blink’ contest. “But you do admit that these diseases do exist, such as Hepatitis C, where we have a positive antibody test and yet an active case of Hepatitis going on?”

“As far as I know, the Hepatitis C antibody test has never been validated either, using the generally accepted rules of establishing a gold standard.”

Armand blinks first. He knows he isn’t going to get anywhere going down that path, so he changes course. “Dr. Fowler, you also stated that CD4 cell counts can vary a lot from individual to individual, did you not?”

“Yes, I did, Mr. Armand, and within a particular individual during any particular day.”

“But would you agree that virtually all of those diagnosed with AIDS have low CD4 cell counts?”

“From what I have read, I would have to agree, yes. But so do other people who do not have AIDS – or HIV.”

Armand sees no point in continuing. “No further questions of this witness, Your Honor.”

The judge looks at Campbell. “Re-direct?”

“Just a couple questions, Your Honor. Dr. Fowler, you just agreed that virtually all diagnosed AIDS patients have a low CD4 cell count.”

“Yes, I did.”

“Would you also agree that all diagnosed AIDS patients are HIV-Antibody-Positive?”

“Yes, by definition.”

“What do you mean by that?”

“I mean that since 1991, the CDC has defined AIDS one of two ways: being HIV-Positive and having one of about thirty different diseases, or being HIV-Positive and having a CD4 cell count under 200.”

“And I believe you said that more than half of those diagnosed with AIDS are people who are not sick, but are HIV-Positive and have a CD4 cell count below 200.”

“Yes, that’s true.”

“So isn’t the fact that the majority of AIDS patients have a CD4 cell count of less than 200 the result of the definition of AIDS rather than a medical finding, just like you have to be HIV-Positive in order to have AIDS?”

Fowler looks confused, as if he didn’t understand the question. Campbell is quick to clarify.

“I mean, if a person is HIV-Positive and has a T-cell count of 400, they won’t be diagnosed with AIDS as long as they have no symptoms of disease. But if they have a T-cell count of 150, they’ll have AIDS, according to the CDC. So the fact that virtually all AIDS patients, as Mr. Wilson just said, have low CD4 cell counts is meaningless and depends entirely on the definition rather than on cause-and-effect.”

“I suppose that’s right, Mr. Campbell. What you’re saying is that a low CD4 cell count doesn’t mean you have AIDS; having AIDS means you have a low CD4 cell count. I hadn’t thought about it that way; but yes, that would be true. It’s also typical of the way the CDC manipulates the statistics.”

Campbell’s not sure what Fowler means, but he’s curious. “In what way?”

“Well, the CDC keeps saying that 40,000 people get ‘newly infected’ with HIV each year in the United States. First of all, that’s an estimate and an extrapolation and has no basis in statistical fact. But there’s a bigger problem with their statement, and it’s a mistake that everybody seems to make, for some reason.”

“Which is?”

“They don’t have prior HIV-Negative tests on these people to prove that their positive HIV test results mean they have been, quote: ‘newly infected.’ The assumption is always that no one is HIV-Positive unless they get infected by somebody else. But that’s not true, and the CDC’s own statistics prove that. So at least some of these people – and unfortunately, we don’t know how many – may have been HIV-Positive all their lives; and when they finally take their first HIV test, they show up as Positive. But they were not, quote: ‘newly infected.’ They’ve been Positive the whole time and simply not known it.”

“So when the CDC says these people are newly infected...”

“...they have no proof of that, and frankly, no scientific basis to say it.”

“Why do you think they make that claim, then?”

“I can only guess...”

“Objection. This witness is not qualified to talk about the motivations of the CDC, much less ‘guess’ about them.”

Armand was right, of course, but Campbell wanted to try to get Fowler’s answer on the record anyway. “Your Honor, I’m simply asking Dr. Fowler for his personal opinion – not as an expert on the CDC, but, as he said, his guess.”

“I’ll allow it. You may finish your answer, Dr. Fowler.”

Campbell's beginning to think that the judge has a lot of sympathy for the defense in this case. He didn't have to make that ruling, and so far he's been quite lenient when questions have come up. It doesn't hurt to have the judge on your side, especially in a murder trial. Campbell makes a mental note not to do anything to jeopardize the relationship.

Fowler is also pleased he can finish his answer. "I can only guess that it helps create the appearance that HIV is contagious – which it isn't – and is still infecting large numbers of people – which they can't prove without prior HIV-negative test results."

"But you said..."

The judge interrupts. "That's enough of that line of questioning, Mr. Campbell. I gave you the chance, now move on to something else."

Maybe not quite as sympathetic as Campbell thought! "I have no further questions of this witness, Your Honor."

Picking up his gavel, the judge says, "Then the witness may step down; and in light of the time, this court will stand in recess until ten a.m. tomorrow morning."

Chapter Eleven

“Sarah, do you know about something called the ‘nocebo effect’?”

“No, Gwen. Never heard of it.”

“How about ‘bone pointing’?”

Sarah laughs. “Gwen, you’ve either gone totally wacko, or you’re so far ahead of me that I’m not sure I can keep up. Which is it?”

It’s Gwen’s turn to laugh, and it feels good to be back together with her old friend. They had shared dinner together, drunk a little wine, and are now lounging in Gwen’s living room watching a light snow start to fall outside.

Sarah hadn’t seen snow for a long time, and it brought back many memories of her childhood in Connecticut – lots of good ones as well as not-so-good ones. She had given Gwen all the latest details of the murder trial over dinner, and they had talked about other things as well. But so far, neither one had mentioned their brothers.

Gwen knew all about Greg’s death. It had only been a couple years after losing Greg that Sarah had met Gwen in California. As a result of the close friendship that formed very quickly, Sarah was able to tell Gwen everything, to say things she couldn’t talk about with her parents and process emotions she didn’t know she had.

Brad, on the other hand, died well after Sarah and Bill had moved to Arizona. Although they stayed in touch by phone, it was clearly not something Gwen wanted to discuss in depth long distance.

Tonight it’s Gwen who first broaches the subject. “You know, Sarah, Brad – my little brother – died less than two years after he was diagnosed HIV-Positive.”

“Yes, you told me he died of AIDS.”

“Well, they said he did, because he had HIV.”

“But you don’t think so?”

Gwen takes another drink of wine and pulls her legs up under her on the sofa, covering them with an afghan. She offers one to Sarah, who declines.

“That’s a tough one. Yes, I think he died of AIDS, as AIDS was originally defined. In other words, I think his immune system gave out, and then he developed toxoplasmosis, and that’s what did him in. But it didn’t have anything to do with HIV. Actually, that’s not true, it had everything to do with HIV, but I don’t believe it was the HIV that killed him.”

“I’m not following you, Gwen.”

Gwen nods her head, agreeing that she wasn’t making much sense. “After Brad was diagnosed HIV-Positive, he started to get sick. Up until that point, he had been as healthy as you and I. Of course, they told him he only had a couple years to live, and he decided he was going to see the world before he died. So he traveled all over the place, doing lots of crazy things. I’m not talking about visiting Paris or Rome or anything like that. I’m talking about the jungles of Brazil, the outback of Australia, and the mountains of Tibet and Nepal. And everywhere he’d go, he’d live like the locals did, and eat their food and drink their water.”

Gwen pauses for a moment, looking out the window at the snow. Sarah doesn’t say anything, waiting for Gwen to continue, which she does after taking a deep breath. “But more than anything, the HIV diagnosis prayed on his mind. He lived in fear, afraid of getting sick, afraid of dying, afraid of infecting someone else. He told me on the phone once that every night, when he went to sleep, he wondered if he would wake up the next morning, and often wished he wouldn’t. Every little sniffle, every sore throat, every cough made him wonder whether he now had AIDS.”

Gwen fights back the tears as she recalls her conversations with Brad, calls he would make to her from a different far-away place each time.

“I think one of the reasons he never stayed put for very long was that he was afraid of making any deep, intimate connection with anyone, since he believed he would be dead soon and it wouldn’t be fair to them.”

It’s clear to Sarah that Gwen wants to talk about this in detail. More than that, Sarah feels Gwen needs to talk about it, and wonders whether she ever had with anyone else. When Gwen didn’t continue immediately, Sarah took the lead.

“When did the toxoplasmosis kick in?”

“It took about a year before there were any signs or symptoms, but he wasn’t healthy ever since the HIV diagnosis.”

“Didn’t he take medications to treat the toxoplasmosis?”

“They wouldn’t give them to him. They kept telling him he had AIDS and needed to take Highly Active Anti-Retroviral Therapy instead, because they said it was the HIV that was causing his problems. They simply wouldn’t treat him for what he actually had.”

“And he didn’t want to take the anti-retrovirals?”

“No, and partly that was because of me. I knew about all the studies that show that these drugs are very toxic, sometimes even lethal. And you know how I feel as a chiropractor about drugs in general and the pharmaceutical companies.”

“So Brad finally died from the toxoplasmosis?”

“Again, the answer is Yes and No. The deeper question is how he ever got toxoplasmosis in the first place. It’s not a common disease in adults. Lots of people actually carry the parasite in their bodies without getting sick. It’s one of those opportunistic diseases that depend on someone’s immune system being destroyed before it can take hold.”

“I’m sure a lot of people would say that it was the HIV that destroyed Brad’s immune system.”

“I don’t believe that for a second, not after all the research I’ve done; and I’ve done a lot of research, Sarah, believe me. But I do think it was his HIV-Positive diagnosis that destroyed his immune system.”

“I’m a little confused, Gwen, and I don’t think it’s just the wine.”

Gwen blows her nose and looks like she’s trying to decide where to start.

“You know about the ‘placebo effect,’ right – where someone is given something, usually a sugar pill, and told it will help them; and they actually get better, not because of some chemical action of the placebo, but because they simply believe the placebo can make them better.”

Sarah changes her mind, grabs an afghan as well, and settles back to let Gwen continue.

“Well, for many years medical science has recognized that there is an equal and opposite effect, called the ‘nocebo effect.’ That’s where you give someone something and tell them it will harm them, when in fact there’s nothing in the nocebo that can hurt them at all. But they still get sick.”

“I’ve never heard of that before.”

“It’s not a well-known term, but the phenomenon is well-accepted; and I can think of no greater example of a nocebo than being told you are HIV-Positive.”

Sarah immediately sees the picture quite clearly. “Assuming HIV itself is a harmless passenger virus, as Dr. Peter Duesberg says, there is nothing about HIV that would actually cause anyone any harm. But if you are told that it will – in fact, if you are told that it can kill you...”

“...and you believe it, then the ‘nocebo effect’ can make you sick even when the HIV won’t! I’m pretty sure that’s what happened to Brad. He got sick shortly after getting his HIV-Positive diagnosis; and, you know, Brad was always very impressionable.”

“I only met Brad briefly a couple times. I didn’t get to know him that well.”

“Well, he was; and unlike me, but like a lot of other people, he had great faith in the medical system. So when his doctor told him he was HIV-Positive, and that he would eventually get AIDS and die – probably within a couple years – Brad believed him.”

“And you think it was that belief that made him sick, and not the HIV. I can see that.”

Gwen is relieved to be able to talk to someone who would understand, who has both the knowledge and the compassion to really listen. She couldn't say this to just anybody, and hadn't. It feels good to let it all out.

"There are other examples of this that support what I'm saying, you know. One of the most famous is called 'bone pointing.' You said you had never heard of it, so here's the whole story...."

Gwen uncoils her legs from underneath her and puts her socked feet up on the coffee table.

"'Bone pointing' is a method of execution used by the Australian Aborigines. It is said it never fails to kill its victim. If someone is found guilty of committing a serious crime against the tribe, the shaman simply points a bone at the person and chants. The condemned man may live for several days or even weeks; but he believes so strongly in the curse of the bone that he soon dies. Apparently the bone represents a 'spear of thought' which pierces the victim when it is pointed at him. It's as if an actual spear has been thrust at him and his death is certain."

"And this actually worked?"

"Apparently it worked on the members of the tribe very well 100% of the time. But when the missionaries arrived, who of course did not believe that the bone could hurt them, it didn't work on them at all, and the tribe became very confused."

"But just believing the bone was harmful, people died when it was pointed at them?"

"That's what they say, and I am convinced that my brother died after his doctor pointed the 'HIV bone' at him."

Sarah doesn't really want to argue, but it seems a little extreme to her. "But, Gwen – with all due respect to the Aboriginies – haven't we come a long way since then? I mean, do you really think that in these modern times, just telling someone they're going to die will actually kill them?"

Gwen smiles, which makes Sarah relax a little. She was afraid that she wasn't being the right kind of friend to Gwen, who was obviously in need of support and compassion rather than a challenge or debate.

"You would think so, wouldn't you, Sarah? But the latest research is showing that this is not only true today as much as it was hundreds of years ago, but we now are starting to understand why and how it works that way." When Sarah doesn't respond immediately, Gwen decides to press on. "Sarah, ever heard of epigenetics?"

Sarah laughs out loud again. "Obviously, Gwen, I must really be behind the times."

Gwen laughs as well. "Don't kick yourself. This is really cutting-edge stuff. I ran across it in a book called *The Biology of Belief*, by Dr. Bruce Lipton. Are you interested in hearing about it?"

"If you're willing to talk about it... sure!"

"Then we're going to need more wine. Would you get another bottle while I go find Bruce's book."

* * *

They had talked late into the night, and Sarah even started reading *The Biology of Belief* when they finally called it quits. Now she lay in bed, unable to sleep. She is amazed at the scientific discoveries being made about how our thoughts and perceptions affect our behaviors and our health. She wants to read more, but she is already convinced that a person's beliefs can have a very powerful influence in their lives.

Gwen made a very strong case for her decision that it was Brad's HIV diagnosis that killed him, and not HIV itself; and Dr. Lipton's book seems to confirm that negative programming can actually destroy someone's immune system, leading to sickness and even death. After all, the latest studies show that almost every major illness that people get has been linked to chronic stress, and nothing damages the immune system like stress does. Sarah wonders about her own brother, but decides that the

lethal drug he took, AZT, would have killed Greg regardless of what he might have believed. She pulls out her pad and makes some notes:

But what about a lot of other people who are told they are HIV-Positive? After more than twenty years of brainwashing, most people believe HIV causes AIDS, and if they are HIV-Positive, it means they're going to die. Even if they don't know that consciously, it has to be tucked away somewhere in the subconscious, implanted by the so-called AIDS experts and fed by the mass media, causing tremendous fear and stress.

If Bruce Lipton is right – if epigenetics play more of a role in our health than genetics itself; in other words, if fear can actually kill – are we literally murdering thousands of people every year just by telling them they are HIV-Positive? And if these HIV tests aren't really accurate after all?...

Chapter Twelve

Last night's snow had not amounted to much, and although the roads were a little icy in places, the drive to the Greenville Courthouse from Lake Bowen was not bad at all. Sarah had left early to make sure she wasn't late for court; and since it had been a short night of sleep, she also made sure she had time for a Starbucks stop.

Campbell had called Carolyn Jennings to the stand, his first non-expert witness. Although she had done extensive research in the 1990's on the HIV tests as a free-lance journalist, because she did not have special letters after her name signifying some scientific degree, she was not considered an 'expert' by the court. Sarah wonders what Campbell is going to do with her. She doesn't have to wait very long.

"Ms. Jennings," he begins, handing her some pages stapled together, "do you recognize this?"

Jennings looks briefly at the paper. "Yes, I do. It's an article I wrote that was published in Continuum Magazine in its September/October issue, 1996."

"And will you please read the title of that article?"

"It's called Whose Antibodies Are They Anyway? Factors Known to Cause False Positive HIV Antibody Test Results."

"Please tell the court how you came to write this article."

"Well, I had been doing a lot of research about the various scientific studies that were finding a number of things causing false positive HIV test results. I had developed a list of more than fifty of those studies, naming more than sixty factors causing false positives, and I decided to write this article at that point."

"Ms. Jennings, before we go any further, we probably should define what 'false positive' means on the so-called HIV antibody test."

"Be happy to. A 'false positive' is when someone has a positive test result, supposedly indicating that they have the antibodies to HIV in their blood; but it turns out later, on some kind of confirmation procedure, that they don't have HIV antibodies after all, and that their positive test result was due to something else other than HIV antibodies."

"In other words, one or more of these factors we will discuss, that have nothing to do with HIV, will react with one of the test kit proteins and cause a reaction?"

"One or more of the test kit proteins, yes."

"Ms. Jennings, is this list of these factors you compiled causing a false positive reaction on just one or two of the test kit proteins?"

Jennings looks slightly confused. "I thought I just answered that, Mr. Campbell. These factors can react with one or more of the test kit proteins to create a false positive."

Campbell quickly realizes his mistake. "I'm sorry, Ms. Jennings. I didn't state that last question properly. What I want to know is this...." Campbell searches his mind for a better way to ask what he wants to know. "Is it just one or two of the test kit proteins that are causing these false positive reactions with this list of factors?"

"Oh, now I understand. No. False positive reactions have been found to occur with every single one of the test kit proteins, Mr. Campbell." Jennings was glad that Campbell had her state that point so clearly.

"Ms. Jennings, you're saying that every single one of the test kit proteins can cause a false positive reaction on the test? In other words, no protein in the test kit has been found not to cause a false positive?"

"Not a one."

Campbell intentionally pushes the issue. “Do I understand that not one of the test kit proteins reacts only with HIV antibodies?”

Before Ms. Jennings can answer, Armand jumps to his feet. “Asked and answered, Your Honor.”

“I’ll withdraw the last question.” It didn’t matter. The jury had heard it, and they couldn’t possibly miss the importance of that last bit of information. “Now, Ms. Jennings, you took it upon yourself to create this list of things that had been proven by scientific studies could create one of these false positive test results – in other words, that if a person had one of these factors but did not have HIV antibodies in their blood, they could still test Positive on a so-called HIV antibody test.”

“That’s correct.”

Campbell walks over to the large easel that had been set up again, tears off the blank page on top, revealing a list of about a dozen medical terms that filled the page. “Is this that list, Ms. Jennings?”

She looks at the easel and quickly answers, “That’s a few of them, yes.”

Campbell flips that page up to reveal another one, also filled with medical terms. “And this?”

“Yes, that’s more of them.”

It takes Campbell six pages to show the entire list. He obviously had planned this as a way to impress the jury with the large number of factors that supposedly cause false positives. When he finishes, he addresses the judge, but is really speaking to the jury. “Your Honor, I realize that I have glossed over this list very rapidly, without explaining what all these medical terms mean. I fully intend to do that over the course of the next couple of days. I also intend to ask Ms. Jennings about the scientific studies she used to create this list, to verify that each one of the items were not something she made up, but were proven by experts in the field to cause a false positive reaction on the so-called HIV test.”

Campbell flips all the pages back over on the easel to the first page and continues. “But, Your Honor, first I would like to ask Ms. Jennings to simply read through this list to get all the items on the record, and then we will take them one by one and see the actual scientific studies that qualified them for this list.”

The judge looks at the Solicitor. “Any objection, Mr. Armand?”

“No, Your Honor,” Armand says without standing.

“Very well. Proceed, Mr. Campbell.”

“Thank you, Your Honor. Ms. Jennings, would you please read that list from the original article that I handed you when we started.”

Jennings picks the article back up from the railing of the witness box where she had laid it and begins reading. “Anti-carbohydrate antibodies (13, 19, 52).” She stops immediately. “Mr. Campbell, do you want me to read the numbers after the items that are the studies referenced at the bottom of the article?”

Campbell shakes his head. “No, please just read the items themselves. We will go back and talk about the referenced studies later.”

Jennings begins again. While she’s reading from her article, Campbell is pointing to the same thing on the large easel so the jury can see that the two lists are identical.

Anti-carbohydrate antibodies

Naturally-occurring antibodies

Passive immunization: receipt of gamma globulin or immune globulin (as prophylaxis against infection which contains antibodies)

Leprosy

Tuberculosis

Mycobacterium avium

Systemic lupus erythematosus

Renal (kidney) failure

Hemodialysis/renal failure
Alpha interferon therapy in hemodialysis patients
Flu
Flu vaccination
Herpes simplex I
Herpes simplex II
Upper respiratory tract infection (cold or flu)
Recent viral infection or exposure to viral vaccines
Pregnancy in multiparous women
Malaria
High levels of circulating immune complexes
Hypergammaglobulinemia (high levels of antibodies)
False positives on other tests, including RPR (rapid plasma reagent) test for syphilis
Rheumatoid arthritis
Hepatitis B vaccination
Tetanus vaccination
Organ transplantation
Renal transplantation
Anti-lymphocyte antibodies
Anti-collagen antibodies (found in gay men, hemophiliacs, Africans of both sexes and people with leprosy)
Serum-positive for rheumatoid factor, antinuclear antibody (both found in rheumatoid arthritis and other autoantibodies)
Autoimmune diseases: Systemic lupus erythematosus, scleroderma, connective tissue disease, dermatomyositis
Acute viral infections, DNA viral infections
Malignant neoplasms (cancers)
Alcoholic hepatitis/alcoholic liver disease
Primary sclerosing cholangitis
Hepatitis
"Sticky" blood (in Africans)
Antibodies with a high affinity for polystyrene (used in the test kits)
Blood transfusions, multiple blood transfusions
Multiple myeloma
HLA antibodies (to Class I and II leukocyte antigens)
Anti-smooth muscle antibody
Anti-parietal cell antibody
Anti-hepatitis A IgM (antibody)
Anti-Hbc IgM
Administration of human immunoglobulin preparations pooled before 1985
Hemophilia
Hematologic malignant disorders/lymphoma
Primary biliary cirrhosis
Stevens-Johnson syndrome
Q-fever with associated hepatitis
Heat-treated specimens
Lipemic serum (blood with high levels of fat or lipids)
Hemolyzed serum (blood where hemoglobin is separated from the red cells)
Hyperbilirubinemia

Globulins produced during polyclonal gammopathies (which are seen in AIDS risk groups)
Healthy individuals as a result of poorly-understood cross-reactions
Normal human ribonucleoproteins
Other retroviruses
Anti-mitochondrial antibodies
Anti-nuclear antibodies
Anti-microsomal antibodies
T-cell leukocyte antigen antibodies
Proteins on the filter paper
Epstein-Barr virus
Visceral leishmaniasis
Receptive anal sex

Campbell takes the Continuum article from her when she's finished. "Ms. Jennings, these are all the things that can cause a false positive reaction on a so-called HIV antibody test, is that correct?"

Jennings shakes her head immediately. "No, it's not. These are all the 'things,' as you put it, that had been scientifically proven could cause a false positive reaction at the time I wrote the article in 1996. There can be a lot of other factors that could also cause a false positive for which there were no scientific studies at the time, so I could not include them on my list. Plus, there have been additional studies done since 1996 that have found more of these factors, but since I have not published an article about them, I cannot testify about them at this trial. You may want to have other witnesses come update this list for you."

"I'll do that, Ms. Jennings Thank you."

As Campbell looks at his legal pad to decide on his next question, Jennings interjects. "I also need to mention..."

"Yes, Ms. Jennings?" Campbell looks up at the witness, curious and concerned that he had missed something.

"I need to say that just because someone has one of these factors, it does not automatically mean that they will test positive on an HIV antibody test – that they will get a false positive. It means that others with these same factors have gotten false positives, and it's possible – but not mandatory – that someone else could get a similar false positive reaction."

Good point, Campbell realizes. "Perhaps if we actually take one of these factors on your list and examine it, all this will become more clear."

"I think that's a good idea. Where do you want to start, Mr. Campbell?"

"Normally, I would start at the beginning, Ms. Jennings, but I think it would be easier if we didn't get quite so technical so fast and perhaps take a disease on the list that I think everyone will recognize, like tuberculosis."

Jennings nods her agreement. "So let's talk about tuberculosis." While Campbell finds 'Tuberculosis' on the first page on the easel chart and puts a check mark beside it, Jennings reminds him, "But I need the actual studies now, Mr. Campbell."

"Oh, yes. Sorry. Your Honor, we need to introduce the studies we will be talking about into evidence."

"Very well."

Campbell hesitates. "Well, Your Honor, there are a number of them."

"So?"

Campbell nods to the back of the courtroom, and two men get up from their seats in the gallery and walk to the front of the courtroom toward the Evidence Room. Each man grabs a large white box that appears to be fairly heavy and deposits the box on Mr. Campbell's table. He thanks them as they

leave and opens the lid on one of the boxes, taking out some papers. He leafs through them until he finds the one he's looking for.

"Your Honor, the study concerning tuberculosis," and he hands the papers to the judge, who glances at them briefly, hands them to Mr. Armand, who also hands them back very quickly. They finally end up in the hands of Ms. Jennings in the witness box.

"Thank you. Alright, Mr. Campbell, I'm ready now," Jennings says.

"Ms. Jennings, please tell the court what you're holding."

"This is a study done by a Dr. Oscar Kashala and a whole list of other researchers in 1994."

"Is there a brief biography of Dr. Kashala attached to the study, Ms. Jennings?"

"Yes, there is."

"Would you please read that biography to give the court a little background about Dr. Kashala and his credentials that back up this study?"

"Certainly. Dr. Kashala was born and raised in the Congo, in Africa, and graduated with his M.D. degree Magna Cum Laude from the University of Kinshasa after training at the University of Lausanne in internal medicine, and at the University of Geneva in pathology. He wrote and defended a thesis still considered to be the most meritorious in the Kinshasa Medical school history. He also received training from the World Health Organization's Immunology Training & Research Center in Switzerland. In 1987 Dr. Kashala came to the United States to continue his studies at Harvard University and at the Massachusetts Institute of Technology (MIT), and in 1992 received his Doctor of Science (D.Sc.) from Harvard. He then joined Cambridge Biotech, a pharmaceutical company, and became the Director of Medical Affairs and Tropical Diseases, and the Director of the Molecular Pathogenesis Laboratory. Dr. Kashala continues to work in the pharmaceutical research industry, is recognized as a world leader in health issues affecting developing nations, and has served for several years as advisor to the World Health Organization. In addition, he was a candidate for President of the Democratic Republic of the Congo in the 2006 elections."

Campbell looks directly at the jury as he says, "Basically, a highly qualified and objective researcher."

"That's an understatement, Mr. Campbell."

"I hesitate to ask you to read the title of this study, because there are so many words than none of us will understand, but I need it on the record."

"It's called, Infection with human immunodeficiency virus type 1 (HIV-1) and human T-cell lymphotropic viruses among leprosy patients and contacts: correlation between HIV-1 cross-reactivity and antibodies to lipoarabionomanna."

"And where was it published?"

Jennings looks back at the study she is still holding. "In the Journal of Infectious Diseases, Volume 169."

"Okay, now we can get down to the important part. What does the study say?"

Jennings puts the study down on the railing of the witness box and settles back in her chair. This part she knows very well. "The bottom line is that Dr. Kashala found people who had tuberculosis will often test positive on an HIV antibody test, due to anti-lipoarabionomanna antibodies in their blood."

"Even if they don't have HIV?"

"Correct. In other words, the patient will have developed antibodies to tuberculosis, and those TB antibodies will cause a false positive HIV test result. It's called a cross-reaction."

Campbell wishes she hadn't introduced another new term, but, oh well. "Ms. Jennings, could you define 'cross reaction' for us?"

"A cross reaction is when an antibody in the patient's blood reacts with a protein in an antibody test kit, but it wasn't a protein that the antibody was created against. It might be a similar protein, but not the same one."

Campbell's not sure that was very clear to anyone, much less the jury. "Our last witness, Dr. Fowler, talked about antibodies trying to save the body time and effort by seeing if they will work against a new foreign invader – seeing if they have a close enough key to unlock the threat."

"Yes, that's a good way to put it. And in Dr. Kashala's study, he found that antibodies against tuberculosis in a patient's blood reacted with one or more of the proteins of the HIV test kit, even though the patient did not have antibodies that were specific to HIV. So he got false positive HIV test results from people with tuberculosis antibodies."

I hope that made sense, and he decides to move on. "Ms. Jennings, what's the problem with getting a false positive HIV test result?"

Jennings looks at Campbell like he had just asked the stupidest question she'd ever heard. "There are quite a few problems, Mr. Campbell!" Then she settles down, realizing that this is how the information had to be presented in court. "The first problem is that the person doesn't know it's a false positive. They are told, and believe, that they tested positive for HIV antibodies, not some other antibodies that cause a cross-reaction."

"And we've already heard testimony from another witness, Ms. Jennings, that they are then told they are actually infected with HIV, based on the CDC's announcement in 1987 that a positive test result meant active infection."

"Yes, unfortunately. So these people who had a cross-reaction and a false positive HIV test result walk around thinking they have HIV, that they are going to get AIDS and possibly die from it, and that they need to be taking very toxic and often lethal drugs to combat the HIV. It would be like being told you have terminal cancer when you don't."

When Campbell doesn't ask another question right away, Jennings keeps going. "Imagine, Mr. Campbell – just imagine a doctor telling a patient they had terminal cancer from a blood test alone, without doing a biopsy and confirming that the tumor was in fact cancerous. But for some reason, doctors do that all the time with HIV – tell a patient they have a deadly virus based strictly on a blood test without even trying to find that virus in their body. It's absolutely insane; and if a doctor actually did that with cancer, they'd lose their license and get sued for malpractice, I can promise you. But for some reason, we let them get away with it with HIV every day."

Campbell likes the analogy and let's a moment pass for the jury to consider that before asking his next question. "And you said there were other problems with getting a false positive HIV test result?"

"Well, in addition to the person's own emotional and psychological trauma, there is of course a lot of stress placed on their family and loved ones. I mean, an HIV-Positive diagnosis literally tears everyone's life apart who are close to this individual. They may lose a lot of their friends who don't want to be associated with someone who has HIV, along with their job and their livelihood – not to mention their insurance coverage – all from a wrong diagnosis."

Campbell walks around from behind the lectern and moves slowly toward the jury box. "And what about their health? If this is a wrong diagnosis and they are not actually HIV-Positive, can it still affect their health?"

"Yes, without a doubt. Not only can they get depressed mentally, but their immune systems can become depressed as well just from the stress and the worry that come with this kind of diagnosis. Along with a depressed immune system can come various physical symptoms and debilitating diseases. And in the cases we're talking about – false positive test results – all of this happens needlessly, since they are not really HIV-Positive at all."

Campbell had no idea Jennings was going to be such a good witness when he first talked to her. However, the next part had been carefully planned in advance. "Ms. Jennings, can you give the court one specific example that would take all this out of a theoretical discussion and bring it down to cold, hard facts?"

"Of course. I actually brought some video with me to make it as real as possible. Can we show that video, Mr. Campbell?"

Campbell looks at the judge for approval to continue, gets it, picks up the remote control and lowers the big screen in the front of the courtroom, and then wheels the computer/projector into place. “Ms. Jennings, why don’t you explain a little about what we’re going to see before we start the video.”

“This is from a documentary by Gary Null called, ‘AIDS: A Second Opinion,’ and this particular segment features Joan Shenton, director of Meditel Productions, who makes science and medical TV documentaries for the BBC in England, among others. In fact, Meditel was the first independent company ever to win a Royal Television Society Journalism Award. This clip is only a couple minutes long, and the first person you will see and hear is Joan Shenton.”

Campbell presses a button to dim the lights and then hits Play. Joan Shenton is on the screen, saying: “I recently went to Haiti, because I’m writing a book about AIDS, about our nine-year experience. It’s called ‘Only Make-Believe.’ I went to Haiti to research a chapter called ‘Whatever Happened to AIDS in Haiti?’ I went to one of the hospices there; it was actually St. Teresa’s Hospice in the middle of Port-au-Prince, Haiti, where they told me there were lots of AIDS cases.”

The picture changes to show a Haitian woman talking to a group of young girls, while Shenton continues narrating.

“I was shown around by a very, very nice Mother Superior, and she was obviously doing her best but didn’t know, in a sense, how awful it was what was going on. She told me that 100% of the people in these wards had TB.”

Now the jury sees an older woman dressed like a patient walking down the hall and pictures of rooms on the ward with other women lying in bed, obviously very sick. Shenton’s voice continues.

“But because the charity had enough money to test them for HIV, they sent everyone’s blood for testing. 90% of the women in the ward I was in, she said, were HIV-Positive. Because they had AIDS and were going to die anyway, they were not receiving medication for TB.”

Shenton is back on the screen being interviewed.

“But as you know, if you have TB, you’re very likely to test positive because there is a cross-reaction, and they weren’t being treated because they were going to die anyway. And this is something I saw in Africa as well.”

The video ends and the lights come up. It is Jennings who speaks first. “So, in this case, Mr. Campbell, getting a false positive HIV-test result because of a cross-reaction with the tuberculosis antibodies meant certain death for these women.”

“But wouldn’t they have died from the TB anyway?”

“Some of them might have, yes. But TB medications are very effective these days, and if they had been allowed to continue taking their TB drugs, many of them could have lived. So I can say, without exaggeration, that these women died as a result of a false-positive HIV test.”

Campbell doesn’t look at the jury, but he knows they were moved. He goes through the process of raising the screen back up into the ceiling, rolling the projector out of the way, and looking through his notes – all to give time for the video’s maximum impact. Finally, he decides to continue.

“Ms. Jennings, let’s move on to another on your list of factors that can cause a false positive HIV test result. And once again, I want to take something we all recognize before we start tackling the more obscure medical words; so let’s talk about ‘flu vaccination.’”

Jennings points to Campbell’s table. “There are six studies that address that question, Mr. Campbell, if you’ll pull them out.”

As Campbell sorts through the papers in the boxes, he asks, “I assume that this means six different researchers have all agreed on this?”

“That’s correct. Well, technically, there were a lot more researchers than six, because there were multiple scientists doing the research on most of these studies.”

Campbell finds the last one he was looking for and hands all six to the judge. Meanwhile, he continues to ask Jennings questions. “But this isn’t a case of just one man publishing a small study he did. This is six different studies published in six different scientific journals?”

“Frankly, Mr. Campbell, it wouldn’t matter whether it was one man, or woman, or not. The important point is that these are all studies that were published in respected, peer-reviewed scientific journals, and that is more of a credibility factor than how many researchers participated.”

The studies make their way from the judge to Armand back to Campbell and finally to Jennings.

“What kind of scientific journals are we talking about, Ms. Jennings?”

“Let’s see.” Jennings thumbs through the stack of papers. “One study was published in the Journal of the American Medical Association; another in the Journal of Infectious Diseases; here’s one in the Western Journal of Medicine...”

Campbell interrupts. “So, as you said, all of them are mainstream, prestigious journals. And you say that all six of these different studies came to the same conclusion?”

“That’s correct.”

“Which was?”

“That someone who had a recent flu shot could have a false positive reaction on an HIV antibody test.”

“How recently, Ms. Jennings?”

“Generally within a month prior to taking the test.”

Campbell makes a split-second decision and opts to follow up with one additional question – but only because Jennings is doing so well. “Do these studies suggest why this could happen? Why would a flu shot produce a false positive test result?”

“Apparently because the flu shot introduces a foreign agent into the patient, which then stimulates the immune system to go into action to fight it. In the process, the patient develops antibodies to the flu virus, and these antibodies react with the HIV test kit proteins. There is also some speculation that it is the stimulated immune system that has awakened, if you will, all of its antibody defenses to fight the flu virus that creates the possibility of the cross-reaction, and that when the immune system calms down again after a few weeks, the cross-reaction might disappear as well.”

I couldn’t have asked for a better witness. “Ms. Jennings, I’m going to let you go through each study one by one, but essentially you’re saying that someone who got a flu shot a couple weeks before taking a so-called HIV antibody test could have had a false positive test result – could be told they were HIV-Positive when in fact it was just the flu shot causing the test reaction?”

“That’s not what I’m saying, Mr. Campbell. That’s what these studies showed.”

Perfect. The stage is set; now let’s get down to the nitty-gritty.

“Okay. Ms. Jennings. Why don’t I let you read the title of each study into the court record and talk about the author of each one and then the specific results of each study, if you don’t mind....”

Chapter Thirteen

Campbell spent the rest of Tuesday, all day Wednesday, and most of Thursday going over each and every factor on Ms. Jennings' list that could cause a false positive reaction on an HIV antibody test, getting the scientific studies on record. He also called a couple other witnesses Thursday afternoon to add to that list. Sarah dutifully sat there listening to every word. By the time court resumed Friday morning, she wasn't sure, with so many false positives proven to exist, how anyone could say that a Positive test result is a "true" positive. Then she realized that's exactly what Campbell wanted the jury to be thinking in this case. He's doing a good job, she decides.

Armand, on the other hand, had been strangely silent. Before Carolyn Jennings left the stand, Armand asked her a few questions in cross-examination, mainly having her reiterate the point that just because these studies had found certain people with cross-reactions, it didn't mean, for example, that everyone who had a flu shot a month before taking an HIV antibody test would have a false positive result. But Armand didn't seem to question the fact that all these false positives could occur. Sarah wondered why.

She also wondered about her brother, and whether Greg might have had any of the things that could have caused a false positive result on his own test. Some of these are very common, she thought. I doubt he had herpes or hepatitis, or I would have known. And we don't see a lot of these diseases in the U.S. anymore, like leprosy or malaria, or even much tuberculosis.

But there were all those vaccinations listed. She didn't know, for instance, whether Greg might have gotten a routine tetanus shot before taking his HIV test, maybe after falling off his bike. Or a flu shot; which would make sense, since the whole family would normally get one every year. Or perhaps even a hepatitis vaccine; who knows what their family doctor may have recommended once Greg declared he was gay. Or maybe Greg had a cold when he took the test.

Sarah thought about calling her mother to find out. It had been a while since Sarah had mentioned Greg's name to her parents, and the last conversation had not gone well. They simply refused to consider any other possibility than Greg dying from HIV/AIDS, because the alternatives were too painful to think about. Sarah knew that her mother would be upset if she asked about different shots and vaccines Greg might have had, and she probably wouldn't remember that much detail from twenty years ago anyway.

So Sarah stopped in the middle of dialing her cell phone. There's really no point in making the call, she realized. Even if Mother might remember, and even if the answer is 'Yes, Greg got a flu shot a couple weeks earlier,' there's no guarantee that it had caused a false positive test result. And even if it did, what was that going to change today?

Still, it was the mystery of it all; and as Sarah now sits waiting for court to reconvene, what she longs for more than anything are answers – definitive answers. She already knows Greg died from AZT and not HIV, but would she ever know whether he was really HIV-Positive?

Campbell's voice interrupts her train of thought; his next witness has taken the stand. "Please state your name and occupation."

"Wilfred Pullman, Ph.D., Distinguished Professor Emeritus in the Department of Statistics at the University of South Carolina, Columbia."

"Dr. Pullman, in the course of your career, have you had the opportunity to study the statistics regarding the so-called HIV ELISA antibody test?"

"Yes, I have."

"Why?"

Pullman chuckles. "It actually began as a hobby about ten years ago. In his book, which I read in 1997, Dr. Peter Duesberg pointed out that while the numbers of AIDS patients were skyrocketing in

the late 1980's and early 1990's, the number of people infected with HIV remained constant, at least according to the Centers for Disease Control and Prevention. That, of course, made no sense statistically, if HIV were the cause of AIDS; and when I saw that graph from his book, it got me intrigued with the whole subject."

"And why did you focus on the HIV tests?"

"I had a close friend call me one day. He had just been diagnosed HIV-Positive as a result of one of these tests, and he started asking me a lot of questions I couldn't answer. So I did some pretty extensive research which has continued over the past few years."

"And what did that research find?"

"I'm not sure where you want me to begin." Pullman suddenly looks uncomfortable in the witness chair. Campbell acts quickly to set him at ease.

"Let's take this chronologically. The HIV ELISA test was put into use in 1985, I believe. What was the earliest study that you found about its statistical accuracy?"

"That would be in 1988. In fact, this is probably the most famous study about the ELISA test, done by a research team headed by a Dr. Burke, which created a lot of chaos at the time." That was all it took for Pullman to regain his composure.

"And what was this study all about, Dr. Pullman?"

"1.2 million applicants for military service had been given an HIV ELISA test; 12,000 of them tested Positive on their first ELISA – almost exactly 1 percent. But of those 12,000 Positive ELISA tests, only 2000 were ultimately shown to be infected with HIV."

"And what is the significance of this study?"

"There are actually a number of significant statistics involved. First, the Centers for Disease Control and Prevention say that only .4 percent of our U.S. population is infected with HIV. But 1 percent of the people taking these initial ELISA tests were found HIV-Positive. That's more than double the results we should get, and that doesn't speak well of the accuracy of the test itself."

"A previous witness has testified that the ELISA was intentionally made more sensitive to ensure that no HIV-infected blood got through in our blood supply for transfusions. Wouldn't that account for a higher than normal statistical result?"

"Yes, you would expect a certain amount of error. But 250%? That's a little much, don't you think?"

Way too much, Campbell thinks, but doesn't say. Instead, he asks, "You said there are other statistical problems?"

"Well, out of the 12,000 Positive initial ELISA results, as I said, only 2000 were later confirmed to be infected with HIV. In other words, there were 10,000 false positive test results. That sets the specificity of the initial ELISA test at less than 20%, and that's really poor. I don't know of any other antibody test with that low specificity."

"And just to be clear, where did these 10,000 false positives come from?"

"They must have been cross-reactions with things other than HIV, like some of the factors you've heard about in the last couple of days."

Campbell points to the large easel that was still standing in the corner of the courtroom with the list of more than sixty medical conditions proven to cause false positive HIV test results. "You mean those?"

"Yes."

Looking first at the jury and then back to the witness, Campbell continues, "Is there anything else statistically significant about the Burke study?"

"I think that we have to also pay attention to the final result, which is that out of the 1.2 million people tested, 2000 turned out to be HIV-Positive. That's less than .2 percent of the total tested, and that doesn't match with the .4 percent of the population that the CDC says are HIV-Positive."

"And what do you conclude from this?"

“Well, first, we know for a fact that the CDC is simply guessing when they say that .4 percent of the population is HIV-Positive. Even they admit that they don’t have actual Positive test results on all these people. They came up with that number based on extrapolation, meaning that they have a certain number of positive test results from a certain group of people, and they expand that to encompass the entire population. But still, it’s just a guess. And when you line up their guess with the actual results of the Burke study, they don’t match. In fact, the CDC says there are more than twice as many HIV-Positives as the Burke study would indicate. So one of two things could be true. One, the CDC could be wrong and we only have half as many HIV-Positives in the U.S. as they claim – which would be bad for them and affect their funding; or two, the Burke study accurately reflects what happens when you use an antibody test – any antibody test, for that matter – on the general population and not just on high-risk groups.”

“You’ll have to explain that last bit a little more.”

“Basically, whenever you run an antibody test on people who are not at risk for having the virus you’re testing for, you will get a much higher number of false positives. That’s a known fact. In this case, Burke was testing a broad cross-section of military applicants – not just high-risk gay men or IV drug users or hemophiliacs, who have always made up 95% of all HIV-Positives in this country. So it would stand to reason that they would find so many false positives.”

“Are you aware, Dr. Pullman, that in May of 2006, the CDC issued recommendations that every single person in the United States should get an HIV ELISA test, and the American Medical Association endorsed that recommendation?”

“I am aware of that, yes.”

“And, statistically, what will that mean?”

“It will mean that we will see a whole lot more false positive test results than normal. In fact, if we take the Burke study and apply it to the 300 million people in this country who the CDC wants to test, we will get 3 million people who test positive on their initial ELISA. But even the CDC believes that only 1.2 million of them will actually be infected with HIV. That means that we’re going to be telling almost 2 million people that they have tested positive on an HIV ELISA test who are actually false positive. And if the CDC’s guess is wrong about the total number of HIV-Positives in this country, and the Burke statistics are correct when the test is given to low-risk groups, the number of false positives could be as high as two-and-a-half million. That, to me, is statistically outrageous.”

“This Burke study was done in 1988, I think you said. Have there been other studies done since then that either confirm or contradict these results?”

“There have been lots of studies done, yes. Some of them contradict the Burke results, some of them confirm them. Frankly, the numbers range all over the place, and some of that is due to the groups being studied and whether or not they belong to a high-risk group, as I just discussed. But in the end, there is a statistical consensus that emerges.”

“Before we get to that, please tell us about a couple of these other studies, if you will.”

“Well, let’s go to one extreme and talk about a Russian study, done by a Dr. Voevodin and published in 1992 in the prestigious scientific magazine called The Lancet. In 1990, more than 20 million HIV ELISA tests were performed in Russia, and they had about the same results as the Burke study: 20,000, or 1 percent, tested Positive. But later it was found that only 112 were confirmed to be infected with HIV, a much lower percentage than Burke. In 1991, again in Russia, there were 30,000 false positives out of approximately 30 million tests, with only 66 confirmed HIV infections. Now we’re talking about more than 99% false positives. It’s also interesting to note that, in line with the testimony you’ve just had from other witnesses, 8,000 of the 30,000 false positives in Russia in 1991 were reported in pregnant women; but only 6 out of those 8,000 were confirmed to be infected with HIV. Pregnancy, it seems – especially multiple prior pregnancies and births – is a very strong candidate for creating false positive test results.”

Campbell hesitates, wondering whether to go off on a tangent at this point. But the information is too important not to bring up, and he's not sure when he'll get a better chance. "Dr. Pullman, I don't want to digress too far, but are you aware of the statistics of HIV infection coming out of Africa?"

"I'm very aware of them, yes. They're totally bogus. And one of the reasons is this: There are very few Africans actually being tested for HIV. They don't have to test anyone in Africa, because, by definition, you don't have to be HIV-Positive in order to have AIDS on that continent. The main group who does get an HIV test in Africa are pregnant women, and women who have just given birth. As I just said, pregnancy can cause very high false positive test results, so you would expect to see an enormous number of false positives when you test this particular group. Plus, tuberculosis, malaria, and leprosy are on that list you were just discussing that also cause false positive HIV test results, and those three diseases are still very prevalent in sub-Saharan Africa. So we would expect an even higher rate of false positives there than almost anywhere else. But someone, and I don't know exactly who it is, takes these inflated false positive numbers and extrapolates them to the entire African population and then says that millions of Africans are HIV-Positive. It simply doesn't hold up under scrutiny."

"You said that pregnancy was one of those factors that could cause a false positive test result. What are the chances that a woman who has had eight children could test false positive?"

"Extremely high, Mr. Campbell."

That's enough of that, Campbell decides. "Dr. Pullman, let's get back to the other studies you were discussing."

"Oh, yes. Well, let me mention another one of them. Between 1989 and 1995, about 2700 patients who were undergoing orthopedic surgery received an HIV ELISA test before their procedure. Eight of them tested Positive initially. But only four of those eight were later confirmed, leaving a false positive rate of 50%."

"A few minutes ago you talked about a 'statistical consensus' from all these studies..."

"Yes, I believe there is. Although you can find studies that range from 2% false positives all the way to 99% false positives, it appears that around 50% of all initial ELISA test results will be proven wrong on a second or subsequent ELISA test; and that, in the end, only 20% of initial ELISA positive results will be confirmed as being infected with HIV."

"Can you put those percentages in real numbers that we can understand a little better?"

"Certainly. Out of 1000 positive results on an initial HIV ELISA test, 500 will be negative on a follow-up ELISA, and only 200 will later be confirmed to be HIV-infected."

"That means 800 out of 1000 will be false positives?"

"Correct."

"And if we tested everyone in this country?"

"As I said, if we test all 300 million Americans, as the CDC and the AMA want to do, we'll get around 2 million false positive test results, maybe more."

Campbell looks directly at the defendant as he asks the next question. "So you're saying, Dr. Pullman, that there is only a 20% chance that an initial ELISA test result will be correct?"

"That's what I'm saying, yes, and what the studies confirm."

"And in the case of this defendant, in your expert opinion, what are the statistical chances of his initial positive HIV ELISA test being accurate?"

"Like everyone else, I'd say about 1 in 5."

"Would that also apply to the victim, Beth Ann Brooks? Would the chance of her positive ELISA test being accurate also be about 1 in 5?"

"That would be anyone's statistical chance, Mr. Campbell. The answer is Yes."

Campbell turns to look now at Armand. "Nothing further right now."

"Your witness, Mr. Armand," the judge instructs.

Armand whispers something to his assistant before getting up from his chair. The assistant is busily looking through some paperwork when Armand asks his first question.

“Dr. Pullman, you mentioned a number of times while you were discussing these studies that some of the initial ELISA tests were later ‘confirmed’ – that’s the exact word you used, I believe – ‘confirmed’ to accurately detect HIV infection, is that correct?”

“Yes, that’s correct.”

“Exactly how were these results ‘confirmed’?”

Pullman and Campbell had earlier discussed the possibility of this kind of question, and Pullman was prepared to answer truthfully, but carefully.

“That depends on which study you are talking about, Mr. Armand. I believe the ones in Russia were confirmed by actual virus culture, for example, which is why they found so few confirmed results. But there are a number of different tests being used these days to confirm HIV infection after a positive ELISA result.”

“Such as...”

“Objection, Your Honor.” Campbell is on his feet in a flash. “Mr. Armand is trying to get this witness to talk specifically about the Western Blot and viral load tests, among others, and once again there was nothing in my direct that would allow that.”

The judge isn’t so sure. “The witness has clearly talked about confirmation tests, Mr. Campbell.”

“Yes, Your Honor, but only in generic terms. I have no objection if Mr. Armand wants to ask generic questions about ELISA test confirmation, but I must insist again that nothing specific be asked about the Western Blot or viral load tests until I have opened the door to those issues in my direct examination of the appropriate witness.”

The judge raises his eyebrows. “And when will that be, Mr. Campbell?”

“Actually, Your Honor, we’ll be presenting our expert witness on the Western Blot test on Monday.”

Satisfied, “All right. Mr. Armand, you only have the weekend to wait. Do you have other questions of this witness today without specifically talking about these other tests?”

Armand looks at his assistant, who hands him a paper he had found. “Yes, Your Honor.” He then briefly reads the paper, lays it down on his table, and turns back to the witness. “Dr. Pullman, are you aware of the protocol issued by the Centers for Disease Control and Prevention about these ELISA tests?”

“In what regard, Mr. Armand?”

“For example, what does the CDC say about doing multiple ELISA tests?”

“As far as I know, they recommend that a Positive test result on an initial ELISA test be followed up with a second, and then possibly a third ELISA.”

“Are these second and third ELISA tests part of the confirmation procedures you were talking about in these studies?”

“In some of them, yes.”

“And why do you think the CDC suggests that a second or third ELISA test be done?”

“I would assume because of the very poor statistical results of a single ELISA test, Mr. Armand.”

Campbell can’t believe that Armand is taking this approach, but he’s not concerned. Pullman can handle this, he decides.

“Isn’t the reason the CDC wants more than one ELISA test, Dr. Pullman, is to weed out the false positives that might occur in a single test?”

“I can’t speak for the CDC, Mr. Armand, but that would make sense, yes.”

“So, I ask you, Dr. Pullman, as long as these multiple ELISA tests are run to ensure the very minimum of false positive results, what’s the point of all your statistics? I mean, as long as we find those 200 people who are actually infected with HIV in the end, and help them ward off the deadly disease of AIDS, who cares if 800 others were found to have false positive results the first time?”

Campbell can’t believe it. Neither can Pullman.

“Who cares? Perhaps, Mr. Armand, there wouldn’t be a problem if it were as simple as you make it sound, and if AIDS were not such a lethal disease. But in reality, we’re scaring the bejesus out of those 800 people by telling them they might be infected with HIV, and liable to get AIDS and die, when in fact they aren’t. That’s the problem, and I think all of us should care about that.”

Armand immediately picks up the same paper from the table and waves it at the witness. “You must not be fully aware of the CDC protocol, then, Dr. Pullman, because they clearly state that no one should be told they are HIV Positive until their test results have been confirmed.”

“I know that’s what they say, Mr. Armand, but that’s not what actually happens in the real world. People are being told they are HIV-Positive after just a single ELISA test, regardless of what the CDC says, and you know it.” Pullman is getting pissed. Not necessarily a good sign, Campbell thinks. I hope he can keep his cool.

“I don’t know that to be a fact, Dr. Pullman. What I do know is that the CDC clearly says to run confirmation tests before anyone is told they are HIV-Positive. If there is a doctor or two out there who are not following the CDC’s direction, then it is the doctor who is at fault, not the CDC.”

Pullman pulls himself together. “Mr. Armand, in order to run a confirmation test, you have to take more blood from the patient, do you not?” When Armand doesn’t answer right away, Pullman continues. “Just think about it. You know you’ve given blood initially for an HIV test. The doctor or nurse or clinic then calls you and says they need more blood to run more tests. What else are you going to think other than you might have HIV, even if they don’t tell you outright that your test was Positive? What else is going to go through your mind other than you might get AIDS and die soon? What else, Mr. Armand? Tell me!”

Armand quickly says, “No more questions,” and heads back to his table before Pullman can continue. Campbell, on the other hand, is eager to re-direct.

“Dr. Pullman, you seem to be familiar with the CDC protocol Mr. Armand mentioned. Are you also familiar with the protocol from the World Health Organization about running the second or third HIV ELISA test?”

“Yes, I am. They say to take new blood from every patient for each ELISA test done.”

“In other words, if a person has a positive result on their initial ELISA test, the World Health Organization says to draw new blood to run a second ELISA – and again for a third?”

“Correct.”

“Do you know why they say that?”

“To rule out any contamination that may have occurred during the first ELISA test, either when the blood was drawn or the test was processed in the laboratory. If you simply run a second ELISA on the same blood, without ruling out contamination, you could easily get the same wrong result the second, or third, time. That’s simply logical, don’t you think?”

Campbell, of course, doesn’t answer, but nods his head slightly. “So, if someone has a positive result on the very first ELISA, and if the WHO’s protocol is being followed, they’re going to get a call right away to come down and give more blood for further testing.”

“Yes, they are – which simply confirms what I was saying to Mr. Armand, that at a minimum, we’re telling 800 people out of 1000 that they might be infected with HIV when in fact they aren’t, and causing all kinds of problems for them.”

“What kind of problems?”

Pullman smiles. “During my statistical research, I stumbled across the Los Angeles County Department of Health website which had such an interesting answer to that question that I had to write it down, and I carry it around to show people who ask me that.” He pulls a folded piece of paper from his pocket organizer and asks the judge, “Can I read it to you?”

The judge nods approval.

“The question, and this was on their Frequently Asked Questions webpage, is: ‘What are the risks of testing for HIV?’ And their answer is: ‘Risk of testing for HIV includes the following: Taking the

HIV antibody test is a stressful event, regardless of the results; and disclosures of an antibody test result, or sometimes the disclosure that a person even took the test, may lead to discrimination, denial of health coverage, stigmatization and violence.’ So I would ask you, Mr. Campbell, if you were told that you might – that you just might – be infected with HIV... that you needed to give more blood and wait another few weeks to find out if it’s true or not... don’t you think you would experience tremendous emotional and psychological trauma, and family stress, along with possible social rejection, even for a few days while waiting for the final results? And we’re talking about putting more than 2 million people in this country through that very thing – all because the HIV ELISA test is so statistically bad. Does that make any sense to you? It doesn’t to me.”

This sounds like a good place to stop, for now, Campbell decides. “Your Honor, I have no more questions at this time. However, I would like to be able to recall this witness at a later date to discuss other statistics that might come up during the course of the trial.”

The judge looks at Armand for an objection, but he only waves his hand in disgust.

“Very well. And since it’s already lunch time on a Friday, this court will stand in recess until ten a.m. Monday morning.”

Chapter Fourteen

Sarah enjoyed a leisurely lunch at California Dreaming, just off I-85 on the way to Spartanburg. Their salads were fresh, the creamed spinach to-die-for, and those honey-glazed croissants simply too tempting to pass up.

She decided, since court had adjourned early, to take the scenic route and visit Gwen at the college on the way home. She was given a tour, met some of the students, and was glad to get a first-hand look at the work Gwen was doing. She even got a chiropractic adjustment at the Sherman Health Center, something she desperately needed, having been away from Bill almost two weeks.

Just as she's parking her car at the Lake Bowen house, her cell phone rings.

"Hey, Peyton. What's up?... I'm just getting home, but yes, I've got time. What do you need?... I don't know how much help I can be on the phone. What class are you talking about?... When's the Science Fair?... Peanut, why don't you hang on for a minute, let me get to my computer, and I'm going to put you on speaker phone so I can type while we talk...."

Sarah dumps her briefcase on the bed, sits down at her desk, turns on the computer, and hits a button on her cell phone. "Peyton, you still there?"

"Yes, Mom," says the speaker.

"While my computer boots up, tell me more about this Science Fair."

"It's for the whole county, not just my school, and I can get extra credit in class if I have an entry. But I want to do more than that. I want to win!"

Where does she get that competitive streak? Sarah wonders. Certainly not from me. I'll blame Bill next time I talk to him, she thinks, chuckling to herself.

"Okay. Maybe I can help. What do you want your project to be?"

"Something about the HIV tests."

Suddenly Sarah wasn't laughing any more. "Peyton, this whole HIV thing... well, it's very controversial. There are a lot of people who get very upset if you ask any questions about HIV."

"I know, Mom, but..."

"Hear me out, Peanut. I don't know how your science teacher feels about the subject, and if he doesn't like your ideas, you could get a bad grade – not because there was anything wrong with your project, but simply because of the topic."

"I don't get a grade, Mom. This is strictly for extra credit."

"That's not my point, Peanut. The point is that some people... well, what I'm trying to say is that you don't know how people are going to react, and you might get in trouble, or at least be very disappointed if you don't win for reasons other than how good your project was."

"But I thought science was supposed to be all about asking questions and finding the right answers. Why would I get in trouble if that's all I'm doing?"

Sarah winces at the innocence and the truth that comes from the mouth of babes. "I can't answer that question because I don't know the answer myself. But HIV is a really hot topic, and if your project challenges the conventional wisdom... well, let's just say that there might be repercussions you aren't thinking about right now."

"But Mom, isn't that what you're doing?"

"Yes, it is."

"Then why can't I do it, too?"

Sarah leans back, unsure of what to say. She loves the fact that Peyton is a free thinker, and she wishes she had been more of one herself in her younger days. It might have made a difference, and Greg might still be alive.

On the other hand, there was no guarantee that Peyton wouldn't encounter a lot of problems that might spill over into the rest of her school life. No telling what the principal might say, for example, much less the science teacher.

"Mom, I asked you why I can't do what you're doing."

Sarah realizes that there really was no other choice. "Of course you can do what I'm doing. And I'll be glad to help. What exactly do you want to do?"

"Well, I'm not really sure. Just something about HIV and the HIV tests. I thought you might have an idea."

"And what do you want to prove about the HIV tests?"

"I don't know. From what I hear you and Dad talking about at night, maybe something about why they're so bad."

Sarah couldn't stop laughing for a minute. "Yes, you're right, Peanut, they're pretty bad. So let's see..." Peyton stays quiet while Sarah thinks. What could an eighth-grader do to show how bad the HIV tests are? Finally, her eyes light up. "How long do you have to put this project together, Peanut?"

"About six weeks. Why?"

"I have an idea. Do you know that the people who think that HIV causes AIDS are saying that the HIV tests are specific for HIV?"

"What's that mean, Mom?"

Sarah pauses to find the right words. "It means that they say the HIV tests only react on people who have the antibodies to HIV, and no one else, and that's how we know who is HIV-Positive and who's not."

"Okay. So?"

"But what if the HIV test is positive for someone, or something, that doesn't really have HIV – that actually can't have HIV? What would that say about the test itself?"

"It would say that it wasn't very... specific."

"Right! So how would you like to do a project that shows how easy it is to have an HIV test come out Positive on someone, or something, that we know cannot possibly have HIV?"

"You keep saying, 'someone or something,' Mom. What do you mean?"

Sarah types "dogs test HIV-Positive" into her Yahoo! search bar. While the results are coming up, she says, "Peyton, I just heard testimony in court that some dogs, some goats, and some cows have all tested positive on an HIV test."

"You're kidding, Mom! Dogs?"

"Yes, dogs. Perfectly healthy dogs. Perfectly healthy, straight dogs who were not IV drug users or hemophiliacs."

The joke is lost on Peyton. Sarah enjoys it anyway as she continues. "But the Centers for Disease Control have said that HIV – the Human Immunodeficiency Virus – cannot be found in animals. Yes, there it is." Sarah reads from the website on her computer screen. "There was a study in 1990 that tested 144 dogs and 72 of them reacted with one or more of the HIV proteins on an HIV test. But the Centers for Disease Control and Prevention says that, and I'm quoting, 'A human retrovirus, like HIV, requires a human host. So a human retrovirus cannot survive in other animals or insects.'"

"That's from the CDC?"

These kids are so sharp today. I wouldn't have known what the 'CDC' was at thirteen years old. "Yes. It's in a letter from the CDC to the person who wrote this article. So what does that mean to you?"

"It means that the HIV tests cannot be testing just for HIV, if dogs who don't have HIV can have a positive test result."

"Exactly! So how would you like to do a science project, like this study, that tests, oh, maybe twenty dogs for HIV, and see what the results are?"

Peyton is excited at first, but then the questions start rolling in. “How will I get the dogs’ blood to test? And how will I get it tested?”

“You know our friend Gene, the veterinarian? I’ll bet he’ll be willing to help get the blood you need. And your Dad knows the man who owns Squaw Peak Laboratories, so I bet he can get the HIV tests for you. Why don’t you ask him?”

“Wow, Mom. That sounds great!”

Sarah’s cell phone beeps with another incoming call, but she doesn’t recognize the caller ID. “Peyton, let me take this call, and then you and I can talk again later about getting this project going, okay?”

“Okay, Mom. Bye. And thanks!”

Sarah quickly answers the other call. “Hello?”

“Is this Sarah Meadows?” It was a man’s voice coming through the speakerphone that was still on.

“Yes.”

“My name is Mac Houston. Am I interrupting your dinner?”

“No.” Sarah’s not sure about this call yet, and also realizes now that she’s hungry. She’s not sure she wants to spend any time with this guy. “If you’re selling something...”

Mac breaks in quickly. “No, it’s nothing like that. I’ve seen the stories you’re writing in the Arizona Tribune about people who have tested HIV-Positive.”

“Yes,” now wondering whether she’s in for a tongue lashing, which she’s in no mood for tonight.

“I want to tell you my story. It won’t take long.”

“Are you HIV-Positive?” Sarah starts looking for her tape recorder, thinking this might be next Sunday’s *HEALTH MATTERS* column.

“No, I’m not.”

Sarah stops her search, not sure of anything any more. “Then why?...”

Mac interrupts again. “I had a girlfriend who was, but for a long time I thought anyone who tested HIV-Positive should be tattooed for life.”

That got Sarah’s attention. This guy might sound like a nut case, but his voice is calm and sincere; and he has piqued Sarah’s curiosity. She leans back in her chair. “I’m listening.”

“For about twenty years I’ve been involved in law enforcement training. As you can imagine, I developed quite a few very strong opinions and prejudices about various things over that time, especially involving crime and criminals. As I saw the situation with HIV unfolding in the late 1980’s, I was pretty angry about it. With my professionally-tuned contempt for all things evil, I decided that we needed to eliminate this plague that was going to wipe out humanity from our planet. If HIV was the cause of AIDS, and if HIV was identifiable in someone with a relatively simple and accurate blood test – as we were being told by our government – it seemed ludicrous to me not to be doing universal testing and implementing something like a tattoo system to identify HIV-Positives.”

This time it was Sarah’s turn to interrupt. “Hold on, please, Mr. Houston.”

“Mac.”

Gwen had just walked in the door. Sarah motions to her to stay quiet and come over and listen to this conversation on the speakerphone.

“Okay, Mac.” Sarah repeats what Mac had just said to bring Gwen up to speed. “Let me make sure I heard you correctly. You wanted everybody in the world tested for HIV, and if they were found to be HIV-Positive, you wanted them tattooed, like the Jews in Nazi Germany?”

Gwen looks at Sarah in disbelief, and Mac seems a little embarrassed to have it phrased that way. “Something like that, yes. But I wanted that tattoo placed in a very intimate location of the body, so that anyone could see it in the process of having sex with the person.”

Sarah takes a deep breath, trying to get the picture out of her mind of her brother tattooed with the letters “HIV.”

Mac keeps going. “I would have settled for an identification card, if that’s all we could get. But I thought it was weak and irresponsible to know that something was a ticking time bomb and not do what we could to cut the wires.”

“But you don’t believe that any more?” Sarah hopes she knows the answer.

Mac pauses before he answers. “About five years ago I was dating a young girl, twenty, twenty-one years old. We’d been seeing each other intimately for a few months when she called me one day and said she really needed to talk. I thought she was either pregnant, had a sexually transmitted disease, or she couldn’t live without me and wanted to get married right away. At that point, I had solutions to all three of those problems...”

Sarah and Gwen both chuckle quietly. Maybe this guy is a little wacko, but he’s honest and entertaining, and seems to really want to tell his story.

“...but I decided I better meet her in a public place, because if she ended up slitting her wrists or my throat, I wanted to be able to get medical treatment quickly.”

Sarah laughs out loud, and it took a lot for Gwen to not to join her. This obviously isn’t something Sarah could print in her column, but still, the story is captivating.

“So we met at a Barnes and Noble. She danced around the issue for quite a while, and I finally had to say, ‘Sonja, what’s going on? You’re going to have to tell me eventually; why not tell me now. Right now.’ She said she had been to the doctor and had tested positive for HIV.”

Sarah doesn’t say anything, so Mac keeps on going. “At that point, the silence was deafening. She was devastated. She had already told her friends and her family. The doctor had told her that since she was young, strong, and healthy, she should immediately start taking a strict combo-therapy of HIV medications, including AZT. He told her he thought she could beat this thing if she would take the drugs.”

Like any good reporter, Sarah is anxious for more details. “Mac, had Sonja ever been tested for HIV before this?”

“No, she hadn’t.”

“Why did she get tested, then?”

“I don’t know for sure. The only thing I know is that Sonja was a pretty responsible girl, and getting tested for HIV was the responsible thing to do in those days. It was probably just routine.”

“Was she part of a high-risk group for AIDS?”

“Well, she was a woman, which automatically puts her in a very low-risk category for AIDS, since less than 20% of all AIDS victims are female.”

“But was she an IV drug user, or a hemophiliac?”

Sarah could almost feel Mac shaking his head. “No. Neither. I knew she had been a pretty wild party girl prior to meeting me, but no heavy drugs that I knew about. Just the light recreational stuff, which of course she never did around me. It’s true that she had been somewhat promiscuous prior to our relationship, but that doesn’t put someone in a high-risk group, now, does it?”

“No, it doesn’t,” Sarah agreed. “So there was no obvious reason why she might have tested HIV-Positive, and you don’t know how long she had been Positive, do you?”

“No. Frankly, I don’t know enough about her to know whether she had anything that might have triggered a false positive reaction, like a flu shot or a tetanus shot, or anything like that.”

Both Mac and Sarah pause. Mac was waiting for Sarah’s next question, but Sarah was done for the minute. All she could think or say was, “I’ll bet you were really upset with her.”

“Actually, no. She thought I would hate her, or be angry. But I wasn’t. It’s not like she knew she was HIV-Positive and didn’t tell me. She didn’t know, and how could I blame her for that?”

“So what did you do?”

“I admitted that I really didn’t know much about it, even though I had formed some strong opinions. But that was when it had to do with other people, not me. Now it had touched my life directly, and I wanted more information – fast, before jumping to any conclusions. There was a lot I

wanted to learn, that I thought we should learn about HIV, especially if it had the potential to infect me or take my life. Fortunately, we were in a bookstore, so I suggested we go look and see what we could find.”

Mac stopped, as if wanting to see if Sarah was still there and still with him. She was.

“What did you find?”

“I found a book called *Inventing the AIDS Virus*, by Dr. Peter Duesberg. I thought, now there’s an interesting title. The other books around it were doom and despair books, like *How To Die With Dignity*, or *How to Manage Your Process of Sloughing Off This Mortal Coil*... stuff like that I was not the least bit interested in. I wanted to know what the science said about HIV and AIDS, and I read the back cover of Duesberg’s book and knew that I had found what I was looking for.”

“Why?”

“Because I could tell from the comments from a Nobel Laureate and other prominent scientists that Duesberg was no alarmist, or conspiracy theorist, or part of some fringe element. His bio on the inside cover said he was a pioneer in retrovirus research and had discovered the first cancer gene, and had been given an Outstanding Investigator Grant from the National Institutes of Health. Besides, leafing through it I could see that it was a very thick and very technical book with lots of references that I could check out. That’s exactly what I wanted. So I bought it, and sat down and read it cover to cover in a couple days.”

“Did Sonja read it with you?”

“No, but when I was finished I called her and told her we had a lot to learn. So we got on the Internet and started surfing. When we found a website called *AliveAndWell.org*, we knew we had hit pay dirt. I called Christine Maggiore, who ran *Alive & Well AIDS Alternatives*, and after spending a couple hours on the phone with her, I was convinced there was something seriously wrong with the idea that HIV causes AIDS.”

“What did she say to convince you?”

“There’s no doubt that she gave me some really good information, but it was more how she said it than what she said. Here was an intelligent, well-educated, non-hysterical woman who herself had tested HIV-Positive in 1992, had never taken any HIV medications, and obviously knew her stuff. I read every page on the *Alive & Well* website, checked out all the information for myself, and validated every word with other cross-references in the medical and scientific literature. I came away convinced there was a giant fraud being perpetrated on the American people – and all people of the world for that matter.” Mac paused. “In case you haven’t figured it out, I was very angry when I discovered all of this information, and I’m still very angry today.”

Sarah now wishes she had been tape recording this phone call anyway. Here was a man who had obviously done his homework, was honest enough to admit when he had been wrong, and had turned around 180 degrees from where he started – from wanting to tattoo every HIV-Positive five years ago to looking forward to the day when those responsible for this travesty of science were brought to justice.

“So I got a copy of Christine’s book, *What If Everything You Thought You Knew About AIDS Was Wrong*, and Sonja and I read it together. She then went right to her doctor, told him that she had some new information, and that she wasn’t going to take the drugs he was prescribing.”

“And the doctor’s reaction?”

“He literally screamed at her for daring to question the medical authorities. But, he said, if she was not going to take the medications, she at least had to keep getting tested periodically.”

Sarah just shakes her head, lamenting how far down the medical profession has sunk in this country.

“Sonja had to give the health department a list of all her sexual partners, so I was contacted from time to time and urged to take an HIV test myself. I refused. I told them that if they wanted to send a squad car full of policemen and a court order, I’d comply. Otherwise, I wouldn’t.”

“And they said?”

“They thought that was extremely irresponsible, and they kept calling for months. I kept refusing every time.”

“And how is Sonja today?”

“I don’t know, actually. We broke up some time after all this happened – not because she was HIV-Positive, but because of the difference in our ages. Let’s face it, I was old enough to be her father. The last I heard from her, she had moved to California, and her email said she was no longer HIV-Positive.”

“What?”

“Well, I guess that her first test was some kind of false positive, or just by moving, she wasn’t HIV-Positive any more. That can happen, you know.”

“Yes, I know. I’ve talked to others who went from being HIV-Positive to HIV-Negative. But it’s still not very common.”

“Well, you are writing so much about how an HIV-Positive diagnosis has affected people’s lives, I thought maybe you should hear how it affects the ones around them as well.”

“Yes, thank you. It’s been interesting, to say the least. I’m glad you called.”

“And I thank you for your time. Goodnight.”

“Goodnight, Mac.”

As she turns off her cell phone, Sarah looks at Gwen. Neither of them could speak.

Chapter Fifteen

DATE: Sunday afternoon
TO: sam@arizonatribune.com
RE: this week's column

Dear Sam,

Attached is the next HIV-Positive story for my column. How was last week's received by our readers, do you know? This trial is going to be very important, Sam, and the trip was definitely worth it. I'll fill you in with more details later. Can't believe I've been here almost two weeks already....

Sarah

Attachment:

HEALTH MATTERS

By Sarah Meadows

This is the second in a series of true-life stories of those diagnosed HIV-Positive, and how it affected them, their families, and their lives.

For years, HIV has been associated with the gay community. In the early days, it wasn't just any gay man, however, who was getting AIDS. It was a small, select group of sexually over-active gay men who were using a lot of recreational drugs, antibiotics, and steroids.

Today, even if they don't use drugs or sleep around indiscriminately, gay men are still considered to be in the high-risk category. Although no one wants to admit it, "profiling" aimed at the gay community is being used to interpret the results of HIV tests. Consider the story of Jeff, who lives in San Francisco.

Although Jeff was adopted when he was just three days old, he remembers having a happy childhood, at least for the first eleven years. "I've always considered myself quite lucky. My family didn't have to have me; they wanted to have me."

Growing up in northern Kentucky with a brother more than a decade his senior, Jeff reminisces about the good times, both at home and in school. His was a middle-class family, living in the center of a thousand-acre park with lots of neat places to play and explore. Although it was not easy getting close to his father, he and his mother had a strong bond and loving relationship; and because of their age difference, his brother watched out for him and took care of him when his father couldn't.

Jeff got decent grades in grammar school and had a number of good friends to play with in the afternoons. He liked to spend his time creating and building things. "I wasn't into sports, or fast cars or such." In fact, life for Jeff couldn't be better, until...

His brother left for college and his parents started arguing all the time. Finally, when he was eleven, they divorced, and he and his mother moved away to start over again. Jeff characterizes the next six years as "a really dark period of my life."

It was also time for puberty, and Jeff found himself attracted to boys, not girls. It made it even worse to be in a new city with new people and none of the old friends he had come to count on. He felt like an outcast. "I didn't have very many people I could hang out with."

It soon became tough with his mother as well. "It was not a pretty time in our lives. My mother was recently divorced, and I was discovering my own sexuality. We fought like cats and dogs."

By the time Jeff was fourteen, he had a job as a busboy in a local restaurant in the evenings, and started visiting the gay bars when he got off work. As his grades began to slip at school, the teachers and advisors were very sympathetic; after all, they rationalized, he had to work at night to help his mother make ends meet. The truth was that Jeff would go to school at eight in the morning, go to work at six in the evening, go to the bars at midnight, and drink and party until dawn. "When I started drinking, I didn't just drink to feel good. I got toasted. I got plastered, all the time. I turned out to be a blackout drinker for over twenty years."

Around this same time he also started using drugs, lots of different drugs: LSD, Seconal, marijuana. It was the late '60s, and there were plenty of drugs available, even in conservative Kentucky.

And he started taking lovers, many of them. "At the time, drinking and doing drugs was a way for me to go out and meet other people like me. If you were young and gay in northern Kentucky, you'd go to bars. That was about all there was to do."

School, work, drink and party. It went on like that for more than three years.

Finally, when he was seventeen, Jeff graduated from high school – just barely. He took off for San Francisco with his best friend, “for two reasons. One, obviously, it was the place to be if you were gay. You could really feel at home there. Two, I wanted to stay in the restaurant business, and in San Francisco you could get paid a lot more than anywhere else, since it was unionized.”

It was like night and day. He left the black hole of his life in Kentucky and found exactly what he was looking for in San Francisco: love, peace, fun, and friends. It was 1974, and there was a lot going on in the Bay area, even after the hippie movement had peaked in Haight-Ashbury.

In addition to working at a restaurant, Jeff took a second job as the desk clerk at the gay hotel where he lived – \$90 a month for a single room, and all the company you wanted right in the same building. He made a lot of friends, had a lot of lovers, and went to a lot of gay bars. “Whatever you heard about San Francisco at that time was true, and then some.”

Time passed, and Jeff was happy with the way his life was going. In the early days, he would spend six months in San Francisco, and then travel the other six months of the year. Jeff loved to travel, and he would ride a Greyhound bus for days to visit his mother and brother in Florida. When Jeff had originally announced to his mother that he was gay, she tried taking him to doctors and counselors to “cure” him; and there was even talk about sending him to military school. But his brother had always been understanding and supportive, and his mother eventually came around as well. So he was encouraged to bring gay friends to the house when he visited in Florida and felt no pressure or rejection. But still, Jeff’s heart was in San Francisco, and he soon was staying there year-round.

He had one three-year committed relationship, and then another one that lasted six years. But all the time, he kept drinking and doing drugs, although the drugs soon became less important than the alcohol. “If you were gay, you spent the nights at the gay bars. That’s just what you did. And when you go to a bar, you drink. So I was always drunk, and I stayed that way for fifteen years.”

In the early 1980s, there were people in his gay community who were starting to die from a new disease called AIDS. Very early on, Jeff lost his cousin, Tommy, who was also gay and living in Florida. Although they weren’t close, Jeff remembers Tommy telling him about living as the first AIDS case in Boca Raton. “When he would go over to visit other people, they made it clear they didn’t want him in the house. They threw away the dishes and plates and such after he left. When he got sick with pneumocystis pneumonia, they didn’t even want him in the hospital. They demanded \$10,000 up front before he would be allowed to step foot in the door. His mother had to fly to Florida and take him back to Cincinnati just to get him medical care.”

But the big blow came in 1991 when Jeff lost a long-term relationship as well as his closest and dearest friend to AIDS, and it was more than he could take. He hit the bottle twice as hard and started doing a lot more drugs, especially shooting speed. “Then the drinking started interfering with my shooting speed, so I let the drinking go and focused on the speed exclusively. And this is the way it was for the next few years.” By the end of that time, Jeff had lost his job, his friends, and everything he owned. He was living outside on a park bench, blasted most of the time. He began to feel physically ill and finally went to a local free clinic. “All my friends were dying of AIDS, and I figured I probably had AIDS too, and decided I should get tested.”

“I’ll never forget it. When I went to get my test results, it was not a doctor, but a very nice nurse named Marilyn who talked with me for a few minutes before telling me the results, kind of ‘testing the waters’ to see what my reaction might be to different scenarios. You know, like, ‘What would you do if the test was negative?’ Then, ‘What would you do if the test was positive?’ I guess when she was convinced I was not going to freak out, she opened the envelope. Yep, it was an envelope – a small white envelope attached to my file. She opened it and just said, ‘It’s positive.’ Neither one of us said a word for a long time; the silence was deafening. Finally she noticed the tears running down my cheeks and asked me if I was okay. I said yes, and that I needed to go, and that I would call for a follow-up doctor’s appointment. As I look back on it now, I remember that the envelope reminded me of a

sweepstakes. It was like, ‘You’re the winner, and the prize is HIV! Congratulations! You’re going to die of AIDS!’”

That was all that Jeff needed to hear. He knew that if he stayed living outside, exposed to the elements, he would indeed die a horrible death. He also knew that his drinking and drugging would have to stop. He checked himself into a residential treatment program, and he’s been clean and sober ever since. “I originally went into recovery, not for the recovery, but for a place to stay. I didn’t want to get sick living outside. I think that if I had stayed where I was, living in the park, I would have given in to the elements, they would have put me on HIV medications, and I would have died for sure.”

After finding out he was HIV-Positive, Jeff gave himself ten years to live. By then, that was the accepted “latency period” for HIV turning into AIDS. “I told myself that I needed to have everything finished and buttoned up within ten years; and to do that, I needed to be clean and sober.”

But he didn’t get a lot of support from the recovery center staff. “They didn’t give me much of a chance. Most people who are told they are HIV-Positive don’t stay clean and sober. They figure they’re going to die anyway, so what’s the point? Why bother?”

Jeff then began working with other people in the residential recovery center who were HIV-Positive and had AIDS. He ended up Jeff spending nine years as an AIDS and HIV counselor, and now works as a social worker for the homeless.

“I was counseling people who had AIDS and were taking AZT. We all believed that HIV equaled AIDS, and AIDS equaled death. I watched them take AZT every day and get sicker. Then I would watch them die. I remember a friend of mine who I lived with in the residential recovery center who was taking AZT, and he was really sick. I talked to him every day, and he died in about eight months.”

Jeff lost another close friend to AZT/AIDS in 1995, and a third in 1996. “It was really hard to watch your friends who were vibrant young men just shrivel up, turn into old men, and die right before your eyes. In fact, we’ve lost an entire generation here in San Francisco. There are men ten years younger than I, and ten years older than I, but there’s hardly anybody my age that’s still alive.”

“My best friend was a completely healthy human being – playful, and smart. But he started to get dementia after he began taking medications for his HIV. The more he got dementia, the more medications he took, and the further away he got. Finally, he was physically here, but not mentally. He would just be sitting at home, staring off into space.”

“I can remember one day going over to his house. He was sitting there in front of me – the lights were on, but nobody was home. All of a sudden he got as clear as I had ever seen him, and he said, ‘You know, Jeff, you’re my best friend, and you’ve been like a brother to me. I’ll be waiting for you.’ So the good news is that I have somebody waiting for me.” Jeff laughs to ease the pain. “Maybe he’s putting up a pair of curtains or something while he’s waiting.”

“Everybody I knew that got sick from AIDS were heavy partiers – drinking and very much into the drug scene. And everybody I have known that has died of AIDS has been on AIDS medications. Back then it wasn’t the ‘nice’ HIV medications like protease inhibitors; it was the massive doses of AZT that would make them really sick. Today, the HAART drugs can make you pretty uncomfortable, but you might not realize or feel like you’re dying, until one day your liver just stops working and you’re gone.”

“I remember it so well how the people on AZT would be vomiting and so deathly sick from the medication they were taking that they would tell me, ‘I’d rather die of AIDS than take this medication.’ But they kept doing it anyway. There was a lot of pressure back then to keep taking AZT.”

Why didn’t Jeff take the HIV medications? You might say it was pure luck. Jeff was diagnosed with Hepatitis C in the early 1980’s, and strangely enough, it is the Hepatitis that probably saved Jeff’s life.

“My doctor knew that AZT – the drug of choice to fight AIDS in 1995 – would damage my liver, and he didn’t want to give me AZT while I was fighting Hepatitis at the same time. He said, ‘Let’s

wait until we can get your Hepatitis under control before we treat you for AIDS.’ So I never took AZT or any other medications for AIDS. No protease inhibitors, no cocktails, no nothing. And after watching my friends in the residential treatment center all die from taking AZT, I swore I never would.”

On the surface it may seem like Jeff’s HIV-Positive diagnosis turned his life around, for the better; and to a certain extent, that’s true. There’s no question that it woke him up and forced him to change his behavior and his lifestyle, served as the catalyst for him to go clean and sober, and focused his energies and talents to start getting things done in his life.

But there’s definitely a dark side as well. As Jeff put it, “When you’re told you’re HIV-Positive, you’re handed the complete package. It affects every aspect of your life.”

For the first year after his positive blood tests, Jeff was so depressed he had to start taking antidepressant drugs, like Zoloft. When the side-effects of the drugs got to be intolerable – dry mouth, dizziness, nausea, and general malaise – he had to quit them as well.

For Jeff, however, the hardest thing about being diagnosed as HIV-Positive is the fear. “It’s overwhelming at first. You’re always wondering, if you’re not feeling well, is this going to be it? If you get a blemish or a mark on you, you wonder if you’re going to die from that. You’re afraid of the least little thing, and worried that ‘today might be the day.’”

“It’s impossible to plan anything in your life when you’re told you’re going to die. What are you going to plan for? How can you make a commitment to other people for any time in the future? If I want to change jobs, I have to be very careful. What would happen if they find out I have HIV? How tolerant will they be if I get sick? Would I lose my job? Would I lose my health insurance? Are they going to pass me over for a promotion because they’re afraid I’ll eventually get sick and not be able to work?”

“But my greatest fear is the fear of being shunned. That’s the only word that I think really describes what it’s like for someone who is HIV-Positive. It’s really tough to watch people backing away from you, looking at you like you’re some kind of freak with an extra leg or two heads. When people know you’re sick, they don’t want to talk to you or touch you. I remember one Gay Day parade when I saw a guy who had Kaposi’s Sarcoma, and there were very visible lesions all over his body. He was carrying a sign that said, ‘Please Hug Me!’ Most people would run from you.”

“It’s changed a little bit, at least in San Francisco, but I can still remember those early days, right after I was diagnosed Positive; it’s burned in my mind. And even today, although we like to think we’re more enlightened and tolerant and it’s not politically correct, if people know you have HIV, they still treat you differently.”

Once again Jeff talks about how lucky he is to live in San Francisco, where virtually everybody knows someone with HIV. “I hate to think about how people who are HIV-Positive are treated outside of San Francisco. And even as good as it is in San Francisco, I got a card a few years ago from one of my co-workers that said, ‘You’d never know you have HIV, you act so normal!’”

Jeff also talks about the fact that if you’re HIV-Positive, your name is on record with the government, as if having HIV made you the equivalent of a registered sex offender. “The recent court cases in some states that found someone with HIV guilty because they didn’t tell a partner they were Positive, how far will that go? Will we all eventually have to wear signs around our necks that say, ‘I have HIV’, like a scarlet letter?”

“And I can’t travel. First of all, I wouldn’t dream of living anywhere other than San Francisco. But I especially can’t leave the country. What would happen if I got sick while I was in another country? Do I have to disclose my HIV if I go into another country? Would they let me in if they found out? Would they kick me out if I got sick while I was there? So I just don’t travel, and I miss it.”

“It’s the same thing with relationships. What are you going to tell a prospective partner? And when do you tell them? Do you just walk up to them, tell them you think they’re hot, and by the way, I have HIV! Do you wait and tell them? What do you do? This is an ongoing dilemma for HIV-Positive

people. I solved it by trying not to go out with people unless I know they're HIV-Positive, and everybody knows what's up from the start. I don't make a big deal of it anymore. If the attraction is there, we'll see. But more than anything, I try to avoid intimate relationships now."

Frankly, Jeff hasn't had a long-term relationship since 1991, and virtually no sex life since being diagnosed as HIV-Positive in 1995. He admits that there are plenty of opportunities out there, other HIV-Positives with whom he could hook up. But there are other problems....

"I got mad at my friends who died of AIDS, because they left me. Why should I get in another relationship, especially with an HIV-Positive, just so they can leave me, too?"

"And I have another problem. The people I hang out with the most, who I would want to date, are people in recovery, and they're all HIV-Negative, since people who are HIV-Positive usually don't stay clean and sober."

Jeff doesn't remember what blood tests he took that resulted in his HIV-Positive diagnosis. He also doesn't remember having a blood test prior to 1995, so there's no way to know whether Jeff was born HIV-Positive; and since he's adopted with no knowledge of his real birth parents, there's no way to find out if his mother was HIV-Positive as well.

And strangely enough, Jeff has never taken another blood test since 1995 that he's aware of. He gets periodic viral load tests, which have all come back normal from the very beginning; but he has no clue whether he still reads positive on an Elisa or Western Blot; or even if he does, whether it's a false positive reaction. "I've got a lot of things that have been proven to cause false positives on an HIV blood test. I've got Hepatitis C. I've been vaccinated for Hepatitis A and B. I test positive for Tuberculosis. I've also been vaccinated for PCP. How do I really know that I'm HIV-Positive, or whether I'm just testing positive to other things? Besides, they're not testing me for the HIV virus; they're testing me for HIV antibodies. Well, considering the fact that I've worked most of my life with drug addicts and homeless people, I probably have antibodies to everything in the world, and then some."

Last year Jeff passed his ten-year goal. "I don't understand," he says. "Supposedly, I've got HIV, but I'm not sick. I'm healthier today than almost any time in my life. Why? Why am I still alive?" He has only one answer. "I've never taken the HIV medications."

Despite everything Jeff now knows about AIDS and HIV, he still lives with a death sentence every day. It's deeply engrained in his psyche, affecting every thought and every move, as if tomorrow he could come down with AIDS and die. After all, that's what he's been told – what we've all been told – for more than twenty years.

"The thing that scares me the most right now is the switch in the medical community from finding a cure for AIDS, to making it a 'manageable' disease. After all my years working with AIDS and HIV, I know that there is big, BIG money to be made in this field today. You don't hear, 'we're going to find a cure' anymore. The only thing you hear is that 'it's a manageable disease.' That tells me they don't want to find a cure. They don't want to find what's really going on, because it'll take the money away. It's really big business these days. You'd think, after twenty-some years and billions of dollars of research, they would have found a cure, or at least a vaccine. I've come to believe that the pharmaceutical companies are making so much money that they just don't want a cure any more. I don't know too many people who would be anxious to do anything that would take away their own livelihood."

"I have lived through the darkest hours of AIDS here in San Francisco. I watched as each and every one of my closest friends died of the disease. There is not one day or moment that goes by that I do not miss them terribly. I always felt in my heart that they were knowingly killed by someone, something, or some group of people. I also know in my heart that one day a bright light will shine on this issue, and the guilty people will try to scatter like cockroaches when a light is turned on. I made a vow to my dead friends over ten years ago to see this thing through and bring their murderers out in the open, and let the chips fall where they may, and I will not rest until I find out who killed them.

Chapter Sixteen

It was Monday morning, court had reconvened, and this was the first time Sarah had seen a witness testify by video conference link. The large overhead screen is pulled down in front of the jury, and a computer is projecting the image of a man, probably in his mid-sixties, grey hair, with a serious look on his face.

“Please spell your name for the record.” Campbell is standing at the lectern with a video camera in front of him so the witness could see him as well. Another video camera is strategically placed for a wider shot of the judge, the lawyers’ lectern, and the jury box. A video technician is available to switch the camera feed when appropriate.

“V-a-l-e-n-t-i-n-e... T-a-n-n-e-r.”

“Dr. Tanner, you’re a medical doctor?”

“I am. I graduated in Medicine from the University of Sydney, Australia in 1969.”

“And you have been awarded several distinctions?”

“Yes, I was awarded the Fellowship of the Royal Australasian College of Surgeons in 1977, and I was made a Foundation Fellow of the Australasian College for Emergency Medicine in 1983.”

“And you have a number of scientific papers you have written that have been published?”

“Correct. I have been published in the Medical Journal of Australia, Nature magazine, and the New England Journal of Medicine, and I co-authored approximately twenty other papers published in such magazines as the International Journal of STDs and AIDS, the British Medical Journal, the Journal of Infectious Diseases, and Bio/Technology.”

“And you currently reside in?...”

“Western Australia.”

“Thank you, Dr. Tanner, for being available to testify today. I realize that it’s late at night where you are.”

“About ten o’clock, yes.”

“So, Dr. Tanner, let me get right to the point.” Campbell glances at his yellow pad to verify the first question he wants to ask this witness. “Is the HIV ELISA test used in Australia?”

“Yes, it is.”

“We had a lot of testimony in the last couple of weeks about the problems associated with the HIV ELISA test. Have you had the same problems in Australia?”

“Well, I don’t know exactly what problems you’ve been told about, but I can say that the HIV ELISA test is extremely unreliable because of the high number of false positive cross reactions, and the fact that the test has never been validated using a gold standard.”

“That’s what other witnesses have said as well. And you use the same HIV ELISA tests in Australia that we use in the United States?”

“Yes, the exact same ones.”

“And to your knowledge, how long have these problems existed with the ELISA tests?”

“From the very beginning, in 1985. Have you been told that the purpose of the ELISA test was to screen blood donors to guard the blood supply from HIV contamination?”

“Yes, we heard that.”

When Tanner started, his voice was soft and hard to understand. Campbell had wondered whether it was because of the video link. But now Tanner is beginning to sound strong and clear, and the Australian accent is no longer a problem either. Maybe Tanner just had to warm up to the process. Whatever happened, Campbell is pleased with the result.

Tanner had come prepared, and he takes a quick look at some notes before continuing. “In the two years from 1985 to 1987, 30,000 blood donors a year were coming up HIV-Positive on the ELISA test,

just in the United States, but everyone knew that number had to include a very large percentage of false positives from healthy donors. Finally, in 1987, the Centers for Disease Control announced that all positive ELISA test results must be confirmed by doing another test on the person's blood, called a Western Blot, sometimes referred to as an Immunoblot; and at last, after some had waited as long as two years, 50,000 people were told they were really not HIV-Positive after all! Imagine what they went through, thinking they might be Positive all that time. And think of the hundreds of thousands of other people – their families, their sexual partners, their friends – who went through hell with them. It was truly criminal what we did to these people.”

Campbell wants to try to keep Tanner's emotions out of the testimony. “And the Western Blot was supposed to solve this problem?”

“Let's be very clear, because this is an important point. The Western Blot was originally designed and intended to find all the false positive reactions created by the ELISA, not to confirm the positive ones.”

It's a good point, and I'll come back to it later. “Dr. Tanner, please tell us what a Western Blot is.”

“Like the ELISA test, it is a test to detect antibodies to HIV in a person's blood.”

“And how does the HIV Western Blot work?”

“Very simply, you take proteins from what is supposed to be the Human Immunodeficiency Virus, combine them with a person's blood, and if the test changes color, you are said to be positive for that protein's antibody.”

“That sounds just like the ELISA test. So what's the difference between the HIV ELISA test and the HIV Western Blot?”

“First of all, in the ELISA, all the proteins from the so-called HIV are mixed together, kind of like a big soup. When the test is positive, you don't know exactly what protein or proteins reacted. In the Western Blot, the proteins are separated into different strips, or bands – one for each protein – so you can see exactly which protein or proteins reacted to the person's blood. Secondly, the ‘change of color’ I mentioned is different than an ELISA, in that it's not really the color change that's important, but the formation of blots on the bands that signify a reaction.”

“Why would that be useful – to see which proteins reacted and which didn't?”

“When the ELISA test was getting so many false positive results, the theory was that if you could separate the proteins and see which were reacting, you could pinpoint better which proteins indicated HIV antibodies and ignore the others.”

“Did it work?”

“It might have. If certain protein bands or certain combinations of bands started showing up positive on a very consistent basis, and if those could be shown to be present in a vast majority of people with AIDS – and not present in those without AIDS – then they may have been onto something.”

Campbell understands this well, but he thinks it may have gone over the jury's head. “Forgive me, Dr. Tanner, but I don't understand. It sounds like you're saying that only certain protein bands are going to react on a Western Blot.”

“Yes, correct.”

“Well, if the proteins used in the test are supposed to come directly from cultured HIV – in other words, if Dr. Gallo was claiming that the mixture he was providing was specific and unique for HIV – why don't all of the protein bands react all the time if someone has the antibodies to HIV?”

“That would make sense, wouldn't it? But there was already a general agreement and understanding, because of so many false positives on the ELISA test, that at least some of these proteins were not specific and unique to HIV and were causing the cross-reactions on the tests. The theory was to find out which of the proteins would only react to HIV antibodies by separating them out.”

“But that's not what happened?”

“Unfortunately, no.”

“Why not?”

“Because there are as many problems with the HIV Western Blot test as there were with the ELISA test – and more, actually.”

Okay, here we go. Campbell is satisfied with the way his prior witnesses had destroyed the credibility of the ELISA. Now it’s time to do the same thing to the Western Blot. “What kind of problems?”

“First, the HIV Western Blot is a test that supposedly detects antibodies to HIV, like the ELISA. So testing Positive on a Western Blot means the exact same thing – that the person is HIV-Antibody-Positive, and having the antibodies to a virus like HIV should mean immunity from any disease it could cause. But since HIV has never been properly isolated, there is also no proof that any of the proteins in the ELISA test are specific and unique to HIV; and since the Western Blot uses the exact same proteins as the ELISA, there’s no proof that any of them is specific or unique to HIV either.”

This was an important point that Campbell feels may have been lost. “Did you say the Western Blot uses the exact same proteins that are used in the ELISA?”

“Correct. Both tests are based on the so-called HIV culture that Dr. Robert Gallo patented, so they start with the same component. The only difference, as I said, was that the proteins from this culture are separated into different bands for the Western Blot.”

Campbell picks up a folded piece of paper from his table. “Dr. Tanner, this is a printed insert that comes with the Western Blot test kit manufactured by Cambridge Biotech. It says, ‘Slight ambiguities exist in the designation of the molecular weights of the HIV-I antigens. The designations listed in Figure 1 have been established by both internal testing with known markers and consensus of published literature. Could you translate that into English for us?’”

“Cambridge is admitting that there is disagreement about exactly which proteins – they’re also known as ‘antigens’ – belong to HIV and should be used in a Western Blot test; and rather than using virus isolation to know what proteins to use, they chose their proteins based on their own internal tests and by taking the consensus of other people’s published studies.”

“So that would explain why you can find slightly different proteins being used in the various Western Blot test kits from different manufacturers?”

“Correct. As I said, since HIV has never been properly isolated, no one knows for sure exactly what proteins to use. So Cambridge, and all the rest of the Western Blot test kit manufacturers, have to put this disclaimer in their box to protect themselves legally.”

Campbell takes his time before asking the next question. Tanner uses the opportunity to take a drink of water while everyone watches on the video screen. Finally, Campbell asks, “You said there were other things wrong with the Western Blot?”

“Yes. Like the ELISA test, the Western Blot has never been validated, meaning that its results have never been confirmed by finding actual HIV in people who test Western Blot Positive. So there is no gold standard, as we call it.”

“We heard about the gold standard last week, Dr. Tanner.”

“Fine. What this means is that the HIV Western Blot is susceptible to the exact same false positives that the ELISA is, in terms of cross reactions of the various proteins.”

“But I thought the Western Blot was supposed to eliminate these false positives?”

“Again, that was the theory. But the theory doesn’t work in practice in this case, because the proteins used on both the ELISA and Western Blot are the same and have been proven to cross-react with antibodies to other diseases and conditions. In fact, no one is supposed to take a Western Blot test without having at least two prior positive ELISA tests, because the Western Blot produces too many false positives by itself. According to one study in 1993, there was as much as a forty-percent chance of having a false result on a Western Blot by itself.”

“So if someone takes a Western Blot as their first HIV test....”

“...they are about as likely to get a false positive result as if they took an ELISA test.”

“Is that why the Western Blot is not used in some countries of the world?”

“Yes.”

“Objection. The witness has no personal knowledge of what decision-making process was used in other countries.” At long last, Armand is visibly upset with this testimony. Sarah wonders why, after all that’s come before it, this particular line of questions would get to him. Maybe it’s simply the sheer volume of damning information that Armand didn’t expect.

The judge was surprised at the tone of Armand’s voice as well, but he had a point. “Sustained.”

“I’ll rephrase, Your Honor.” Campbell wasn’t about to let this point go. “Dr. Tanner, is the Western Blot used in Great Britain, for example?”

“No, it’s not.”

“And what is your personal opinion, rather than your expert testimony, of why not?”

“Because the Western Blot, on its own, produces so many false positives that it makes no sense to use it in conjunction with any other test, like an ELISA, that also produces an enormous number of false positives.”

Campbell waits for Armand to object, but he didn’t. Maybe Armand realizes that he needs to cool down. Well, let’s keep going and see what happens. “Dr. Tanner, are those the only things wrong with the HIV Western Blot test?”

“No, not by a long shot. The biggest problem is that, unlike the ELISA test, the Western Blot requires subjective interpretation of its results, making it impossible to standardize. Any other diagnostic test is only considered valid if the results have the same meaning in all patients, in all laboratories, by all doctors, and in all countries. That’s not the case with the HIV Western Blot.”

“Can you give us an example of what you mean by ‘standardization’?”

“Well, I think everyone is familiar with what is called an EKG – a computer printout of the rhythms of the heart. Can you imagine the chaos that would be created if the same EKG could be interpreted to mean a heart attack by one doctor in one place, but not by another doctor in another place?”

Campbell lets that one sink in while he pretends to look at his notes. “But you’re suggesting that the Western Blot, which is supposed to clear up all the confusion created by the unreliable ELISA tests, doesn’t provide that standardization?”

“It actually makes it worse, Mr. Campbell.”

“Please tell us how.”

“Mainly because no one can agree on which proteins need to react, and in which combinations, to definitely say that the test is now specific for HIV and nothing else.”

“And how did that happen?”

Tanner’s on a roll, and he knows it. This is where his expertise is matched by no one else in the world. “Initially, the two men who supposedly co-discovered HIV – Dr. Robert Gallo of the U.S. National Institutes of Health, and Dr. Luc Montagnier of the Pasteur Institute in France – couldn’t even agree. Montagnier said that just having the p24 protein was sufficient to define a positive Western Blot, even though p24 was not found in all AIDS patients. Gallo, on the other hand, said that just gp41 was sufficient, even though Montagnier himself had said that gp 41 may be due to contamination of the virus by cellular actin. Actin is an extremely common protein that is present in all cells, not just HIV, by the way. So the Centers for Disease Control compromised and said that either p24 or gp41 was enough for a positive test result; but they were getting far too many so-called ‘confirmed’ Positives for that to be right.”

“Too many? I don’t understand.”

“The number of ‘confirmed positives’ was still way too high using just p24 and gp41, and included a large group of blood donors the CDC knew couldn’t be HIV-Positive.”

Tanner coughs, and then takes another drink of water before continuing. “Excuse me. Where was I? Oh, yes. So in 1987, when the FDA licensed a Western Blot test kit manufactured by the DuPont Company, they required one protein from each of the three different HIV genes to constitute a Positive test result.” Tanner suddenly stops. “Maybe I’ve gone into things you haven’t heard about yet. Have you had testimony about the HIV genes?”

Campbell is pleased that Tanner is being so careful not to go too fast. “No, we haven’t, so please explain briefly.”

“HIV is supposed to contain three genes, and these three genes create the proteins that we’ve been talking about. There’s a gag gene, which determines the structural elements of the virus; a pol gene, which is common to all retroviruses like HIV and is involved in reverse transcriptase; and an env gene, which produces the proteins found on the membrane, or envelope, of the virus. These env proteins are called glycoproteins (gp) because they extend out from the membrane of the cell and are combined with a carbohydrate.”

Campbell is suddenly concerned about putting the jury to sleep. However, he has no choice. This information is critical to understanding the next part of Tanner’s testimony, and he simply has to take the chance.

“Can you wait a minute, Dr. Tanner?” Campbell moves the large easel in front of the vacant witness stand so that the wide-angle video camera can see it, along with the judge and jury. He then asks the video technician to change to that camera so that Tanner could see the easel as well. He flips to the list of the ten proteins Dr. Richardson had discussed:

gp160
gp120
gp41
p66/68
p51/53
p31/32
p55
p40
p24
p17/18

“Dr. Tanner, we’ve had testimony about these ten proteins. These are what you’re talking about, I presume?”

“Yes. But you should add that the top three proteins are the env proteins...”

Campbell draws a red line under gp41 and writes ‘env’ on top of the first three.

“...and the next three are the pol proteins...”

Another red line under p31/32 and ‘pol’ on top of that group.

“...and the bottom four are the gag proteins.”

After Campbell writes ‘gag,’ the chart looks like this:

ENV

gp160
gp120
gp41

POL

p66/68
p51/53
p31/32

GAG

p55
p40
p24
p17/18

Campbell asks, “Dr. Tanner, shall I keep the camera on this list while we continue?”

“Please.”

“Alright. Then please explain the relevance of these three types of proteins.”

“Well, as I was saying, the HIV Western Blot test kit that duPont created requires three proteins to light up – that’s what we call it when a protein band reacts, ‘light up’ – for the test to be called positive. They were: p24 from the gag group, p31/32 from the pol group, and any one of the three env proteins, gp160, gp120, or gp41. If a person had gag p24, pol p31/32, and env gp41, let’s say, then their test was Positive; and this was called the FDA criteria for establishing a positive Western Blot.”

Campbell looks at the jury. “Well, that seems simple enough,” and then back to the witness, “and pretty easy to standardize.”

“Yes, but not everyone agreed with these criteria. The Red Cross didn’t for example. They were concerned that these criteria were too limited and would not catch all the blood tainted with HIV; so they wanted something less specific. Plus, there was no proof that the proteins the FDA had chosen were the best ones to represent HIV. So the Red Cross came up with their own criteria, which was one protein from each of the three genes – one gag, one pol, and one env – but without specifying which particular protein in each group. This meant that more people would test Positive, and they could be assured that their blood supply was clean.”

Campbell puts the number 1 beside the gene names env, pol, and gag, rather than checking specific proteins. “So now we have two different groups with two different criteria: The FDA and the Red Cross. Wasn’t that confusing? I mean, didn’t it result in some people testing Positive using the Red Cross standards but not being Positive using the FDA standards?”

“Absolutely. But this is just the tip of the iceberg, because the Centers for Disease Control didn’t like either one of those criteria. The Red Cross was finding far too many Western Blot Positives, but using the FDA criteria, they were finding far too few - less than half of those people already diagnosed with AIDS were coming up Positive, and that was unacceptable if HIV were the cause of AIDS. So they made up their own set of criteria – actually, two new sets. In one case, they tried requiring p24 and one of the env proteins – gp160, gp120, or gp41 – and in the other case they said they just needed two of the env proteins and nothing else – gp41, and either gp160 or gp120.”

“Dr. Tanner, I’m getting confused just listening to you.”

“Imagine the confusion that was created with all these different criteria and no one knowing what was right or wrong. And I’ve just mentioned four out of ten different criteria that are in effect today.”

“Ten?”

“Yes, ten. Different countries have different criteria as well. There is a chart, if that would make it easier to understand.”

Campbell walks over to the large easel and flips to the next page, displaying:

HIV WESTERN BLOT STRIP		AFR	AUS	FDA	RCX	CDC 1	CDC 2	CON	GER	UK	FRA
ENV	p160	ANY 2	ANY 1	ANY 1	ANY 1	p160/ p120 AND p41	p160/ p120 OR p41	p160/ p120 OR p41	ANY 1	ANY 1	ALL 3
	p120										
	p41										
POL	p58	ANY 3 GAG OR POL	p32 AND p24	ANY 1 AND	ANY 1 AND	AND	OR	p32 OR	ANY 1 GAG OR POL	p32 AND	ANY 1 OR
	p53										
	p32										
GAG	p55	ANY 1 GAG OR POL	p24	ANY 1	ANY 1	p24	p24	p24	ANY 1 GAG OR POL	p24	ANY 1
	p40										
	p24										
	p18										

“Dr. Tanner, would you please describe what we’re looking at?”

“Certainly. On the left is the list of most commonly used proteins for the HIV Western Blot test. Across the top are the names of the five different countries and five U.S. agencies, and underneath them are the criteria that each country or agency has adopted to determine a positive Western Blot result.”

Campbell has been staring at the chart as if he had never seen it before, hoping the jury would have the same reaction. “But, Dr. Tanner, it looks like you can get very different results depending on which set of criteria are being used to interpret the test.”

“That’s exactly what happens, Mr. Campbell. You will notice that no two of these criteria are the same. Each one of the five countries and all five U.S. agencies have a different pattern they want to see from the proteins on the Western Blot – which means that you can get different results depending on whose criteria you use.”

It was time to take all of this out of the theoretical realm and make it real. “Dr. Tanner, let’s get very specific. Please give us an example of how one blood sample would be interpreted as Positive or Negative using these different criteria.”

“Before I can do that – and I’m sorry to make things even more complicated – but there is a third way to label a test result, and that is called Indeterminate.”

“Okay. Why don’t you clarify all three possible results: Positive, Negative, and Indeterminate.”

“Let’s start with the easy one: Negative. To have a Negative Western Blot, no protein band at all can react on the test.”

“None?”

“Correct. None.”

“But a Western Blot is only given after two Positive ELISA results. If these ten proteins in the Western Blot are supposed to be derived from the same HIV culture as the ELISA, how can all the proteins not react on the Western Blot? Does that actually happen?”

“Oh, yes. Frequently. In a U.S. military study, 4000 people had two Positive ELISA tests and then a Negative Western Blot. How can it happen? The only logical reason I can give you is that the mixture used in the ELISA test contains other proteins than the ones being used in the Western Blot, or other cellular material that is not there to react when the Western Blot test is done.”

“But I thought you said that the proteins used in the Western Blot were the exact same proteins used in the ELISA.”

“I did say that, and it’s true. But the ELISA test, which I described as a ‘soup,’ can contain additional proteins and other cellular material as well. Is that any clearer?”

“Yes, thank you.”

But Tanner is not finished. “Mr. Campbell, it’s just another indication of how bad the ELISA test is and how it can react with lots of things not associated with HIV.”

Let’s not get too far off the point here. “Okay. So what is meant by a positive Western Blot result?”

“A Positive result is when you have the specific proteins reacting in the specific combinations required by whatever criteria you are using.”

“That’s fairly clear. So what’s an Indeterminate?”

“It’s when one or more protein bands react, but they are not the right proteins, or not in the right combinations required by the criteria.”

“But what does that signify?”

“No one knows. That’s why it’s called Indeterminate.”

I hope that was clear. Campbell takes a long look at the jury. He can’t get a clear read from their faces, and he’s not sure whether they got all that. But he decides to move on in hopes that using specific examples will help. “Let’s get back to my question about taking one blood sample and seeing how the results differ from one set of criteria to another.”

“Good. Let’s say that you do a Western Blot on a blood sample, and you get the following proteins lighting up: p24, p53, and gp41.” Campbell leaves the chart of different criteria on the easel, but places a red check mark next to the three proteins in the left-hand column as Tanner mentions them. Tanner waits until Campbell is finished and then continues.

“Notice that I’ve included Dr. Gallo’s favorite, env protein gp 41; and Dr. Montagnier’s favorite, gag protein p24; and one of the pol proteins. Here’s the result of this test using each of the ten different criteria: First, none will have a Negative result, because at least one protein lights up. But according to the FDA, this sample is Indeterminate because they require the pol protein p32.”

Campbell write IND in red at the bottom of the FDA column.

“The Red Cross, however, says it’s Positive.” Tanner waits again while Campbell writes POS in red at the bottom of the RCX column.

“Criteria 1 from the CDC says it’s Indeterminate, CDC 2 is Positive. The U.S. Consortium for Retrovirus Serology Standardization says it’s Indeterminate. If we were in Germany, the result would be Positive. But go across the border to France and it’s Indeterminate. Likewise, in the UK, in Africa, and in Australia, it’s Indeterminate.”

Campbell continues to write the results on the chart until Tanner finishes the last one. The chart now looks like this:

HIV WESTERN BLOT STRIP		AFR	AUS	FDA	RCX	CDC 1	CDC 2	CON	GER	UK	FRA
ENV	p160										
	p120	ANY 2	ANY 1	ANY 1	ANY 1	p160V p120 AND p41	p160V p120 OR p41	p160V p120 OR p41	ANY 1	ANY 1	ALL 3
	p41 ✓										
POL	p68										
	p53 ✓		ANY 3 GAG OR POL	p32	ANY 1			p32	ANY 1 GAG OR POL	p32	ANY 1
	p32			AND	AND		AND	OR		AND	OR
GAG	p55										
	p40										
	p24 ✓			p24	ANY 1		p24	p24		p24	ANY 1
	p18										
		IND	IND	IND	POS	IND	POS	IND	POS	IND	IND

Campbell looks closely at the board and announces, “That’s seven Indeterminates and three Positives.”

“Correct, Mr. Campbell,” Tanner agrees. “And does that make any sense to you? Again, it’s like taking an EKG on the same person and having three doctors say they had a heart attack but seven others disagreeing.”

Campbell puts down the red marker and walks slowly by the jury box, looking at each juror on the way back to the lectern. When he thinks the jury has had enough time to consider the implications of this chart, he asks, “Dr. Tanner, what happens if the result is Indeterminate?”

“They want you to come back in three months, and then again in another three months; and if these two follow-up Western Blots are also Indeterminate, you can be said to be Negative.”

“So in this particular example, we have three Positives and seven that may well turn out to be Negative. That seems very strange.”

“Think about it. Just in the United States, where you have five different criteria, the same blood sample would test Positive in two instances, and Indeterminate in the other three. So if someone got a Positive result, they could simply find a laboratory that used a different criteria, test Indeterminate

there three times, and they're cured! Many people have gone from being HIV-Positive to HIV-Negative simply by changing labs or moving to a different country. Can you name me any other disease that acts that way?"

"Very strange indeed." Campbell is hoping the jury feels the same way. He is about to ask another question when Tanner interjects.

"But it gets even stranger."

"How so, Dr. Tanner?"

"Unlike the ELISA, where the color change was measured on a sliding scale, the 'color change' on a Western Blot protein band varies a lot and really is measured in its intensity, from a very light grey to a dark black. It is left up to the laboratory technician or the doctor himself to make a determination whether that band actually lit up or not; and very often that determination will be made based on the sexual history the patient gives. If there's a question about a protein band that reacted, and that patient is in a so-called high-risk group for AIDS, the band will be deemed to be Positive. But if they're in a low-risk group, the band is often called Negative, or just ignored. As far as I know, that's called 'profiling'! It really boils down to whether the doctor or the lab expect that person to be HIV-Positive or not!"

"Why would anyone want a patient to test HIV-Positive?" Campbell knows the answer, but he expects that the jury is somewhat shocked at Tanner's suggestion.

"Mr. Campbell, AIDS is now a huge industry worldwide. It's become a cash cow for a lot of people. Many livelihoods depend on keeping the number of AIDS patients going up, and this is one way to do it."

"Objection. Speculative and inflammatory." Armand wasn't letting that one slip by.

"Sustained." The judge looks at his watch. "Mr. Campbell, we're already into the lunch hour."

"Your Honor, I don't have much more, and I would prefer not to keep Dr. Tanner up any later at night than necessary."

The judge sighs, obviously hungry and anxious for a break. He's also trying to protect the jury from overwhelm from all the data. "Alright. If you can finish up in the few minutes, you can proceed."

"Thank you, Your Honor." Campbell holds up his yellow pad in front of him, preparing to read. "Dr. Tanner, you said in the beginning of your testimony, and I'm quoting, 'The Western Blot was originally designed and intended to find all the false positive reactions created by the ELISA, not to confirm the positive ones.' And you said this was very important to understand. Why?"

"Because it's being used for exactly the opposite purpose – to confirm positive ELISA tests. It wasn't designed to do that, and shouldn't be used for that purpose."

Campbell goes to his table and picks up the Cambridge test kit insert again. "Dr. Tanner, reading again from the printed insert that come with the HIV Western Blot test kit made by Cambridge, it says, 'Positive blot results using any specimen type (serum, plasma, or urine) should be followed with additional testing.... The clinical implications of antibodies to HIV-1 in an asymptomatic person are not known.' What do they mean by that?"

"Once again, Cambridge is saying that their Western Blot test kit should not be used to confirm HIV-antibodies to HIV without being followed up with further tests. In other words, this so-called 'confirmation test' should itself be confirmed by other tests. And they're also saying that even if their test says that someone is HIV-Positive, there is no clinical evidence that it means anything for someone who isn't sick. In other words, no one has a clue what having the antibodies to HIV means in a healthy person."

Campbell looks at the jury in disbelief. "But isn't their test being used to confirm HIV infection?"

"Of course it is."

Still acting as if he is surprised by all of this, Campbell continues, "And when HIV infection is confirmed, doesn't that mean the person is going to get AIDS, according to all the so-called experts?"

“Of course it does. But Cambridge says that neither of those statements is true, regardless of what anyone else says, and they want to be off the hook legally.”

Campbell walks toward his table. “Dr. Tanner, do any other HIV Western Blot test kit manufacturers agree?”

“Most of them, as far as I know. All the ones who are licensed by the FDA, I believe. For example, do you have the test kit insert from a company called Epitope?”

Campbell searches through his stack and finds it. “Yes, right here.” He turns to the page he had already highlighted. “It says, ‘Do not use this kit as the sole basis for HIV infection.’”

Tanner nods on the screen. “Exactly. With that, Epitope has covered themselves on two counts. First, they say not to use the Western Blot alone, without an ELISA, because they know that their test will have too many false positives by itself. And secondly, that sentence is so ambiguous that it could be interpreted to mean that, even if their test turns out positive after a positive ELISA, to get it confirmed with other tests as well.”

Campbell drops the printed insert on the table and picks up another folder. He opens it and finds a particular sheet of paper with some markings on it. “Dr. Tanner, I have the defendant’s Western Blot test results here as part of his medical file. I wonder if you could give us your expert opinion on them.”

“Be glad to. What protein bands reacted on his test?”

“There were four of them. gp120, p32, p40, and p18.”

Tanner is obviously writing them down, and then looks up at the camera again.

“Okay. Since this was done in the U.S., we’ll just use the five different criteria available in your country. First, he’s clearly not Western Blot Negative, because he has at least one protein that lights up. But he’s Indeterminate on both of the CDC’s criteria, in one case because he has only one env protein reacting, and in the other case because he does not have p24 reacting. The FDA would also say he’s Indeterminate, again because he does not have p24. The Red Cross on the other hand would be Positive, and so would the US Consortium.”

“So three out of five would not say he was Positive?”

“That’s correct. Obviously, his test had to have been interpreted using the Red Cross or the Consortium criteria, if he was deemed to be HIV-Positive.”

“But if we sent his blood to a laboratory that used either of the CDC’s criteria, or the FDA criteria, he wouldn’t be Positive?”

“No. He’d be Indeterminate.”

“So, again, in your expert opinion, the defendant cannot be said for sure to be HIV-Positive.”

“There is no way anyone could make that statement with any scientific proof behind it.”

“And what about the victim’s Western Blot results. In your expert opinion, could Beth Ann Brooks be said for sure to be HIV-Positive?”

“I haven’t seen her actual Western Blot results, Mr. Campbell; but I think I’ve given you enough testimony about the problems with the Western Blot test itself to say that her results would be highly questionable as well.”

“Thank you....”

Tanner interrupts him immediately. “Except...”

What the hell? All of a sudden, Campbell’s worried. Oh well.... “Except what, Dr. Tanner?”

“Except that there’s one huge problem with the Western Blot tests that we haven’t discussed that could change everything.”

“What is that?”

“The fact that there is no consistency from laboratory to laboratory, and you can get very different results of which proteins are reacting depending on which lab processes the test.”

Campbell breathes a deep sign of relief. “Dr. Tanner, I’d like to save that testimony for my next witness, if you don’t mind. But tell us, what difference could that make?”

“A huge difference. Your defendant might have very different proteins that light up, and he could actually be Indeterminate using all five criteria! You never know, he might even be Negative, depending on the lab. It’s happened before.”

That couldn’t have gone better if I had planned it. “Thank you, Dr. Tanner. Your Witness, Mr. Armand.”

This time it’s the judge’s turn to interrupt. “It’s time for lunch, counselors. We’ll have to continue with this witness later.”

Campbell had just sat down when he gets back up out of his chair. “Your Honor, it’s after midnight for Dr. Tanner. May I ask the court, and Mr. Armand, to consider his situation, and to recognize that it will be the middle of the night for Dr. Tanner, and he may be too tired to continue his testimony if we break for lunch?”

The judge wasn’t so sure. “We all need to eat, Mr. Campbell.”

“True, Your Honor, so here’s what I suggest, if Dr. Tanner agrees. I have another witness whom I will call after lunch that will also be talking specifically about the Western Blot tests, but most specifically about how different laboratories process those tests, as Dr. Tanner just mentioned. May I suggest that Mr. Armand reserve his right to cross-examine Dr. Tanner until tomorrow morning when he is more rested, and that I present my next witness, whom Mr. Armand can cross-examine this afternoon? That way, Mr. Armand will have all of the testimony concerning the Western Blot tests that he may use for his cross of Dr. Tanner.”

“Any objection, Mr. Armand?”

Armand rises. “No, Your Honor. I actually concur with Mr. Campbell, because my cross-examination of Dr. Tanner may take a while and I do respect his need for sleep.”

“And Dr. Tanner, do you agree to be available at ten a.m. our time again tomorrow morning?”

“I do, Your Honor, and I appreciate the consideration you are showing me.”

“Very well. This court is in recess until two p.m. this afternoon.” But just before the judge drops the gavel, his voice booms out again. “Oh, people, I forgot. I have a prior commitment in another court this Thursday and Friday. And then the following Monday is, of course, a holiday. So when we recess on Wednesday afternoon, it will be until ten a.m. the following Tuesday. Just so you know....” And the gavel bangs loudly.

Chapter Seventeen

By the time court resumes after lunch, the video screen has been retracted, the audiovisual equipment stowed, and the courtroom returned to normal. Campbell is beginning with his next witness.

“Dr. Tillman, your Ph.D. is in what field?”

“In chemistry.”

“And your Ph. D. thesis was on what subject?”

“It was entitled, ‘Susceptibility to Human Error in Antibody Testing.’”

“And you worked in a laboratory that did antibody testing?”

“Actually, our lab is what is called a reference laboratory.”

“Which is?”

“It’s a laboratory that, among other things, receives specimens from other labs to cross-check their results. It’s staffed with only the highest qualified lab technicians.”

“And your job at the lab?”

“I focused mainly on quality control within our own lab, making sure that the results we sent back were indeed correct as far as humanly possible.”

Campbell liked this man personally the first time they met. He seemed to have an honesty and integrity about him that was not so easy to find these days. It had taken a while to locate just the right witness for this part of the trial, but Campbell was glad he had kept searching.

“And do you still work there today, Dr. Tillman?”

“No, I don’t. I quit.”

“Why?”

“Because of what I found out about the HIV tests we were processing.”

“And that was?”

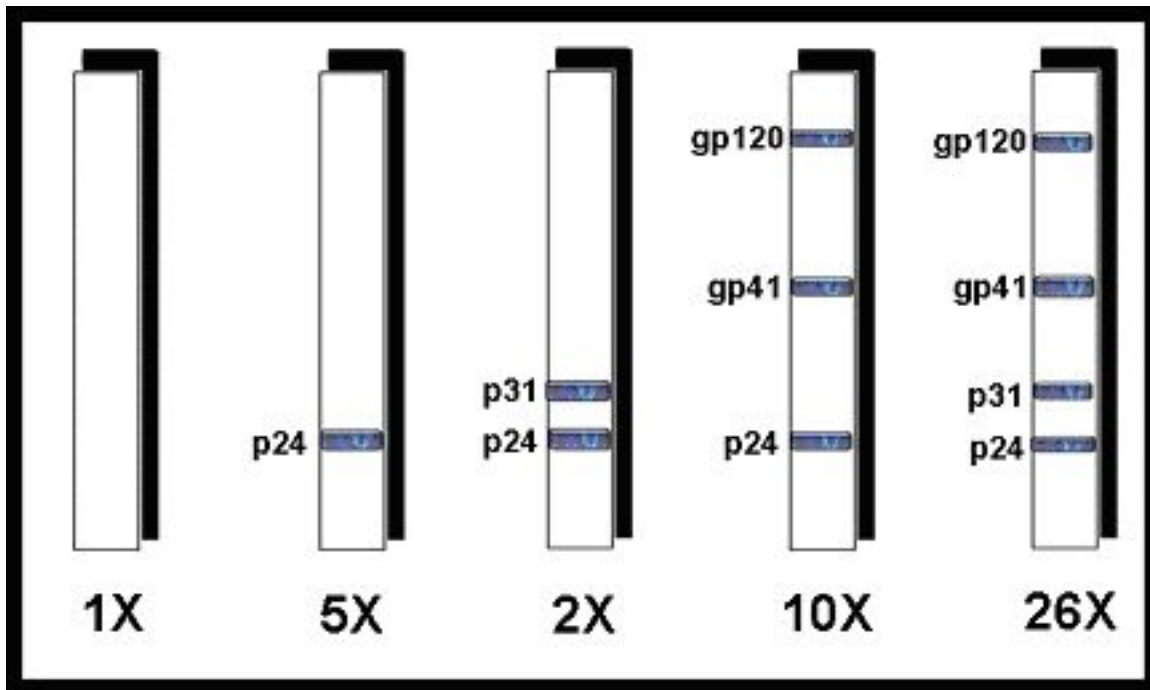
“That there was no standardization or reproducibility with any of the tests, and yet people were being told they were HIV-Positive anyway.”

That was what was so special about Tillman: he cared about people, not just the science. It was obvious he simply couldn’t stand to be part of a system that was taking people’s lives so needlessly. I hope the jury can see this man’s heart as well as hear what he has to say, Campbell thought.

“Can you give us a specific example of what you mean?”

“Actually, I can give you quite a few. But let’s start with one that happened at the lab where I worked. The same blood sample was sent to us forty-four different times over the course of several months. We didn’t know it was the same blood sample, mind you, so there was nothing to do other than to treat it each time like any other blood sample we received. And remember that we were a reference laboratory and were supposed to be the best and the brightest in the business. However, we got a wide range of test results on these forty-four samples.”

“In fact, we have a chart of those results I’d like to show you.” Campbell hands a transparency to the witness, who examines it carefully while Campbell lowers the screen again and a technician rolls out an overhead projector. When the transparency has made its rounds to the judge and the Solicitor, Campbell projects it on the screen for the jury and the witness to see.



“Would you please explain this chart, Dr. Tillman?”

“What it shows is that out of the forty-four times we processed this same blood sample, 26 times we found four proteins reacting on the HIV Western Blot test; ten times there were three proteins; twice there were two proteins; five times we found only one protein; and most unbelievably, once there were no proteins at all that reacted.”

“And what did this tell you?”

Tillman is obviously ashamed of these results, and almost appears apologetic. “Well, the first thing I did was to see what lab tech did what test, expecting to find one particular person screwing up some of the results. But that wasn’t true. Some of our best techs were getting different results each time, and no one was consistently wrong. So I literally had to rule out human error as the cause of such diverse results.”

“If it wasn’t human error, what was it?”

Sitting up very straight, Tillman answers abruptly. “Wait. Let me qualify what I just said. There could have been some human error in one or two of the results, but not enough to explain this entire chart. And since it wasn’t human error, the only other possibility is that the test itself is not reproducible. In other words, you can get different results at different times doing exactly the same thing.”

Looking at the jury, Campbell suggests, “That doesn’t sound like a very reliable test.”

“No, it isn’t. But the most shocking thing about it was that the results often mean life or death to someone. In this case, about 80% of the time this person is going to be told they are confirmed HIV-Positive. But more than 15% of the time, they would be told they are Indeterminate, and once they

would be told they are HIV-Negative. And it all depended on which day we did the test. That doesn't speak well for the accuracy of the test itself. If we can't get the same results every time with the same blood sample, or at least 98 or 99 percent of the time, then we're causing a lot of people some very undue pain and heartache, and sometimes even death."

Campbell is not only willing, but anxious for this witness to express his emotional reaction as well as his scientific expertise. It's time, he thought, to make this real to people, to show the very human side of it all. Unfortunately, he has to keep his questions focused on the science. "Did you use the same criteria to interpret the results each time?"

"Yes, we used the CDC criteria."

"And if you had used the FDA criteria?"

"Let me see." Tillman pulls a card out of his pocket and then looks at the chart on the screen. "Well, it's even worse. The results would have been Positive only 26 times, or about 60% of the time, and the rest Indeterminate; and of course, with one Negative still."

"So are you saying that the results of an HIV Western Blot test are so unpredictable that it literally depends on who processes the test and what day it is?"

"Unfortunately, that's exactly what I'm saying."

"How did you feel when you discovered this?" Campbell sneaks a quick peak at the Solicitor, hoping Armand doesn't object to this line of questioning. Looks like he's going to sit still, at least for a while.

Tillman sits back in his chair. "I later found out that this person had been told they were confirmed HIV-Positive based on the test results from another laboratory, and that didn't sit well with me. I mean, anywhere from 20-40 percent of the time in our lab, they were not Positive; and I was very uncomfortable that we were giving people a death sentence based on these results."

"So what did you do?"

"I began to do my own private research to see what was happening in other labs with these HIV Western Blot tests. Naturally I was concerned that there might be something very wrong in our lab if we were the only ones to come up with these kinds of results."

"And what did you find out?"

"That we were definitely not alone. This kind of thing was happening everywhere."

"Can you give us an example?"

"I believe, Mr. Campbell, you have another chart you can put up on the screen?"

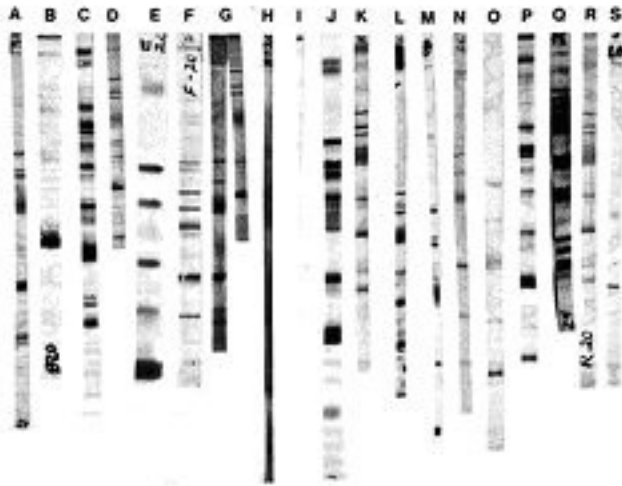
"Which one?"

"The one with nineteen different Western Blot strips."

Campbell shuffles through some transparencies until he finds the one Tillman wants.

Results from a Western Blot test

this same sample went to 19 different labs,
and produced 19 different results



- 1 blood sample

- 19 different labs

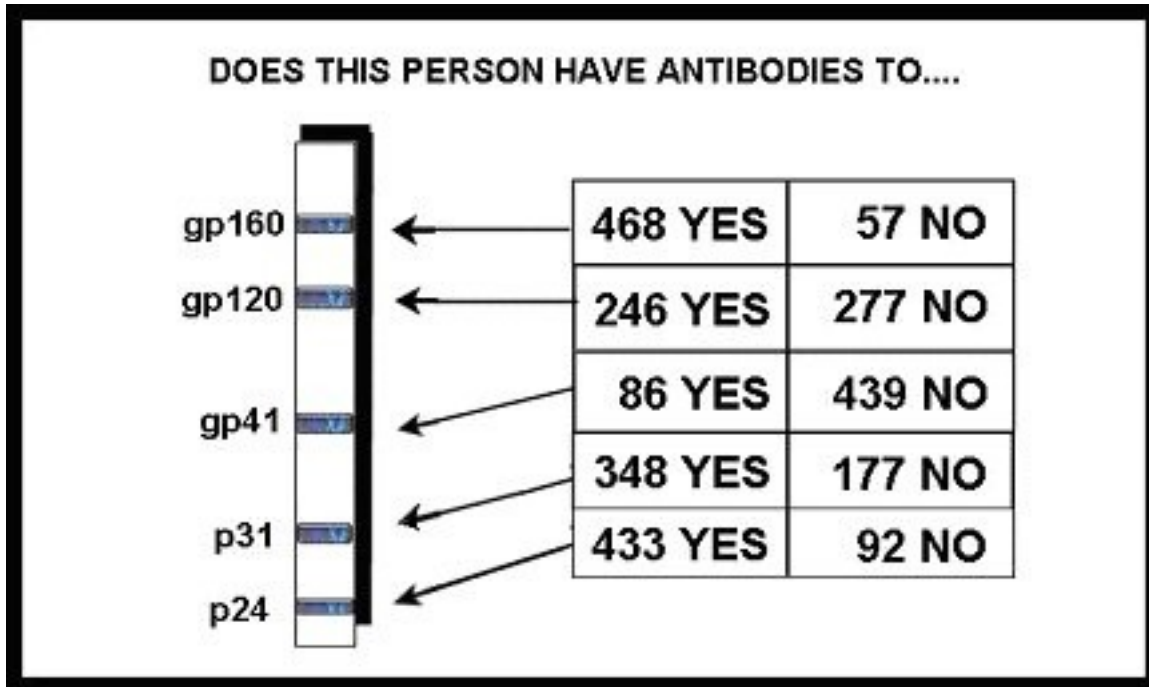
- 19 different results

“That’s it, Mr. Campbell. In this case, the same blood sample was sent to nineteen different laboratories, and you see the results from each lab. Notice that no two strips are alike. In other words, nineteen different labs produced nineteen different results from the same blood sample on an HIV Western Blot.”

Both Campbell and Tillman give the jury time to look closely at the screen to verify what Tillman had just said. Finally Campbell asks, “Ready for the next one, Dr. Tillman?”

“Yes, go ahead.”

After Campbell puts another transparency into the overhead projector, Tillman begins his commentary.



“In 1999, the Centers for Disease Control and Prevention sent a blood sample they had already ‘confirmed’ as HIV positive to 525 different laboratories, and they asked whether each lab found these five specific proteins when they processed the test. The difference in the results is dramatic. For example, out of the 525 labs, 468 found that gp160 reacted with the person’s blood, but 57 did not. And look at gp120 and gp41. In both cases, more labs did not find these proteins than ones that did. Now, according to the CDC, all five of these proteins should have reacted on the test. But the results were far different than expected.”

“There doesn’t seem to be any consistency at all in these test results.”

“Virtually none, you’re right. But what really got to me were two other scientific studies I discovered. One involved three reference labs, just like mine, that had very similar, completely divergent results and was published by the Transfusion Safety Study Group in 1991 in the American Journal of Clinical Pathology. Another was a U.S. military study of 1.2 million applicants done by a Dr. Burke. There were 80 people in that group that had two Positive ELISA tests and a Positive Western Blot test, which meant that they were deemed to be HIV-Positive. However, on a follow-up Western Blot, those eighty people suddenly were Negative!”

“I didn’t know that the Western Blot was done more than once.”

“Normally it isn’t, and that’s a big problem. The only reason these eighty people were spared an HIV-Positive diagnosis, and the shame and pain and death sentence that goes along with it, was that they happen to be involved in a study and were being re-tested periodically. Otherwise, they would have gone through life thinking they were going to get AIDS and die. And it’s the same story for everyone as far as I can tell. One day you might be confirmed Positive on a Western Blot, the next day Indeterminate, and the next even Negative, depending on what day it is, which lab is doing the

processing, and how the results are being interpreted by your doctor. That's no way to diagnose a deadly disease!"

"Is that why you quit?"

"Yes. I read too many scientific studies that called the HIV Western Blot test into question, with no satisfactory answers. I also met too many people who had tested Positive once, Indeterminate once, Negative once, and then maybe even Positive again to have any faith whatsoever in the accuracy of these tests. I simply couldn't stand the thought of being part of such shoddy science when it involved the life or death of another human being."

It's clear to Campbell that Tillman is just a bit too emotional, and he wants to calm things down if he can. He also wants to get the most important question out in the open now, while the jury is with him. "Dr. Tillman, in your expert opinion, what are the chances of the defendant's positive Western Blot test result being accurate?"

"Mr. Campbell, I really can't answer that question. It may well have been accurate, depending on the lab, and the day it was processed. But unfortunately, there's no way to tell without doing additional tests and making some comparisons."

What a perfect segue! Campbell goes to his table and picks up a brown manila envelope, but he doesn't open it. "Dr. Tillman, we sent the defendant's blood to ten different laboratories..."

"Objection!" Armand is caught by surprise, and he doesn't like it. "When did this happen? Why was I not informed of this?"

Campbell suppresses a smile. "I have just received the last results back today, Your Honor. I didn't know I needed Mr. Armand's permission to test my client's blood – only my client's permission."

"But you damn well need my permission to introduce it as evidence into this trial at this point, and you know it." Armand is steaming.

The judge bangs his gavel to shut both of them up. "Mr. Campbell, has this been entered as an exhibit?"

"No, Your Honor. As I said, I just got it back this morning."

"Then I assume you are making a motion to enter it as evidence?"

"Yes, Your Honor, if it pleases the court."

"Approach..." The judge motions the attorneys to the sidebar. "Mr. Campbell, this smells a little fishy. Can I see the envelope, please?"

Campbell hands the judge the manila folder, who opens it and pulls out ten white envelopes. He carefully looks through all the envelopes and then stops at the one he was looking for.

"This one is postmarked two days ago."

"Yes, Your Honor. That's the one that just arrived in the mail today."

"But what about the other nine?"

"They've trickled in over the last week."

"But you decided to hold on to them until you could spring this little surprise on Mr. Armand?" The judge didn't like theatrics in his courtroom.

"No, Your Honor. I decided to hold on to them until I have received all of them back – which was today."

The judge gives Campbell a long look, still not sure whether he's being manipulated or not. "Mr. Armand, what are your arguments against introducing these as evidence at this time?"

Armand is totally unprepared and not sure what to say. "Well, Your Honor, for one thing, I haven't seen these yet... haven't been able to examine them, or study them, or prepare a cross-examination on them."

"Your Honor," interrupts Campbell, "I would be happy to let Mr. Armand call this witness back for cross-examination tomorrow, after he's had a chance to look these over carefully tonight. The

witness has not had a chance to see these yet, either. So may I suggest a brief recess so that we can all have a chance to study them. I have copies for both of you....”

Campbell hands Armand and the judge each an identical manila envelope, which the judge simply lays on his desk as he turns to address the Solicitor. “Mr. Armand, there have been some important questions raised by this witness, and I think the jury should know how they might, or might not, apply to this defendant. After all, we don’t know yet what the results are from these tests. They might even confirm the defendant’s Positive diagnosis. We won’t know until we look.” Armand knows what’s coming but doesn’t know what to do about it. He slowly walks back to his table when the judge dismisses them from the sidebar, announcing to the whole court, “We’ll take a half-hour recess and come back at three-thirty.”

* * *

“Dr. Tillman, did you have a chance during the break to look at the results of the defendant’s HIV Western Blot test from these ten laboratories?”

“Yes, I did.”

“And what did you find?”

Tillman looks at the paper he used to score the tests. “First, as to be expected, there is a lot of discrepancy from lab to lab about which proteins reacted. Specifically, two labs found gp160, five labs found gp120, four labs found gp41, two labs found p53, six labs found p32, one lab found p55, three labs found p40, eight labs found p24, and six labs found p18.”

“Did any of the labs have no proteins react?”

“No, they didn’t. So the defendant could not be called HIV-Negative.”

“Dr. Tillman, I realize that your expertise does not include the various different criteria that are used to interpret these test results, so I’m not going to ask you to do that. But I will ask you this: in your expert opinion, have you ever seen any other antibody test perform this way – getting such different results from different laboratories?”

“Never, Mr. Campbell. Frankly, it’s a disgrace. I’m appalled that we would conclude that anyone was HIV-Positive with this kind of difference in the lab results.”

Campbell looks at his own notes. “Dr. Tillman, one last question. You said in the beginning that you worked at a ‘reference laboratory’...”

“Correct.”

“...which is staffed by only the best-trained and most proficient laboratory technicians.”

“Yes.”

“And still you got test results that were all over the place.”

“Yes, we did.”

“And you mentioned at least one other study that got the same divergent results, also at a reference lab.”

“Correct.”

Listen carefully, jury. “Dr. Tillman, are all HIV Western Blot tests processed at a reference laboratory?”

“Oh, no. Very few, as a matter of fact.”

“Where are most of the tests processed?”

“In regular, field laboratories.”

“And how are they staffed?”

“Well, certainly not with Ph.D.’s, I can assure you. Many lab techs are fresh out of college or only been on the job a year or two.”

“So they are not as highly trained or as competent as what you’d expect to find in a reference lab?”

“Not by a long shot.”

“Do they have the kind of quality control that you insisted on at your lab.”

“Highly doubtful.”

“Would you expect them to get better or worse results than a reference lab would get?”

“I would be very surprised if they even came close to the quality we tried to maintain.”

Campbell turns toward the jury box but doesn't look at anyone in particular. “Then, Dr. Tillman, considering the results you got at your reference lab, what do you think might be happening in these field labs when they process an HIV Western Blot test to decide someone's life or death?”

“I shudder to think about it, Mr. Campbell.”

As good an answer as any, I suppose. “I have no further questions, Your Honor. But I will email these tests results to Dr. Tanner and ask him tomorrow morning to tell us how each of the five different U.S. criteria would interpret them. So I repeat my offer to Mr. Armand to recall this witness for cross-examination tomorrow after I have finished with Dr. Tanner, if he wants.”

When Armand doesn't respond immediately, the judge asks, “Mr. Armand?”

Armand is still looking at the ten envelopes he had spread all over his desk.

The judge is getting impatient. “Mr. Armand? Would you like to cross-examine this witness now, or wait until tomorrow?”

Without standing, and without taking his eyes off the envelopes in front of him, Armand mutters, “I'll save my questions for tomorrow, Your Honor.”

The judge decides to overlook this display of disrespect for the court, considering the bombshell Armand had been handed. “Very well. This court is in recess until – what time are we on video link with your witness, Mr. Campbell?”

“Ten a.m., Your Honor.”

“Then we are recessed until ten a.m. tomorrow morning.”

Chapter Eighteen

Sarah is sitting on the sofa trying to wrap her mind around everything she had heard so far in this trial. She thought about all those people over the years who had been diagnosed HIV-Positive as a result of tests that seem now to be extremely inaccurate and unreliable. She can't imagine the pain and anguish they might feel once this information was made public on a grand scale, and angry – enraged, even – that they had lost so many years of their lives so needlessly. How in God's name did our scientists and medical doctors get so far off the track so easily?

Suddenly she remembers a TV program she watched with Bill a few months ago, aired by GNN during the AIDS trial. She picks up her cell phone and dials.

"Hi. It's Sarah. Could I speak to Dr. Meadows, please?... Bill?... Hi, honey.... I know. Sorry to interrupt you.... Do you remember the GNN program we watched about Dr. Robert Gallo a few months ago?... Did we TIVO it?... I sure hope so. When you get home tonight, could you please check and see if it's still there?... Well, if it's possible, I'd like you to transfer it to a DVD and send it to me.... Yeh, I want to watch it again.... I think it might have some answers for me, and I know so much more about all of this now that I probably missed some things the first time around.... Thank you, sweetheart. I'll let you get back to your patient and we can talk later.... Love you, too. Bye."

Gwen had joined Sarah on the sofa but waited for her to finish the call.

"Gwen, if Bill can send that to me, you've got to watch it, too."

"What is it?"

"It's an hour special GNN did about Dr. Robert Gallo, the man who started all this HIV stuff."

"That should be interesting."

"I remember it shocked me the first time I saw it. Really gave a good picture of the man we have believed for thirty years about HIV and these tests that are turning out to be so... I don't even know the best word... crazy?"

"I'll look forward to it." Gwen sets her wine glass down. "Which reminds me, I made that appointment for you at the lab this Thursday for the viral load test you wanted to take."

"Thursday? Perfect. You didn't tell them anything else, did you?"

"Just that you needed the test; that was all."

"Thanks, Gwen. It will be interesting to see what they say when they find out I'm HIV-Negative."

"Wish I could go with you just to see their faces, but I'm teaching at that time. You sure you can leave court for that – it's at three p.m.?"

"That's why I said it was perfect. We just found out court will not be in session Thursday or Friday."

Gwen gets a big smile on her face. "I don't have to teach on Friday, either. And Monday is a holiday. We've got a four-day weekend! What do you want to do?"

"I hadn't thought about it. Of course, I've got my weekly column to send to Sam, but otherwise, I don't know."

Jumping up to grab her phone, Gwen suggests excitedly, "Let's take a road trip! Let's go to Atlanta to visit my friend Kate, who teaches at Life Chiropractic College. We can go downtown in Atlanta, stroll around, do some interesting things, but mainly kick back and have fun. You'll like Kate. She's one of us."

"You mean..."

Gwen stops before dialing Kate. "No, I didn't mean that. I don't know what Kate thinks about HIV and AIDS, or whether she's had any personal experience with it. But that's even better, because this weekend you should forget all about that stuff and take a real break from everything. We don't even have to mention AIDS the entire time."

“Sounds wonderful!” And Sarah means it. She needs a vacation, from the trial, from the emotions, and from her constant focus on HIV.

Gwen has dialed Kate and is waiting for her to answer. “Why don’t we leave on Friday around noon, and plan on coming home sometime on Monday?”

Sarah thinks for just a minute. “Sure. I can get my column done on Thursday morning and send it to Sam early. I’ve already interviewed the person I want to feature this week, so it’s just a matter of transcribing the tapes and making it readable.”

Gwen picks up her wine again and offers a toast. “To the weekend warriors!” As they clink glasses, she adds, “I’m so excited about this. What fun we’ll have! Hello, Kate? It’s Gwen....”

Chapter Nineteen

Court started promptly at ten, but the lawyers had been at the sidebar arguing for about fifteen minutes. Apparently, Armand was objecting to Campbell asking more questions of Dr. Tanner, since he had said the previous day that he had no more questions and closed out his direct examination of the witness.

“Your Honor, while that’s true, I also did not have all the results back from the defendant’s Western Blot tests, which I want to ask Dr. Tanner about. I can either ask him now, before Mr. Armand cross-examines, or I can ask on re-direct, in which case Mr. Armand will not have the chance to cross-examine Dr. Tanner at all on these results.”

“And if I object to you bringing these test results up in re-direct, since they were not part of your direct?” Armand argues.

“Then I will simply ask to recall Dr. Tanner later and go into them at that time,” Campbell replies.

Armand’s not giving in, just on general principle. “And if I object to recalling this witness?...”

“Stop it,” the judge interrupts. “That’s enough. We’re not going to waste time on a lot of technicalities. Mr. Armand, I feel confident that Mr. Campbell will find a way to get these test results into the record. I suggest you let him do it now, and then you will have the opportunity to ask Dr. Tanner about them.”

“But, Your Honor....”

The judge isn’t interested in any more discussion on the matter. “Objection overruled. Mr. Campbell, you may start off by asking the witness about these test results, but only about these test results and nothing else. You did, in fact, close out your direct yesterday, and I won’t open it back up to just anything. Now, step back, both of you.”

“Thank you, Your Honor,” both attorneys say in unison. They were trained to do that, whether or not they agreed with the decision.

Campbell takes his place at the lectern. Both video cameras in the courtroom are operational, and Dr. Tanner’s face appears on the big video screen looking exactly the way it did twenty-four hours ago. “Good morning, Dr. Tanner.”

Tanner looks at his watch. “Good evening, Mr. Campbell.”

“Dr. Tanner, did you have time to look over the results I emailed you from the ten different laboratory HIV Western Blot tests for the defendant in this trial?” Campbell holds up the ten lab reports in his hand.

“Yes, I did, and I have them here.” Tanner holds up his copies in the same fashion.

“And did you reach any conclusions?”

“Well, Mr. Campbell, may I remind you that there are five different criteria in the United States that could have been used to interpret the test results. Although a couple of the laboratories specified which criteria they had used, most didn’t. So what I did was to take the actual protein reactive bands from each laboratory and apply all five of the different criteria to them – which means that there were a total of fifty different possible outcomes... five criteria for each of the ten labs. Is that clear?”

Campbell looks at the jury and is satisfied. “Yes, I think that’s clear.”

“Okay. So here’s what I came up with. Thirty-one times out of the fifty possibilities, the defendant was confirmed HIV-Positive on this Western Blot. That’s sixty-two percent. The other nineteen times, the defendant is Indeterminate. He is never Negative, because there is at least one protein lighting up in each lab.”

Campbell writes something down on his legal pad. Of course, he had already done this exercise a number of times last night, so he knew exactly what to expect. Fortunately, Tanner’s results matched his precisely.

“To say it another way, Dr. Tanner, the defendant would not have tested Positive 38% of the time.”

“That is correct.”

“38 percent. That’s kind of a lot, isn’t it?”

“I would say so, yes.”

Wonder if I can slip this in? “Dr. Tanner, in your mind, does that create a reasonable doubt that the defendant is actually HIV-Positive?”

“Objection. This witness is not qualified to make that kind of determination.” The tone of Armand’s voice is getting a lot more angry, and rough, and accusative, Sarah notices. Maybe he isn’t as confident with the way the trial is going now, she thinks. I’d be worried, too, if I were him.

Campbell, on the other hand, is keeping his composure. “Your Honor, I disagree. This witness is holding in his hands the results of ten HIV Western Blots tests for the defendant. He has been accepted as an expert witness on the Western Blot test itself. Surely that qualifies him to express his opinion on whether those test results constitute a reasonable doubt about the defendant’s HIV-Positive status.”

The judge deals Armand another blow. “Overruled. The witness may answer the question.”

Tanner has been waiting patiently, both for the judge’s decision and this particular question. “Do I have a reasonable doubt the defendant is really HIV-Positive? You bet, Mr. Campbell. More than a reasonable doubt, I can assure you. And I should point out that the results submitted by these labs confirm that as well.”

“Could you explain what you mean by that?”

Tanner can be seen leafing through the ten sheets of lab results. “I mean the final result sent back by these ten labs is: six Positive, and four Indeterminate. That’s 40% Indeterminate. Yesterday I said 38%, so that’s pretty damn close.”

That was about as emotional as Campbell had ever heard Tanner, and probably ever would. “Just to be clear, Dr. Tanner, each of these ten labs included their interpretation of the test results, even though most of them didn’t say which set of criteria they were using?”

“Correct.”

“And six of them said the result was Positive, and four said it was Indeterminate.”

“Correct.”

“So if the defendant’s blood had been sent to one of these labs that found it to be Indeterminate...”

“...we wouldn’t be sitting here today, Mr. Campbell. Most likely, the defendant would have to take two more Western Blot tests over the next six months, and if both of them came back Indeterminate as well, he would be deemed to be HIV-Negative.”

“And there would be no murder weapon - HIV.”

“No, sir.”

Campbell wants this repeated for the jury. “So we are here today simply because one particular set of criteria was used to interpret a Western Blot test that found him Positive, but there was a 40% chance that result would have been different at a different lab. Is that accurate to say?”

“Entirely accurate, yes. And to save you some time, Mr. Campbell, 40% is much more than a reasonable doubt that the defendant is HIV-Positive.”

“Objection.” Armand just yells it out from his chair.

Campbell doesn’t care. “No more questions. Thank you, Dr. Tanner. Mr. Armand, your witness.”

Armand sits for a minute, clearly trying to regain his composure and decide what tack to take with this witness. Eventually he makes his way to the lectern. “Dr. Tanner, you claimed in your testimony that the Western Blot test would produce a lot of false positives if it was given to someone who had not had an ELISA test. Are you aware that the Western Blot is not supposed to be given to anyone who has not had at least two Positive ELISA tests?”

“I am aware of that, sir, and I think it’s very clear why not. But I don’t see how that changes the accuracy of the test, other than covering up all those false positives it would produce if it were given by itself.”

Armand’s frustration makes its way to the surface again. “But you agreed that the Western Blot was designed to confirm two prior Positive ELISAs, did you not?”

Tanner is too sharp to fall into that trap. “I did not, no sir. In fact, I said it was designed to expose the false positives the ELISAs were producing and not to confirm the positives the ELISAs were getting.”

“But what’s the difference, Dr. Tanner. In either case, the Western Blot is confirming the ELISA results, whether they were false positives or true positives.”

“That’s not true, Mr. Armand. There’s a big difference. Let me try to explain it to you, since you clearly don’t understand. Imagine if you gave a written math test to a classroom of students, and you thought some of them cheated on it. You could design a couple more questions to give verbally to the students you thought cheated at the end of the test that would clearly demonstrate whether they had the ability to get the kind of grade they did, or proved that they cheated and got a false grade. Anyone who got a high score on the written test but flunked the verbal questions would obviously have cheated.”

Armand jumps in quickly. “But conversely, anyone who got a high score on the verbal questions as well as the written test would not have cheated.”

“Not true. It’s entirely possible that some of those who cheated could guess right on the verbal questions and never be detected. So you’re not going to find all the cheaters, but you’ll probably catch a lot of them. On the other hand, if you wanted to confirm all of those who had not cheated, you would design the test very differently.”

Armand throws his hands up in the air in disgust. “What are we talking about? None of this makes any difference. The Centers for Disease Control and Prevention has clearly stated that anyone who has two Positive ELISA tests and a Positive Western Blot test is HIV-Positive, end of story.”

But Tanner is not giving in. “It’s not the end of story, Mr. Armand, because there is no scientific basis for them to make that decision.”

Armand storms over to his table and picks up a piece of paper. Arriving back at the lectern so Tanner could see him, he waves the paper in the air, as if shaking his fist. “Dr. Tanner, you can’t see this, but I will read to you what the CDC actually says. They say, and I quote: ‘the combined accuracy of the ELISA plus either the WB or IFA is greater than 99%.’ This is the premier health organization in the world, not just the United States. Are you suggesting they are lying to everyone?”

Tanner smiles, which aggravates Armand even more. “I actually called the CDC and asked them what grounds they had to make that statement, and what scientific studies supported their conclusions. They said that it was the result of a book edited by Gerald Schochetman and J. Richard George called AIDS Testing: A Comprehensive Guide to Technical, Medical, Social, Legal, and Management Issues, the second edition, published in November of 2005. So I read that book, and I will repeat that there is no scientific evidence in that book that would allow them to make the statement that the combined accuracy of the ELISA plus either the WB or IFA is greater than 99%. Now, maybe they aren’t intentionally lying to us, Mr. Armand, but what they are saying simply cannot be true, for several reasons.”

Armand doesn’t know what to do with this. “I’m not going to argue with you, Dr. Tanner. We have the CDC’s statement. I brought forward expert witnesses that said the same thing. We have viral load tests that confirm HIV infection on these people as well. So why should anyone believe you when you say it isn’t true?”

Campbell is on his feet before Armand can finish. “Objection. Your Honor, once again, neither I nor this witness has mentioned the HIV viral load tests, and Mr. Armand has no basis in my direct to include those in his cross-examination. In addition, the CDC has not included the viral load test as a confirmation test for HIV infection in the statement Mr. Armand is referring to.”

The judge agrees. “Mr. Armand, leave out the viral load tests and focus on the ELISA and Western Blot tests.”

Armand is beside himself. “Your Honor, this is outrageous. Mr. Campbell brings in one emergency room doctor from halfway around the world – one out of hundreds of thousands of highly respected doctors and scientists and researchers who can’t all be out of their minds – and just because he says the CDC is wrong, we’re supposed to believe him?” Armand stares at the judge for a minute, but gets no response. Finally, he gives up. “I have no further questions of this witness.”

Everyone can see the judge’s eyebrows go up, but his voice remains steady. “Re-direct, Mr. Campbell?”

“Absolutely, Your Honor.” Campbell rises and makes his way back to the lectern. “Dr. Tanner, you said that the CDC’s statement that the combined accuracy of the ELISA plus either the WB or IFA is greater than 99% is not accurate for several reasons. What are they?”

Tanner visibly relaxes now that Campbell is asking the questions again. “Well, first and foremost, there are no scientific studies to verify it. The book that they say gives them the proof doesn’t actually prove anything at all; because in order to make that statement, you have to have found actual HIV by culture in 99% of the people who tested Positive after both an ELISA and a Western Blot. That kind of validation study has never been done and is therefore not mentioned in the book; and actual validation is the only way you could make that statement.”

“What you’re saying is that not only have the ELISA tests and the Western Blot tests not been validated individually, the combined test results have never been validated either, even though they’re claiming they have?”

“Correct.”

Tanner knows he’s dealing a heavy blow to the AIDS industry with this testimony, and he seems to be enjoying it immensely. But the best is yet to come. “Secondly, you cannot verify the results of one test with the results of another test, when the two tests are virtually identical. I said yesterday that the only difference between the HIV ELISA test and the HIV Western Blot test was that the proteins in the test kit are in one big soup in the ELISA and separated into ten separate bands in the Western Blot. But both tests still use exactly the same proteins.”

“And what’s the problem with that?”

“Think about it. In that example of the math quiz I made up a few minutes ago, it would be like using exactly the same questions for the verbal confirmation test that were asked on the written test. Most cheaters could get them right the second time just a few minutes later, don’t you think?”

Campbell hopes the jury gets the analogy. “It would stand to reason....”

Tanner interrupts. “But what won’t stand to reason, to use your words, is using a Western Blot test to confirm a Positive ELISA test. The whole thing is completely illogical. It’s called ‘Begging the Question,’ and it...”

This time it’s Campbell who interrupts. “Dr. Tanner, I’m going to stop you there, because I have another witness who is an expert in logic who is prepared to testify about begging the question.”

Tanner seems a little disappointed, as if he had looked forward to being the one who delivered the knock-out punch. “Oh, alright.”

“But I want to get back to the book that supposedly serves as the basis for the CDC’s statement that the combined ELISA and Western Blot tests are 99% accurate. What does it actually say?”

Tanner holds up the book in range of the video camera so Campbell and the rest of the court can see it on their screen. “I have the book right here, Mr. Campbell, and I’m starting on page 89 where they claim that...” Tanner puts on his glasses and reads, ‘...the licensed tests for HIV antibody are highly sensitive (greater than 99.8 percent) and specific (greater than 99.8 percent).’ Now let’s be clear: they’re talking about the individual ELISA and Western Blot tests at this point – not the combined tests. But my first question would be: How did they arrive at these sensitivity and specificity percentages if they’ve never done validation studies to find actual HIV infection in the people who test

Positive, which is the only accepted way I know of to establish true sensitivity and specificity? So I admit I start with some skepticism about the accuracy of their numbers.”

I wonder whether I’ve opened a can of worms with too much detail. “Can we just take them for their word for now and accept their numbers?”

Tanner peers into the camera over the glasses he never took off, realizes that, takes them off, and relents. “Okay. I can do that. Although I should tell you that even the CDC, in this book, admits that the ELISA test will produce 335 false positives out of every 1000 positive results on the ELISA test, based on .4 percent of the population being HIV-Positive.”

Oh, God. This was a mistake. How do I get out of it now? “Dr. Tanner, maybe we should just focus on how they come up with the statement that the combined HIV tests will be 99% accurate.”

“Alright. Well, on pages 91 and 92,” and Tanner puts his glasses back on, “there is a complex mathematical formula they use to determine what’s called the Positive Predictive Value of four combined HIV tests.”

Campbell interrupts. “Four? I thought that only two Positive ELISAs and one Western Blot was required.”

“That’s true,” Tanner agrees, taking his glasses off again. “But all their calculations are based on three ELISAs and one Western Blot, so right there they’ve got a problem.”

“Can we overlook that problem as well?” and let’s get to the meat of the matter, please.

“Well, okay. But please understand that using four tests makes their math even more wrong.”

Campbell is getting impatient. “So what is wrong with their math?”

“First of all, it’s math. It’s all theoretical. It’s all on paper with no relevance to reality. You know that you can prove mathematically that two plus two is five, don’t you – on paper, anyway. But in reality, two plus two is four, and we all know that to be true.”

Campbell looks at the jury and nods his head. “I’m sure we’d all agree with that.”

“But the biggest problem with their math is that they use a wrong formula to determine the specificity of the combined four tests. Basically, they multiply the four test specificities together, which is not what would happen in real life. Here’s what I mean....”

Campbell can’t let this go on. It’s way too much. “Dr. Tanner, I don’t think we can go there. I think we’re going to have to settle for your expert opinion about the formula.”

Tanner seems almost insulted that he was cut off. “Well... my expert opinion is that the formula is wrong and produces an accuracy that cannot be substantiated in either the math or in the real world.”

Campbell hates to do it, because he knows Tanner has a very good point. But there is no way he is going to risk losing the jury in a bunch of numbers and getting them sidetracked on some complicated technical issues, when the most critical and simple point of all is just waiting to be heard: they can’t use one test to confirm another, even if the math were right! “Thank you, Dr. Tanner. I have no further questions for this witness, Your Honor.”

The judge wants to give Armand time to settle down; so even though it’s early, he announces, “Court is in recess until two p.m. this afternoon.”

* * *

Campbell knows that the next two hours will probably be the most important in the entire trial. If the jury can understand the testimony of his next expert witness, they will undoubtedly find the defendant not guilty when it’s all said and done. He’s also aware that the entire AIDS industry is based on the statements he is about to challenge; and if he can do this right, he can bring down their whole house of cards.

Armand knows this too, and although he tried to engage Dr. Tanner with it this morning in his cross-examination, he knows he didn’t do a very good job.

Sarah is even aware that something big is about to happen. She can feel it – the make-or-break point, like that Ace of Spades that she thought Armand must have up his sleeve last week. Funny thing, though; it's Campbell that's going to pull it out.

"I'd like to call Dr. Judith Burgess."

A young woman – looks like she's in her late twenties – with short-cropped blonde hair and a stylish light-blue pants suit makes her way to the witness stand. When she's settled in, Campbell begins his questions.

"Dr. Burgess, your doctorate is a Ph.D. and not an M.D.?"

"Correct. I received my Ph.D. through the Philosophy Department at Michigan State University."

"And you are teaching at the moment?"

"Yes, I teach logic, ethics, and science and values at Clemson University, just down the road from here."

Campbell grabs some papers from his table. "Dr. Burgess, I'd like to read you a couple statements being made by various people in the AIDS Industry, if I could, and then I want to ask you some questions about the logic behind those statements, more so than the science."

"Go ahead, Mr. Campbell."

He looks at his notes. "Here's a quote from one of the leading AIDS doctors on the Internet, Dr. Becky Kuhn, that she emailed me one day. It says, 'An error or false positive on one of the HIV tests will be corrected on one or more of the other tests, making the tests 99% accurate when combined together.'"

"Okay."

Apparently that's all Burgess is about to say at this point, so Campbell continues.

"The other comes from the CDC – the Centers for Disease Control and Prevention – who say, '...the use of repeatedly reactive enzyme immunoassay followed by confirmatory Western blot or immunofluorescent assay remains the standard method for diagnosing HIV-1 infection.'"

"Alright."

Campbell had anticipated a little more of a response from this witness. Did I make a mistake choosing Burgess for this job? Too late now.

"Dr. Burgess, we've heard a lot of testimony over the past couple of weeks about a myriad of problems with the HIV ELISA test and the HIV Western Blot test, and there has been very little, if any, dispute about the the facts that have been presented. In fact, the only real response anyone in the AIDS Industry seems to have is what I just read you: that any problems that we have brought up are all solved when the ELISA and Western Blot tests are combined together – that a positive Western Blot after two positive ELISAs confirms that a person is HIV-Positive. In your expert opinion, would that be true?"

"That depends, Mr. Campbell. To put this into logical terms, their conclusion is that the Western Blot test is able to confirm the ELISA test. Have I got that right?"

"Yes, I would say so."

"Then it depends on what comes before this statement, on which the premise relies. For example, has the ELISA test been proven to be accurate by some independent tests other than the Western Blot?"

"No, it hasn't, according to our expert witnesses."

"Well, has the Western Blot been proven to be accurate by some independent tests other than the ELISA?"

"No, it hasn't, again according to our expert witnesses."

"Are the two tests entirely different in what they are testing for?"

"No, they aren't. The testimony has been that they're virtually identical tests. Both are antibody tests looking for reactions to the same proteins."

“Then it’s simple. They can’t make the statement that one test can confirm the other, Mr. Campbell. Or to put it another way, if they do make this statement, it violates all rules of logic and therefore is highly unlikely to be true – not impossible, but highly unlikely.”

Sarah could see the relief in Campbell’s face, and she was also impressed that the witness had refrained from giving her opinion until she had all the necessary facts – a point that was probably not lost on the jury, either.

“Exactly what rules of logic, Dr. Burgess?” Okay, let’s do this, Campbell thinks.

“It’s called ‘begging the question,’ but it’s sometimes referred to as ‘circular reasoning.’ Both are called fallacies of logic.”

Campbell hadn’t planned on going this deep, but Burgess had brought it up and now he had to make it clear to the jury. “Is there a difference between the two?”

“Technically, yes, although both terms are used interchangeably these days. In this case, what the CDC and Dr. Kuhn are saying violates both.”

She’s obviously just out of school, well-educated, but as often in the case, armed with almost too much knowledge, Campbell realizes. I’ll have to be careful not to lose the jury. “Would you explain one of these fallacies, please, Dr. Burgess?”

“Surely. Let’s take circular reasoning. In circular reasoning, there is only one premise, and the conclusion is simply a restatement of that premise. It’s like saying, ‘A is B, therefore A is B.’ Or ‘I like vanilla ice cream because it’s my favorite kind.’ Or someone might ask, ‘What makes you think football is the most exciting sport in the world?’ and get the answer, ‘Because it is.’ In this particular case, they’re saying that the ELISA is correct because the Western Blot says it is, and that can’t be logical unless the two tests were independent and one or both had been proven to be accurate on its own.”

“And what about begging the question?”

“Begging the question is very similar. It just usually takes a more circuitous route to get there. In other words, it might have more than one premise that comes before the conclusion, but the conclusion is still simply a restatement of the premises themselves.”

She’s not doing badly at all. “Can you give us an example.”

“Of course. Imagine that Bill is being interviewed for a new job. The interviewer says, ‘Your resume looks impressive, Bill, but I need another reference.’ And Bill responds, ‘Jill can give me a good reference.’ So the interviewer asks, ‘But how do I know that I can believe what Jill says?’, and Bill answers, ‘I can vouch for her.’ In this case, Bill was offering himself proof of Jill’s reliability, but neither Bill’s credibility nor Jill’s had been proven independently. This is exactly what the CDC is doing by offering the Western Blot as proof of the ELISA’s reliability.”

“Is there some very simple definition you can give us for ‘begging the question,’ Dr. Burgess?” just to bring the point home.

“I can give you the definition I use in all my classes.”

“That would be fine.”

There was no need for Burgess to read it from a book; she had used it many times in her own studies as well as her short teaching career. “Fowler’s Modern English Usage states that begging the question is ‘the fallacy of founding a conclusion on a basis that as much needs to be proved as the conclusion itself.’”

“And have you seen this used in real life, this ‘begging the question’?”

Burgess smiles for the first time. “Actually, one of the classic examples I use in my classes involves a lawyer in a court case; and this is a true story. In his closing comments, the attorney made much of the fact that the defendants had shown ‘no remorse’, the implied argument being: If these people are guilty and have shown no remorse for their crime, this can only mean that they are bad people, and this strengthens our conviction that they are guilty. Fortunately, in this case the jury was not fooled and the defendants were all acquitted.”

Campbell has to laugh, wondering whether he had used this in one or two of his own cases. “So that’s begging the question.”

“Right. If the lawyer had simply said, ‘These people have shown no remorse for their crime, therefore they must be guilty,’ that would have been circular reasoning, but just as illogical. So you can see how closely related they are, and why either term can be used.”

Time to get to the point. “Dr. Burgess, can you relate this more specifically to the issue at hand for the HIV tests?”

She pauses. “I thought about this a lot after you called me to testify, and the best I could do was come up with an analogy; but it’s a very long analogy, I’m afraid.”

“I’m sure that I, or Mr. Armand, or even the judge will cut you off if necessary. So go ahead and give it a try.”

“Okay. Let’s say that all the soft drink cans in the world have been painted over so you can’t read the brand name, but you want to find out which ones are Coca-Cola. So you hire me to design a test that would correctly identify Coca-Cola from all the rest.”

Campbell looks at the jury. “We’re with you so far.”

“First, I do some taste tests and end up with some cans I’m fairly sure are Coca-Cola. I run experiments on these cans and come up with a test that I call an ‘ELLIE.’ It uses ten chemicals I found in these cans, all mixed together, and all you have to do is put a drop of some unknown soda on my test kit and, if it reacts, I say it’s Coca-Cola.”

Campbell is checking the faces of each juror as Burgess talks, and no one appears lost. “Sounds easy.”

“The problem is that the ten chemicals I use in the test kit all belong to the carbonated water I found in my test cans, and not to Coca-Cola specifically. So when this test is actually run, it gets a lot of false positives. Unfortunately, my test kit is also reacting with Pepsi, Dr. Pepper, 7-Up and a whole host of other soft drinks – anything, in fact, that contains carbonated water, like sparkling water, lemonade, fruit juices, and champagne, to name just a few – and it’s resulting in false positives at about the same proportion as the market share for each drink.”

Campbell wants to stop Burgess every minute or so to break up her monologue, and he’s having to find different things to say each time. “That can’t be good” is what comes out now.

“No, it’s not good. The hang-up, of course, is that I never verified that my ten chemicals were specific or unique to Coca-Cola. I just told you they were.”

This is better than I expected. “I doubt I’d be very happy about that when I found out.”

“No, and you’re not very happy about all the false positives, so you demand another test that will ‘confirm’ the results to be Coca-Cola. My solution is to separate out the ten chemicals from the mixture I made and put them in separate bands so you can see which ones react. Same chemicals, but I give the test a different name. I call it a Western Blip.”

The jury chuckles. A good sign, Campbell thinks. Burgess continues.

“‘Now,’ I say, ‘when you get a Positive ELLIE, run a Western Blip; and if the Western Blip is Positive, then you know for sure you have a Coca-Cola in your hand.’ And you believe me – which, by the way, I consider to be a very sad commentary on our educational system that no longer teaches people how to think these days.”

I hope none of the jury were offended by that last remark. Campbell decides to let Burgess continue so that no one can think about it for too long.

“But there is absolutely no way to say that if you run my Western Blip, it can confirm my ELLIE results. In fact, the opposite is true. All my Western Blip is confirming is that there is carbonated water in the can, exactly what the ELLIE said, since it tests for the same thing. Is that clear?”

Campbell thinks so, but does the jury? “Any chance you can make it any clearer?”

Burgess nods her head. She obviously expected this. “I believe one of your first witnesses, a Dr. Richardson, talked about three different kinds of tests to prove the existence of something: Direct Proof, Direct Evidence, and Indirect Evidence. Correct?”

“That’s correct.”

“And he used an analogy of finding a single wall of a house as an example of Indirect Evidence. Is that true?”

“Yes, it is.” Where’s she going with this?

“Well, then let me put it this way: You cannot use two tests, both of which are Indirect Evidence, to confirm each other, or to confirm the existence of the house. In other words, you can’t have someone else find the same wall you did and say that confirms that the entire house actually exists. It violates logic. If you say it out loud, you can hear how ridiculous it sounds: I found a wall, and you found the same wall, and that confirms that the whole house exists. Mr. Campbell, if you want to confirm a piece of Indirect Evidence, you at least have to have some Direct Evidence, but preferably, some Direct Proof, not just some more of the same Indirect Evidence. Is that any better?”

Perfect! “Yes, thank you.” Now it’s time for the kill. Campbell takes a deep breath. “So, back to your analogy, if you try to say that all the problems with your ELLIE and your Western Blip are solved if you run them in combination with each other?...”

“...it’s begging the question, Mr. Campbell – in this case, ‘B is the same as A, therefore B confirms A.’ Totally illogical and unscientific – just like saying that any problems with one of the HIV tests is going to be corrected by another very similar test and create a 99% accuracy, but none of the tests have been proven to be accurate on their own.”

“Dr. Burgess, in your expert opinion, if the defendant actually had a positive Western Blot test result after a positive ELISA test result, would that confirm that he was indeed HIV-Positive, or that HIV was present?”

“No, Mr. Campbell, it wouldn’t – at least not logically.”

Campbell just stands at the lectern, reviewing in his mind this all-important testimony and whether enough has been said and the point been made. He is trying to come up with another question or two to drive it home, but he can’t.

Finally the judge asks, “Mr. Campbell, do you have more questions for this witness?”

Campbell still doesn’t answer. He thinks he should have more questions; it’s hard for him to believe that the most basic premise for the AIDS Industry, this statement that the Western Blot can confirm an ELISA, could be destroyed so easily and quickly. Did the jury get it? Did they really get how absurd and illogical this whole thing is?

The judge is getting impatient. “Mr. Campbell?”

“No more questions, Your Honor.” Campbell sits down, hoping he has done the job he needed to do.

The judge wants to move on. “Mr. Armand, you may cross-examine.”

Armand gets up quickly, slamming his chair back against the guard rail, startling the entire courtroom. Sarah can almost see the smoke coming out of his ears.

“Dr. Burgess, what do you know about science?” It was a rhetorical question, asked with anger and disdain.

Burgess, on the other hand, was keeping her cool. “I admit that I am not an expert in science, Mr. Armand. But I do know that science is supposed to be based on logic, which is my expertise. And it seems to me this issue of HIV and AIDS has become more of a religion than a science, requiring people to take things on faith rather than on scientific inquiry and logic, and making those who ask questions sound like heretics.”

That does it for Armand. He explodes and starts pointing at Burgess, moving closer to the witness box. “Just who the hell do you think you are?”

Campbell is on his feet immediately. “Objection, Your Honor.”

But Armand isn't finished, and his anger is growing. "Who are you to argue with the best scientific minds this world has ever seen at the CDC and the National Institutes of Health – the people who protect us from dangerous diseases like AIDS?" He is almost yelling at this point, two feet from the witness.

"Your Honor!" Campbell tries to intervene again, and the judge starts banging his gavel. Burgess just sits back in the chair, not even trying to answer.

But Armand won't stop. "If they say that the ELISA and the Western Blot are accurate when used together, then that's the truth; and I'm not going to let some young dyke in pants suggest otherwise, based on some so-called logical bullshit!"

"Mr. Armand!" The judge is trying his best, banging the gavel as fast as he can. Campbell just stands there in disbelief. Sarah is equally as stunned.

"Are you one of those crazy 'denialists' who doesn't think HIV causes AIDS? You and that loon Duesberg? You all ought to be put in jail for endangering the public health and welfare!"

The gavel stops long enough for the judge to say, "Mr. Armand, I'm warning you."

Armand finally turns toward the judge. "Judge, I've had enough of this tripe. This whole testimony is asinine."

The judge looks at Armand sternly. "Then calm down and ask the witness questions to point out where and how it is... asinine, as you call it, Mr. Armand; but cease and desist immediately calling the witness names and casting aspersions on her character. You know better than that; one more outburst and I'll find you in contempt."

Armand seems to take heed of the judge's warning. He starts to walk back to his table, but suddenly turns to the witness, shaking his finger in rage. "I'm going to make sure you don't have a job tomorrow," he rails.

The judge bangs his gavel so hard that it breaks. "That's it, Mr. Armand. You're in contempt of this court. Bailiff, escort Mr. Armand to my chambers."

When the Bailiff grabs Armand's arms, he tears himself away. "Get your hands off me, you...." But the Bailiff grabs both arms, slaps a pair of handcuffs on him, and drags him out the judge's door.

The courtroom sits silently, everyone in shock. The judge looks at Armand's assistant, sitting at the Solicitor's table, and finally announces, "Mr. Wilson, you will take over for Mr. Armand, starting immediately and continuing for the remainder of this trial. Mr. Armand will not be coming back."

Wilson is shaking his head as well, both at Armand's behavior and at his newfound and unwanted responsibility. He has no idea what to do next.

"Mr. Wilson, you have the right to cross-examine this witness – properly – if you like," the judge informs him.

Wilson rises slowly and timidly. After a few seconds, he asks, "Your Honor, in light of everything that has happened, may I request a recess until tomorrow morning before cross-examining this witness?"

But the judge is in no mood to grant any request from the Solicitor's office. "Denied, Mr. Wilson. I will not have Mr. Armand's inexcusable behavior interfere with the proceedings of this court. You have been sitting there at Mr. Armand's side the entire time, so I have to assume you are prepared to take over for him. Cross-examine this witness right now, or not at all, Mr. Wilson. I will not ask Dr. Burgess to come back tomorrow."

"Can I have a minute, Your Honor?"

"I'll give you thirty seconds, Mr. Wilson."

Wilson looks hurriedly at his notes, glances up at the witness, back to his notes again, and resigns himself to his fate. "Your Honor, I have no questions for this witness."

The judge picks up his broken gavel and puts it back down again. "This court is in recess until ten a.m. tomorrow morning." He slams his fist on the podium.

Chapter Twenty

Sarah could hardly believe what happened in court yesterday afternoon. First she's amazed that it had taken over twenty years for someone to point out the fallacy in the premise that one HIV test could confirm another. Where had all the scientists been? Were they too afraid of challenging anything the CDC says any more, after what happened to Peter Duesberg? Were they all too financially invested in the HIV=AIDS paradigm that they didn't want to look critically for fear of what they'd find? Was no one able to think logically these days to notice the glaring error in the CDC's claims?

She is also amazed that it took an unknown southern lawyer nicknamed 'Nard' to bring it all out in the open. Fascinated with the man, she makes a note to do whatever is necessary to get an interview with him, one on one, and soon. She might not scoop this story for her paper, since more and more press had begun attending the latest court sessions; but she is determined to have an exclusive interview with the man who brought down the AIDS Industry, as they were now being called publicly.

The courtroom looks very different this morning, and feels different, too, Sarah notices. There's still tension in the air from the previous day, and it's quite obvious that the momentum in the trial has swung decidedly toward Campbell, especially after Armand's outburst. Sarah can't blame Armand; he was simply trying to defend the indefensible: a critical error made at the CDC that everyone had bought into. That probably could have sent anyone around the bend.

The other major difference, of course, was the absence of Armand at the Solicitor's table, and the almost pathetic picture of Mr. Wilson, sitting there alone, looking totally perplexed and confused about what he was supposed to do. She almost felt sorry for him.

Campbell, on the other hand, appears like nothing happened. His face hasn't changed, his demeanor is the same, and he is calling Dr. Robert Richardson back to the stand.

"Dr. Richardson, thank you for being willing to come back to testify again."

"I wouldn't have missed it for the world, Mr. Campbell."

"Dr. Richardson, I want to talk today about the viral load tests that have been mentioned a couple times during this trial. And you, personally, hold – how many patents for viral load testing?"

"Seven."

"So you are eminently qualified to talk about this subject."

"I would hope so."

"Dr. Richardson, are your patents in use today?"

"No, they aren't. As I think I said in the beginning of my testimony a couple weeks ago, my job at Amgen was to develop bigger, better, cheaper, safer, and faster diagnostic products for infectious diseases; and while I did, in fact, develop an excellent test for viral load, it unfortunately was not any better or faster or cheaper than what was already available on the market. So the decision was made not to try to compete, and it was put on a back shelf, so to speak."

"So you are intimately familiar with all the other viral load tests that are being used today."

"Absolutely."

That out of the way, Campbell is ready to get down to the nitty-gritty. He checks his yellow pad quickly to make sure he does this in the correct sequence, because the amount of information the witness is about to deliver can be overwhelming to anyone, especially if it's not presented correctly.

"Dr. Richardson, let's start by having you explain what a viral load test is."

"Viral load has traditionally been used for two main purposes. One, to measure the quantity and quality of the virus in a patient's blood; and two, to gauge the success of treatment by monitoring the rise and fall of the viral load results."

"And how is that done?"

“There are actually several different methods being used today, each of them taking a slightly different approach. There’s the Polymerase Chain Reaction, or PCR; there’s the branched DNA test; and there’s the nucleic acid sequence based amplification, called the NASBA.”

“If they all use different methods, do they all get the same results?”

Richardson laughs out loud. “No, and that’s one of the problems. Even the AIDS Industry admits that different test methods often give different results on the same blood sample.”

“So there’s no consistency between the tests?”

“No. The results can vary a lot, as a matter of fact. So doctors are told to use the same test all the time on the same person to prevent confusion.”

Campbell turns to the jury and has this very puzzled look on his face. Then he shrugs his shoulders and turns back to the witness.

“Please tell us about these tests, Dr. Richardson.”

“Which one do you want me to talk about?”

“What’s the most common one?”

“Undoubtedly, the PCR.”

“Without getting too technical, can you explain how the PCR works?”

“It was invented by Dr. Kary Mullis in 1983, and he won the Nobel Prize for it in 1993. What Dr. Mullis did was come up with a very clever way to multiply and count the number of DNA matches in a patient’s blood.”

Campbell looks confused again. “I don’t understand. What does that mean, and how is it possible?”

“Using what are called ‘probes’ and ‘primers,’ the PCR finds little pieces of genetic material – snippets of DNA or RNA – that supposedly belong to a virus, for example, and then goes through a process of copying and multiplying them many, many times so they can be counted. Then you do some dilutions and compare the results with the patient’s blood, and finally you get what is in this case would be called ‘viral load.’ As a matter of fact, Forbes magazine once called the PCR ‘biotechnology’s version of the Xerox machine,’ and Dr. Mullis himself said his PCR made it possible to find a needle in a haystack by turning the needle into a haystack.”

Good analogy! If that’s all the jury understands about how the PCR works, we’re okay. Campbell feels safe in continuing. “This PCR is used for a lot of different things, is it not?”

“Absolutely. It’s become infamous, of course, for its use with HIV. But, in fact, when Dr. Mullis first invented the PCR, Dr. Gallo had not yet announced that HIV caused AIDS.”

“I assume, when Dr. Gallo finally made his famous pronouncement, Dr. Mullis was thrilled that his invention could be used to save people from the certain death of AIDS.”

Richardson laughs again. “Maybe initially, yes. But when Dr. Mullis was writing his proposal to use the PCR with HIV, he ran across a big problem right at the start. His paper began with the sentence, ‘HIV is the probable cause of AIDS;’ and like any good scientist writing a paper to be peer-reviewed, he wanted to reference that statement with the scientific studies that supported it.”

“What happened?”

“He couldn’t find those scientific studies in any of the scientific literature.”

Wilson finally musters up the courage to get out of his chair. “Your Honor, this sounds a lot like hearsay, so I would object.”

Campbell is quick to respond. “Your Honor, Dr. Richardson is simply recounting events that are a matter of public record. They have been written in a number of publications, and recorded on various video presentations. In fact, if it please the court, I am prepared to let Dr. Mullis speak for himself by playing one of those videos.”

“Mr. Wilson, do you object to watching a video and letting Dr. Mullis speak for himself?”

Wilson is way over his head. He probably should object, but he’s not confident that he could get a favorable decision from the judge and doesn’t want to take the risk. Besides, it was he who had

brought up the issue of hearsay; how could he now object to hearing from the original source? “No, that would be fine, Your Honor.”

The judge looks back at Campbell. “How long is this video, Mr. Campbell?”

“Just a couple minutes.”

Then the judge tells the witness, “Dr. Richardson, you might as well stay where you are. Proceed, Mr. Campbell.”

Campbell finds the remote and lowers the screen while a technician rolls the DVD player into place. Campbell presses Play and the video begins.

Dr. Kary Mullis is on the screen, dressed in a t-shirt and looking like he just came from the beach, being interviewed by someone who can only be seen from the back of the head. Mullis starts talking right away.

“I was working on a test for HIV with the PCR, and I needed to write a little report to the NIH [National Institutes of Health] and say, ‘here’s the progress we’ve made,’ and the first line of it was ‘HIV is the probable cause of AIDS.’ And I thought that was true – this was before I got involved. And I said, ‘what’s the reference for that quote?’ And I looked for it for about two or three years, and I never could find it. And by the end of two years I had asked everybody at every meeting I had gone to that talked about AIDS, I had looked in every computer data base. There is no reference.”

Campbell stops the video there, but leaves the screen down, glancing at his watch. “Your Honor, if Mr. Wilson is not satisfied, I actually have Dr. Mullis standing by on a video conference link, and I suggest we let him speak for himself live – very briefly.”

Wilson just sits there. He’s pretty sure this is highly unusual, interrupting one witness to ask questions of another one, but he’s already been shot down once by the judge, and he’s not willing to risk another embarrassment.

The judge also sees no reason to say No. He nods at Campbell to go ahead. The technician positions the video camera, makes a few mouse clicks on the computer, and Dr. Mullis appears live on the video screen.

“Dr. Mullis, thank you for taking the time this morning. I know it’s early in California.”

“Let’s make it quick, Mr. Campbell.” Sarah realizes that Mullis is not too happy to be doing this. Maybe Campbell had to subpoena him, she realizes, because he certainly doesn’t look like he’s here on his own free will. She assumes that if Mullis were being paid as an expert witness, his attitude would be different.

“Dr. Mullis, just for the record, you invented the PCR, correct?”

“Yes.”

“And you won the Nobel Prize in chemistry for it, correct?”

“Yes.”

“In your expert opinion, as the inventor of the PCR, can the PCR be used to measure the viral load of HIV?”

“No, it can’t.”

“Why not?”

“Because the results are meaningless.”

“Would you please tell the court why?”

“No, I won’t. Besides, Dr. Richardson can do a better job of that than I can anyway.”

Rather than pressing Mullis for more testimony, Campbell turns to Wilson and says, “Your Witness.”

Wilson is caught by surprise as much as the rest of the courtroom. Mullis’s testimony had taken less than two minutes; but still, it was a powerful two minutes, even if it appeared that Mullis wasn’t being too accommodating. For the inventor of the test used so often to detect the viral load of HIV to say that it couldn’t and shouldn’t be used for that purpose was monumental. Wilson has no idea how to counteract that, and can’t think of anything by the time he gets to his feet.

“No questions, Your Honor.”

The judge, whom Mullis can't see, says, “The witness is excused. Thank you, Dr. Mullis.”

As Campbell raises the video screen and the technician removes all the equipment, the jury looks like they've had about all they can take of the twists and turns in this trial. I wonder how much more Campbell is going to put them through today, Sarah wonders. Lucky for him, when we finally do quit this afternoon, they're going to get a break for five days. I could sure use it, too.

Campbell returns his attention to the witness in the box. “Dr. Richardson, let's get back to the PCR. Why would this test win Dr. Mullis a Nobel Prize? What's so great about it?”

“The PCR is able to detect the presence of things that are normally undetectable, or to make more of things that there is not enough of. For example, if there's not enough DNA found at a crime scene to use to identify the criminal, the PCR can make lots more of it in just a couple hours, therefore allowing an identification to be made. And since HIV has been virtually undetectable in even the worst of AIDS cases, it seemed like the perfect tool for the AIDS Industry to use.”

“You also said there were other HIV viral load tests being used today.”

“Yes, there are. But they're essentially all based on the same principle, and they still do the same thing – mathematically compute the viral load rather than counting actual HIV itself; and they all have the same problems.”

Campbell checks his notes very quickly. This wasn't exactly how he had intended to proceed, but close enough. “Tell us about those problems.”

“Well, first, like the HIV ELISA test and the HIV Western Blot test, there is no proof that the probes and primers used in any of the viral load tests are specific and unique for HIV, since HIV has never been properly isolated, as I said the first time I was here. That means that we really have no idea what we're counting in a viral load test.”

“Is that why Dr. Mullis said that the results would be meaningless?” Campbell knows he can get away with that kind of question now, since Wilson is so hesitant to object.

“That's one of the reasons, yes.”

“What are the other reasons?”

“The viral load tests all get a huge number of false positives, just like the ELISA and Western Blot. It stands to reason that someone who had a false positive ELISA or Western Blot result would also have a false positive viral load result, since they're all using the same proteins. But more than that, someone who has tested Negative for HIV antibodies on the ELISA or Western Blot can still have high viral load results.”

This is an important point, jury. I hope you're listening carefully. “How can that happen?”

“It can only happen if the viral load test is counting something other than HIV, Mr. Campbell. And that's why the CDC issued an order for laboratories not to run the viral load test on anyone who has not tested HIV-Positive on the ELISA and Western Blot.”

“Because these false high viral load results didn't make the test look very good?”

“Exactly.”

Bingo. That had to have hit home. Campbell flips a page on his yellow pad and finds where he wants to go next. “When you talk about false positive viral load results, exactly what do you mean?”

“First we have to understand how the results are stated. Viral load is measured by the number of copies the test makes per milliliter of blood. If a viral load test cannot find any HIV, the results are said to be ‘undetectable.’ And that's about all the experts can agree on.”

“What do you mean?”

“Well, some studies say that having even 50 copies per milliliter of blood is considered significant, while others say that anything under 10,000 copies per milliliter does not necessarily indicate HIV infection.”

“So from what you've just said, there is no ‘normal’ or ‘negative’ result, other than ‘undetectable,’ and virtually any other result is considered ‘Positive.’”

“Or false positive.”

Good. Now let’s make this clear. “What’s considered false positive?”

“This is the next biggest problem with the viral load. There have been people who have viral loads of 100,000 copies per milliliter than have been found not to have HIV by actual culture.”

Campbell asks his next question looking directly at the jury. “100,000 seems like an awful lot...”

Richardson completes his sentence, “...especially when just 10,000 is deemed to be dangerous enough to start someone on anti-retroviral medications.”

“How could someone have 100,000 copies and not have HIV?”

“Ahhh... good question. I already mentioned that the probes and primers used in the PCR are not specific or unique for HIV. So there is no proof that the DNA or RNA being copied and multiplied has anything to do with HIV either. In fact, studies have found that more than 99% of the copies made by the PCR represent non-infectious viruses. Non-infectious viruses are not considered to be able to cause disease, because they cannot infect cells. There’s also a very big question whether this 99% of the copies are even viruses at all, but may in fact represent the detection of RNA from other non-viral sources.”

Campbell is still looking at the jury, trying to assess their level of understanding in light of all the numbers being thrown around. He turns back to the witness for the next question. “Dr. Richardson, I still don’t understand how someone who doesn’t have HIV can have a viral load of 100,000.”

“Well, as Dr. Mullis says, the PCR is actually too efficient. It will make copies and multiply them for whatever DNA is in the sample, regardless of whether that DNA belongs to HIV, or is made up of non-infectious viruses, or is simply a contaminant. But there is no way to determine which part of the amplified material is HIV and which part is contaminant if you can’t detect HIV in the sample without using the PCR. In other words, only the PCR can verify the PCR results, and that’s not very good science.”

“You mean there’s no independent way to verify exactly what the PCR is actually measuring?”

“Correct.”

Campbell is counting on the jury to remember what ‘specificity’ means. “So you’re saying that the viral load test may not be very specific to HIV.”

“The CDC has said that the specificity and the sensitivity of the PCR has not been determined and is not known. That’s a direct quote.”

It’s time for Campbell to do one of his delaying tactics to give the jury a break. He walks to his table, shuffles some papers around pretending to be looking for something, then walks back to the lectern empty-handed. “Dr. Richardson, are there any studies that show how often the PCR can produce false positive results?”

“Definitely. A study published in the Journal of AIDS found what they called ‘a disturbingly high rate of non-specific positivity.’ That same study discovered that the PCR produced about the same viral load results for people who were HIV-Negative on the ELISA and Western Blot tests as those who were HIV-Positive, amazingly enough. A separate study also published in the Journal of AIDS concluded that ‘false positive results occur with sufficient frequency among uninfected individuals to remain a serious problem.’ So the World Health Organization set up its own PCR study group; but they also found high levels of false positives.”

“Do we know what percentage of the time these false positive viral load results can occur?”

“Estimate range anywhere from zero to as high as 60%. But it is generally agreed that there will be 3 to 10% false positive viral load results.”

Campbell turns to the jury and raises his hands in the air. “Ten percent doesn’t sound that outrageous.”

“Maybe not, until you stop to think about what it represents. If a thousand people were given a viral load test, for every 4 true positive viral load results, there would be anywhere from 30 to 100 false positive viral load results. 3-10% false positives may not sound like a lot by itself, but when you

compare it to .4% true positives, we're talking about at least 75 times more false positives than true positives."

Campbell puts his hands back down, as if to retract his skepticism and acknowledge the seriousness of the situation. "Dr. Richardson, is there anything else wrong with these viral load tests?"

"Well, again, just like the ELISA and Western Blot tests, the viral load tests have never been validated – that is, no one has successfully taken a group of people with high HIV viral load test results and proved that a vast majority had actual HIV in their blood by viral isolation and culture. In other words, there is no Direct Proof that the viral load test is counting HIV. In fact, the one researcher who set out to prove the validity of the PCR by trying to culture HIV from the blood of those with high viral load results found that more than half did not have HIV – even though they had viral loads of as much as 300,000 copies."

"So how would anyone prove that the numbers the PCR comes up with are accurate?"

"That's a good point. If the PCR is being used to detect otherwise undetectable HIV, as you said a minute ago, there is no way to establish the precise viral load independently from the PCR to make sure that its results are correct."

Campbell stares at his yellow pad a long time. He even makes some notes on it, seemingly working out something. "Here's what I don't understand, Dr. Richardson. If the viral load results are supposed to represent the amount of virus in someone's blood, and if we are getting results like 100,000, 300,000..."

"...sometimes 800,000 or more, Mr. Campbell..."

"...even 800,000 on the PCR, with that much virus floating around, shouldn't we be able to detect it without going through all the copying and multiplying that the PCR does?"

"You would think so, wouldn't you?"

Campbell checks off the questions on his yellow pad and discovers that he's asked them all; but he doesn't feel like he's finished with this witness yet. "Dr. Richardson, is there anything more we should know about the viral load tests?"

"I hate to be redundant, but just like the Western Blot, the results of HIV viral load tests can differ widely from laboratory to laboratory, meaning that there is no standardization or reproducibility."

"But aren't the viral load tests being used in some cases to confirm HIV infection after a Positive ELISA test?"

"Yes, they are; but they're not supposed to be. I realize that the AIDS Industry is using the viral load results to say, 'See, our ELISA and Western Blot tests are accurate, because we can find HIV on a viral load test. But the CDC does not list the viral load test as one of the ones they approve for confirming a Positive ELISA result. So whoever is doing that is not following the CDC's protocol.'"

"Dr. Richardson, I'll ask you the same question I asked when we were talking about the ELISA tests. Does anyone else, other than Dr. Mullis, agree with you that the viral load tests should not be used to diagnose or confirm HIV infection?"

"And I'll give you the same answer that I gave you then: All the manufacturers of the HIV viral load tests agree; and they put a written disclaimer to that effect in the printed insert that comes with every test kit."

Campbell walks to his table, and this time he actually picks up a piece of paper. "Dr. Richardson, is this one of those printed inserts?"

Richardson takes the paper from Campbell and scans it briefly. "Yes it is. This one comes from Roche Diagnostic Systems for their Amplicor HIV-1 Monitor test, which is their viral load test."

"And what does the insert say that is highlighted in yellow?"

Richardson looks for the highlighted area and then reads. "It says, 'The Amplicor HIV-1 Monitor test is not intended to be used as a screening test for HIV or as a diagnostic test to confirm the presence of HIV infection.'"

"Can you say that for us in plain English?"

“It says that the viral load test should not be used to diagnose HIV, or to confirm that HIV exists in that person.”

“But, once again, isn’t that exactly how it’s being used today?”

“Yes, sir, that is how it’s being used. But Roche, and all the other manufacturers, are safe legally as long as they include this printed disclaimer in their test kits, and the responsibility falls squarely on the doctors who are misusing it.”

“Dr. Richardson, do you think these doctors have any idea they are not following the instructions of the viral load manufacturers, or following the CDC protocol when they use the viral load results as a confirmation of HIV infection?”

“Dr. Mullis once said,” and he looks directly at Mr. Wilson, “and I’ve seen it on video, so it’s not hearsay – that he doubted 50 doctors in the entire country knew what a Western Blot test was or how it worked. I would say that less than that know anything about a viral load test, or have even seen these printed inserts. But, Mr. Campbell, in a matter such as this, where life and death hang in the balance, ignorance is not bliss; nor is it excusable.”

Campbell retrieves the printed insert from the witness. “If these tests are not supposed to be used to confirm HIV infection, what are they being used for?”

“Mostly for determining when to start or change anti-retroviral drug therapy.”

“And should they be used for that purpose?”

“Obviously not, if it’s not accurately measuring HIV viral load; and the AIDS Industry itself is coming to this realization. In a very recent scientific study, published September 27, 2006 in the Journal of the American Medical Association – one of the most prestigious and well-trusted scientific journals in existence – Dr. Benigno Rodriguez and a whole host of other AIDS researchers found that HIV viral load results failed in 90% of the cases to predict the loss of CD4 cells. In other words, having a high HIV viral load was not related to having a low CD4 cell count, which is supposedly the hallmark of AIDS. Therefore, the relationship between a high HIV viral load and getting AIDS is now being recognized as very questionable. In fact, this same study proved that these viral load tests were only able to predict the progression to AIDS in anywhere from 4% to 6% of the HIV-Positive patients studied.”

Looking at the jury, Campbell realizes that enough is enough; in fact, it is now getting to be too much. I need to wind this up quickly. “Did they draw any conclusions from this study, Dr. Richardson?”

“Yes, they did, and it’s most interesting. They said that there must be, and I’m quoting, ‘nonvirological mechanisms as the predominant cause of CD4 cell loss.’ Amazing, isn’t it, that after all these years, they would finally admit that HIV was not the major cause of a depressed immune system. Not only that, but that the real cause wasn’t even going to be a virus!”

One last point and that’s it. “Dr. Richardson, what should we learn from this study?”

Richardson also knows that his testimony is coming to an end and wants to make sure he gets his major points across one more time. “First and foremost, I would think that scientists would question the use of the HIV viral load test and come to the same conclusion that Dr. Mullis did: that the results are meaningless because the test is invalid. And more immediately, as was pointed out by Dr. Keith Henry in another paper in that same September, 2006 issue of JAMA, viral load test results alone should not be used to determine whether or when to start anti-retroviral drug therapy.”

“So we’ve just recently found out that high viral load results do not mean that someone who is HIV-Positive will get AIDS?”

“No, sir. I didn’t mean to imply that. In fact, we’ve known since 1996 that viral load results did not accurately predict progression to disease. When Roche sent their Amplicor viral load test to the FDA for approval, they included one of their own studies which showed that the lowest viral load results were actually more likely to predict progression to disease than the higher ones.”

There may be more that Richardson could say on this subject, but Campbell doesn't care. He's sure the point has been made and reasonable doubt raised about the viral load tests. But I haven't actually asked that question directly, and I should.

"One last question, Dr. Richardson. In your expert opinion, would you consider any of the viral load test results done on the defendant to be accurate?"

"I don't see how they could be, with all the things wrong with the tests themselves that I've mentioned."

"And, in your expert opinion, would you consider any of the viral load test results done on the victim, Beth Ann Brooks, to be accurate?"

"I doubt it very seriously, Mr. Campbell."

"And if Beth Ann Brooks' viral load tests were used to prescribe anti-retroviral therapy for her?"

"Based on all the scientific studies that I've read, I would say that could be considered medical malpractice."

"OBJECTION!" Wilson had put up with a lot, but he isn't putting up with that.

Before the judge could rule, Campbell says, "I'll withdraw the question. Thank you, Dr. Richardson."

The judge looks at the Deputy Solicitor. "Mr. Wilson, do you wish to cross-examine this witness?"

Wilson is still standing. "Your Honor, I'd like the witness's last comment to be stricken from the record."

"So ordered. Any questions for this witness, Mr. Wilson?"

There is nothing Wilson can think to ask at this point. "No, Your Honor."

"Then, Mr. Campbell, you may call your next witness."

Campbell looks at his watch. "Your Honor, it's almost lunchtime. My next witness will begin a new section of this trial, examining the question of whether HIV can be transmitted through heterosexual intercourse, as is claimed by the State in this case. I wonder whether it would be appropriate to recess at this point."

Without asking Wilson, the judge considers his options and then makes his decision. "Ladies and gentlemen, under the circumstances, I think we could all use a few days to digest the testimony we have heard this week, without starting something new. And I also think Mr. Wilson could benefit from some time to get his act together. I'll remind you that court will not be in session tomorrow or Friday, or next Monday, which is a holiday. Therefore, I am going to recess this court at this time until ten a.m. next Tuesday morning." He bangs his new gavel several times.

Chapter Twenty-One

DATE: Thursday afternoon
TO: sam@arizonatribune.com
RE: this week's column

Dear Sam,

Court is recessed until Tuesday, and I'm off to Atlanta for the weekend, so I needed to get this to you before I left. Attached is the next HIV-Positive story for my column. Talk to you soon.

Sarah

Attachment:

HEALTH MATTERS

By Sarah Meadows

This is the third in a series of true-life stories of those diagnosed HIV-Positive, and how it affected them, their families, and their lives. Meet Kellie....

Kellie was born and raised in California in a normal family with normal parents and a normal brother. She went to a normal school and did all the normal things teenagers do. But Kellie had a very independent nature, and when school was over in her early twenties, she took off for New York, by herself, with \$200 in her pocket.

“It was the perfect time to do it. I was young and single and just wanted to live on the east coast. I worked a bunch of odd jobs, took in the culture and the changing seasons, and it was a really good experience. I learned a lot, especially how to live in a big city like that.”

One of the people Kellie worked with introduced her to their brother, George, and after dating and courting, they got married. For a time they stayed in New York and traveled a bit, and then moved to Hawaii.

“I loved Hawaii, and George was from the Philippines; so it seemed to be the perfect place to live, kind of half-way between both families.”

It was there Kellie had her first daughter, Susie. But when the Gulf War broke out in 1991, the economy in Hawaii, based almost solely on tourism, took a nose dive. Plus, Kellie missed her family in California, especially with a new daughter and no one to help take care of the toddler.

At that point, things were going pretty well, except that George had started having migraines. When they lived in New York, he had a lot of allergies – dairy products, cats, certain pollens – but he didn’t really pay much attention to them or let them run or ruin his life. But when they moved to the Big Island of Hawaii, things changed. There’s a volcano there, and something called “vog.” Vog is a combination of the emissions from the volcano with manmade emissions, creating air that looks like smog, but is a lot denser and heavier and metallic in nature.

“People who live in smog can see it, but you can’t necessarily taste it in your mouth. With vog, you can taste the sulfur, and a lot of people would have respiratory reactions. I didn’t feel very good breathing the vog myself, but George started having these debilitating headaches. When the prevailing winds would change, he would get pretty sick.”

Add that to everything else, and they decided to leave Hawaii and move back to California.

The change of environment helped, but George’s headaches continued; not as severe or as frequent, but they were still there. After securing a steady job with health insurance benefits, he agreed to see a doctor. During the course of doing a complete physical examination, the doctor ordered an HIV blood test. It came back positive.

“It was very traumatic for both him and me. Basically, they started telling us to get our affairs in order, that he was going to die and we should start preparing for that. But the worst thing about being in a monogamous marriage and having your husband test positive is that the people giving you the post-test counseling start putting doubts in your head. ‘You don’t know that he’s really been faithful to you,’ and ‘How do you know for sure who he’s been with?’”

George swore he had been faithful. Unfortunately, he had not taken an HIV test prior to this and there was no way to know whether he had been HIV-Positive before he met Kellie.

It didn’t take long for things to go from bad to worse. Kellie took an HIV test as well a few days later, and she, too, came back positive. But her CD4 cell count was normal.

“I’m the healthiest person you ever met. I don’t get cavities, I don’t wear glasses, and I am never ill. I was raised that if you had a headache or got sick, you rest, drink a lot of water, and eat healthy. You get a fever for a reason, you know. You don’t just try to suppress it. The doctor I went to my entire life told me that if you try to suppress these symptoms, you can drive them down even deeper into your body and perhaps create more serious problems. If I ever felt like I was getting a cold, I’d take some Vitamin C and I’d be fine.”

So why did she test HIV-Positive?

“From all the studies I’ve read, I can’t believe I got it from my husband. There’s really no evidence to prove that HIV is transmitted through heterosexual contact. But we traveled a lot in Asia; I also did outreach work when I was down in Baja, and you’re bound to pick up a lot of things in those environments. There’s no way to tell what my HIV test reacted with to come up positive. Of course, I had a prior pregnancy, but I wasn’t promiscuous and I didn’t do drugs. So I certainly wasn’t in any high-risk group. It never made sense to me.”

Make sense or not, it still had a huge impact.

“When you’re dealing with a diagnosis that is essentially a death sentence, you begin to question everything – especially with a toddler, because you have to face the reality that you’re never going to see them grow up. How will they survive without you? That alone, I’m sure, is enough to kill people. We had suicides when I was in college – people who simply weren’t happy with their grades. With this, I can imagine someone deciding that it would be easier to end it now rather than dying from a horrible, prolonged disease.”

But Kellie was more upset for George than for herself. He had grown up in a medical family and relied more on the opinions of doctors and the standard medical protocol. His CD4 cell count was below 200 at that time, and of course, they wanted to put him on AZT and other drugs right away. They even gave him a brochure telling him that sugar was his best friend, along with milkshakes and French fries.

“I’m sure it was because all the drugs they wanted him to take would start wasting away his body, and they wanted him to try to keep his weight up by consuming massive quantities of sugar. I tried to tell him that if he wanted to maintain his health, eating lots of sugar or fries wasn’t the best way to do it.”

No one questioned his low CD4 cell count or its relationship to his allergies.

Kellie wasn’t convinced, however, that he needed to take the medications. “Let’s just wait and see,” she said. “You have headaches, that’s all; and none of the things that you’re supposed to have if you have AIDS.” She was aware that there were so many wrong diagnoses and wrong prescriptions happening in the medical profession that she wanted to take it slowly. She suggested other natural ways to bolster his immune system and build up his T-cell count.

Unfortunately, this issue would be the final nail in the coffin of their relationship. George could only see the negative side. “He even looked for things to go wrong,” Kellie remembers. “At that time, if you watched the news or read the papers, you would be bombarded with one horrible thing after another about AIDS. My husband believed them all. If you give yourself a negative affirmation like that every day, eventually it’s going to come true. It was sad to see how bleak and hopeless he was.”

She found the same attitude everywhere she looked. When they would go to the county health department for regular appointments, they would sit in the waiting room for hours “surrounded by all these people who were wasting away from the HIV drugs they were taking. I finally said, ‘We’re not going back there – ever.’ It just wasn’t the way I wanted to spend my time. Besides, a lot of them also had TB, and I didn’t think it was good to stay in that environment very long.”

She tried taking George to alternative medical doctors with holistic practices, and each time he would get words of encouragement and hope. After all, he wasn’t a member of any high-risk group either.

There was their daughter, Susie, to consider as well. “I wanted to focus on helping her live, not helping him die. I wanted her to be happy, and I didn’t think it was fair to her to keep living in a dark and depressed environment.”

But George’s family, coming from their strong medical background, kept insisting that he follow the standard protocol to the letter. Finally, Kellie gave up. “If you think they can take better care of you, then you should move back home to New York, because I don’t agree with what they’re telling you, and I’m not going to help you follow their orders.”

So George went back to New York in 1994, and went on the medical protocol. He died in 1998 of a brain tumor.

Kellie wasn’t involved with her husband’s medical decisions after he left, and she has never seen his death certificate; so she doesn’t know whether it says he died of AIDS, or “complications from AIDS,” as a result of the tumor. “His family certainly acted like that’s what they believed.”

After his death, the family would check in on Kellie every once in a while, expecting her to die soon as well. “They were giving me all kinds of grief. But after all these years of being HIV-Positive, I’m as healthy as ever. So when they look at me now, they think, ‘What if we were wrong?’”

“It’s not like George could have lived much longer, because of the brain tumor, which he mostly likely had all his life and would explain his headaches. But at least he could have had a better quality of life in the years he had left if he had not gone on the HIV drugs. But who knows? Who knows how all that emotional and psychological trauma from the HIV-Positive diagnosis played into his health as well.”

“In my heart of hearts, I feel like I at least gave him a couple more years of life, since by the time he went on the medical protocol, the dosages of AZT were being reduced so they weren’t so lethal so fast.”

The doctors never pressured Kellie into taking any of the HIV medications, because her CD4 cell count and viral load results were always in the normal range.

Kellie and her husband didn’t just suffer the individual pain and trauma of their HIV-Positive diagnoses; it also eventually ended their marriage and broke up their family. Susie was too young to understand or be affected very much when Kellie and George first tested HIV-Positive, but it didn’t take long to impact on Susie’s life as well.

When her husband left in ‘94, his family began to try to take Susie away from Kellie, believing that Kellie would soon be dead anyway. Her husband’s sister, Charlotte, had two sons, but always wanted to have a daughter as well, and this seemed like a perfect solution. So she tried to go to court to prove Kellie was an unfit mother. Charlotte pointed out to the court that Kellie was reckless and unconventional, citing that Susie had been a home birth, for example. Kellie had also chosen not to have Susie immunized with some of the vaccinations available. Plus, of course, Kellie was HIV-Positive; and although Susie had tested HIV-Negative in the past, she did not have Susie constantly re-tested. “I was in ‘dangerous’ denial,” they said.

On the other side of the coin, Kellie didn’t like what happened to Susie when she visited her family in New York. Always in excellent health at home, Susie would be made to drink a glass of milk with every meal, and she would develop a cough and runny nose every visit. To the family, however, it appeared like Susie always had this condition, since she always had it with them. They tried to use that in court as well and claim that Kellie didn’t take care of her daughter’s health properly. They were adamant that Susie needed to be scratch-tested for allergies. Kellie, of course, simply asked the family not to give her all that milk and cheese while she was there; she was sure her symptoms would go away. But she was forced by court order to administer antibiotics to Susie for her chronic bronchial condition, or risk losing custody.

Then one Sunday, Susie didn’t return from a routine visit to her dad. The family refused to let Kellie see Susie when she went to New York to find out what was going on. Kellie had to go first to

the courts in California, and then to the courts in New York. Finally, with a police escort, she got Susie back.

“They wanted custody of Susie and for me not to be able to see her, ever, and they tried to get a court to agree. But I think that George actually stepped in and helped stop this insanity at that time, because I know he really loved Susie, and he didn’t want to see her put through everything that his family planned to do. But he was dependant on them for so much personally, taking care of him through his struggles with the brain tumor, that he simply couldn’t protect Susie as I know he would have wanted to do.”

“It’s amazing to me how people, who are otherwise good people and try to be good parents, can put a child through all of that. Supposedly, they have the best interest of the child at heart, but it’s really crazy.”

Kellie won that court battle, but it wasn’t the end of it all. George and his parents moved back to California, and the parents – Susie’s grandparents – then tried to gain custody of Susie. The court awarded them visitation rights, because George was living with them, although he was too sick from the tumor by then to be an active father.

Shortly after George died, the grandfather died as well. For a little while, the grandmother took Susie to Santa Barbara to visit her aunt, but they gradually lost interest “because they could see that I was still really healthy and Susie was thriving under my care. After years of calling Child Protective Services and calling me this or that name, even the people at CPS got tired of hearing the complaints when they could see none of the allegations were true. Susie was not sick, doing very well in school, and very happy. There was no reason to intervene, basically; so they stopped hassling me.”

Since then, Kellie has been tested three more times for HIV. She followed the suggestion of a friend to do it anonymously, so that the doctor wouldn’t be prejudiced from George’s positive diagnosis. Kellie tested positive on one test, negative on another, and indeterminate on the third. Susie also tests negative.

“By then, my so-called HIV really didn’t matter to me or pertain to my life, except for the way people would relate to me, and the things they would try to do to me.”

Still, her positive diagnosis had changed her life forever and shook her to the core. Always an independent and self-confident woman, she lost her self-esteem and her judgment during the court battles with her husband’s family and got pregnant with the “wrong” man, Robert – an alcoholic and drug addict. In 1996 she had a second daughter with Robert. George’s family reported her to CPS once more, citing the history of Kellie’s unconventional ways. Kellie was forced to stop breastfeeding and told that she would lose the baby if they discovered that she had resumed nursing the infant. Although Robert stood by her during the CPS ordeal, when Kellie got fed up with his addictive and abusive behavior after almost five years and kicked Robert out of the house, he became her worst nightmare.

All of a sudden, Kellie was back in court, answering charges from Robert, five years after the fact, that she endangered him and their daughter by having sex with him and having another child when she was HIV-Positive. But he didn’t stop there. He accused Kellie of having natural childbirth, of breastfeeding the new baby, and not giving her AZT in utero, as if testing HIV-Positive on two tests, and negative and indeterminate on two others, was worse than being a drunk and a drug addict.

Robert went so far as to hire a friend to run Kellie off the road, and the plan was to then plant narcotics in her car and pour alcohol down her throat. He stalked and videotaped her and her daughters. He burglarized their home when they were gone on vacation and took phone lists, calendars and a journal. He and his ex-wife, Marsha called family and friends from Kellie’s phone lists alerting them to Kellie’s HIV status. He accused Kellie of having affairs with the police officers who came to write up Robert’s violations of his restraining order.

From time to time, Robert would beg Kellie to take him back. When she wouldn’t give in, his behaviors would escalate, forcing her to leave her home. Robert threatened to kill her, and threatened

to kill anyone who helped her. Robert was finally arrested, but plea-bargained down to two misdemeanor charges of restraining order violations.

Robert has waged a war of attrition on Kellie. Her finances are exhausted, and without the money to pay a lawyer, she has had to defend herself in Family Court. Robert keeps fighting Kellie for custody of their daughter, not because he is really concerned about seeing his daughter, but because it the only "legal" way to continue to control and harass Kellie. Robert claims that his actions are justified by the health issues and his daughter's welfare – not because Kellie is an unfit mother, but because she is HIV-Positive.

Chapter Twenty-Two

On the drive to Atlanta, Gwen asks Sarah what happened at the lab on Thursday when she went to take her viral load test.

“It was actually pretty funny,” Sarah laughs. “I filled out all the paperwork and handed it to the receptionist. But it didn’t take long for the head of the lab to come out to the waiting room to see me. He said that I had left the section blank about the dates of my previous positive HIV tests and that they needed that information before they could proceed.”

“What did you say?”

“I told him I had indeed taken a prior HIV test years ago – I couldn’t remember exactly when – but that it was negative.”

Gwen chuckles. “And he said?”

“He asked why I wanted to take a viral load test, then. I told him I was concerned that I may have gotten HIV from someone I recently slept with, and I didn’t want to wait weeks to find out if it was true or not, and I knew that the viral load test could tell me right away. And I flashed my wedding ring at him so he would understand.”

“You didn’t!” Gwen is shocked. This was a side of Sarah she had never seen – clever, cunning, and downright ballsy.

“I did. And he looked at me with some disdain, and then started apologizing that they would not be able to do a viral load test on me without a prior confirmed positive HIV result, and did I want to go ahead and take the new 20-minute Rapid Response test right then?”

“To which you said?”

“That I thought that if the Rapid Response test came back positive, I’d still have to wait a couple weeks to have it confirmed by a Western Blot. He looked around to make sure no one was listening, and then in a much quieter voice told me that if the Rapid Response was positive, he would do the viral load on me immediately.”

“Really?” Gwen finds herself whispering too.

“Yes, and then he said that the viral load test could be used as a substitute for the Western Blot as a confirmation test.”

“I didn’t know that.”

“That’s because it’s not true – at least not according to the protocol from the Centers for Disease Control and Prevention. The only alternative they allow is an immunofluorescence assay, which is not used much any more, at least in the U.S.” Sarah had done her research before going to the lab, and she knew what was permitted by the protocol and what wasn’t.

Gwen is finding this whole thing fascinating. “So he was suggesting you do something non-standard, which is why he was whispering.”

Sarah nods. “I assume so. Anyway, I agreed to do the Rapid Response, but I knew it would be negative, and it was.”

“So then what happened?”

Sarah notices a sign that reads, Welcome to Georgia. They had been traveling alongside a big river, or a lake, or something for a few minutes. “What’s that, Gwen?”

“That’s Lake Hartwell. Big lake. It’s supposed to have about a thousand miles of coastline.”

“And we’re in Georgia now?”

“Just crossed the line. But don’t keep me in suspense, Sarah. What happened?”

Sarah is getting a kick out of Gwen’s curiosity, and decides to string out the story as much as she can, just for laughs. “He came back out in about a half-hour and told me he was sorry that they wouldn’t be able to do a viral load test, since the Rapid Response was negative.” She pauses again.

“And that was it?”

“Well, no. He said my only option was to come back in about three months and do another Rapid Response, that sometimes it took a while for the body to make antibodies to HIV and show up on an HIV test.”

“Do mean to tell me that someone who tests negative on their first test will be told that it doesn’t matter – that they could still be HIV-Positive and the test just isn’t reacting yet?”

Leave it to Gwen to pick up on that right away. “Unbelievable, isn’t it?” Sarah agrees. “The test is supposedly always accurate if you’re positive, but not if you’re negative.”

“Man, have they got a racket going there. Tell everybody they have to retest in three months, and sell more test kits.”

Sarah shakes her head. “It’s worse than that, Gwen. If you still test negative in three months, they want you to come back again in three more months. Seems that someone once said HIV might take as long as six months to produce antibodies, probably without any scientific proof to back them up, as usual.”

Gwen is shocked. “I can’t believe it. So they never let anyone off the hook – they keep everyone scared to death that they might have HIV for up to six months. What assholes!”

“Exactly.” It’s clear to Sarah why she and Gwen were such fast friends; they think so much alike. “So I asked this guy, what do I do in the meantime? If I might still be HIV-Positive, but the test doesn’t show it yet, can I have sex with my husband?” Sarah pauses again.

“And what did he say?”

“He said if I really wanted to be 100% certain, the answer was No.”

“You’re kidding!” No answer. “Please tell me you’re kidding!” Still no answer. “You’ve got to be shitting me!” Gwen can’t get over it.

Finally Sarah says, “No, I’m not. And then I said, well, what do you suggest that I tell my husband is the reason I can’t have sex with him for six months?”

“This I gotta hear.”

Sarah laughs. “He didn’t answer me. He didn’t know what to say. So I asked him, what would your wife think if you told her you couldn’t have sex with her for six months.” Another pause.

“And?... C’mon Sarah. Don’t make me pull all of this out of you!”

Sarah finally relents. “He didn’t know what he’d say to his wife, but he admitted she’d probably be so suspicious, or at least curious, that he’d end up telling her the truth.”

“Which in your case would also mean, as far as he knew, telling Bill that you had slept with another man.” Gwen beeps the horn twice, just for emphasis.

“Of course! Anyway, I finally asked him why he wouldn’t allow me to take a viral load test even if I was negative on the Rapid Response, and he hemmed and hawed a little, mumbling something I couldn’t make any sense out of. So I asked him pointblank: Is it because you get too many high viral load results on HIV-Negative people, and that destroys the credibility of the test?”

Gwen is so proud of Sarah and now realizes why she’s such a good journalist. “What did he do?”

“He stepped back and looked at me, asked if I was a reporter for the paper or something, and then quickly turned and walked away.”

Chapter Twenty-Three

Today had been a relaxing, fun day for Sarah, Gwen, and Kate – just what Sarah needed. The weather in Atlanta was perfect for this time of year: still too early for the trees to start budding, but a warmer-than-average weekend. Sarah especially enjoyed being outside after spending so much time in the courtroom over the last few weeks.

They slept in and had a late breakfast at Kate's, then drove downtown to Centennial Olympic Park and walked around the world-famous Fountain of Rings, an interactive display that features computer-controlled lights and jets of water synchronized with music played from speakers in the surrounding towers. The fountain also forms a splash pad that was designed for children's play, as well as for concert goers and joggers to cool off on hot Atlanta summer days. Today there weren't many people "splashing," but Sarah could see where the Bellagio Hotel in Las Vegas had gotten the concept for their own famous dancing fountains.

They decided against visiting the Georgia Aquarium – too much time inside a building, as incredible as it was – and the new World of Coca-Cola wasn't going to be open for another few weeks. But Sarah couldn't pass up a tour of the CNN Center; besides, it was less than an hour long. At the end of the tour, Sarah asked a few pointed questions and picked up a couple business cards of the people she wanted to come back and talk to when the HIV trial was over in Greenville. It's high time CNN started telling the truth to the rest of the world about these HIV tests, she decided, and I'm going to do what I can to make that happen – even though she wasn't supposed to be thinking about the trial today.

Finally it was time for the more light-hearted things in life – shopping, or at least window-shopping. A ten-minute drive later and they were in the Virginia Highlands, an eclectic area of shops, salons, restaurants, homes and bars featuring a wide variety of contrasting architecture. The neighborhood was formed in a fight against the construction of a proposed Interstate highway that was planned to cut the area in two and supported by just about all the powers-that-be in Atlanta and the state of Georgia. But ordinary citizens, mostly housewives actually, fought the highway and won. Years after it was stopped, the state finally put the highway land back on the market, and the houses that were subsequently built on that property are very different from their neighbors.

Kate parked in a lot on North Highland Avenue and the trio decided to start walking south, stopping from time to time to peek in the shop windows, occasionally going in to get a closer look. They visited stores with names like "Back to Square One" and "20th Century Antiques," spent time looking around a cluttered old house called the Atlanta Book Exchange, and ended up taking a break at Aurora Coffee.

"If you girls are up to it," Kate suggests as she sips her latte, "the weather's so nice that I thought we might walk around for another hour or so, make our way back up here, and then have a drink and some dinner at Murphy's, just across the street."

Gwen says something to Kate, and asks, "That sound okay to you, Sarah?"

But Sarah isn't paying attention. Someone had walked by, handing her a flyer, and her eyes are riveted on what she is reading.

Gwen tries again. "Sarah?"

Still no answer.

"What's so interesting, Sarah?"

She turns and looks at Gwen, but doesn't answer right away. Gwen watches in fascination as different emotions make their way across Sarah's face. First, excitement. Then, what seems almost like guilt. And finally, determination. Sarah looks down at the flyer again, then back up at Gwen, and then at Kate, apologetically.

"Gwen, I know what you're going to say, and I don't blame you."

Gwen doesn't have a clue what Sarah is going to say, and Kate is completely confused.

"Don't be mad, but I want to go to this tonight," Sarah says as she hands Gwen the flyer, who starts reading out loud.

"Guinea Pig Kids. Watch this explosive 30-minute BBC documentary exposing the horrendous truth of how some of New York City's poorest children are forced to take part in HIV drug trials, against their parents' wishes. Special Guest speaker, Celia Farber. Free. 7:30 PM tonight, sponsored by the Midtown Atlanta Unitarian Church... oh, Sarah." Sarah can hear the disappointment in Gwen's voice. "Sarah, I thought you were supposed to be taking a break from all of that this weekend."

"I know, Gwen, you're right, and I'm sorry. But I've known about this documentary for a few months and never been able to see it. I mean, I've seen an edited version on the Internet, but never the whole thing. And Celia Farber, well... what an honor it would be to meet her, someone I respect and admire a lot." When Gwen and Kate share a blank look on their faces, Sarah explains. "Celia Farber has been one of the leading journalists in the HIV/AIDS debate for over twenty years, and it was her article in Harper's Magazine last year that really set off a new controversy on the issue. This is a great opportunity I don't want to miss... and it's only for an hour or so. But if you two don't want to go, we can split up after dinner and I'll take a cab back to Kate's."

Gwen and Kate exchange glances as Sarah asks, "How far is YWCA from here?"

* * *

Sarah makes her way toward the front of the auditorium, followed closely by Gwen and Kate. They find three seats together just as a large black woman stands and addresses the audience.

"Good evening, ladies and gentlemen. I'm not going to say much before we play the film, because it will speak for itself. But you should at least know that this is a documentary produced for the BBC and originally aired in England on November 30th, 2004. After we watch the film, we have a very special guest with us, Celia Farber, who was a researcher for this documentary, and she will be happy to answer some of your questions. So all I will say now is to take out your tissues and be prepared for some very disturbing and upsetting things you are about to see. Can we turn down the lights, please?"

As the room darkens, a large white movie screen lights up, and a group of young men and women in a New York park are singing about freedom, reminiscent of the glory days of Up With People. But the scene quickly changes to images of the poorer parts of New York, and introduces the viewer to Regina, an older black woman, and three of her granddaughters. Regina's daughter, Veronica, was diagnosed with AIDS, and Garfield, Veronica's son, had been diagnosed HIV-Positive.

"Regina and Veronica had wanted to have a say in the treatment that Garfield received," the movie says. "But instead, the New York authorities insisted Garfield stay on drugs and medicines that even the other children could see were making him ill."

The three granddaughters, Garfield's cousins, describe what happened to Garfield when he was taking the medications, and why their Aunt Veronica decided to stop giving Garfield the drugs. "He started to get well," one of the girls says, "but when he went for a check-up, they gave him the medicine again without her knowing it." And Garfield got sick again.

Regina explains how Garfield lost his appetite and didn't eat, and got skinnier and skinnier. When Veronica went to the family doctor for help and advice, he offered her \$25 a month if she would put Garfield in an experiment. When Veronica declined, the doctor told her, "You will regret it."

Veronica took Garfield off all medications, and immediately his health improved. Then one day Veronica got an unexpected visit. New York's Administration for Children's Services (ACS) was at the door, with the police, to take Garfield away.

"In New York," the documentary tells us, "you don't need a court order to take a child from its parents." ACS was given exceptionally strong legal powers by Mayor Rudy Giuliani to decide what's best for the city's kids.

Garfield disappeared, one of 23,000 children in New York taken from their parents and placed with foster parents or in children's homes. According to the film, ACS workers claim they can do whatever they want, and get away with it.

Gwen leans over to Sarah, "My god, is this really true?"

Sarah nods her head.

Next come pictures of the Incarnation Children's Center (ICC) in Harlem, run by the Catholic Church, where many HIV-Positive children end up if their parents or guardians refuse to medicate them. "For years it was the center of highly controversial and secret drug trials on orphans and foster children as young as three months old."

Documents appear on the screen showing evidence of the drug trials performed at ICC, including whole cocktails of medications which the manufacturers admitted had side effects of severe stomach pain, muscle wasting, and organ failure.

Gwen sees that Sarah is already starting to cry. She reaches over and takes Sarah's hand, squeezes it, and whispers, "Are you sure you want to see this?" Sarah nods, Yes.

Dr. David Rasnick, a California researcher, describes the lethal nature and horrific side effects of some of the drugs being given to the children at the ICC, accompanied by disturbing pictures. He then drops the bombshell. "I understand," he says, "that the ICC sends these kids to hospitals, and they cut a hole in their belly and put in a feeding tube to administer these drugs for the children who refuse to take them."

There is an audible gasp in the audience, while Gwen and Kate and Sarah look at each other in horror as pictures on the screen showed very young children with G-tubes surgically implanted in their stomachs, sticking out through their bellybuttons.

A fifteen-year-old boy, whose face is hidden, talks about his own experience at the ICC where he spent most of his life. He admits that he didn't want to take the medications, but "if you want to get out of there, you have to do what they say." He would even tell his friends and newcomers into the ICC not to refuse to take their drugs, because "you don't want a tube in your stomach."

Sarah glances at Gwen and Kate and sees the tears beginning to flow for them as well. She passes a Kleenex down the row and then wipes her own eyes again.

The documentary continues by explaining that federal rules in the U.S. require that permission for children to participate in drug trials has to be given by their parents or guardian. But the so-called "legal guardian" of the children in the ICC is New York's ACS, who takes these children from their parents and makes them available for the experiments. Most of the kids are from the poorer segments of the population – children born to drug-addicted mothers, for example – and 98% of the those in foster care in New York are black or Latino.

Jacklyn, a pediatric nurse who worked at the ICC for five years, explains that she never thought she was doing anything wrong, since all the children were HIV-Positive and the doctors said she should expect to see the worst. When the kids would vomit, lose their ability to walk, have diarrhea, or even die, she was told it was because of the HIV. She believed for a long time that she was doing the best she could to save these children from this deadly disease called AIDS. She had no idea she was part of drug experiments being run on the children without anyone's permission.

Then she started proceedings to adopt two of the girls from the ICC and brought them home to her own family. "I gave them all that I could," she explains, "on every level: good quality food, rest, the best private schooling, occupational therapy, speech therapy, physical therapy, tutoring, and the best psychologists I could find. But I just didn't seem to be making any headway. The only thing left still making them sick was the medication I was giving them."

She took the girls off the medications that the ICC insisted upon. The results were immediate; the girls got healthy again.

But on a Saturday morning not long after Christmas, the ACS arrived and took the two girls away. A social worker from the ACS explains that because the parents did not agree with giving the medications required for these two HIV-Positive girls, they had to be returned to the ICC.

Jacklyn has not been able to see the girls since then and has no knowledge of where they are or how they are doing. She was later taken to court and convicted of child abuse for refusing to give them the prescribed medications.

“Oh, my god!” someone screams from a few rows in front of Sarah, who can hardly hear it through her own sobs.

Unfortunately, the documentary continues with pictures of a mass grave owned by the Catholic Church close to Manhattan, where over 1000 children are buried, at least some of whom were involved in these drug trials, who died, according to their death certificates, of “natural causes.”

Sarah can't hear very much of the next few minutes as her tears overwhelm her. She didn't miss much – some politicians giving lame excuses of why they can't do anything, someone at the National Institutes of Health insisting that all participation in these drug trials was voluntary, and some drug companies involved claiming that all experiments were run under strict standards and complied with all local laws and regulations.

Sarah blows her nose and begins to watch again as Regina, the grandmother featured at the start of the film, wins a court order to visit her grandson, Garfield, at his new foster home. The place is a dump, and Garfield is hungry. But his new foster mother gets \$6000 a month from the city to have him there, along with three other foster children.

“What makes her a better guardian in the eyes of the authorities,” the narrator explains, “is that she gives Garfield the medicine demanded by the ACS, and Regina refuses.”

“I want to get him back,” Regina implores. “I want my own grandson.”

It takes a while for the credits to run, which is a good thing. There wasn't a dry eye in the room. Then, as the lights are turned up, people start shifting in their chairs, wiping their eyes, and looking around. There are about forty in the audience, a mix of men and women, black and white, some obviously poor and perhaps even homeless, some gay, some middle-class soccer moms like Sarah, others professionals like Gwen and Kate.

The woman who introduced the film stands up again. “I've seen that movie a number of times, and I still get angry, and frustrated, and so depressed each time.” It puts everyone else at ease to know they aren't alone in what they are feeling.

“As I said before we started, we are very fortunate to have Celia Farber with us this evening. You may have seen Celia's name on the screen during the end credits as a researcher for this documentary. For those of you who might not know, Celia is a journalist who has been covering the AIDS story since 1987, starting with Spin magazine. She has written for Rolling Stone, Esquire, Salon, Gear, the New York Press, Red Flags, and others. Her book *Serious Adverse Events: An Uncensored History of AIDS* was published in 2006. So it's a real honor and a pleasure to have Celia with us tonight, and she's agreed to answer your questions about the film you've just seen. Celia?”

A slender, very attractive woman, probably in her late thirties, stands up and turns to greet the audience. Looking at her, you wouldn't suspect that she had been the biggest thorn in the side of the AIDS Industry over the years, almost single-handedly at times exposing the myths and fraud associated with the suggestion that HIV causes AIDS. Her article, “Out of Control: AIDS and the Corruption of Medical Science” that appeared in the March 2006 issue of Harper's magazine is credited by some as the beginning of the end for the AIDS division of the medical/pharmaceutical complex.

But it was also obvious that Celia had taken quite a personal beating for her efforts, and she was clearly more comfortable in front of a keyboard than an audience. She hesitates, noticing the emotions in the room, and then very slowly says, “I was very involved in the making of this documentary, but it still gets to me every time I see it. So maybe you should just ask me questions, if you have them.”

There was a long silence. Finally a woman in the third row, with disbelief and trepidation in her voice, asks the one question going through everyone's mind: "Is this really true?"

Celia bows her head for a moment. "I can tell you with complete certainty that it is definitely true. I personally verified all the facts that you were told in this film."

More silence, not because there were no questions, but because it was taking time for everyone to recover from watching the video. Then, from somewhere behind Sarah comes a voice, "How did you find out about this to begin with?"

The question seemed to calm Celia a little, allowing her to recount history rather than deal with the heavy emotions involved. "Liam Scheff, a friend of mine and a free-lance investigative journalist, was actually the one who broke the story. I met Liam several years ago when he came to New York, where I live, and started telling me about the Incarnation Children's Center. He had found out through the AIDS 'dissident' grapevine that one of the mothers of a child in the ICC wanted to expose what was going on there. At that time, Liam was doing his own private research on the story. I remember when I read his first draft being absolutely numb and shocked, and, I have to admit, wondering how this could possibly be true, just like you. Then he came home one day and told me about the G-tubes that they were inserting in these children's stomachs. In my twenty years of writing about the HIV/AIDS issue, I had never encountered anything quite so... hideous, so sordid, so violent. This was different from anything else, hitting deeper nerves, involving disadvantaged children; and I was certain that some big magazine would buy and publish his article and it would create major waves all over the world."

While Celia pauses, someone in the audience suggests, "Obviously, that didn't happen."

Celia agrees. "No, it didn't. Everyone that Liam sent the story to rejected it, and attacked him personally as well. But I had a friend who was the editor of the New York Press, and in January of 2004 I asked him to look at the manuscript. He decided immediately to publish it. The article was called 'The House That AIDS Built,' and I brought a few copies tonight for anyone who wants to read it." She points to a table on one side of the room where some papers were stacked. "It's also available on Liam's website at www.liamscheff.com."

Sarah makes a note of the website, while Gwen and Kate exchange a few words she can't hear. Then Gwen says, "I've never heard of the New York Press."

"I'm not surprised, unless you live in New York City," Celia concedes. "At that time, it was a small, alternative weekly paper, the chief competitor to The Village Voice, with a circulation of around 100,000. But after the New York Press printed it, Liam's story was picked up by other magazines and newspapers around the world, and even the New York Post got involved. That's how Jamie Doran found out about it. Jamie Doran is an independent filmmaker who produces all kinds of documentaries and sells them to people all over the world, including the BBC. He's the one who produced the film you've just seen, Guinea Pig Kids."

This time it's Kate who speaks up. "And how did you get involved?" Sarah's glad that her friends are as interested in this as she is.

Celia looks around and finds a stool, drags it to the center, and sits where everyone can still see her. "About halfway through the production of the film, Liam and Jamie had a falling out, and I was hired by Jamie to finish the research. This was the summer of 2004, and we thought that my job would take about three days. It ended up taking a few months instead. The main thing we had left to prove was that at least some of the children who were in the Incarnation Children's Center had died there from the drugs they were taking." Celia turns and points to the blank white screen. "Do you remember seeing the mass grave in the video, part of a Catholic cemetery?"

Heads nod around the room.

"Well, my job was the find out who in that grave had been in the Incarnation Children's Center and then confirm what they had died of. This was literally a mass grave for all the indigent children who had died in New York City, meaning that it was simply a very big hole in the ground, covered by a sheet of Astroturf. At one point I pulled back the Astroturf on one corner and saw a lot of small pine

boxes. It was very eerie. There were some teddy bears and roses and angels and hearts placed around the grave; but there were also a lot of bugs crawling around, and the whole feeling was one of desolation – almost ghoulish.”

Celia pauses, obviously starting to recall some very difficult memories. Everyone in the audience stays perfectly still and silent, both out of respect and sympathy, until Celia is ready to continue. “Do you also remember seeing some tombstones in a circle around the grave?”

Heads nod again.

“We knew that this mass grave was supposedly the only place a child could be buried if they had died while at the ICC; and there were about a thousand names listed on these tombstones. It took me hours just to write them all down to cross-check later with names of the patients we had from the ICC. When I had finally finished, I remember saying a prayer to those children before I left. It was simply a promise that I would do my best to honor the truth of what had happened to them.”

The tears start to flow again all over the room. Celia’s voice breaks slightly as well, and she takes a couple deep breaths.

“The next step was to confirm that the children’s names we knew had been in the ICC were in that mass grave. It turned out – and it threw us for a loop, actually –that some of the names we had confirmed from our sources had died at the ICC were not on the tombstone, which meant that there were now some children who were simply missing. Where did they go? What happened to them? Were they actually in the grave but their names had never been added to the tombstone? Was there someplace else where similar children were buried that we didn’t know about? Were they simply listed on the tombstone as ‘Baby X’, or ‘No-Name Y’? Did we even have the right spellings for the names? As I tried to follow up on this, I met with tremendous resistance everywhere I turned. People would slam down the phone and refuse to talk to me, others got angry, and the whole thing took on this very strange feeling of intruding into another world – the world of the dead.”

Celia’s body shudders as she speaks those last words, as if it were remembering the experience as well as her mind. But it’s clear she isn’t finished with this part of the story, so the room remains quiet, giving her all the time she needs.

“There were a couple of names we had been given from our sources at the ICC of children who had died there whose names were on the tombstones. I then had to go to the Office of Vital Records in downtown Manhattan, where they keep all the files on those who were born and died in New York City. It took me weeks to find what I was looking for – weeks of leafing through all the books, looking for a needle in a haystack. At the same time, I was interviewing funeral home directors, caretakers for the graveyard, and anybody else I could think of to find the direct link to these children from the ICC. In the end, I had two matches with the right names, the right spellings, the right dates of death and everything; and I finally got the death certificates of these two children. Now I had to prove that they had died of the AIDS drugs they were taking, and that wasn’t so easy. But to make a long story short, in the end, we did it.”

There’s a prolonged silence. A couple of people got up and went to the table to pick up Liam’s article, and Sarah wonders whether the evening is over. But there’s more she wants to know, and Celia hasn’t moved.

“Did you ever go inside the ICC yourself?” As Sarah’s voice breaks the spell, everyone sits back down.

Celia looks directly at Sarah, as if recognizing a kindred spirit. “I went to the ICC once. There were people protesting outside, screaming about the torture going on inside. I was carrying a video camera, and I knocked on the door. As soon as they saw the camera, they slammed the door in my face. Not long after that a big black car pulled up, full of children from the Center, and they had to get those children from the car into the house. Every single child in that car was a complete vegetable. Not one of them could walk; one was in a wheelchair, the others had to be carried. They were all

completely emaciated, pale, and totally lifeless. They looked like terminal cancer patients, or perhaps even severely retarded. They had that look, you know.”

“There was one little boy being carried into the building, and as he passed me, we made eye contact. All of a sudden it hit me, and I felt ashamed. ‘Oh my god, what do these children think of these protesters, yelling about the prison these kids are living in?’ And in that moment I felt immense sadness, hopelessness, guilt, and shame. I couldn’t understand why their so-called caretakers – people that were obviously nice to them and, quote: ‘taking care of them’ – couldn’t see that something was destroying these children! There’s no virus that destroys children like this. Why couldn’t they see what they were doing?”

“Of course, the feelings coming from the ICC staff toward us were that we were evil and scaring the children, and I felt that. It was an impossible situation. You either wanted to storm the building and liberate these poor kids, or don’t show up at all, because it was the worst of all possible worlds for the children. We’re communicating to them that their caretakers were their captors, and were dangerous. I almost wished, for the sake of the children, that we would stop what we were doing. If nothing else, as they are being euthanized, let them feel that they were loved. I know that sounds strange, but does it make any sense?”

A number of people begin simultaneously expressing their sympathies to Celia and for the children. Celia encourages a few to talk about what they are feeling at the moment, and many are crying all over again. Finally there comes another question from the back.

“Were you ever able to talk directly to any of the staff at the ICC?”

“Yes, I was. After Liam’s article ran in the New York Press, we got a letter from a nurse at the ICC saying that the story was completely true, and that her job was to make sure that all the kids at the ICC summer camp got their medications. When I interviewed her, she said things like, ‘None of them ever left the infirmary.... They were completely lifeless.... They were sick as dogs all the time.... They would just park them at this summer camp where they would vomit the whole ten days.’ I sat down with this nurse for hours and let her tell me everything that was going on. It was the confirmation we needed that everything we were saying in the video was accurate.”

The large black lady who introduced the film is the next to speak. “I understand that this film never played on TV here in the States, that it was just shown in England and Germany. What if we want our friends to see it? Is that possible?”

“Fortunately, yes. A friend of mine keeps it posted on the Internet despite all the pressure and attempts to make him take it down. Your friends can go to www.guineapigkids.com and see the entire film there.”

“But what happened? If all of this is true, why didn’t the whole world hear about this, and why wasn’t something done about it?”

Celia obviously understood the question perhaps better than anyone else, and had searched for those answers herself. “I don’t think many people are aware of the political power that the AIDS Industry and the pharmaceutical companies have in this country. When the story first broke in the press, the black community in New York City was very upset about it. The leaders of the black community were actually livid and said to us that this was a more important issue to them than police brutality. After all, there were children involved. Even the elected City officials were outraged. There were City Council meetings where hundreds of people lined up at the microphones to complain about the Administration for Children’s Services and the ICC. As I sat in on a number of meetings, I started to get the feeling that this could actually result in race riots throughout the city, it was that much of a hot issue. I had hope that the murder, the condescension, the racism, the horror – all of it would lead to something positive to rescue these children. I don’t like violence, but as far as I was concerned, if it took hundreds of thousands of black people rioting in New York City to make the powers-that-be stand up and take notice and do something, then so be it. And then, almost overnight, it all went away; and to

this day, I don't know who got paid off or by whom to pull the plug and go back to business as usual; but the issue simply died."

The overwhelming sadness that had pervaded the room is now turning into anger and indignation. Someone emphatically wants to know, "Is this still going on today?"

Celia hesitates a moment, deciding exactly how to answer that question. As a journalist, she wants to be sure that anything she says is true. "I can't say for sure whether it's still going on at the ICC. I know that something happened and at one point the Incarnation Children's Center stopped their experiments suddenly. But there were at least six other houses we know about in New York City doing the same thing at that time that we did not expose. So as far as I know, unfortunately, the answer is probably, Yes. And I had a personal experience just in the last year that leads me to believe that nothing has really changed. One of the ICC foster-parents – I'll call her Mary – got in touch with me, telling me 'they're killing my child.' The boy was about twelve years old and was on a bucket-full of medications. His real mother had died from the drug AZT, and he had run away from the ICC, trying to escape. But they caught him and put him in a hospital, and in addition to his AIDS drugs, he was put on a lot of psychiatric drugs. At one point the boy asked his doctor, 'Is there a shot you could give me so that I could die?'"

"Mary had a nice home and a good job, and all she wanted as his foster-parent was to bring him home and get him off all those drugs. But they wouldn't hand him over, even after a lot of pressure from some very highly-placed politicians."

A male voice interrupts, "Don't you think they believe they're doing the right thing for these kids?"

Celia stands up, as if to emphasize her answer. "Yes, I do think these people believe they are saving these children, or at least doing the best they can. When they see the condition of these children, and if they are then told it's because of HIV, they would naturally redouble their efforts to fight the HIV with more drugs. In fact, they say that they're giving these children access to drugs they would not normally be able to get – that we are the vermin, and how dare we question their actions. But they don't stop for one second to consider that the problem is what they're doing to these kids with the drugs and not the HIV."

"I mean, I just can't believe the arrogance of these people, that they would have no shame, that they are actually proud of what they're doing. It's hard to imagine these people are that evil; I think instead that it's a combination of being incredibly stupid and willfully blind. So I don't know what to say, and sometimes I have trouble understanding who's the good guy and who's the bad guy in this story."

Although she stops for a minute, it's clear that Celia wants to say more, perhaps even things she may have never said before in public. "I've recently come to an even more disturbing conclusion. I think there's a strange kind of hate permeating our society that gets directed at anyone who tests HIV-Positive, even if they're children. Liam Scheff kept telling me, 'These people in the AIDS Industry are Nazis,' and I would argue with him. But maybe he's got a point, because there seems to be an attitude in our culture that if someone is HIV-Positive, their life is worth less than everyone else's. I can almost hear the doctors at the ICC saying, 'Anything we do, we get to congratulate ourselves – even if we destroy these children in open view and insert tubes into them and lock them up in a chamber of horrors where they run around screaming from the pain. No matter what we do, we're still heroes, because anyone who is HIV-Positive has already fallen off the scale of humanity; and we're justified in taking whatever actions are required to protect the rest of us.'"

"So in the end I felt that this film was not just about these children and their G-tubes, but about the whole fascist police state of AIDS and pharmaceutical drugs, particularly as it affects powerless, penniless, minority families."

* * *

None of the three say a word on the ride back to Kate's. Sarah feels like she wants to apologize for dragging the other two into a world so depressing, especially on an evening that was supposed to be full of fun. But she also recognizes that Gwen and Kate are grown women capable of making their own decisions, and they could have left at any time. Fact is, not one person walked out of the presentation until Celia finally brought it to a close.

Besides, Sarah is glad that her friends had the chance to see how perverted this HIV/AIDS issue had become. Maybe it's time more women watch Guinea Pig Kids; maybe it's the mothers of this world who have to take the lead to stand up against such atrocities; maybe they're the ones needed to provide the spark that will finally light up the sky and expose this tragedy for the crime it really is.

Chapter Twenty-Four

After the emotionally draining experience of Saturday night, Sarah forced herself not to think about the trial, or HIV or AIDS, for the next two days. Instead, she and Gwen and Kate talked about lots of other things, went to a couple movies, and took a picnic and hiked through Kennesaw Mountain Battlefield National Park. Kennesaw is the tallest mountain in a short string of peaks close to Kate's house and encompasses much of the area involved in a series of battles during the Civil War.

Sarah had not realized how much time she had spent indoors or in front of her computer during the last six months, immersed in the headiness of two different trials. It was so healing and so refreshing to spend time outside, in nature, out of her head and into her body; and she was so thankful for the beautiful weather this time of year that made it all possible.

But, now, here she is again, Tuesday morning, sitting in court, waiting for the trial to start. It seems to her that the air has cleared inside the courtroom as well, after the tensions of the past week. Everyone, including Mr. Wilson, looks rested and less on edge. The jury especially appears to have been able to assimilate the vast amounts of scientific evidence offered so far, and is now capable of handling more.

Mr. Campbell is announcing his next witness. "I call Dr. Nathaniel Logan."

As Dr. Logan makes his way to the stand, Sarah sits up and watches carefully. Then as she listens to him spell his name and give his address, she is certain of it. He's gay; and she suddenly realizes that he is the first gay man she has seen at this trial, either as a witness or in the gallery. Maybe I shouldn't be surprised, since we're in the south, she thinks. But it's a strong reminder to Sarah that HIV and AIDS is definitely not limited to the gay communities any more.

Campbell's ready. "Dr. Logan, what were you doing in 1996, '97?"

"I was a graduate student at the University of California, San Francisco."

"What were you studying?"

"Overall? Microbiology and pathology."

"And specifically?"

"My Masters thesis was on the transmission of infectious organisms."

"And you later received your Ph.D.?"

"Yes."

Logan's speech affectation is fairly pronounced. His delivery is somewhat slow and controlled, and it felt like he might not ever finish a sentence, even a short one, once he started. Campbell is being very patient.

"Were you involved in a special study during your graduate work?"

"Yes. For almost two years I did work on a study run by Dr. Nancy Padian and some of her colleagues at the University concerning the transmission of HIV through heterosexual intercourse."

"What got you interested in this topic?"

It also looks like Logan is enjoying his moment in the spotlight and wants to take every advantage of it. "Well, it was a requirement of my graduate school that I be involved in some kind of study. I've often wondered whether that was to make sure the heads of the departments had plenty of free labor to do all their grunt work for them, after which they could write their papers and take all the credit."

Ahh. He's got an ax to grind and wants someone to listen, Sarah thinks. That might explain the attitude.

Campbell doesn't seem to care. He presses on. "But did you have a personal interest as well?"

"Yes, I did. In case you haven't noticed, I'm gay, Mr. Campbell, and I knew it at a very young age."

Logan seems to have stopped, so Campbell asks, "But this was a study of heterosexuals...."

Logan interrupts, “You didn’t let me finish, Mr. Campbell. I was saying, I knew I was gay at a very young age. I can remember marching in the streets in gay parades and protests when AIDS had just come on the scene, when I was about ten or eleven years old. Those are impressionable years, Mr. Campbell, and everyone was talking about how AIDS could not stay just a gay disease or there would be no money to help find a cure. We had to make sure the world knew that HIV was going to affect the heterosexual population as well.”

“Is that why you went into microbiology?”

“That was a big part of my motivation, yes. It was also why I was excited to be part of the Padian study, which I knew was going to be the definitive study about the transmission of HIV through heterosexual intercourse. It was, and still is, the largest and longest study of its kind on this question.”

“It sounds almost as if you had a personal agenda in proving that.” Apparently Campbell knew that Logan’s testimony would have this edge to it, and he wants to encourage it for some reason.

“I admit it. I did.”

“Were you successful? Did the Padian study prove that HIV is transmitted through heterosexual contact?”

“No, it didn’t; and I was very disappointed at the time.”

“What happened? What went wrong?”

Logan is definitely enjoying this, as if getting revenge for the Padian failures. “Well, it seems to have started off as a very well-planned study. For the first four years, before I got involved, the study focused on paperwork, basically.”

“What do you mean by paperwork?”

“I mean that everything was based on HIV infection that had already happened in the past. Wait a minute,” and turns to the judge. “Can I read you a line?...”

When the judge nods his permission, Logan takes out some papers he had brought with him to the witness chair, flips a couple pages, runs his finger down the page and stops. “The fundamental design was to compare couples where transmission had occurred with those who remained discordant for HIV infection.”

“And that means?”

“That means that they were doing case histories and interviews on heterosexual couples who had already both become HIV-Positive at some point in the past and comparing them to couples where one of the partners had remained HIV-Negative. Somewhere in the paper they make a very clear statement that for all these couples, transmission occurred prior to entry into the study.” Again Logan searches the pages for what he wants. “Yes, there it is, and I said it exactly as it’s written. So they were basically trying to go back and reconstruct how that transmission had occurred.”

“But how could they prove that the transmission was the result of intercourse and not some other activity?”

“They couldn’t. They tried hard to eliminate other factors, but it’s just not possible under those uncontrolled circumstances. Even with the best of case histories, there are some things you simply can’t account for or prove. For example, the early couples included bisexual men.”

Campbell looks up from the lectern to insure that Logan doesn’t continue down that road. “But that’s not what we’re interested in for this trial, so why don’t we stick with the strictly heterosexual couples.”

Logan puts the papers down on the railing of the witness box. “No problem. But that’s the reason that in 1990 they started doing what is called the ‘prospective phase,’ which simply means actual, very controlled clinical studies of what’s happening in real life in present time, and not on paper in the past.”

“And the point of the prospective phase was?...”

“Dr. Padian wanted to count, as closely as possible, how many times an HIV-Positive could have sex with an HIV-Negative partner before that Negative partner became HIV-Positive. That was the

main stated purpose of the study. It says it right here on the first page...” and Logan picks up the papers again, “‘To examine rates and risk factors for heterosexual transmission of Human Immunodeficiency Virus.’ I hoped, of course – and I think I can say that everyone expected – that it would turn out to be a lot more frequently than we thought at the time, or that other studies had shown.”

“Was it?”

“No.” Again, the sound of disappointment in Logan’s voice.

Campbell appears pleased with Logan’s testimony so far. But he also seems ready to get to the important part. “Alright. Why don’t I let you explain how this prospective phase was being conducted.”

“Thank you,” Logan says, as if he had been waiting for this chance for years. “Again, before I got there, various heterosexual couples had been carefully chosen. One partner – either the male or the female, it didn’t matter – had been diagnosed HIV-Positive. The other partner was HIV-Negative. These are called ‘discordant couples.’ Another requirement was that they had to have been monogamous – not had sex with anyone other than their partner – for at least a year before joining the study. They also could not be IV drug users.”

“Why was that?” Campbell asks, looking at the jury and assessing their grasp of Logan’s testimony.

“To make sure that the HIV-Negative partner would not all of sudden show up Positive because they got infected by someone else in the past, or by blood transmission from a dirty needle. That would skew the study results, of course.”

“But why a year? I thought that it was agreed that HIV antibodies would show up within six months of infection, at the longest.”

Logan doesn’t look like he appreciates Campbell questioning his statements. “True. But Dr. Padian went overboard and decided on a year, just to be totally safe.”

Campbell raises his hands as if surrendering to Logan’s response. “Okay. So what did you do with these discordant couples?”

“We interviewed them and tested them on a regular basis, and we educated them about safe sex along the way.”

“What were you looking for, specifically?”

“We wanted to know how many times they were having sex, and how they were having sex; and we kept waiting and watching for the HIV-Negative partner to seroconvert – to become HIV-Positive.”

“What was your job?”

“I was one of those who did the interviewing, collecting the data.”

Campbell creates a pause at this point. Sarah had realized quite early in the trial that he had a good feel for when the witness needed to stop talking and let the jury digest what they had just heard. In this case, Campbell obviously wanted them to appreciate the fact that this witness was there when it all happened, in the middle of the mix.

When he feels enough time has passed, Campbell continues. “How long did all this go on, Dr. Logan?”

“Some of the couples stayed with the study as long as six years. Others came and went, some for a year or two, some longer.”

“Were you part of this when the study came to an end?”

“I was involved for the last of the interviews, yes, and part of the discussions that would eventually lead to writing the final paper for publication. But I left before the actual paper was written.”

Campbell walks back to his table and sits on the edge of it. “Why?”

“Two reasons. First, I was at the end of my Masters program; and secondly because I didn’t like the direction the discussions were going to publish the results of the study.”

“What do you mean? What bothered you?”

“It more than bothered me, Mr. Campbell.” Logan acts like he has been totally misjudged. “I was really upset.”

“Please tell the court why.”

“Because the actual results of the study were being buried in what we now call ‘spin,’ and I didn’t think that was appropriate for what was supposed to be a science paper. It lacked integrity; and if there’s anything I pride myself on, it’s my integrity.”

Campbell is clearly starting to tire of Logan’s attitude and wants to calm it down and get back to the facts. “Okay, Dr. Logan. I understand. Perhaps you should tell us what the actual results of the study were.”

“As I said, we were counting the number of times these heterosexual discordant couples were having sex, expecting the HIV-Negative partner to become HIV-Positive. But it never happened.”

Campbell puts on one of his ‘I’m surprised and shocked’ looks. “I’m sorry; did you say ‘it never happened’?”

“That’s right. Not one of the 175 discordant couples we studied for as long as six years ever seroconverted – not one of the HIV-Negative partners ever became HIV-Positive.”

Campbell repeats his feigned surprise. “None?”

“Not a one, Mr. Campbell.”

“That must have been difficult for you to take.”

“It shook me to the core, Mr. Campbell. For fifteen years I had believed what I was told – that HIV was transmitted through heterosexual intercourse and was a threat to everyone, not just gay men. Now I’m faced with the actual results of the largest and longest and most controlled study if its kind that says it isn’t true. You can imagine what that did to me. I literally felt betrayed. For a long time I was very angry at my fellow gays for perpetrating this myth and stopped going to gay meetings or parades.”

Underneath Logan’s emotions lay a very important point that Campbell hopes the jury heard. But he decides not to try to make him say it again.

“Dr. Logan, you also said you didn’t like the discussions that went on about writing the paper....”

“Well, imagine the position Dr. Padian and her colleagues were in. They had spent ten years of their lives on this study – ten long years and a lot of work, even though it was we graduate students who were doing most if it. And a lot of people knew this study was going on and were looking forward to the results. Some were even counting on the results to further bolster their case for heterosexual transmission. Dr. Padian simply couldn’t throw it all away and not publish the paper. But she also knew that she couldn’t publish a paper focusing on the fact that she found no incidence of seroconversion. So a lot of the discussion was how to make the paper sound like there was.”

Campbell walks to the witness stand and picks up the papers Logan had brought. “Are you saying that they were talking about intentionally deceiving everyone about the results of this study?”

Logan grabs the papers back out of Campbell’s hand, as if he shouldn’t have touched them without permission. “Essentially, yes, although none of them would agree to that, I’m sure. But it sounded like that to me, and I didn’t want any part of it. So I was glad that I could end my involvement in the study at that point.”

As Campbell walks back to the lectern, he asks, “Dr. Logan, can you give us an example of what you consider ‘deceiving’?”

“Well, the published paper turned out to be more than 4000 words long, with some graphs and charts. But out of the entire paper, there is only one sentence, nine words, that says ‘we observed no seroconversions after entry into the study.’ There are two other, also very brief references to the results, such as: ‘While lack of transmission in our prospective study,’ and ‘the absence of seroincident infection over the course of the study.’ So they clearly minimized the very important results of their prospective phase.”

“And what do the other 3970 words say?”

“They spend a lot of time talking about how the study was performed, the materials and methods, the procedures and measures, and how the data analysis was done.”

“But that’s not unusual for published studies of this kind.”

Logan looks offended again that Campbell would challenge him. “No, it isn’t. But then they focused almost entirely on the paperwork parts of the study, on the couples who had seroconverted before the study under uncontrolled circumstances, like the bisexual men you don’t want me to talk about.” Logan seems to have enjoyed jabbing back at Campbell. “And they made the report sound like this was the most important part of the study. They even based their conclusions on this part, rather than on the prospective phase, and came up with estimates of the rate of transmission between heterosexual couples that completely ignored the fact that none of the discordant couples in the prospective phase actually seroconverted.”

He really is doing a good job, despite the attitude, Campbell realizes. “Can you give us an example of what you’re talking about, Dr. Logan?”

Logan picks up the study again from the railing. “Again, let me read from the published paper itself. ‘The practice of anal sex and condom use have remained strong predictors of transmission since the beginning of the study, and we continue to observe that male-to-female transmission is approximately 7-9 times more efficient than female-to-male transmission.’”

“But how can they say that when none of the discordant couples they followed for as long as six years ever seroconverted?”

“That’s my point, Mr. Campbell. This statement totally ignores the results of the prospective phase of the study. It also ignores the fact that almost 38% of the couples in the prospective phase had been having anal sex before joining the study, and more than eight percent were still having it at the end of the study – despite the valiant efforts of Dr. Padian and her crew, including me, who were trying to get them to stop, by the way. Ironic, huh? Anyway, this meant that they should have been even more prone to HIV transmission if anal sex was the ‘strong predictor’ that Dr. Padian claimed it was.”

A quick check of the jury let Campbell know that was enough about anal sex. “And what about the condom use?”

“Prior to entering the study, these couples in the prospective phase were only using condoms about a third of the time. At the end of the study, more than a quarter of them were still not using condoms consistently – again, despite all the propaganda they were getting in our education classes.”

“So you’re telling this court that after six years of following these discordant couples, 25% of whom were still having unprotected sex, and some still having anal sex, that not one of the HIV-Negative partners was infected with HIV and became HIV-Positive.”

“That’s exactly what happened, yes.”

“But I assume they were still having sex?”

“Oh, yes. A very small number decided on abstinence as a result of our safe sex education, but the vast majority were having sex, and lots of it.”

“And you’re also saying that the paper that was published by Dr. Padian and her colleagues basically buried that information and intentionally emphasized results they had obtained simply by studying the case histories of other discordant couples, in which case there was no way to prove how the second partner became HIV-Positive.”

“Correct.”

Campbell wants another pause, so he looks at his yellow pad and turns over a page as if looking for his next question. “But you said that Dr. Padian still arrived at some estimates about how frequently an HIV-Positive person could infect someone who was HIV-Negative.”

“Yes, she did. Of course, she had to totally ignore the fact that none of her discordant couples in the prospective phase seroconverted, even after having sex thousands of times. For them, of course, the

rate of transmission would be 'zero.' But she based all her estimates on the other couples she studied on paper – those she did not actually observe or know for a fact how they became HIV-Positive.”

“Just out of curiosity, what are those estimates?”

“She said that the chances for transmission of HIV to occur when the man is HIV-Positive and the woman is HIV-Negative are approximately 1 in 1000, and the chances for transmission from an HIV-Positive female to an HIV-Positive male are approximately 1 in 8000.”

Campbell jotted down the numbers as Logan was answering. “Dr. Logan, let’s talk about those numbers for a minute, and let’s just talk about the rate of transmission from the man to the woman, which is what we’re dealing with in this case. This obviously does not mean that a woman can have sex with an HIV-Positive man 999 times before she would be infected with HIV on the 1000th time.”

Logan actually lets out a little chuckle, breaking his intensity. “No, it doesn’t. What it means is that Dr. Padian claims the odds are about a thousand to one that the transmission of HIV would occur between an HIV-Positive man and an HIV-Negative woman in a single act of sex. If you think about the odds of a horse winning at a race track, even the biggest long shot is usually only one-hundred to one. In other words, there are really good odds that HIV transmission won’t occur very frequently.”

Campbell wants to make sure the jury doesn’t get lost in the numbers and instead remembers the most critical results of the study. “But, again, that didn’t apply to the discordant couples studied in the prospective phase.”

“No. As I said, their results said that the chances of an HIV-Positive man infecting an HIV-Negative woman through heterosexual intercourse were zero.”

Let’s get down to brass tacks. “So in terms of the defendant and Beth Ann Brooks... even if they had sex every day for the three months or so that they were dating – which we know for a fact they didn’t – that would still only be a hundred times. Even if you believe Dr. Padian’s unsubstantiated calculations, what are the chances that Miss Brooks could have gotten infected with HIV?”

“Very small, Mr. Campbell. Even Dr. Padian admits in her own paper...” which he picks up again and finds what he’s looking for, “...and I quote: ‘We estimate that infectivity for male-to-female transmission is low.’”

This time Campbell actually reads his notes, wondering whether he forgot something. He did. “Doesn’t Dr. Padian also say something about sexually transmitted diseases in this study?”

“Oh, yes. Let me read that. ‘The results of our study... confirm the significant contribution of both injection drug use and infection with other sexually transmitted diseases.’”

“The ‘significant contribution’... I assume that means the significant contribution IV drug use and other sexually transmitted diseases would make to the transmission of HIV?”

“Yes, that’s what it means.”

“So, Dr. Logan, if neither the defendant nor Miss Brooks were IV drug users or had any other sexually transmitted disease, and we know for a fact that they weren’t and didn’t...”

“...the chances of HIV transmission are even significantly lower, Mr. Campbell, at least according to Dr. Padian’s study.” It always amazed Campbell how many witnesses were willing, even anxious, to finish his sentences for him.

Campbell consults his notes one more time. “Dr. Logan, you said you didn’t like the way the study was being presented for publication. Please tell the court why.”

“The thing that upset me the most was that Dr. Padian started touting her study as proof of how effective condoms were, along with HIV education and what she called ‘behavioral intervention,’ when her study doesn’t say any such thing. If you have 50 couples who are not using condoms consistently getting the same results as the other 125 couples who are, you simply cannot say that condoms make any difference whatsoever. If you have 15 couples who are still having anal sex getting the same results as the other 160 couples who aren’t, you simply cannot say that ceasing anal sex makes any difference whatsoever. Even Dr. Padian admits, right in this paper, that ‘the absence of

seroincident infection over the course of the study cannot be entirely attributed to significant behavior change.”

“But surely there were people in the scientific community who were able to see through this... ’spin,’ as you called it.”

“You would hope so, wouldn’t you? And there were some who did. But no one in the AIDS Industry said anything, probably from fear of losing their jobs. And no one wanted to have it publicized that HIV is not transmitted heterosexually. It was just the AIDS dissidents who picked up on it right away and recently have made a big deal out of it – to the point where Dr. Padian had to publish a letter on the Internet defending her study.”

“What did the letter say?”

Logan takes another page out of the papers he brought with him. “Once again she tried to say that the whole point of her study was how effective condoms and education were. Here, let me read just one line from that letter: ‘That we witnessed no HIV transmissions after the intervention’ – she’s talking there about the safe sex education classes – ‘documents the success of the interventions in preventing the sexual transmission of HIV.’ But, Mr. Campbell, what about all the sex these couples were having prior to the so-called ‘interventions’ when no HIV transmission occurred either. If Dr. Padian wanted to draw some conclusion about the effectiveness of interventions, there would have to have been two groups of study subjects: one that got interventions and one that didn’t, so a comparison could be made. But this study was never designed or intended to measure the success of interventions; it was to find out how often HIV is transmitted through heterosexual intercourse. And the answer is ‘never,’ according to the verifiable data in the study. This is such a disgusting example of political ‘spin’ – such a perversion of science – that it makes me sick to see how low some people will go to protect this concept that HIV is transmitted heterosexually.”

Okay. I’ll let you rant. “Why do you think that’s happening, Dr. Logan?”

“I think there are a few different answers to that question, Mr. Campbell. First, as we all know, the gay community had to make AIDS into an epidemic that was going to affect everyone – heterosexuals included – or they were going to be stuck with the fact that AIDS was a result of their own behaviors and sexually promiscuous, drug-based lifestyles. Secondly, the CDC and the National Institutes of Health were not going to get increased funding unless they convinced the politicians that HIV and AIDS could spread throughout the world by having heterosexual sex. And thirdly, conservative Christians had gained an enormous amount of power by this time and saw this as a chance to push their religious anti-sex agenda on everyone, using fear as the catalyst. And it worked. Just look at how the abstinence movement took off in this country.”

Campbell shudders at that last statement, knowing there were probably a number of conservative Christians on the jury who wouldn’t like that. Oh, well. It’s true, and there’s nothing I can do about it now.

“Dr. Logan, with your direct experience in the Padian study, and as a result of everything you know on this topic, would you sleep with a woman who was HIV-Positive?”

“You forgot, Mr. Campbell; you’re asking the wrong man that question.” Logan laughs. “But if I were straight, the answer is: Absolutely, I would have sex with an HIV-Positive woman. I can find no good evidence that HIV is transmitted through heterosexual intercourse, and the Padian study is the proof of that.”

“Thank you, Dr. Logan. Your witness, Mr. Wilson.”

Wilson stands up confidently. He had obviously taken the long court recess to prepare himself better and get ready for Campbell’s remaining witnesses. No doubt he also got some coaching from Armand.

“Dr. Logan, just a few questions. You said you left before the final paper had been written to publish the results of Dr. Padian’s study, is that correct?”

“Yes.”

“So isn’t it possible that you might not have seen or known about all the data that was finally collected, and therefore your conclusions were premature and not based on the information everyone else had?”

“As far as I know, I knew everything that anyone else did, and it’s all right here in her report.”

Logan waves the papers at him.

“But it’s possible, isn’t it?”

“I doubt it.”

Wilson’s not giving up so easily. “You also said that it’s possible that the defendant may have infected Miss Brooks while they were having sex for three months.”

“I said the odds were against it.”

“But it’s possible, isn’t it?”

“Anything’s possible, I guess.”

“In fact, there’s no way you can tell this jury for sure that Mr. Johnson could not have infected Miss Brooks with HIV, is there?”

“All I know for sure is what the Padian study says.”

“And you admit that the Padian study says that it’s possible, doesn’t it?” When Logan doesn’t answer immediately, Wilson quickly says, “That’s all the questions I have, Your Honor.”

Campbell is up almost immediately. “What exactly does the Padian study say about that possibility, Dr. Logan? For example, ignoring the prospective group of 175 discordant couples where there was absolutely no transmission, tell us about the other group that, as you said, was a study done from past histories?”

“Well, here’s what the study actually says.” Logan once again finds the section he wants in his papers. “It says that 19% of the women were supposedly infected with HIV from their HIV-Positive partners, and almost half of them had more than 300 sexual contacts.”

“So at best, Miss Brooks had less than a 20% chance of being infected from the defendant, and less than that if they didn’t make love at least 300 times.”

“Correct, Mr. Campbell. But that’s not all. The study also says that... let me find that sentence... here it is... ‘the history of sexually transmitted diseases was most strongly associated with transmission.’”

“So, since there were no sexually transmitted diseases involved in this case, and since we know they didn’t make love at least 300 times, that 1 in 5 chance that Miss Brooks’ had of being infected now shrinks to what... 1 in 10? 1 in 20? Less?”

“I wouldn’t want to put a number on it, Mr. Campbell, except to say that it would far less than 1 in 5, according to the study, yes.”

“Dr. Logan, can you at least give the court your expert opinion: Is there reasonable doubt, based on the Padian study, that Ms. Brooks was ever infected with HIV by Mr. Johnson?”

“There is definitely reasonable doubt, Mr. Campbell.”

“Thank you, Dr. Logan.”

Sarah notices that Logan looks sad that his time in the witness chair is over. But he also seems pleased with what he’s said.

“The witness may step down, and you may call your next witness, Mr. Campbell.” The judge is anxious to keep things going.

“Your Honor, I’d like to see if we can save the court some time. I have a number of witnesses I would call at this time, all of whom are discordant couples – that is, one partner is HIV-Positive and the other HIV-Negative. All of them have been having unprotected sex with their partners, some of them for as little as two years, some for as long as sixteen years. All of the HIV-Negative partners have had an HIV test within the last month that says they are still HIV-Negative today.”

When Campbell stops talking, the judge is curious. “What’s your point, Mr. Campbell?”

“My point, Your Honor, is that there is evidence in addition to the Padian study that HIV is not transmitted sexually, and these couples are the living proof of that. I expect that it will take the rest of today, and perhaps some of tomorrow morning to bring all of these couples to the stand to testify. On the other hand, if Mr. Wilson were willing to stipulate that HIV is not transmitted sexually, I would be happy to skip this entire group of witness and move on to the next topic.”

The judge looks at Campbell for a long time and almost smiles. Then he looks at the Deputy Solicitor. “Mr. Wilson?”

Wilson was already out of his chair. “Your Honor, I don’t know how stupid or incompetent Mr. Campbell thinks I am, but that’s ludicrous. The minute I stipulate that HIV is not transmitted sexually, he’ll move to dismiss this case on the basis that the defendant could not have infected Miss Brooks with HIV. No, sir, I don’t agree to that.”

The judge knew that Campbell knew that tactic would never work. But still, he had guts to try it. “Okay, then, Mr. Campbell, start calling these witness.”

Chapter Twenty-Five

It had taken longer than Campbell thought to parade couple after couple through the witness box to testify about their HIV status and their sexual history, mainly because Wilson insisted on cross-examining each one of them. One after one, they testified that after years of unprotected sexual contacts, none of the HIV-Negative partners had become HIV-Positive. The last couple had been married sixteen years and still claimed to have sex three times a week, and more often when they were first married. A quick mathematical calculation showed they had intercourse well over 3000 times without the transmission of HIV.

By the time Campbell finally finished with this group of witnesses, it was already mid-afternoon on Wednesday, and the judge decided to recess until the next morning rather than start something new at that late hour.

Campbell felt like he could actually stop at this point, if he wanted to. He was certain he had created a reasonable doubt in the juror's minds of whether the defendant was unquestionably HIV-Positive, and whether Beth Ann Brooks was unquestionably HIV-Positive, and whether the defendant had unquestionably infected Miss Brooks with HIV. And that was the best he could do – create a reasonable doubt. It was also all he needed to get a not guilty verdict.

As he sits waiting for the judge to arrive to start Thursday morning's session, his one concern is the amount of information brought out in all the testimony during this trial. It had taken him almost a year of study to learn it, assimilate it, and have it all make sense. This jury had less than a month.

But Campbell also knows that unless he calls one more witness, the jury is likely to go into its deliberations with an unanswered, burning question: If Beth Ann Brooks didn't die from HIV/AIDS, what did she die from? Knowing the need and the desire of a jury to find something or someone to blame for the tragic death of any young woman, he is afraid all the evidence might get swept aside and emotions prevail, unless he gives them another reason for her death. However, he is determined to keep this last witness's testimony to a minimum.

“Dr. Roderick, where were you and what were you doing in the early 1990's?”

“I was at the University of California, Berkeley, teaching and working in my field.”

“Which is?”

“I wrote my doctoral thesis at Georgia Tech on protease inhibitors. I've been studying them all my life.”

Campbell knows he can't go beyond this point without explaining what protease inhibitors are. “Dr. Roderick, can you briefly tell us what a protease inhibitor is?”

“How about if I just say that it is a drug that interferes with the ability of a virus to replicate – to make copies of itself – and therefore can stop them from spreading.”

“That's fine, for now. So you were trying to find a better way to combat HIV?”

“Not just HIV, no. Any virus, for that matter. I was never focused on HIV, although it had taken center stage by that time for most other protease inhibitor researchers.”

“Why?”

“Because we had learned that AZT, the only drug that was prescribed for HIV for almost a decade, was highly toxic and often lethal. In fact, there is a trial going on in Phoenix right now suggesting that AZT actually caused 95% of the AIDS cases up through 1997 in this country, and that it was responsible for the death of over 300,000 HIV-Positives, rather than HIV. It's being called The AIDS Trial.”

Sarah's ears perk up with the mention of The AIDS Trial, proud to have been involved, wondering how Gene was doing with his coverage of the AZT section.

“Dr. Roderick, why would AZT be so lethal?”

“Because it is a DNA-chain terminator. That is, it interferes with cell reproduction. It was actually developed as a chemotherapy whose purpose was to stop cancer tumors from growing. The problem was that it stopped all cells from duplicating – not just HIV – destroying the immune system, and allowing opportunistic diseases to manifest and kill the patient. And that’s the definition of AIDS.”

“So you were trying to find a different way of attacking HIV?”

“Well, again, yes and no. I never got directly involved in the HIV research, for my own reasons. But I was at a professional conference in 1994 and heard a presentation by a British researcher named John Kay who had just finished an eighteen-month-long drug trial for the drug company Hoffman-LaRoche, using their experimental protease inhibitor on AIDS patients. Unfortunately, the results of the trial were very disappointing.”

Campbell likes the clear, concise way Roderick is answering the questions, and then letting him ask the follow-ups. “In what way?”

“Initially, the patient would show signs of getting better, but by the end of the study there was no clinical improvement at all compared to the study’s control group. John Kay thought that there was something wrong with the protease inhibitor.”

“But you disagreed?”

“Yes. From all of my research, I knew the drug was working perfectly, doing exactly what it was supposed to do. The fact that AIDS patients didn’t get better was not the fault of the drug. It was because HIV doesn’t cause AIDS, so destroying HIV would have no effect on the disease.”

Campbell definitely does not want to get into a discussion of whether HIV causes AIDS. That trial had already taken place a few months ago, and the whole question was really not pertinent to this case. Let’s move on quickly and hope the jury doesn’t get sidetracked by that.

“But protease inhibitors soon took over the market as the drug of choice against HIV, didn’t they, Dr. Roderick? How did that happen?”

“Well, the study John Kay did for Roche never got published, and there was such a political urgency to replace AZT that protease inhibitors quickly got FDA approval anyway, and took off.”

“That was when?”

“1995-96.”

Campbell checks his notes. “And that’s what we know today as Highly Active Anti-Retroviral Therapy, or HAART?”

“Actually, protease inhibitors are just one part of HAART. No one could really hide the fact that protease inhibitors alone weren’t producing the desired effects of lengthening the lifespan or improving the condition of these AIDS patients. They decided to blame that on HIV itself, claiming that it was mutating and developing resistance to the drugs. To counteract that, they combined the protease inhibitors with smaller doses of AZT – now being called ZDV instead – and sometimes with other what-are-called nucleoside analogs.” Campbell must have frowned, because Roderick quickly adds, “But don’t worry about what those are. Just realize that the famous ‘drug cocktail’ was created, and it included these new protease inhibitors along with some other things.”

I think that’s enough background. Let’s get down to it. “Dr. Roderick, are these drugs safe?”

“No, they aren’t. They come with a ‘black box warning’ from the FDA.”

“What’s a black box warning?”

“A ‘black box warning’ is a type of warning that appears on prescription drugs that may cause serious adverse effects, and it means that medical studies indicate that the drug carries a significant risk of serious or even life-threatening side effects. It’s the strongest warning that the FDA requires on a drug; more serious problems would result in the outright ban of the drug.”

“And all HAART drugs come with this black box warning?”

“As far as I know, they all do.”

“Which means that there are very dangerous side effects if you take them, maybe even death.”

“That’s correct.”

Campbell leaves the lectern and goes to his table as if he wanted something on it. Instead, he stops and turns back to the witness. “But all we hear about is how great these drugs are, and how they save lives, or at a minimum prolong life for so many AIDS victims.”

“There’s no question that when the HAART drugs were first introduced, they saved people’s lives, or at least prolonged them. But it wasn’t because of how good the HAART drugs were; it was because they got people off full-strength AZT, which is what was killing most HIV-Positives. But the AIDS Industry started this huge propaganda campaign about how HAART saves lives, although that claim is definitely not backed up by any scientific study or published drug trials, I can assure you.”

“Why not?”

“To make the claim that these drugs save lives or prolong life, you would have to run an approved FDA study comparing two groups of people: one group would take the drugs, and the other group wouldn’t; and you’d see who lived the longest. But that kind of study could not be done in this day and age.”

Campbell goes back to the lectern, empty-handed. “Why not?”

“Because ever since HIV came along, it is considered unethical to run a study full-term that might have a negative impact on one of the two groups. The most famous example was the AZT drug trials, which were stopped when it was decided the trials were so successful that it was unethical to withhold AZT from anyone any longer. Of course, now we know the opposite was true, and that the AZT drug trials were a total farse. But the most recent example happened in Africa, where they were running a study about the so-called benefits of circumcision in preventing the transmission of HIV, and they even stopped that trial short, saying that the evidence was so overwhelming that they weren’t going to wait for the final outcome to start cutting on every African man’s penis.”

Campbell hopes the ‘p’ word hadn’t offended any of the jury. “But, Dr. Roderick, isn’t there some evidence that – at least for some people – the viral load can go down, and the CD4 cell count can go up when they start taking these HAART drugs.”

“That might be true in some cases. As I said, protease inhibitors interfere with the ability of a virus to replicate –

any virus; and although HIV has never been proven to replicate in a human being, other viruses can. And since the so-called HIV viral load test has also not been proven to have anything to do with actually counting HIV, whatever it is counting might be impacted by the protease inhibitors, causing the viral load results to go down temporarily.”

“And what about the CD4 cell count going up?”

“The immune system will kick into gear as soon as any foreign substance enters the body. If you put a highly toxic substance, like these HAART drugs, into your body, you better get an increase in your CD4 cells or there’s something wrong with your immune system. But this increase in CD4 cells is not because you’re fighting HIV or AIDS, but because your body is fighting the drugs you just took. And eventually, the CD4 cell count will go back down – often times even lower than where it began – because the nucleoside analogs in the cocktail, like AZT/ZDV, have started to destroy your immune system.”

Campbell wants one of his pauses to give the jury a break. He’s looked at his notes on the lectern as an excuse so many times that he’s worried the jury has tired of that routine. Fortunately, something makes a sound in the back of the courtroom, like a door closing, so he takes the opportunity to look around. Everyone else does, too. When no one can see anything out of the ordinary, Campbell waits for them to bring their attention back to him, and then continues.

“Dr. Roderick, let’s get back to the studies on these HAART drugs. The AIDS Industry says these studies exist.”

“There are some studies, yes, but they do not test the HAART drugs against a control group that is taking no drugs at all. Instead, they test them against a control group that is only taking nucleoside analogs, like AZT/ZDV. I don’t have any doubt that the HAART drugs are less toxic than AZT/ZDV

alone – at least, initially. In fact, some researchers have suggested that the protease inhibitors actually interfere with the toxic effects of the AZT/ZDV, making these drug cocktails safer to take than just the nucleoside analogs by themselves. Personally, I think it's simply because of the lowered dose of the nucleoside analogs in the cocktail."

This time, Campbell really does need to look at his notes, but he doesn't delay very long. "It's my understanding, Dr. Roderick, that no one could survive taking full-strength AZT by itself for much more than three years, and usually only around two. Are there are people taking these drug cocktails, this HAART, who have survived for longer than that?"

"Yes, they have definitely survived longer than anyone could on just AZT. The question is, do they survive longer than someone who took nothing? And that would have to be proven by drug trials and double-blind studies if these companies wanted to claim that their drug prolonged life. But it's not the drug companies who are claiming that; you'll never see that on any printed insert that comes with the drugs. It's the AIDS Industry – the so-called AIDS experts – who spread that propaganda around the world using the mass media."

"Are there people dying from these HAART drugs, like the people died from AZT?"

"Absolutely, and unfortunately, in large numbers. In fact, the AIDS Industry has admitted, ever since the International AIDS Conference in 2002, that more people die every year in the United States from the side effects of these drugs than from AIDS-related illnesses?"

"Is there any scientific proof of that?" Campbell is prepared to hand Roderick a copy of one of the scientific studies, if he needs it. Apparently, he doesn't. He has all these facts memorized, probably as a result of his years of research.

"Yes. There was a study published in December of 2003 in the Journal of AIDS – a well-respected mainstream magazine – and I am quoting it by heart, but you can easily check me out, that said 'Grade 4 events are as important as AIDS events in the era of HAART.'"

"What's a 'Grade 4 event'?"

"Grade 4 events are defined as 'severe or life-threatening.' In this study, however, Dr. Reisler and his colleagues specifically said that the risk of death from the first Grade 4 event caused by the drugs and the first AIDS event were essentially statistically equal. But if you read the paper carefully and examine the data, you will find that HAART deaths actually exceeded AIDS deaths."

"Say that in English for us, please."

"It means that more people are getting severely sick and dying from the side effects of the drugs as there are getting sick and dying from AIDS, at least in the United States."

What a great witness, Cambell thinks. And what a great way to end this trial.

"Dr. Roderick, why are these HAART drugs so dangerous?"

"One of the reasons is the huge dosages, and the fact that people are told to take them every day for the rest of their lives. Even cancer patients don't take their chemotherapy every day for years on end. They take it for a while, take a break to let their bodies recover from the drug's toxicity, and then go another round. That's not what's happening with the HAART drugs, which, by the way, are simply another form of chemotherapy, designed to destroy cells."

"And what about the side effects of these HAART drugs?"

"There are many of them, including horrible nausea, loss of fatty tissue – especially in the face – which is called lipodystrophy, a distended abdomen that looks like a pot belly, buffalo humps on the back and neck, and more. But the most common is organ failure, specifically liver failure."

"Why?"

"Unfortunately, some of these HIV protease inhibitors interfere with certain enzymes in the body, preventing the liver from getting rid of all the toxins it collects. When you have all of these HAART drugs that your liver is normally trying to eliminate, but can't, the concentrations are going to build up. You will start seeing toxic effects even at doses that would ordinarily be perfectly safe. Finally, the liver can get overwhelmed and stop working altogether; and if that happens, you die. This is

particularly dangerous for AIDS patients because they are often taking almost a whole drugstore's worth of pills every day.”

Campbell looks at the jury as he slowly repeats what Roderick just said. “You die from liver failure.” Then he looks back at the witness. “But haven’t there been major improvements in the HAART drugs in the last ten years?”

“There have been some improvements, yes, but I wouldn’t call them ‘major,’ and they still have the same problems with the side effects. As a matter of fact, there was a recent study that showed that the side effects have gotten even worse.”

“When was that study published?”

“August 5, 2006, in the Lancet magazine – again, one of the most respected magazines specializing in this kind of research, and definitely an arm of the AIDS Industry.”

“And what did this study say?”

“A number of things, all of them bad. But the conclusion was that the HAART medications being given today – or at least in 2005 when the study ended – are worse than the HAART drugs we started off with ten years ago.”

“In what way?”

“Well, first, the study says that the recent HAART drugs do not prolong life any more than they did in 1996. We’ve already discussed that there’s no evidence they prolong life at all; but even if they did, this study found that no one is living longer today than they did ten years ago.”

Let’s get through this fairly quickly, Campbell decides. “You said ‘first,’ so I assume there were other parts to this study?”

“Yes. They also found that there was now actually a decline of CD4 cells when people started taking HAART, that there was ‘an increase in the rate of AIDS in recent years’ while on HAART, and that ‘the median time to the first AIDS event after starting HAART decreased over time.’ In fact, the study concludes that while there may have been ‘clear improvement for virological response,’ there were ‘worsening rates of clinical progression.’”

“Okay, we need you to translate all of that for us.”

“Very simply, the newer HAART drugs, compared to the HAART drugs that came on the market in 1995-96, depress the immune system rather than improving it, and cause more AIDS, faster.”

Campbell doesn’t know the answer to his next question; but he’s curious, and he trusts Roderick won’t sandbag him. “Has there been any action taken about the HAART drugs since this study came out?”

“Not that I’m aware of; and I’m beginning to think that nobody cares. The pharmaceutical companies are making obscene profits from these drugs, and the AIDS Industry doesn’t want this information out in public, because it would raise too many questions about their whole HIV=AIDS=Death theory.”

Campbell knows that there’s a lot more damning information he could bring out about the HAART drugs, but he feels like the point has been made, and it’s time for the key question.

“Dr. Roderick, the County Coroner’s report says that Beth Ann Brooks died from AIDS, but that the main cause of death was liver failure.”

“That’s understandable. They are required to list AIDS as the cause of death if the person is HIV-Positive, Mr. Campbell. But liver failure is not a result of any AIDS-defining disease. It is strictly one of the side effects of the HAART drugs.”

“So, in your expert opinion, Dr. Roderick, what did Miss Brooks die from?”

“She died – and my heart goes out to her family, and many other families in the same situation – from taking the very drugs she was prescribed to treat her AIDS.”

“And not from an HIV infection?”

“No, sir.”

“Thank you, Dr. Roderick. Your witness.”

Wilson gets up slowly and then just stands at his table, apparently unsure of what to ask. Finally, he walks to the lectern.

“Dr. Roderick, did you do the autopsy on Miss Brooks?”

“No, I didn’t.”

“Then how can you say for certain that she did not die from the HIV infection she got from the defendant?”

“How can you say for certain that she did? I would ask your Coroner whether, in fact, he was able to culture any live, active HIV from her body to substantiate your claim.”

Wilson knows he is in deep trouble with this witness if he continues. He’s already committed the cardinal sin for an attorney: asking a question when he wasn’t sure of the witness’s answer, just hoping for the best. Well, he got the worst. “No further questions, Your Honor.”

Without looking up, the judge asks, “Re-direct, Mr. Campbell?”

“No, Your Honor.” Campbell figures that Roderick’s last line was enough.

“Then the witness may step down, and you may call your next witness, Mr. Campbell.”

Campbell remains standing at his table. “Your Honor, Dr. Roderick was our last witness. The defense rests.”

Now the judge looks up, somewhat surprised, but happy that’s it’s almost over. “Then, gentlemen, are you ready with your closing arguments?”

Wilson also stands. “Your Honor, you’re aware that I took over this case well into the process.”

The judge smiles. “You know very well, Mr Wilson, of how very aware I am of that.”

“Yes, Your Honor. So I would ask the court for some additional time to better prepare my closing argument.”

“How much time, Mr. Wilson?”

“Your Honor, it’s already Thursday, close to lunchtime. I’d like to recess until Monday morning.”

The judge sits up suddenly. “Monday? You can’t be ready tomorrow if I give you this afternoon off?”

“Your Honor, I really need the weekend to prepare.”

Somewhat disappointed, the judge looks at Campbell. “Any objection?” he asks, hoping there would be.

“No, Your Honor.”

Not seeing much choice, the judge announces, “Very well, then. This court will stand in recess until Monday at ten a.m.”

Chapter Twenty-Six

Sarah has been waiting patiently in the parking lot. Finally, Campbell walks through the Courthouse Annex door, heading to his car. Sarah catches up with him quickly.

“Mr. Campbell, my name is Sarah Meadows,” and she hands him a business card.

Campbell stops and shakes her hand, and while he reads her card, she continues. “I’m a reporter for the Arizona Tribune newspaper.”

“Arizona? What are y’all doing all the way over here?” It isn’t said with a tone of distrust, but a sincere curiosity that comes naturally with southern hospitality. Sarah also notices that once out of the courtroom, Campbell has reverted to more of a southern drawl.

Sarah is a little surprised that he doesn’t recognize her. “I’ve been covering this trial for almost a month.”

“Sorry that I haven’t noticed you, but my attention has been elsewhere.” Campbell starts walking to his car again.

“That’s okay,” Sarah says, following him. “Mr. Campbell, can I have a few minutes of your time?” Campbell stops again and looks at her, clearly undecided; so Sarah tries again. “Can I buy you a coffee?”

Campbell relaxes a little and agrees, now that the judge had recessed the trial until Monday. He points across the street. “There’s a Starbucks just around the block.”

“Believe me,” Sarah jokes. “I know the place well.” If he only knew!

As they walk, Sarah decides not to waste any time. “Mr. Campbell, can I ask... I thought you were going to call Dr. Gallo as a witness?”

“I was. I changed my mind.”

“Why?” Sarah is clearly disappointed that she wouldn’t get to hear Gallo testify.

“I guess the biggest reason is that I read the transcript of his testimony at the recent trial in Adelaide, Australia.”

Sarah doesn’t understand. “And why did that make a difference?”

Campbell glances at her. “Have you read it, Miss... Meadows?” He almost forgot her name, which is something he rarely does. Probably just tired, he thinks.

“No, I haven’t.”

“Well, you should. It’s amazing, really. Gallo contradicted himself so many times, and he clearly lied about some things – as he has been known to do in the past. I just decided that I couldn’t trust him to tell the truth in this trial, and felt he might well confuse the jury more than help our side. So...”

Campbell holds the door open for Sarah as they arrive at Starbucks. Campbell offers to pay for Sarah’s coffee, but she declines. When they have found some comfortable chairs in a quiet corner, Sarah continues. “But I’m sure you could have gotten Gallo to admit to some very key points about the HIV tests, and his patent, and his announcement that HIV is the cause of AIDS.”

“Probable cause of AIDS.” Campbell corrects her. “That may well be true, and I have a very long list of questions I wanted to ask him, but I became convinced that his answers would be so evasive... you’ve really got to read how he rambles on in that transcript. Frankly, I’m not sure whether he was just cleverly avoiding the questions, or frankly didn’t know enough science to have any idea what he was talking about, or is too old and senile to give a direct, clear response. At one point, when he was asked about electron microscopic photographs of HIV, he literally tried to write another new page in the science books, claiming that EM was no longer necessary for virus isolation. I simply couldn’t take the chance that what he might say would be considered expert testimony by this jury.”

When he sees Sarah’s disappointment, he inquires, “Why were you looking forward to Dr. Gallo’s testimony?”

Sarah knows the answers immediately. “I was covering the AIDS and AZT trails in Phoenix for the last few months, and I became very familiar with Gallo, and his criminal past; and I have been waiting for someone to expose him for who he is, and the damage he has done with HIV to our medical and scientific communities. Watching you in this trial, I thought you were the perfect one to finally get the truth out of him.”

Campbell blushes very slightly. “I appreciate your confidence in me, but I’m afraid you’re going to have to wait for someone else. As much as I would have liked to – and was prepared to – it simply wasn’t in the best interests of my client.”

Sarah takes a drink of her coffee. Campbell suddenly reaches for his briefcase, opens it, and pulls out a package of papers stapled together.

“I will do this for you, if you want,” and he hands Sarah the papers. “These are the questions I would have asked Dr. Gallo if he had testified. They’re yours. Do whatever you want with them. They’re the result of a lot of research and time and effort, and each question is referenced with the scientific study that supports it. Maybe they won’t go to waste after all, if you can find a way to make them public.”

Sarah leafs through the papers briefly, immediately aware of the goldmine she is holding, and has an idea. “Mr. Campbell, what if I posted these questions on a website where everyone can see them, so anyone who wants to can check out the studies for themselves?”

Campbell nods his agreement. “Sounds like a good idea to me. Go for it, as they say.”

Pleased with the way this is going, Sarah decides to keep asking questions. “Mr. Campbell, I’m also curious why you didn’t have Tyree Johnson testify on his own behalf either.”

Campbell smiles. “For a lot of reasons, Miss Meadows, some of which I won’t discuss. But I can say that I felt our case was solid enough without his testimony, and I didn’t see what Mr. Johnson could say that would improve it in any way.” He pauses to take a drink. “You must also realize that it’s not unusual in a murder trial for the defendant not to testify. Remember that the defendant does not have to prove his innocence; the State has to prove his guilt; and if they haven’t done that, and can’t do that, there’s no point in having a defendant get on the stand and say he didn’t do it. The jury is much more likely to trust the evidence than anything a defendant says anyway.”

Sarah really wants Campbell to agree to a lengthy interview at a later date, so she’s not ready to press him on these issues or argue with his answers right now. Since they have almost finished their drinks and she doesn’t know how much longer she has, she decides it’s time to broach the subject.

“Mr. Campbell, I have my own personal reasons of why I am so interested in these HIV trials. Watching you, I think there might be more to it for you as well than just defending another murder charge.”

Campbell looks at her intently but doesn’t answer.

Sarah persists. “I mean, the amount of time and effort you put into this trial goes beyond the normal call of duty, and certainly more than you were paid for, wouldn’t you say?”

Campbell still doesn’t answer.

“I don’t mean to ask you to talk about something you don’t want to talk about, but I would really appreciate it if you would give me the opportunity to interview you about the reasons you took this case; the preparation you did to get ready for it; and why you think, as you said in your closing statement, that this trial is so important for the whole world. There’s a lot more to this than just the jury’s verdict, which is all the other papers will cover, I’m sure. Basically, I’d like to tell your story, above and beyond everything else.”

Campbell leans back in his chair. He doesn’t say anything for the longest time, but Sarah has enough experience as a reporter to know not to say anything either. The trick is, once you’ve asked the question, put the microphone in the person’s face and don’t move it again until you’ve gotten the answer you want.

Finally, after what seems like eternity, Campbell simply says, “Alright.”

Sarah can hardly believe it, but holds back her surprise and elation. “How about the day after the jury comes back with their verdict?”

Again, all Campbell says is, “Alright.”

Now Sarah knows she has to go for it all. “And I would like this to be an exclusive interview for my paper – your agreement that you won’t talk to any other reporter until our interview is published first.”

Campbell finishes his coffee, picks up his briefcase, and shakes Sarah’s hand. “Agreed, Miss Meadows. But now I have to go. Give me a few hours after the trial to meet with my client, regardless of the outcome, and then call me on my cell phone.” He hands her his card.

“Thank you, Mr. Campbell,” Sarah calls after him as he leaves.

She sits there for a minute, then raises a fist in the air and yells “YES!” so loudly that everyone in Starbucks turns to look at her. She doesn’t care.

* * *

Sarah is still in Starbucks, celebrating her victory, having ordered another latte and a bran muffin to go with it. There’s one more loose end to tie up, and she hopes Dr. Fowler will have the answer. She finds his number at Johns Hopkins, puts on her hands-free headset, and dials her cell phone.

“Hello?” Sarah hears in her earpiece.

“Dr. Fowler?”

“Yes.”

“I’m so glad you answered. This is Sarah Meadows. I’m a reporter for the Arizona Tribune newspaper. I covered the AIDS trial in Phoenix where you testified last October, or was it early November?”

“I recognize your name. I also think I saw you at the HIV trial in South Carolina as well. Wasn’t that you sitting in the gallery when I was there?”

“Yes, it was. Thank you for noticing.”

“I try not to miss noticing beautiful women, Miss Meadows.”

Oh, my God. “It’s Mrs. Meadows, Dr. Fowler.”

“Your husband is a lucky man, and that doesn’t make you any less beautiful.”

Was this a mistake? Never mind that. Ask him what you want to know. He’s an expert in his field, regardless of anything else. “Dr. Fowler, I have a problem I was hoping you could help me with.”

“What’s the problem?”

“For the last six months, I have interviewed a lot of people who have been told they are HIV-Positive; and the one thing I hear over and over again from them is their hope to one day test HIV-Negative and be rid of this curse. Is that possible, do you know?”

There’s a pause on the other end of the line. “That’s not an easy question to answer, Mrs. Meadows. Yes, it is possible that someone who tests HIV-Positive can suddenly test Negative at some point. I mean, it’s happened – not very frequently, but it’s happened. Most people – the vast majority of people – once they have tested positive, are going to test positive for the rest of their lives.”

“Why?”

“It has to do with the way antibodies work, Mrs. Meadows. You are aware that these HIV tests are antibody tests?”

“Yes, of course.”

“Well, just to refresh your memory, antibodies are created in response to a perceived threat to our health as a way of protecting us from diseases. Once we make an antibody, it usually stays in our systems forever, in case we should encounter that threat at any time in our future.”

“In other words, we keep our antibodies for life?”

“Yes, that’s correct.”

“I think I get the picture....” Sarah grabs a pen and some paper to take notes.

“When someone tests Positive on an HIV antibody test, it means that they have an antibody that is reacting with one of the proteins in the test kit. We know, of course, that it doesn’t mean they have HIV; but it does mean their immune system doesn’t like one or more of the proteins it finds...”

Sarah knows where this is going. “...and they’re going to have that antibody forever; and any time they are tested against that same protein, there’s going to be a similar reaction – a positive test result.”

“Correct. You’ve got it.”

“So what that means, Dr. Fowler, is that unless a person loses that antibody, or the protein in the test kit is changed and is no longer there, they will test positive for the rest of their lives.”

“Unfortunately, that’s exactly what it means.”

Sarah is reminded of the stories she has read recently. “So how have some people tested negative after a while?”

“Maybe there are some antibodies we don’t keep if our immune system decides they’re not needed any more, but we don’t necessarily know how or why. It may also be because something changed in our immune system to suppress this antibody for the time being.”

“Do you mean the immune system got stronger, or weaker?”

“That’s another good question. The immune system may have gotten stronger and not needed that antibody any more, or it may have gotten weaker and not had the antibody there to react with the protein. We simply don’t know.”

Sarah puts her pen down. This obviously is not going where I hoped it would. “Is there anything anyone can do to increase their chances of changing their HIV test results?”

“I think there may be some study going on right now, maybe at Harvard Medical, but don’t hold me to that, looking at the few people who have seroconverted back to HIV-Negative, trying to find out how and why they did it. But right now, we have no answers; so there is nothing I can suggest to anyone to intentionally change their results – other than eating right, doing the things to ensure they have a strong immune system, and praying that some day they might be one of the lucky ones.”

“And maybe one day we’ll find out, through these studies, how to make it happen for more people?”

“Maybe. But I wouldn’t raise anybody’s hopes right now. There are just too many questions.”

Despite her joy over getting the interview with Campbell, Sarah suddenly feels very sad and depressed. “So you’re saying that someone who has tested HIV-Positive has to live with it for the rest of their lives.”

“I hate to say it, but yes. Obviously, there are things they can do for themselves, like doing their own research until they are convinced from all the scientific studies that HIV poses no danger to them, and they might just as well forget their diagnosis and get on with living healthy and happy lives.”

“But there’s still the social stigma that goes along with being HIV-Positive.”

“Yes, which is why people like you and I have a responsibility to do whatever we can to change society’s understanding of HIV and AIDS; and I can see that you’re doing whatever you can already.”

Sarah’s not so sure she deserves the compliment. “I hope so, Dr. Fowler, but I wish there was more I could do. These people still live with the fear and the trauma of being called HIV-Positive, and it’s hard to shake that after twenty-some years of brainwashing.”

“You’re so right about that. But on the other hand, it’s an opportunity for each individual to stop believing what they’re told by the so-called authorities and what they’re fed by our controlled mass media and start to think for themselves. That’s really what it’s going to take on a one-by-one basis – reclaiming total responsibility for ourselves and our own well-being.”

Sarah wishes the answer could be different, but she knows Fowler is right. She just doesn’t know what to say next. Fowler senses her disappointment and tries to paint a brighter picture.

“Mrs. Meadows, let me put it this way: Until such time as the HIV tests are changed, removing all the proteins that react with non-HIV antibodies, or until such time that the world wakes up to the fact

that HIV is not the cause of AIDS and forgets all about this harmless little retrovirus, most HIV-Positives are going to have to resign themselves to their test results and rise above them.”

“I just talk to so many people who are in pain over this, Dr. Fowler, and long for the day they are set free from it all, that I wish things could be different.”

“Don’t we all, Mrs. Meadows. Don’t we all.”

Chapter Twenty-Seven

“By the way, Sarah, there’s a package from Bill that arrived for you in the living room.”

Gwen and Sarah had just finished dinner, so Sarah quickly gets up, remembering what she had asked Bill to send her. Sure enough, there was a DVD inside.

“Gwen, this is the program about Dr. Gallo I told you about. Can you watch?”

“If you don’t mind, let’s do the dishes first, ‘cuz I imagine we’ll get into some pretty good discussions afterwards.”

When they were both seated on the sofa with full glasses of wine, Sarah starts to explain the background.

“This was a special news program on GNN. The anchorwoman is Laura Begley, and the chief medical correspondent is Dr. Frank Keating.”

“I know them both. We get GNN here too, you know – even in South Carolina!”

They both laugh. “Sorry. Of course you do. Well, this was done sometime during the AIDS trial... I can’t remember exactly when.” She pushes the Play button on the remote.

Anchorwoman Laura Begley is on camera, summarizing the AIDS trial and the events of the last week.

“...which brings us up to the present, and it was another day of unexpected testimony, to put it mildly. With us again is Dr. Frank Keating, chief health correspondent for GNN. Dr. Keating, I guess we shouldn’t be surprised any more with what’s coming out in this trial.”

Keating and Laura are both standing, and in between them is a giant green screen where images will soon appear. Right now, it’s just the GNN logo and the special graphics developed for the AIDS Trial.

“One of the most interesting developments,” Keating agrees, “is that Messick has made the personality of Dr. Robert Gallo a central issue in this trial.”

Sarah pauses the DVD. “I forgot to tell you that Benjamin Messick was the plaintiff’s attorney.” She presses Play again and Keating continues.

“So we decided we’d see what we could find out about Dr. Gallo, his record and his life.”

Keating now turns away from Laura and faces the camera directly, which then tightens on Keating, and Laura disappears from the screen.

“What we discovered was, well, as shocking as the rest of the trial has been, to say the least...”

As Keating talks, still shots, video clips, a birth certificate, and copies of newspaper headlines and magazine articles fill the green screen behind him.

“Robert Gallo was born in 1937 in Waterbury, Connecticut. His father was apparently a workaholic who owned a successful company. At the age of 11, Gallo’s younger sister, Judith, was stricken with leukemia. Thirty years later, Dr. Gallo would be dedicating his life to finding a virus that caused this deadly cancer.”

There’s a picture of Gallo and Judith together, probably taken sometime in the mid-40’s, looking like any normal brother and sister.

“But, prior to her death, several other things happened as a result of Judith’s illness that would shape Robert Gallo’s future. He would spend weeks living with relatives while his parents traveled to various hospitals with his sister. Then, after Judith’s death, his father was obsessed with visiting her grave, walking from room to room in their house, holding and kissing her pictures, and forbidding any show of happiness in the family. It’s clear there was no love or attention left for Robert when his sister was gone.”

Keating disappears from the TV and a photograph of Gallo and his father, neither of whom looks very happy, fills the screen.

“At an annual memorial service six years after Judith's death, a tormented Robert stood up and shouted at his father, ‘When will this end?’ Later Dr. Gallo would recall seeing his sister for the last time, describing her as, quote: ‘a ghost, a concentration camp victim.’”

“After graduating from Thomas Jefferson University School of Medicine in Philadelphia, Pennsylvania, Dr. Gallo discovered that he couldn't bear to be around sick people, and found his niche instead in the research lab, going to work at the National Institutes of Health in Bethesda, Maryland...”

Newspaper clippings, headlines announcing his promotions, and views of the outside of the Laboratory of Tumor Cell Biology at the National Cancer Institute capture Sarah's attention while Keating continues.

“Thanks to President Nixon's declared 'War on Cancer,' it didn't take long for an ambitious Robert Gallo to rise to the top as head of the Laboratory of Tumor Cell Biology at the National Cancer Institute. And then it took less than ten years before he was in serious trouble.”

Keating reappears with the green screen behind him. What the viewers see, however, is the graphic GALLO: Saint or Sinner? projected onto the green screen.

“In 1974 an investigative panel of university scientists found Dr. Gallo's lab to be one of the worst offenders in the scandalous abuse of federal funds in cancer research.”

Newspaper headlines are superimposed over the bottom half of Keating as he talks.

“Two of his cohorts were later found guilty of embezzlement and taking secret gratuities.”

Then it's just Keating again.

“In the midst of all this, Gallo needed a miracle, and just one year later he announced the discovery of the first identified human retrovirus, which he called HI23V, and said it caused leukemia. When other scientists requested samples of his virus to test his claims, he at least on one occasion ordered his subordinates to damage the infected cells before sending them out, to make them useless for research.”

More newspaper headlines, this time on the green screen behind him.

“Finally, despite all the obstacles, it was discovered that HI23V was a mistake, a contamination in Gallo's lab, a mixture of different retroviruses from various monkeys. The virus didn't actually exist. The joke going around was that Gallo's 'human tumor virus' was actually a 'human rumor virus.' Gallo initially tried to save his reputation, suggesting that human leukemia must be caused by one of these monkey viruses, but later retracted his claims, to his shame and dismay.”

Sarah pushes Pause. “I remember at this point thinking, My god, could all this really be true?”

Gwen just nods her head in agreement. “Me, too. But let's keep going.” Sarah pushes Play again and Keating continues.

“But five years later Dr. Gallo is at it again, claiming the discovery of another human retrovirus he called HTLV-1, which he blamed for causing leukemia in blacks from the Caribbean. Unfortunately, he couldn't find the virus in American leukemia patients. And prior to Dr. Gallo's discovery of HTLV-1, a Japanese research team had also found a retrovirus in some Japanese leukemia patients, and they had sent their virus to Dr. Gallo for peer review. When Gallo published the genetic sequence of his own HTLV-1, it turned out to be identical to the Japanese virus, including a deliberate error intentionally planted by the Japanese research team, just in case someone tried to steal their discovery. Although it was clear that Dr. Gallo had indeed stolen the Japanese virus and claimed it as his own, no formal charges were ever brought. Instead, Dr. Gallo was awarded the prestigious Lasker Prize as the discoverer of HTLV-1.”

“But as a scientist who worked in Gallo's lab once put it, quote: ‘Gallo was known for this sort of unscrupulous behavior years before the AIDS virus ever came along.’ Perhaps the Japanese never pressed the issue because it turns out that this HTLV virus, pronounced by Gallo to be the cause of leukemia, is currently estimated to cause cancer in humans only once in every 2000 years. But thanks to the silence of the Japanese, Robert Gallo finally had a virus he could call his own, and if it didn't cause leukemia, he simply had to find a disease it did cause and he'd be famous.”

“He first tried to suggest HTLV-1 as a possible cause of such odd diseases as Kaposi's Sarcoma and Pneumocystis carinii pneumonia, which had started to appear in gay men in the early 1980s. This was hard for anyone else to believe because, according to Gallo himself, HTLV-1 was supposed to cause leukemia, a cancer where cells are multiplying uncontrollably. Kaposi's Sarcoma and Pneumocystis Carinii Pneumonia are diseases where the cells are dying prematurely – exactly the opposite. Besides, there was no sign of these diseases in Japan where the HTLV-1 virus is found in at least one million people. But Dr. Gallo was desperate; he needed something that would win him a Nobel Prize. Much more than money, the Nobel Prize seems to be the force that drives Robert Gallo, and in his mind justifies any means to get the prize he so richly deserves. So when AIDS was discovered and the world needed a cause for this new, deadly disease, Dr. Gallo saw his chance for fame and glory.”

A videotape of the press conference on April 23, 1984 now takes over the screen while Keating continues to narrate.

“Which brings us to the infamous press conference of April 23, 1984 when Dr. Gallo announced his discovery that a virus which would later be called HIV caused AIDS. We've heard testimony during the trial that it took an international agreement between nothing less than President Ronald Reagan of the United States and Prime Minister Jacques Chirac of France to settle the crisis Gallo had created by stealing the AIDS virus from the French. I spoke to Dr. George Mercer, who, at that time, was a research scientist at the Los Alamos National Laboratory in New Mexico.”

The press conference is replaced on the green screen with video of an interview with Keating and another man.

“Dr. Mercer, tell us what you did in 1987.”

“I compared the genetic codes of both the French virus they were calling LAV and the virus Dr. Gallo claimed to have discovered and was calling HTLV-III.”

“And what were your conclusions?”

“The codes were so similar – almost identical – that I knew they were not independent discoveries, but had to have come from the same patient.”

“You're saying that both viruses had to come from the same body?”

“Yes. From the French patient.”

“So Dr. Gallo's virus that he claimed to have discovered in his laboratory had to have actually been sent over from France.”

“That's the only explanation I can give you.”

“And did you make anyone aware of your findings at that time.”

“Yes. I sent my report to senior officials at the National Institutes of Health.”

The video interview ends and Keating is once again live on the TV.

“Even a press spokesman at the National Institutes of Health said, quote: ‘Yeah, everybody here believes Gallo stole the virus.’”

Keating has a book in his hand that he holds up. On the green screen, pages 210 and 211, supposedly from this book, are displayed large enough to read.

“Finally in 1991, in his book, Virus Hunting, Dr. Gallo admits that the pictures of the HTLV-3 virus he offered in his 1984 press conference were really pictures of the French LAV virus. But he now claims that these pictures were, quote: ‘inadvertently used, largely for illustrative purposes.’”

“We also heard testimony this week that Dr. Gallo had ordered one of his research assistants, a Doctor Pavlovich...” video tape of Dr. Pavlovich on the witness stand silently runs behind Keating, “...to create a fake culture, called H9, to make it more difficult for anyone else to test his theories, contending that the H9 culture was the only one in which the AIDS virus would grow. In essence, Dr. Gallo stole the culture called HUT78 from Dr. Adi Gazdar, claimed he was the developer of this new culture called H9, and then limited who had access to it.”

As the camera returns to Keating live, it also begins to zoom in closer, leaving the green screen behind and centering Keating on the TV to deliver his next few lines.

“I also found out that Dr. Gallo even refused to lend the Center for Disease Control – his own governmental peers – any samples of his HTLV-3 virus unless they guaranteed in writing not to compare it to any other viruses, obviously fearing they would discover it was identical to the French.”

The camera pulls back again to reveal the cover of what looks like an official government report above Keating’s right shoulder.

“When all of this began to surface in 1989, thanks largely to Pulitzer Prize-winner John Crewdson of the Chicago Tribune, the Office of Scientific Integrity – an arm of the National Institutes of Health – was forced to conduct an investigation. They issued a preliminary report in September of 1991, finding evidence of misconduct on the part of Dr. Robert Gallo. However, Gallo’s boss at the NIH saved him from disgrace, humiliation, and expulsion by changing the final OSI report...” the green screen zooms in to focus on actual text from the OSI report, “...finding him guilty of only, quote: ‘creating and fostering conditions that gave rise to falsified and fabricated data and falsified reports’ – a minor misdemeanor, in other words.”

The OSI report fades and the cover of Science Magazine appears....

“But Gallo had published an article in Science Magazine in the spring of 1985 claiming that his new virus had been, quote: ‘isolated from a total of 48 subjects.’ Under later examination by John Crewdson of the Chicago Tribune, no trace of those 48 isolates could be found.”

...which then dissolves into another official-looking report cover.

“And this led to another investigation by the Office of Research Integrity of the Department of Health and Human Services. Their 1992 report found Dr. Gallo guilty of scientific misconduct – the harshest possible verdict, and a death sentence in career terms.”

The camera zooms past Keating to the green screen, which begins to list items from the findings of the O.R.I. report as Keating describes them.

“Among other things, the report found that Gallo had lied about not growing the French virus LAV in his own lab; that he had added, quote: ‘gratuitous, self-serving and improper alterations,’ to an article submitted for publication by his French competitors, to make the article favor his own hypothesis about the AIDS virus; that, quote: ‘Dr. Gallo must bear substantial responsibility for the numerous discrepancies, including four instances of scientific misconduct,’ in papers published by Science Magazine in 1985; and that, quote: ‘especially in the light of the ground-breaking nature of this research and its profound public health implications, the Office of Research Integrity believes that the careless and unacceptable keeping of research records reflects irresponsible laboratory management that has permanently impaired the ability to trace the important steps taken.’ They also called some of Gallo’s key research, quote: ‘of dubious scientific merit,’ and, quote: ‘really crazy.’”

Keating looks up as his image returns to the TV screen, obviously having just read from his notes. He pauses, and even shakes his head a little, almost as if he didn’t believe what he had just read, either.

“Even Congress got involved in 1994, under the direction of Representative John Dingell and his Subcommittee on Oversight and Investigations of the House Energy and Commerce Committee.”

“The driving force behind the committee’s staff report was Dr. Alfred Gilman, a Nobel Prize winner in medicine, who accused Dr. Gallo of, quote: ‘intellectual recklessness of a high degree.’ The Dingell Report focused on many of the things we’ve already discussed and included Gallo’s perjury in his HIV blood test patent application. We heard testimony in court just today that closely aligned with the Dingell Report, which stated that...”

The cover of the Dingell report becomes the background while the various quotes appear on top.

“...Dr. Gallo had failed to disclose to the Patent Office that scientists at the Pasteur Institute of Paris had already performed, quote: ‘extensive work,’ with the AIDS virus and had used it to make an HIV blood test of their own and submitted a patent application four months before Gallo’s. Despite a legal obligation to disclose all information material to the claim of inventorship of the blood test, the

report says that Gallo failed to inform the Patent Office of his use of the French virus in the preparation of his own blood test.”

When Keating’s face returns to the screen, there’s almost an excitement evident, as if he were now getting some pleasure out of exposing Gallo to the world. Or was it because he knew what was coming next?

“When this Dingell Report was made public, Dr. Gallo was forced to leave the National Institutes of Health in disgrace. But not for long. In 1993, a review board of lawyers – not scientists, mind you – lawyers had serendipitously changed the definition of ‘scientific misconduct.’ No longer able to convict Dr. Gallo of anything more than the misdemeanor already on his record, the government dropped all the charges. Gallo, of course, claimed total vindication. But not everyone found him so innocent. For example, if the highest honor for scientific success is to be awarded the Nobel Prize, the second highest honor is membership in the National Academy of Sciences. Dr. Gallo's nomination was rejected six times. He was finally admitted in 1988, six years after winning the Lasker Prize for the discovery of a virus he didn’t discover, and even then it had to be done through a special nomination process.”

A TIME Magazine cover now occupies the green screen.

“TIME Magazine has described Robert Gallo as, quote: ‘brash, competitive, and vain.’ In 1998, German virologist Stefan Lanka called Gallo, quote: ‘an American scientific gangster who had committed so many crass, self-aggrandizing blunders in the previous decade that he could not really be relied upon to tell the time correctly.’ The Nobel Prize-winning chemist, Dr. Kary Mullis, considers Gallo and his followers, quote: ‘so stupid they're to be pitied.’”

Suddenly there is a complete change of scene. A man is seated with his face concealed and not looking directly into the camera. Keating is nowhere to be seen, but his voice continues.

“One former employee, who requested that their identity remain secret, said this about Dr. Gallo's laboratory...”

The voice is rough and deep, obviously mechanically altered to protect the identity of the speaker.

“It was a den of thieves. It resembled a medieval Italian town with its intrigues and capricious purges.... It was hard to be an honest person in that place.... I know of three employees who committed suicide.... I'm just surprised somebody hasn't killed someone there.”

Keating is back and addressing the camera.

“According to another source, Gallo once told a lab member that he liked to hire foreigners because if they didn't do what he wanted, he could deport them. When Frank Ruscetti, a cell biologist, asked why he was being fired, Gallo replied, quote: ‘Well, because you're getting too much credit.’ But Gallo didn't seem to stop there. At a 1987 meeting in Geneva, Switzerland, he accosted the author of a book that was not complimentary to Gallo, pulled an envelope from his pocket, and said, quote: ‘I have here a five-step program to destroy you.’”

Behind Keating is now a picture of the Chicago Tribune reporter, John Crewdson.

“Gallo also tried to discredit veteran reporter John Crewdson, who was hot on Gallo’s trail, by calling the Bethesda police and claiming Crewdson had broken into his house. The police found no evidence and the investigation was dropped.”

...which is then replaced by a picture of Dr. Anthony Fauci.

“Even one of his closest friends and a long-time colleague, Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, had this to say about Robert Gallo...”

The quote takes over the TV screen.

“Bob will run you over. He has this 'screw you – I'm the best and you're full of crap' attitude. He doesn't give a good bleep-damn who he pushes around, or pushes aside.”

Keating is back, by himself.

“In 1996, when his \$100,000-a-year royalty payments were nearing an end, Dr. Gallo left the National Cancer Institute and went on his own, getting the state of Maryland to put up nine million

dollars and the city of Baltimore to add three million more to open the Institute of Human Virology, which he currently runs.”

Pictures of the Institute of Human Virology fade in and out like a slideshow.

“The sweet part of the deal is that Dr. Gallo has carte blanche to take whatever discoveries he makes and market them through a private company, named Omega Biotherapies, of which he is the founder and part owner, and which will pay him very handsome royalties for his so-called discoveries.”

The camera pulls back from Keating to reveal Laura still standing there by his side.

“Laura, after discovering all of this, I only have one remaining question about Dr. Gallo. Now that he is in the private sector, with no one to steal from any more, can Dr. Gallo discover anything on his own? A former co-worker said, quote: ‘I’ve never known him to have an idea that didn’t come from someone else.’”

Laura looks a little stunned. She obviously had not seen or heard this report in full, and for the first time, she appears speechless. But her instincts as an anchor take over.

“Thank you Dr. Keating, I think. It’s not a very pretty picture that you paint of the man we have believed for the last thirty years when it comes to AIDS and HIV. Was all this buried deep in some cave where no reporter could find it until now?”

Keating shook his head. “I wish I could take credit for uncovering this, Laura, but I can’t. The information has been out there all along, but no one has wanted to deal with it, or didn’t know what to do with it, I guess. I just put everything into one piece, that’s all. But that one piece looks pretty bad.”

Laura still doesn’t know exactly what to do next.

“Well, okay, Dr. Keating. Good work. And that concludes our special report for tonight....”

Sarah pushes the Stop button. Neither one of them say anything. All they can do is look at each other in disbelief. Finally Gwen breaks the silence.

“The man is obviously very sick.”

“A megalomaniac,” Sarah agrees.

“But I still don’t understand how he could get away with it. I mean, look at how many lives this man has ruined as a result of his lies!”

“I’ve thought about that question a lot, and I’ve come to the conclusion that it wasn’t him.”

“What do you mean?”

“I mean that I think Gallo is a pathetic excuse for a human being, but I don’t think he’s evil – twisted as a result of his childhood, maybe, but not truly evil. And I think it took someone standing behind him who was evil to make this happen.”

“You mean you think this was all a big conspiracy, with a mastermind?”

“No, no. I didn’t mean that either. No, this was definitely not a conspiracy, like the Kennedy assassination, or the Gulf of Tonkin that got this country into the Vietnam War. I mean, there are people who think that HIV and AIDS was a deliberate result of a secret government program to create biological weapons. But nobody in their right mind would spend time developing a harmless retrovirus like HIV when there’s a lot of other really dangerous stuff out there. There’s just no evidence I can find anywhere to say that HIV was intentionally created, especially since we now know from the AIDS trial that HIV doesn’t cause AIDS.”

“So what do you think happened, and who was behind it?”

“I think that in 1984, we had a perfect storm. Lots of things lined up just right that allowed Gallo to move to center stage and perpetrate his lies. For one thing, Gallo was part of a failed War on Cancer; and he, like a lot of other virologists, was about to be out of a job. The CDC was losing its funding and desperately needed a new plague to keep them in business. The gay community wanted the blame for AIDS to be shifted away from their lifestyle. The politicians needed an answer to get the gays off their backs. The drug companies needed more revenue for their stockholders. And all of them needed AIDS

to become a disease that could affect the entire world. So Gallo was just a pawn in the overall scheme of things.”

“So no conspiracy? I’ve wondered about that from time to time.”

“Actually, I think there was a conspiracy, but it came later, in 1987.”

“What do you mean?”

“I mean that HIV and AIDS was not the result of some evil force’s intentional plan to wipe out huge segments of our population; but when Dr. Peter Duesberg published his paper in 1987 challenging HIV as the cause of AIDS, a conspiracy was begun to keep him and everyone else who agrees with him quiet. There’s even an internal memo that circulated around the CDC that said Duesberg had to be ‘contained.’ That was the word they used – ‘contained.’ And obviously, they were pretty successful at it for more than twenty years.”

“And you think you know who was behind it?”

“Well, like I said, I don’t think Gallo was, or is, evil. But I think Dr. Anthony Fauci is. And he’s still right there today, as head of the National Institute for Allergic and Infectious Diseases, calling the shots.”

“I don’t think I ever heard of Dr. Fauci.”

“Most people probably haven’t. But that’s exactly the way a truly evil person operates. They stay out of the limelight and pull the strings for their puppets on stage, like Karl Rove and Dick Cheney did with George Bush.”

Gwen shivers. “Sounds.... creepy. But I’m not even sure I believe that truly evil people exist.”

“Maybe not. But when I look at what Fauci, and Gallo, and Moore and Wainberg have done to literally millions of people all over the world – including your brother and mine – I can’t find any other explanation. I mean, how does any sane person justify the genocide that’s going on right now in Africa as a result of the drugs we’re giving to those helpless people? If there was any spark of goodness inside, how could any of them sleep at night?”

“But what about President Clinton, and Oprah, and Bono, and Bill Gates, and all the other celebrities trying to raise money to send the anti-retrovirals to Africa?”

“They’re probably really good people with good hearts who mean well and honestly think they’re doing something good for the world. But they obviously have never read any of the science about HIV and AIDS, and about the HIV tests and the HIV drugs, and instead have simply jumped on the bandwagon and believed what they were told by Fauci and company.”

“You know, that’s one of the arguments I get a lot whenever I talk to people about this issue. ‘How can so many people be wrong?’ Of course, we thought the earth was flat for a long time, and that the sun revolved around the earth, and that there were weapons of mass destruction in Iraq, and that the Reverend Ted Haggard was straight. So maybe I’m just a contrarian, but I’m not sure that just because ‘everyone says so’ makes something true. After all, we were also told that cigarettes weren’t addictive by people we trusted for a long time.”

“Who can we trust these days, Gwen?”

“Well, I know one thing for sure, we can’t trust the pharmaceutical companies.”

“Or the people who work for them. Did you know there’s a website called www.shillfactor.net that lists a lot of the prominent AIDS Industry people and shows how many of them are either on the payroll of a drug company or receive major grants from Big Pharma? Talking about a conflict of interest!”

Gwen takes the last sip of her wine. “I’d love to continue this, but I’ve got to teach tomorrow and you’ve got court. What say we call it a night?”

“Agreed.” Sarah gets up off the sofa, but stops short. “Gwen... thanks for tonight. There’s not a lot of people I can talk to about this, and I’m just really grateful to have you as a friend.”

“Let’s hope that soon we don’t feel so all alone!”

Chapter Twenty-Eight

DATE: Saturday afternoon
TO: sam@arizonatribune.com
RE: this week's column

Dear Sam,

Attached is the last HIV-Positive story for my column. The closing statements in the trial will be on Monday, and I assume we'll have a jury verdict some time shortly after that. So either I'll be home in time to write next week's column there; or if not, I'll send it to you from here and be home shortly after that. Whatever the case, I'll be writing about this trial for the next few weeks, I can promise you.

Sarah

Attachment:

HEALTH MATTERS

By Sarah Meadows

This is the last in a series of true-life stories of those diagnosed HIV-Positive, and how it affected them, their families, and their lives.

For most of us, HIV is something that belongs to somebody else – to “them,” not us. So we are hardly aware of the emotional and psychological trauma, the family stress, the social rejection, and the financial hardship that accompanies an HIV-Positive diagnosis. For Frank, it hit him very hard....

Frank is a heterosexual HIV-Positive in his mid-thirties. Born and raised in Canada, he recalls being a little “chubby” when he was small, but grew into a handsome, athletic young man. Unlike the rest of us, his biggest problem in childhood was not his parents. It was a disease he was born with: hemophilia.

Hemophilia is inherited from the mother, passed on in the X-chromosome. A male has one X-chromosome and one Y-chromosome, while a female has two X-chromosomes. If one of the female’s X-chromosomes is defective for the gene responsible for blood clotting, she herself will probably not have hemophilia. However, since a male receives his single X-chromosome from his mother, the son of a healthy female silently carrying the deficient gene will have a 50% chance of inheriting that gene from her, and with it the disease.

This was the case with Frank. At birth, there was some hemoraging in Frank’s ears, so they did a blood test and discovered his disease.

The Y-chromosome in men has no gene for the production of factor VIII or IX, which is responsible for blood clotting. Therefore, if a man receives an X-chromosome from his mother that is defective for these factors, he will have no genes at all to produce factor VIII or IX. And without factor VIII or IX, the blood cannot clot and therefore a hemophiliac can bleed to death with even a very small cut.

As a result, hemophiliacs have to be injected with factor VIII or IX on a regular basis – every three or four days – for their entire lives. It started for Frank as soon as he was born. For the first ten years of his life, he either went to a hospital to get his injections, or his mother did it for him at home. When Frank was old enough to learn how to safely stick a needle into his veins, he started injecting himself, as he will do for the rest of his life.

“I had some self-esteem problems when I was young because of my hemophilia, and I really wanted to look and feel as good as I could,” Frank admitted. “To me it was a manageable disease, and I didn’t have much trouble learning to cope with it. I guess you could say it is somewhat like diabetes, but of course the treatment is much more invasive.”

If a hemophiliac doesn’t get his factor VIII injection on time, symptoms can appear in addition to the danger of bleeding to death. Hemoraging can occur in joints, such as an ankle or a knee, and cause pain.

“If you are in good health and you follow your injection schedule, you should be okay. But factor VIII doesn’t last; it gets flushed out of the system in about three days. So if you don’t happen to be near your refrigerator, or miss your injection schedule for some reason, you can suffer tremendous pain. Some part of you could swell, or you could get a cut and not stop bleeding. You have to be in constant vigilance and stay close to your factor source.”

Virtually none of Frank’s classmates or playmates or friends ever knew Frank was a hemophiliac. There was no reason to tell them. Frank would simply take his injections privately twice a week and then go about a normal life. But inside, it affected Frank emotionally.

“In terms of relating to other people, it’s always there, hidden beneath the surface. It’s frustrating. As a kid, I always wished that they would develop something better than the treatment I was taking so that every three days I wouldn’t have to have an injection. I felt that life was tough enough without this. It seemed to me that the treatment was very primitive, that there should be some kind of genetic solution rather than sticking a needle in my arm. So I kept waiting for a treatment breakthrough that never came. But it isn’t the worst of illnesses, and it’s something you learn to deal with over time. Since it doesn’t show on the outside, no one would know I have it.”

In fact, Frank didn’t let the hemophilia interfere with his life. With his athletic body build, he played sports like any other young man. But he always felt he could never reach his full potential. “I had the complete package, except for my disease. Everything else was pretty good. If my hemophilia could have been removed from the picture, I could have gotten much more of what I wanted out of life. Even so, I made sure I kept physically fit. Taking injections all the time was simply my personal demon – a huge inconvenience.”

But Frank’s hemophilia was soon to be the least of his worries. In the early 1980’s, they started telling him at the hospital that a new disease called AIDS was transmitted in the blood, and that hemophiliacs could be at risk.

“I was terrified, of course. But at the same time, I was also very skeptical. There were so many contradictions in what they were saying. My mom kept telling me not to be concerned, that I was perfectly healthy and had nothing to worry about. So while I tried not to let it get to me, I still was constantly on guard; my antenna was always up trying to figure out what was really going on. I was also the kind of person who would challenge anything a doctor told me anyway.”

Frank’s parents are both highly educated and well-read, and he apparently inherited their questioning nature along with the hemophilia. “They are people of logic rather than religion; unless they have proof of something, they aren’t ready to believe it. And if there was something they didn’t agree with, they’d advise me accordingly. That was the type of home environment I came from, and where I got the confidence to think on my own.”

One day, after a routine check-up, something happened. They called Frank and his parents back to the hospital to tell him the results of his latest blood tests. As Frank walked in, he noticed that they had apparently emptied out everybody from the ward. “I thought, ‘Oh shit, this must be serious.’”

They put Frank and his parents into separate rooms. There was a doctor and a nurse in the room with Frank, “probably to calm me down. When the doctor told me I had tested HIV-Positive, I looked at him and asked, ‘What am I testing Positive for?’ The doctor answered, ‘For HIV Antibodies.’ I said, ‘That makes no sense. Aren’t antibodies supposed to be a good thing? Doesn’t it mean you have immunity to something?’ He replied in an angry and anxious tone, ‘No, no. You’re wrong. You’re at risk for a terrible disease that will kill you!’”

“I freaked and went screaming around the hospital ward, not so much from the fear of getting sick or dying as much as the stigma that is attached to being labeled HIV-Positive – how you’re treated from then on. You literally become like a social leper. In that moment, I was aware that my life would never be the same. From that day on, I knew I would be victimized, because ultimately, it doesn’t matter what I believe as much as what the people around me believe. In a sense, I had lost my freedom, all because of a lie.”

In the other room, his parents were being told the same story, and advised to ‘comfort your son’. Then they were brought into the room with Frank, where the doctor was spending a lot of time testing Frank’s lymph nodes, trying to find some symptom of the HIV infection.

“But I had no symptoms whatsoever, and I was never sick. And I wasn’t even sure what antibodies were being measured in this test; they could be antibodies to anything. ‘Who knows?’ I asked the doctor. He just shook his head. Looking back, I was on the right track, even as a seventeen-year-old!”

“My mom asked the doctor the same questions I did. She also thought that having the antibodies to a virus meant that you were immune from a specific disease. But these doctors and nurses acted

more like priests and nuns, coming from a religious faith and fervor more than from a scientific basis. They were just more or less following orders and acting irrationally. They weren't thinking. They weren't looking at the person in front of them to see if I was healthy. They were simply programmed like robots, convinced that HIV was a deadly killer virus."

Frank felt a mixture of fear, anger, bewilderment, frustration and disbelief. But more than anything, he felt that the doctor was wrong. "It just didn't make any sense. This is a disease where cells are supposed to be dying, but retroviruses like HIV don't kill cells. Besides, hemophiliacs like me, who essentially inject other peoples' blood all the time, have a higher chance of having antibodies to lots of things that can create a false positive reaction to the HIV blood test. Everything about it was absurd. I didn't have all the scientific data at that time, but I just knew inside that something was wrong; and yet the psychological impact was intense, because they tell you that you're going to die."

Frank's diagnosis immediately began to change his life.

"It affected everything. You're scarred. You're not normal after that. I felt like an outcast. I started living in a world that was more like a prison than anything else. You must remember that the propaganda being popularized by the media was so strong that people really believed being HIV-Positive was a death sentence, and that HIV was contagious. It didn't matter what evidence I presented, or how healthy I was. So I just decided I was going to have to find out how to survive."

Part of that process was discovering how to relate to other people, and to women in particular. As it turned out, Frank never had any long-term relationships. There were three or four women that he felt at the time could eventually become more than just dates, but he chose not to let it happen.

"I was terrified. I feared rejection if I told them about my HIV diagnosis, and I didn't think I could go any deeper in a relationship without saying something. So I simply stopped the relationship when it got to that point. I figured that I'd never be able to convince my partner about the truth, so I'd wait."

Wait for what? In 1990, Frank was certain that the truth about AIDS and HIV would be made public very soon, and then he could get back to a normal life. His father agreed. "My dad told me that in three or four years this would all be over. 'The truth always wins out in the end, and this fraud will be exposed,' he said. 'You're just not going to have to worry about this in four years.' So I decided that if I just waited, and not get deeply involved with anyone, my problem would be solved. But as the years passed, I realized, 'Oh my god, this looks like it's going to go on for a long time!' Then I didn't know what to do."

So Frank focused on his studies, got his degree, went to graduate school, and made it look on the outside like nothing was wrong, just like with his hemophilia. But inside he felt unfulfilled, and began to withdraw. He got very depressed; and when the public HIV/AIDS lies continued, he felt very disillusioned.

Between his work and his government's HIV-Positive compensation plan, Frank had plenty of money, and very little expenses since he still lived at home with his parents. He decided to start enjoying himself and his life. In the next few years, Frank traveled and saw the world. It was enough to ease his depression, and he stopped waiting and hoping for the truth to emerge about AIDS and HIV. Traveling was his solution to the prison he felt so strongly – his escape tunnel, if you will.

"It really helped to get away from the terror I lived under every day, from the constant pressure from the doctors and the hospital to take the HIV medications. But more than anything, it changed the focus of my existence away from HIV. Looking back, traveling was my coping mechanism. Rather than telling myself that it will all be over soon, I gradually began to live with the reality instead."

"But I still missed the experience of deep intimacy with a woman. I miss being able to love, deeply, and be loved in return, to have no secrets and no walls between us. Like a lot of people, my positive diagnosis took away any chance I had of intimate love. I still think about the couple of relationships I had that could have amounted to something, where the interest was very strong on both sides, but which I terminated out of the blue without giving them an explanation. The fear of rejection was so great that I just couldn't risk telling them why. I had this picture that if I took that risk, I could

go from looking like an ideal partner on the outside to being a leper in an instant. It was too emotionally devastating for me to consider.”

“One could argue that maybe I should have taken the chance and told one of these women the truth. But I think most people, if they really understood the big picture, would also run from this kind of situation. In my mind, I took the high road, considering that I really didn’t have much of a choice, and found a way to live and survive. The media has portrayed HIV-Positives as something horrible and contagious – and killers. There’s a court case in Canada right now where an HIV-Positive man is charged with first-degree murder for sleeping with an HIV-Negative woman who later died from taking the HIV drugs. Think of the message that sends to every other HIV-Positive man!”

“I feel like it’s me against the world – a complete nightmare from hell. It’s like having a big red X painted on your forehead. No person should have to live with a burden like that, carrying a whole lot of extra weight around on your shoulders every single day. It wears you down mentally, emotionally, psychologically, physically – in every possible way. It’s hard to escape that.”

When Frank read *Inventing the AIDS Virus* by Dr. Peter Duesberg, it was a pivotal point in his life and seemed to ease his mind, “because everything made sense to me after that. The things that I had long suspected were finally explained to me in a very clear and scientific way – how the early mistakes were made, the fraud in Dr. Gallo’s lab, and the totally unscientific pronouncement of HIV as the cause of AIDS without any proof or corroboration. I felt some inner peace knowing that there were very prominent researchers who were proving what I had always believed.”

It was the first time Frank felt any support from outside his family, because other than his parents, Frank didn’t have anyone to talk to about this. He kept it to himself, with no close friends who knew his secret, and no support group.

“What I’ve seen over the years is that most other HIV-Positives don’t question the doctor’s orders. Most of them just took the drugs they were handed, and they died. I truly believe that arguing with my doctor has saved my life. I’m also really grateful to my parents, because I know a lot of patients whose parents insisted their children take the HIV drugs right away.”

Despite the intense and constant pressure from his doctors and nurses, Frank never took any of the HIV medications. “They also put a lot of pressure on my mom to put me on the drugs, which she always refused to do. One week while I was at the University, I got sick, and immediately they called my mom saying, ‘That’s a sign. You need to get your son to take the medications.’ But my mom kept resisting them, pointing out that I was not manifesting any signs or symptoms of AIDS.”

“It was even crazy how they described you had to take these drugs. You get up at 3 or 4 in the morning, take the battery of drugs, and then try to make it through the horrible side effects for the next few hours, like the diarrhea and the nausea. Then, of course, comes the cell death, and hair loss, and anemia. You don’t have to be a genius to know that there’s something wrong with the whole picture. So I really had no problem saying ‘No’ to the drugs, or to the doctor’s orders. But I still get the same mantra every time I go to the hospital. Even the last time, after twenty years of health, the doctors and the nurses were adamant that I had to take the drugs or I was going to die.”

To this day, Frank and his parents remain convinced about not taking the HIV medications, but it’s clear that the emotional trauma of his HIV-Positive diagnosis continues to haunt him. Frank readily admits that his greatest regret is the potential he felt he had in this life that could never be realized. He talks about having been given such a wonderful mind and body, and being unable to use them to their fullest extent.

“So much has been taken away from me, and so unfairly; and all based on a lie. I lay some of the blame right in the lap of the government. I believe they knew, at a certain point, about the medical fraud surrounding HIV, and from that point on they covered it up. Now it may be too late. I mean, what are they going to do? Are they finally going to openly admit that people didn’t die from the HIV virus, but that they died of toxic poisoning from taking AZT or other drugs? The evidence is there; I can see it clearly. So I’ve come to the conclusion that they must know it, too.”

“I realize that Big Pharma’s goal is to make money, and that comes first; and apparently it doesn’t matter if the HIV test kits are fraudulent. The government goes right ahead and supports the murder of those found to be HIV-Positive using these tests. The last time I went to the hospital I saw patients being poisoned with these HIV drugs; I saw people being murdered with my own eyes. I remember some of their names, and their faces. It’s a very traumatic experience, especially when I know that all of these deaths were preventable. So nothing has changed since 1984. To me that’s unconscionable.”

“What’s the difference between this and the NAZI concentration camps? Back then the people were taken into death chambers and given gas. Today we take them to the hospitals and give them lethal drugs. It’s so hard for me to believe it’s going on right now, in 2007! At times I can’t even sleep at night, it’s so shocking.”

“The doctors and hospitals go about their business as usual of giving lethal drugs to these patients, and then blame everything on this killer virus called HIV, while the people who don’t take these highly toxic drugs are perfectly healthy. There’s no recognition of reality, no correction in their thinking. It’s almost as if all the evidence is simply ignored. And apparently there’s no one to stop them. Now they have to save face and continue this charade, because if the public found out, they’d demand to know how they could let this go on for so many years while innocent people die from these drugs. I mean, enough is enough. What I don’t know for sure is when it stopped being a fraud and started being a cover-up.”

It’s now twenty years since Frank was diagnosed HIV-Positive. How does he feel today?

“Physically, I feel great. Of course, I still have to take my factor VIII injections twice a week, but that’s never been a real problem. On the other hand, there are times I say that I hate this life, that it’s not the life I want, that I can’t keep living like this, that I don’t want to keep living like this. But the will to live as a human being is very strong, so I have to believe things will get better. Or at least I cling to that hope.”

“If you want to make someone really crazy, tell them they did something they didn’t actually do, and watch how it effects them. Well, I’ve been told there’s something wrong with me, and there’s nothing I can do about it. At the hospital they look at me like I’m some kind of lunatic, because most people just follow orders. In fact, the hospital environment is a lot more insane than the rest of the world. There have been opportunities when I have tried to explain my situation to other people – totally in a hypothetical way, of course, because I never let anyone know it’s me that I’m talking about – and they seem to understand. Just ask someone to explain why people are not dying like flies from sex if the lethal virus HIV is sexually transmitted? Why is AIDS confined to certain risk groups when HIV infection is supposedly found equally throughout the population? People know there’s something not right about this, but they don’t have the scientific background to question the so-called authorities. Besides, they are brainwashed every day with the media, which are always sure to say, ‘HIV – the virus that causes AIDS.’”

“The people I’m most disappointed with are the health care professionals, who seem not to question anything. I believe that the general public is a lot smarter than the medical community gives us credit for. When I look around, I see signs of the AIDS Industry coming apart. The typical person on the street, even after so much brainwashing from the media, seems to have an open mind, and they know something is wrong instinctively. Maybe they can’t put their finger on it right now, but I truly believe that in the next five years – with more blogs and information available on the Internet – there’s going to be a domino effect that will eventually bring down this house of cards.”

“There’s still some part of me that’s waiting for the day when it will be announced that HIV has been a fraud from the very beginning; and I’m to the point that if it doesn’t happen in the next five years, I think I’ll go mad. I can only cope for so long, and sometimes I lie awake at night, imagining that I will have to continue fighting with my doctors and nurses for five more years, and wondering whether I’ll make it.”

“The one positive thing that gives me hope is that just in the last few years, people are asking more questions, and I think the Internet has something to do with that. Especially young people, because something doesn’t add up for them. They know that what they’ve been told doesn’t make any sense. And that kind of questioning is much more pronounced than ten years ago, from what I can see.”

What about Frank’s hopes and dreams for the future?

“I have the same dreams and aspirations as any other human being – a full life and someone to share it with. But above all, I long for freedom from the stigma, without having to feel I have anything to apologize for. Part of me was taken away with this diagnosis – my dignity as a human being. From the very beginning I’ve had to admit to something that isn’t true. That’s what’s been eating me alive, and I want my freedom back, both as an individual and as a valued member of society. What’s that old saying, ‘and the truth shall set you free?’ Well, I want the truth to be told, that’s all.”

Chapter Twenty-Nine

For the first time in the entire month, the courtroom is packed with press wanting to hear the closing arguments from both sides and await the jury's verdict. All the major TV networks are there, represented by their local channels. GNN is there as well. Sarah recognizes Dr. Frank Keating, GNN's chief health correspondent, standing in the back giving final instructions to his camera crew. It's obvious Sarah isn't going to be able to give The Arizona Tribune a scoop this time, as she did in the AIDS trial. At least she has the deal with Campbell for an exclusive interview as soon as the trial is over.

Sarah takes a long look around. Campbell appears rested after the weekend break; he also seems confident and composed. Wilson, on the other hand, looks a little tired, like he was up the entire weekend preparing and practicing his closing. Truth is that he spent a lot of time with Armand, who was still in jail for contempt of court, also waiting for the trial to be over.

As the judge enters through his private door, he stops suddenly, apparently surprised at the crowd. He also didn't expect TV cameras and quickly thinks about whether he will allow them to stay. Why not? If neither of the attorneys objects, I'll let 'em be.

For Sarah, it's the end of a long road that started in Phoenix almost six months ago. It really began more than twenty years ago when her brother had been diagnosed HIV-Positive; but in the last six months, she had learned the true cause of his death – which wasn't HIV. Still not answered, though, is the question of whether he had actually been HIV-Positive. From everything that has come out in this trial, she can't imagine that he was.

Her biggest concern now, however, is the fate of this defendant, and the hundreds of others who will surely be facing similar trials in the months ahead as more states pass laws making it a crime to have sex with someone if you are HIV-Positive. How many more lives will be lost, how many countless thousands ruined, until this tragedy will come to an end? She says a little prayer that this jury will set a precedent with their verdict today that will echo throughout the world and stop this insanity.

She doesn't have to wait long. The judge is eager to get going.

"Mr. Wilson, are you ready with your closing argument?"

Wilson rises and tries hard to look strong and authoritative. "I am, Your Honor."

"Proceed."

The lawyer's lectern has been turned so that it faces the jury box rather than the witness chair. Wilson makes his way there with a binder in his hand, which he opens, takes in a deep breath, and begins.

"Ladies and gentlemen of the jury, this has been quite a trial. But it's time to put away all the emotions and confusions of the past few weeks and look solely at the facts. And the fact is that Tyree Johnson, that man right there," pointing to the defendant, "carries a deadly virus in his blood called HIV, the virus that causes AIDS. You heard Mr. Johnson's own doctor tell you that. You heard him say that Mr. Johnson tested Positive on two ELISA tests and a Western Blot test. You heard him tell you that Mr. Johnson's viral load was over 9,000, and that his CD4 cell count was fast approaching 200 – that he, too, was on his way to getting full-blown AIDS. And you heard all of that confirmed by one of the world's leading AIDS experts, Dr. Michael Saag from the University of Alabama at Birmingham, the Senior Clinical Editor of the Journal of AIDS Research and Human Retroviruses and a panel member of the International AIDS Society for the United States."

Wilson stops for a minute to catch his breath and reminds himself to slow down. He's been glancing down at his notebook from time to time, clearly reading parts of his statement, as many lawyers do.

“Friends of Tyree Johnson then testified that the accused was fully aware that he was HIV-Positive, and yet admitted to them he had sexual relations with the victim, Beth Ann Brooks – not one time by mistake, but many times, intentionally, over the course of three to four months. None of these friends ever saw Mr. Johnson buying condoms, either; and you heard one of those friends suggest that Mr. Johnson was trying to give Miss Brooks HIV so she would die with him. Mr. Johnson’s doctor also told you he has refused to take the antiretroviral medications that could save his life. What more motive do you need than the defendant’s own death wish and his desire to take others with him when he goes?”

Sarah had missed all this testimony by the State’s witnesses because the trial had already started when she first arrived in Greenville, and some of it came as a surprise to her. Wilson is definitely doing a good job – a better job than she expected – and she wonders whether it will be enough to sway the jury.

“You then heard another well-credentialed AIDS expert, Dr. Stephen Shiboski, testify about the transmission of HIV through heterosexual intercourse. I would remind you that Dr. Shiboski was one of those responsible for the longest and largest study concerning heterosexual transmission of HIV, called the Padian study, while he was at the University of California, San Francisco. Dr. Shiboski clearly stated that while the chances of transmitting HIV from a male to a female were about one in one-thousand, it didn’t mean that you could safely have sex 999 times before transmission would occur. It could, in fact, happen the first time, or the second time, or the tenth time. Even Mr. Campbell’s own so-called expert witness admitted this.”

Wilson seems to have hit his zone. His presentation is forceful, clear, understandable, and very persuasive.

“In the case of Mr. Johnson and Beth Ann Brooks, we don’t know exactly how many times they had sex before the transmission of HIV occurred, only that it did. We know that it did because you also heard Beth Ann Brook’s doctor tell you that she became infected with HIV from Mr. Johnson, verified by testing positive on two out of three ELISA tests and on two Western Blot tests. She also had a viral load of over 78,000, and a CD4 cell count of 158 – which is why her doctor immediately put her on antiretroviral therapy to try to save her life. Tragically, although her viral load and CD4 cell count improved over the next few months, it was too little, too late. She died on June 27, 2005.”

Wilson bows his head in a moment of silence. Was that a sincere gesture in memory of Beth Ann Brooks, Sarah wonders, or just a show for the jury? Whatever it was, it had its effect.

Wilson looks up again and continues. “You heard the County Coroner testify that Beth Ann Brooks died of AIDS. You have seen her family,…” and he points to the Brooks in the front row they have occupied from the start of the trial, “...her mother and father, and her sister – here at this trial every day, grieving for their loss, and praying for justice to be done. Imagine losing a daughter in the prime of her life, deprived of the joy and happiness that could have been hers if that man,” and Wilson points again at Tyree Johnson, “had not murdered her.”

Campbell is about to object to these inflammatory remarks, but thinks twice and stops himself before he has completely left his chair. The jury may feel sorry for Wilson and the position he’s been put in by Armand, and I don’t want to come across as a bad guy trying to attack him. Besides, I have all the facts on my side, so I think I’ll just let it go. Campbell sits back, as if he had simply been readjusting his seat.

When Wilson hears Campbell’s chair squeak on the floor, he looks over and has a momentary fear that Campbell will catch him at his game. But when Campbell doesn’t stand, Wilson regains his confidence and turns back to the jury.

“Now, you’ve heard from all of our expert witnesses, leaders in their field, experts in HIV and AIDS, who represent the overwhelming majority of credible scientists and doctors and researchers in the world. On the other hand, with very few exceptions, the defense has offered you a collection of what are known as AIDS ‘denialists’ – a very small minority in the scientific community who don’t

even believe that HIV causes AIDS, many of whom have never worked in the AIDS field or treated an AIDS patient or watched someone die from AIDS. Most of them really don't have any credentials to speak of, other than maybe having a paper they wrote once published in an obscure magazine no one ever heard of. Their list even included someone who teaches logic, and another one who teaches statistics. Ladies and gentlemen, what were they doing here? AIDS and HIV belong to science, not philosophy or psychology. So when you decide who you're going to believe – their expert witnesses, or ours – I think the choice will be a very easy one for you to make.”

Campbell is impressed. Although he's certain that Armand wrote most of this and simply had Wilson memorize and practice it over and over again in the last two days, Wilson is doing an excellent job of delivery. He doubts Armand could have done any better.

Wilson appears ready to wrap it up. “In a few minutes, you're going to be alone in that room,” pointing at the door to the jury deliberation area, “with a very important decision to make. Did the defendant, Tyree Johnson, sleep with Beth Ann Brooks knowing he was HIV-Positive? Did the defendant infect Beth Ann Brooks with his HIV, causing her to get AIDS? Did he in fact murder Beth Ann Brooks in a way that was more cruel, more drawn out, more painful than if he had taken a gun and shot her in the head?”

“Objection.” Campbell can't let that one go. “Your Honor...”

The judge interrupts. “Mr. Wilson, tone it down.”

Wilson takes a second to regroup and then delivers his last plea. “Ladies and gentlemen, you have to do the right thing, not only to bring justice for Beth Ann Brooks and her family, but to send a message to all the other HIV-Positives out there around this country who think they can get away with having sex with whomever they want and let the chips fall where they may. I'm asking you to hold Tyree Johnson accountable for what he did to Beth Ann Brooks and tell the world that this must stop, here and now. I have every confidence, when you examine all the facts and rightfully assume the responsibility that has been placed on your shoulders, that you will find the defendant guilty of first-degree murder.”

Wilson looks at each juror one by one, pleased with his performance and fairly certain he had won their hearts and minds. When he has made eye contact with the last juror, he straightens up, closes his notebook, and says, “Thank you.”

Sarah notices that Wilson avoids looking at Campbell as he makes his way back to his table and sits down. That's odd. After such an impassioned closing, and a good job of delivering it, she wonders why he wouldn't stand proud and face his opponent. Oh, well; no use speculating at this point.

Campbell doesn't wait for the judge to invite him to close. He gets up, buttons his coat, and heads to the lectern. He doesn't bring anything with him, ready to deliver his statement without needing any notes, and his opening line surprises the jury.

“Ladies and gentlemen, Mr. Wilson deserves a great deal of respect. He was put in a very difficult situation, and I, for one, believe he did a remarkable job summarizing his case for you just now. Unfortunately, the facts that Mr. Wilson has implored you to consider simply are not on his side.”

Campbell is looking at the jury the whole time he is talking, going from one juror to another, right down the line.

“Let's look at those facts, and let's talk first not about the defendant, but about Beth Ann Brooks. In order to find Mr. Johnson guilty of murder, you have to decide beyond a reasonable doubt that Miss Brooks' tragic death was a result of having AIDS. It's true that her cause of death is listed as AIDS, but you heard that's standard operating procedure for someone who has been diagnosed with HIV, no matter what they die from.”

Campbell leaves the lectern, walks to the jury box and leans on the railing.

“However, the County Coroner later admitted that she actually died of liver failure; and you heard undisputed testimony that liver failure is not a result of any recognized AIDS illness. It is, however, an acknowledged side effect of the AIDS drugs she was taking. You also heard undisputed testimony that

these AIDS drugs have been the leading cause of death for HIV-Positives in this country for five years. To find the defendant guilty of the murder of Miss Brooks, you're going to have to decide beyond any reasonable doubt that Beth Ann Brooks died from AIDS and not the drugs she took of her own volition. Despite all the facts that prove otherwise, you may still think that's possible. But are you positive?

Sarah notices that Mrs. Brooks and Beth Ann's sister are crying, and they move to hold each other. Dr. Brooks is still sitting like a statue, as he has the entire trial. Sarah wonders, are they themselves questioning how Beth Ann died? It would be a very difficult thing for the family to give up the idea she was a victim of Tyree Johnson, especially since it was Dr. Brooks who insisted his daughter be tested for HIV in the first place, and then urged her to take the lethal HIV medications. What an awful thing to be going through, which Sarah understands only too well.

Campbell is back at the lectern. "Even if you decide that Miss Brooks died from AIDS, where's the proof that she was infected with HIV from Mr. Johnson? There is no such proof. Ms. Brooks never had an HIV test prior to the one she tested Positive on, so there is no proof of when she became HIV-Positive. It may well have been before she ever met the defendant. There's simply no way of knowing for sure."

He pauses for a moment, collecting his thoughts for the next section.

"But there's a bigger problem with this. You heard expert witnesses – lots of them – testify that HIV is not transmitted through heterosexual intercourse. I'll remind you of the largest and longest study of its kind, the Padian study, done by so-called mainstream AIDS experts, that found no transmission of HIV from an HIV-Positive partner to an HIV-Negative partner in their entire live study group over a six-year period. None! The State has simply not provided you with any scientific evidence proving beyond a reasonable doubt that the defendant infected Ms. Brooks with HIV while they were making love. To believe he did, you have to either ignore or disbelieve Dr. Padian's study. I realize this flies in the face of everything you have heard from the AIDS Industry and the mass media for about twenty years; and you may still think that it's possible. But are you positive?"

One of the TV cameras makes a loud sound, and the entire courtroom looks around to see what happened. A cameraman raises his hand in apology and picks up something off the floor. Campbell lets a few seconds go by to allow everyone to refocus.

"Mr. Wilson made a big deal in his closing statement that Mr. Johnson's friends never saw him buy condoms. This is how absurd some of these accusations can be. Were Mr. Johnson's friends with him 24 hours a day, every time he went to a drug store or a grocery store? What if their agreement was that Beth Ann Brooks supplied the condoms? Or what if they agreed that Mr. Johnson didn't have to wear a condom when he made love with Miss Brooks? We know for a fact, from her own doctor's testimony, that Ms. Brooks was on birth control. We also know for a fact from Mr. Wilson's own expert witness that condoms cannot stop HIV from passing through them. Unfortunately, we'll never know for sure what Mr. Johnson and Miss Brooks agreed to concerning the use of condoms, and any testimony along these lines is complete speculation."

Campbell feels badly that he has to deal so publicly with Beth Ann Brooks' private life, but there was no way around it. He simply could not let certain things Wilson said go unchallenged.

"Mr. Wilson also mentioned that one of the friends who testified suggested the defendant had a death wish; but remember that under cross-examination, that witness admitted it was he and not the defendant who said that to Mr. Johnson, and not the other way around. This alleged 'death wish' was the best the State could do to come up with a motive of why the defendant would murder Beth Ann Brooks. No other motive has been suggested; in fact, there's no evidence of any motive at all – no testimony about problems between Mr. Johnson and Miss Brooks, and no psychiatric testimony that Mr. Johnson is mentally disturbed enough to harbor such a death wish and want to take others with him when he dies. Without a motive, we have no murder. In your sadness for the death of Beth Ann Brooks, you may want there to be a motive; but are you positive there really is one?"

It's time for what Campbell hopes will be the deciding factor for the jury, if for some reason they are still wavering at this point.

“Ladies and gentlemen, by far the biggest decision you have to make is whether the defendant, Tyree Johnson, is actually HIV-Positive, and possesses and used the only murder weapon possible in this trial – a virus known as HIV. You heard almost three weeks of testimony from a lot of our expert witness questioning the validity of the tests that diagnosed the defendant with HIV infection. Mr. Wilson praised his own expert witnesses, but he didn't seem to like mine very much. But I would remind you that they were accepted by this court as experts, as Mr. Wilson's were, and should enjoy equal standing with them. Mr. Wilson also chided me for calling a logic expert, and a statistical expert, claiming that we should be dealing with science instead. I'm not entirely sure why he would have such a problem with that; as far as I know, science has always been based around logic and statistics – at least until HIV came along.”

Campbell couldn't help himself. He had to get at least one zinger in there.

“And I want to point out something I'm sure you already noticed. The State's expert witnesses gave you their opinion – but that was all. My expert witnesses gave you their opinion as well, but also gave you hundreds of scientific studies to back up everything they said. You never heard one of Mr. Wilson's experts cite a scientific study – not one scientific study. Frankly they can't, because the studies that would support their opinions don't exist. They can only repeat the HIV party line that has been handed down to them over the years, like religious beliefs, which apparently none of them has taken the time to prove through their own research. So when you start to talk amongst yourself about who said what, if you're confused about what is actually the truth, remember that you have all these scientific studies my experts made available to you to read for yourselves and decide who you're going to trust. Mr. Wilson needs you to believe that Mr. Johnson was and is infected with HIV beyond a reasonable doubt, but are you positive?”

Campbell takes a deep breath. He feels like he has presented the best case possible, and a very convincing case, and there's nothing else he can do now. It's time to turn this over to the twelve people who will ultimately decide the fate of Tyree Johnson.

“Ladies and gentlemen, what I do agree with Mr. Wilson about is that you have a huge responsibility, to this particular defendant first, but also to the other defendants in similar trials that are bound to come after him. Your decision will set a precedent and have a major impact for many years into the future. I am confident that we have given you all the information, all the expert testimony, all the scientific studies you need to find this defendant not guilty, for any number of reasons. The judge will tell you that you have to be sure, beyond all reasonable doubt, that Mr. Johnson murdered Beth Ann Brooks. After all you've heard and all you've learned and all that you now know, I ask you: Are you positive?”

Chapter Thirty

If you were a member of this jury, would you find Tyree Johnson **guilty** or **not guilty** of first-degree murder?

You can cast your vote by going to AreYouPositive.org

*“It is bad enough that people are dying of AIDS,
but no one should die of ignorance.”*

~ Elizabeth Taylor

*“All that is necessary for the triumph of evil is
for good men to do nothing.”*

~ Edmund Burke

Chapter Thirty-One Want To Do Something?

If you were diagnosed HIV-Positive, is there anything you can do?

The answer is a resounding YES! There are a number of things you can and should do. For example...

1. Educate yourself about the accuracy of the HIV tests and then decide for yourself whether your own diagnosis was right. You can find a lot of information about the tests at www.HelpForHIV.com.

2. Educate yourself about the HIV medications, called HAART (Highly Active Anti-Retroviral Therapy), and decide for yourself (regardless of what anyone else is telling you) whether or not you want to take the 50-50 chance of dying from the side effects of these drugs.

3. Understand that what you believe about HIV and AIDS is the most important factor in losing or maintaining your health, and that stress is the biggest threat to your immune system. Don't let the "nocebo effect" of the HIV=AIDS=Death hypothesis cause you to get sick and die. (Read [The Biology of Belief](#) by Dr. Bruce Lipton, or watch his hour-long seminar called *The Biology of Perception* on [YouTube](#).)

4. Take positive action on your own behalf and on behalf of others. Here's one suggestion you might consider....

Many states have laws about a patient's right to "informed consent." For example, the [California Patient's Guide](#) says that you "*have a right to know all risks, benefits, and treatment alternatives before consenting to any treatment.*" This Patient's Guide goes on to say that "*informed consent is more than merely your agreement to a particular treatment or procedure. Informed consent is your agreement to a proposed course of treatment based on receiving clear, understandable information about the treatment's potential benefits and risks.*" The case law cited by the Guide for this statement (Cobb v. Grant) says that you must "*receive sufficient information to make a meaningful decision*" regarding your healthcare.

However, chances are that you were not given "sufficient information" or "clear, understandable information" by your doctor or hospital or clinic about the benefits and risks of taking an HIV test, either prior to taking the test or after receiving the test results. Therefore, you probably did not have the opportunity to give your informed consent to the procedure.

Read through the following list of things that would constitute *lack* of informed consent, and if you find one or more that are true in your own case, keep reading when you're finished with the list...

~I was not informed that there were risks associated with merely taking an HIV test, as stated by the Los Angeles County Department of Public Health on their [website](#).

~I was not informed that the FDA has never approved any test for the diagnosis of HIV infection.

~I was not informed that the so-called HIV tests are not a test for HIV, but for HIV antibodies.

~I was not informed that “there is no recognized standard for establishing the presence or absence of antibodies to HIV-1 and HIV-2 in human blood,” as stated on the printed insert that comes with an HIV ELISA Antibody test. In fact, I was never shown that printed insert.

~I was not informed that the proteins used in any HIV Antibody test have never been proven to be unique or specific for the HIV virus, or that many of the proteins used in the test kits have been found to be associated with things other than HIV in the human body.

~I was not informed that no HIV test has ever been validated; that is, there is no controlled study that proves what percentage of people testing HIV-Positive have been confirmed to have active HIV virus in their blood by a viral isolation culture, and what percentage of people testing HIV-Negative have been confirmed not to have active HIV virus in their blood.

~I was also not informed that scientific studies have shown that the HIV ELISA Antibody test can be wrong as much as 90% of the time, or warned that I might have a false positive test result and what that would mean.

~I was not informed that there are over seventy conditions that can cause a false positive reaction on an HIV Antibody test, or asked prior to or after taking the test whether I might have had one or more of those conditions that could create a false positive on my own test.

~I was not informed that if my test came back positive, it only signified that I might have the antibodies to HIV. However, in virtually every other case, having the antibodies to a virus means that a person is said to be immune from the disease that virus could cause, and I was not shown the scientific studies or the medical basis for claiming that having the antibodies to HIV is any different.

~I was not informed that the Centers for Disease Control and Prevention had made an arbitrary decision in 1987 that a positive HIV test results equaled a current infection with HIV, and yet gave no scientific basis for that decision.

~I was not informed that processing my HIV Western Blot Antibody test varies from laboratory to laboratory. Nor was I informed why my doctor had decided that the laboratory results he received would be correct in my case and the scientific basis for that decision.

~I was not informed that there are many different ways to interpret an HIV Western Blot Antibody test, depending on whose standards are being used. I was not informed that the results of my test could be different if interpreted using either one of the CDC standards compared to the Red Cross standards compared to the FDA’s standards, for example. Nor was I informed which standard would be used to interpret my test or why my doctor had decided that the standard being used would be correct in my case and the scientific basis for that decision.

~I was not informed that Great Britain and other countries refuse to allow the use of the HIV Western Blot Antibody test, or the reasons why.

~I was not informed that the so-called HIV viral load tests use “probes” and “primers” based on the same un-validated non-specific proteins used in the HIV Antibody tests, and therefore were not proven to identify HIV in my blood. I was also never shown the printed insert that came with an HIV viral load test that states that the test was “not intended to be used as a screening test for HIV or to confirm HIV infection.” Nor did my doctor explain why he was using the test for exactly that purpose

despite the disclaimer, or show me the scientific studies which prove it could be used to determine the viral load of HIV.

~I was not informed that the so-called HIV viral load test results vary greatly from laboratory to laboratory, or why my doctor had decided that the laboratory results he would receive would be correct in my case and the scientific basis for that decision.

~I was not informed that people who have tested HIV-Negative on an HIV ELISA Antibody test or an HIV Western Blot Antibody test have been found with high HIV viral load results, posing severe questions about the accuracy of the HIV viral load tests.

~I was not informed that the HIV viral load tests failed in 90% of the cases studied to predict the loss of CD4 cells, and accurately predicted the “progression to disease” (AIDS) in only 4% to 6% of HIV-Positives, or why my doctor decided that my HIV viral load test results would be accurate in predicting my “progression to disease” and the scientific basis for his decision.

~I was not informed that CD4 cell counts vary greatly from day to day and hour to hour in a normal human being, and that “variance in CD4 from... non-HIV related longitudinal fluctuations needs to be accounted for in analysis of the prognostic power of CD4 in HIV infection.” I was also not informed that perfectly healthy people can have low CD4 cell counts. Nor was I informed why my doctor had decided that the CD4 cell count in my case would be indicative of anything, much less an indication or marker for AIDS, and the scientific basis for his decision.

~I was not informed that the diagnosis of AIDS in the United States can be based strictly on being HIV-Positive and having a CD4 cell count of 200 or below. I was also not informed that this definition of AIDS is not accepted by other countries (Canada, for example), and that by moving to Canada I would no longer have AIDS. Nor did my doctor explain how a disease can change definition when it crosses a national border or provide the scientific basis for that explanation.

~I was informed of my HIV-Positive diagnosis after only an HIV ELISA Antibody test without an HIV Western Blot confirmation test, in violation of the CDC’s protocol.

~I was also not informed that the Highly Active Anti-Retroviral Therapy (HAART) drugs that I was prescribed have been known for five years to cause more deaths from their side effects than the deaths recorded from AIDS-related illnesses. Nor was I informed that the newer HAART drugs are worse than the ones prescribed ten years ago.

~As a result of having this information withheld from me prior to agreeing to take an HIV Antibody test/HIV viral load test/CD4 cell count, or taking the HIV drugs that I was prescribed, I was unable to give my informed consent and have suffered emotional and psychological trauma, family stress, and social rejection as a result of my doctor’s unsubstantiated HIV-Positive diagnosis and treatment.

If one or more of these statements is true for you, you may have grounds to file an official complaint about your doctor, clinic, or hospital for violation of your right to Informed Consent. These complaints are filed with your state’s appropriate medical review boards, who must investigate your complaint and hold a hearing for the accused doctor, clinic, or hospital.

Doctors, in particular, are terrified of their medical review boards, because these boards have the right to discipline these doctors up to and including taking away their license to practice medicine in that state.

Please understand that this is not some personal vendetta on my part toward the medical profession. I would not be alive today, or walking, had not a highly qualified surgeon fixed my broken neck.

I am also not accusing any doctor or clinic or hospital of intentionally deceiving you about these HIV tests or the HIV drugs. I'm convinced that most doctors don't have a clue what these tests do or don't do, have never seen the printed inserts that come with the tests, and believe what they have been told by the pharmaceutical companies about the HIV drugs.

However, as Dr. Richardson said in this book, ignorance is no excuse. Your doctor, clinic, or hospital has an obligation to confirm the information they are given before treating you for any disease or performing any procedure. They also have an obligation to inform you about what they know and receive your informed consent prior to proceeding.

It is not enough any more for doctors to simply make a proclamation and expect you to follow their orders. It is also not enough any more for you not to question the medical profession or require them to live up to the standards set by Informed Consent laws.

While filing a complaint against your doctor or clinic or hospital will not change the results of your own HIV test, it may make you feel better; and it can definitely help those who come after you. If we can at least get all the doctors in the world telling their patients the truth about the HIV tests and HIV drugs before anything happens, we will probably have a lot more people saying, "No, Thank you."

If one or more of the statements above is true for you, please file a complaint with your state's medical regulatory agency, whatever it may be called in your state. (In Arizona it's simply called the *Arizona Medical Board*. In California it's the *Medical Board of California*. In New York it's the *New York State Department of Health, Office of Professional Medical Conduct*.) Give them a call and ask for the procedure to file an Informed Consent Complaint against one of their doctors or clinics or hospitals. If you need help finding the right agency to call, call the Attorney General or top legal office for your state government and ask them.

You may also have a legal case against your doctor, clinic, or hospital. However, lawyers cost money and trials take a lot of time and energy. Filing a complaint with your state's medical board is free, and takes very little time or effort. You don't even have to appear at the hearing.

If you would like help in filing an official complaint against your doctor, clinic, or hospital, please go to AreYouPositive.org and click on the link that says, "For Help in Filing An Official Complaint," and follow the instructions.

Chapter Thirty-Two

Author's Epilogue

This book is a work of fiction based on fact: the truth about the HIV tests and HIV drugs based on the scientific evidence.

The fictitious first-degree murder trial in this book did not actually happen. However, as this book went to print, a very similar trial was scheduled in Toronto, Canada; and unless this is stopped now, other trials like it will most assuredly occur in the various United States in the coming months.

Any character who utters even a single word in this novel is fictitious – with the exception of Dr. Kary Mullis, Nobel Prize winner in chemistry – and any similarity or resemblance to actual events or persons, living or dead, is entirely and purely coincidental, for legal reasons.

However, there are a number of other names mentioned in passing that are real. Dr. Robert Gallo, for example, is very much alive as head of the Institute of Human Virology in Baltimore, Maryland.

So much for the characters. What's important is what they *say*; and every word that is said in testimony from all the witnesses in this fictitious trial, or in conversations with health reporter Sarah Meadows, is indisputably true and factual and based on over 500 published scientific and medical papers, along with documented news stories, books, and other publications. The actual references can be found on the website AreYouPositive.org, for anyone who wishes to challenge the validity of this information.

My thanks go first to Dr. Peter Duesberg, who wrote the definitive work on HIV and AIDS, *Inventing the AIDS Virus*. I am also deeply indebted to Dr. Rodney Richards, Dr. David Rasnick, and David Crowe, for verifying that the science of the HIV tests and HIV drugs discussed in this book is 100% accurate; and I could not have written this book without the support of Robert Leppo, Dr. Heide Taylor, Dr. Carl and Helen Hartmann, Dr. Janine and H.P. Dubke, Christine Maggiore of Alive & Well AIDS Alternatives, and my family – Catheryn and David, Bryan, and Christopher and Lena.

A special thanks to Dennis Taylor of [Little Wing Art](http://LittleWingArt.com) for not only his support and encouragement, but also the artwork for the cover of this book.

Finally, I realize that the information in this book may cause pain and anguish for those who have lost a loved one to HIV/AIDS. To realize, after all these years, that their deaths may have been the result of the drugs they were given to supposedly “treat” their HIV, and not the result of any AIDS-related illness, can be quite a shock. To further learn that they were given these drugs when, in fact, their HIV-Positive diagnosis may well have been wrong can be even more disturbing, especially after what we have been told by the so-called AIDS “experts” and the mass media for three decades.

For this, I am truly sorry. Nothing I could say or do can bring back your loved one. But perhaps this book can help prevent others from losing theirs to the same tragic and lethal lies.

* * *

By the way, the four stories of HIV-Positives that Sarah used as her *HEALTH MATTERS* column were the true stories of four friends of mine. Their names have been changed, of course.

* * *

At AreYouPositive.org, you will find the list of questions for Dr. Robert Gallo handed to Sarah Meadows by Mr. Campbell in Chapter Twenty-Six. You will also find the list of scientific studies that serve as the bases for these questions. My thanks go to Dr. Andrew Maniotis, Program Director in the Cell and Developmental Biology of Cancer unit of the Department of Pathology, Anatomy and Cell

Biology, and Bioengineering, College of Medicine, University of Illinois at Chicago for his work in developing these questions and his permission to use them on the website.

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There are other websites you might be interested in as well, for yourself, or for someone you know who may have been told they are HIV-Positive and are now questioning their diagnosis. The website

HelpForHIV.com

deals with a lot of the issues brought up in this trial concerning the inaccuracy of the HIV tests and the myriad of problems associated with them. You will also find a number of videos to watch, podcasts to listen to, scientific studies and articles to read, other books to buy, and links to other AIDS dissident websites.

LivingWithoutHIVDrugs.com

has true-life stories and accounts from HIV-Positives, like the ones you read about in this book, talking about how they have dealt with their Positive diagnosis, and how they have led happy and healthy lives without the HIV medications.

* * *

Sarah Meadows, of course, was also the heroine in my first book, *Wrongful Death: The AIDS Trial*. There were numerous mentions of “The AIDS trial” in this book, and if you are curious, you can read about and order *Wrongful Death* at

TheAIDSTrial.com

Wrongful Death: The AIDS Trial, examines the scientific evidence that proves HIV cannot cause AIDS and exposes the lethal nature of the drug AZT that was prescribed for ten years to HIV-Positives before the advent of Highly Active Anti-Retroviral Therapy. Unfortunately, AZT/ZDV is still being used in some of the HIV drug cocktails today, and is prescribed for pregnant mothers and newborns despite overwhelming evidence that it can cause severe birth defects and death.

Wrongful Death is also a novel, another fictitious court case that “reads like a cross between a John Grisham legal thriller and an informative scientific treatise on AIDS,” according to one reviewer, complete with “the crackling tensions of *Twelve Angry Men*, the sublime discoveries of the *Microbe Hunters*, and the numbing absurdities of *The Pentagon Wars*,” in the words of another. “A legitimate page-turner!” says a third.

* * *

Lastly, I am hopeful that you will be upset and angry after reading this book, and want to do something, especially if you are one of those diagnosed HIV-Positive as a result of one or more of these horribly inaccurate tests. If so, there is definitely something you can do about it. Just keep reading.

If you are not HIV-Positive, but you’re still upset and angry about the lies and cover-ups of the AIDS Industry, tell your friends that they need to read this book. If someone who has been diagnosed

HIV-Positive has to stay that way for the rest of their lives, the least the rest of us can do is to try to change the way society views HIV, one person at a time.

Thank you for reading my book.

You are invited to write a book review
of this ebook by visiting:
AreYouPositive.org

If you would like to buy a printed copy of this book,
Please go to:
VirtualBookWorm.com

The first book in this series called
Wrongful Death: The AIDS Trail
is also available as a **free** ebook at
Smashwords.com
or by visiting:
TheAIDSTrial.com

If you enjoyed this book, please return to Smashwords.com
to discover other works by this author.

About The Cover

The bronze sculpture on the front cover of this book is the creation of Dennis Taylor of Little Wing Art. Dennis talks about his motivation....

“As an artist, I was looking for a way to convey the tragedy and emotion associated with being diagnosed HIV-Positive.

“The images on the cover of this book are not fantasy. If the Centers for Disease Control and Prevention, the FDA, Big Pharma and the AIDS establishment have their way, every man, woman and child in the United States will be forced to take an HIV test. This means a death sentence for a million or more citizens who will test positive for HIV – not from a virus that has never been proven to cause any disease or illness, but from the toxic drugs that will be prescribed for those who test Positive. This is nothing short of genocide for profit.

“Are we going to watch our lives, and the lives of others, be taken from us by a lie? Or are we going to stand for truth and accountability from the scientific and medical community? This is no longer a problem limited to gays, intravenous drug users and hemophiliacs – this will affect each and every one of us.

“A true patriot is one who questions authority and is unwilling to back down in the pursuit of truth. My sculpture on the cover will hopefully challenge each of us to make an educated decision, based on the facts, whether to stand in line like sheep going to slaughter, or be the ‘decider’ of our own future.”

To see more of Dennis’ work, go to [Little Wing Art](#).
Cover photograph by [Christopher Marchetti Photography](#).

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