

## BAD BLOOD: THE FINAL CHAPTER

### EPISODE 8: FAKE DEMOS

---

#### COLD OPEN

**Matthew Kahn:** Did you ever see a demonstration of the blood analyzer machine that Theranos manufactured?

**George Shultz:** Did I ever see it operate? Yes, many times.

**Matthew Kahn:** OK. What do you recall about that?

**George Shultz:** Oh, I recall it's a very simple process. This pallet is put into a slot in the machine. You wait about 30 minutes and out comes a result.

**Matthew Kahn:** OK. Did you personally stand there next to the machine for 30 minutes while it did its analysis?

**George Shultz:** I was sitting on a... some place, and I was in the room.

**That was George Shultz, one of the greatest statesmen of the twentieth century, describing how he saw Theranos' blood-testing device work with his own eyes during demonstrations held at the company's Palo Alto offices. These displays made the former Secretary of State a believer and helped convince him to join Theranos' board of directors.**

**Shultz was far from the only one. Dozens of other people, ranging from prospective investors to journalists, attended demonstrations either at Theranos headquarters or at one of the company's blood-draw sites in Walgreens stores and came away impressed. Inside the company, they were known as VIP demos. Theranos even had a dedicated room for the ones held at headquarters. Once ushered inside, the so-called VIPs would have their fingers pricked and watch**

as a tiny sample of their blood was inserted into Theranos' desktop machine. Sometime later, usually within a few hours, they'd receive a lab report that seemed to prove Elizabeth Holmes' invention worked.

**But what if I told you that many of those demos were faked?**

**Don't take my word for it. Take Nick Haase's. Nick is a former Theranos biochemist whose duties included testing the blood samples collected during the demos. During the first demo he observed in 2012, the blood sample taken from the visiting VIP...**

**Nick Haase:** ...was brought back into the scientific research laboratory...  
**... was discreetly brought back to the lab in another part of the Theranos building. And then...**

**Nick Haase:** The assays were performed manually using research equipment.

**Winston Chan:** What does that mean?

**Nick Haase:** Um... So, uh, this was not run on Theranos hardware. This was run using Theranos-developed reagents, but run using manual, like, hand-operated liquid handlers and manually-operated optical detection.

**Winston Chan:** So doing what a machine would do, but by hand?

**Nick Haase:** Correct.

**Haase, like Shultz, was testifying under oath in a deposition for a lawsuit brought by one of Theranos' biggest investors, the San Francisco hedge fund Partner Fund Management. PFM, which invested \$96.1 million in Theranos, agreed to settle the suit in 2017 after taking the depositions of numerous Theranos employees and three of the company's board members.**

**According to Haase's testimony, the samples collected from VIPs continued to be tested manually in Theranos' lab until August of 2013. After that, they were mostly run on the third-party commercial machines Theranos had secretly modified.**

**It's an astoundingly bold deception, but perhaps even more astounding is that no one who attended these demos ever seemed to catch on. How were they so easily fooled?**

**This is *Bad Blood: The Final Chapter*. I'm John Carreyrou. One of the reasons no one at these demos ever suspected anything is a software application Theranos had programmed into its proprietary device. In the course of this episode, we'll examine what this app was and how it worked. We'll also lift the curtain on several demonstrations Theranos held for visiting VIPs and show you step by step how they were gamed.**

**Putting on a rigged show to convince investors you have a working machine when you don't, seems kind of like the definition of fraud. That's why these demos are likely to be some of the government's strongest evidence at trial.**

**Strong enough to win a conviction? I'll let you be the judge of that.**

**After the break.**

## SEG A

On the morning of August 13, 2013, Theranos hosted a delegation of Walgreens executives at its offices in Palo Alto. The companies were on the cusp of launching their partnership and the Walgreens executives were in town to make sure Theranos was ready. After the meeting, Elizabeth and Sunny took their visitors to a room by the entrance lobby for a demo. The room, known as “interview room No. 1,” was set up to look like one of the blood-draw sites Theranos would soon be opening in Walgreens stores.

Theranos had carefully prepared for this demo. At 10:44 p.m. the night before, Daniel Edlin, Elizabeth’s chief of staff, had sent her and Sunny the following email, which read in part:

*Hi Elizabeth and Sunny,*

*The following devices are planned to be in the demo/interview room.*

- 1. 3.5 Edison with “demo app” – Set to run null protocol*
- 2. 4s with “demo app” – set to run null protocol*
- 3. Minilab with “demo app” – set to run null protocol*

*...*

*Please let us know if you have any questions or would like anything else in the room.*

*...*

*Thanks,*

*Dan*

The terms “3.5 Edison,” “4s,” and “Minilab” all referred to different versions of the Theranos device. The Edison was an older model with limited capabilities. It could only do immunoassays, one of the four major classes of blood tests. The miniLab and the 4S, the Edison’s successors, were more versatile. They were designed to do all four. The morning of the meeting, a decision was made not to include the Edison and to place only the two newer models in the room.

As they began the demo a few minutes before 11 a.m., the Walgreens executives watched the machines boot up and whir. Among them was Nim Jhaveri, who had just taken over responsibility for the Theranos partnership. Here’s how he later described the scene to PFM’s lawyers.

**Nim Jhaveri:** There were two machines and a chair and a table. The two machines, one the size of a small refrigerator and the other machine was about double the size of the refrigerator.

**Matthew Kahn:** Did anyone tell you and your teammates what those machines were?

**Nim Jhaveri:** They told us that was the technology and the machines that would actually analyze the blood.

**Matthew Kahn:** So, they told you that the machines that you saw in the room were the Theranos-developed and manufactured proprietary blood analyzers?

**Nim Jhaveri:** Yes, sir.

**Matthew Kahn:** And they told you that the machines that you saw in the room were the machines that would be testing your blood?

**Nim Jhaveri:** Not those specific machines. But they told us that these are the machines, the technology that would be doing all the assays.

**So, in other words, Jhaveri and his colleagues were told that their blood samples would be tested on devices just like the ones in the room.**

**Matthew Kahn:** And then was blood taken from each team member?

**Nim Jhaveri:** Those that agreed to do so.

**Matthew Kahn:** OK. And after the blood was taken from you and your teammates who agreed to participate, where did the blood go? Did you see?

**Lawyer:** Object to form.

**Nim Jhaveri:** I did not see.

**Matthew Kahn:** OK. But you nonetheless had an understanding that the blood was going to be tested on a Theranos-manufactured device identical to those that were in the room with you?

**Nim Jhaveri:** It was our understanding that the blood would be run on their technology, yes.

**Except, that's not what happened. The key to understanding what *really* happened is the mysterious "null protocol" Dan Edlin referred to in his email to Elizabeth and Sunny the night before.**

**Rahul Kolhatkar:** What's the null protocol?

**Sunny Balwani:** So that's another thing that I wrote. The concept comes from software. In the world of software, there's the concept of "null," which refers to nothingness, like... like no instructions, don't do anything.

**That's Sunny Balwani explaining what the "null protocol" was to an SEC staff attorney in the summer of 2017. Sunny had a software background. Before joining Theranos, he'd worked at Lotus and Microsoft and co-founded an e-commerce startup. The sale of that startup at the height of the late '90s dotcom bubble had earned him**

**tens of millions of dollars. Sunny's software background colored a lot of what went on at Theranos.**

**Sunny Balwani:** I brought this concept to the world of medical devices. The idea was to be able to demonstrate everything without really having to run the blood test. So, you could still go through the entire process. You collect the sample, you put the cartridge. But when you insert the cartridge, the machine still has to initialize as if it's doing something. And, but if you have null protocol, it's not going to do anything. It'll just open the mouth, you put the cartridge like a VHS tape, like a DVD. And... And it will just insert the tape and it will sit on it, not do anything.

**In other words, the null protocol was an application designed to make the miniLab and the 4S look like they were operational. But they weren't operational. The two devices Nim Jhaveri saw were just malfunctioning prototypes. They looked like black desktop computer towers topped by iPad-like touchscreens. On the front of each device, a few inches below the touchscreen, there was a slot. That's where a rectangular white cartridge containing the little blood tubes was inserted. With the "null protocol" running, the machine sucked in the cartridge and made noises. But that's it.**

**It was like showing someone a car and revving up its engine loudly without revealing that under the hood the engine wasn't connected to the drivetrain.**

**On the inside, the Theranos devices were a mess. Key components were badly misaligned. Robotic arms landed in the wrong places, shattering the pipettes they wielded. The devices' centrifuge**

sometimes blew up, spattering blood everywhere. The list of problems was long and would have taken years to solve.

But on the outside the machines looked sleek, and the null protocol made them come alive like the revved-up engine of an idled car. What the Walgreens executives were looking at were just props, but Sunny's app made them look like finished products ready to test patient samples.

During some demos, the nanotainer of blood collected from the visiting VIP was placed in a cartridge and the cartridge was inserted into the humming Theranos device, leading the visitor to believe his blood was being tested then and there. In the event there was a malfunction inside the device while it was whirring, another software application known as the "demo app" kicked in to prevent an error message from flashing on the digital touchscreen. Later, when the visitor left the room, the blood sample would be discreetly taken out and brought to the lab.

That didn't happen during this demo, perhaps because there were six Walgreens executives and the Theranos devices could only accommodate one blood sample at a time. Instead, as you heard Jhaveri testify, he and his colleagues were told their samples would be tested in the company's lab on devices just like the ones they'd been shown. By making the two devices in the room seem operational, the null protocol reinforced that impression.

Though Jhaveri said he didn't see where his blood sample went, Dan Edlin, Elizabeth's chief of staff, testified in another lawsuit that it was placed in a refrigerated container and brought to the lab, where a team of scientists was on standby waiting for it.

At the time, the Theranos offices were in a two-story building off the Stanford campus. The company's lab took up two separate rooms in the building, one upstairs and one downstairs. The downstairs room, which Sunny had christened "Normandy," is where Jhaveri's and his Walgreens colleagues' fingerstick samples were tested.

Normandy didn't contain a single miniLab or 4S. What it did contain was a big, hulking blood-testing machine made by Siemens called the ADVIA 1800 that Theranos had modified. It also contained some Edisons, the older proprietary Theranos devices that could only do one class of blood test.

Theranos had told the Walgreens executives it would run a comprehensive metabolic panel on their blood samples. That's a panel of 14 tests that measure a person's sugar levels, their electrolyte and fluid balance, and their kidney and liver function. These tests, which are known as general chemistry tests, were beyond the Edison's scope, so they had to be run on the Siemens machine.

At 1 p.m., two hours after the Walgreens executives were shown into the demo room, Nick Haase—the same Nick Haase you heard at the

**top of this episode—sent Edlin and a group of his colleagues in the lab, an email that read:**

*Update: We just started the Advia run of all samples.*

**Theranos was still in the early days of tinkering with the ADVIA. Daniel Young, the executive who'd come up with the idea of modifying the Siemens machine to adapt it to small fingerstick samples, had drawn a complicated decision tree to guide the scientists' actions. One of the crucial steps involved diluting the fingerstick samples in water or a saline solution to create more volume, so they would meet the Siemens analyzer's larger sample-volume requirements.**

**The dilution, plus the fact that capillary blood pricked from a finger is less pure than venous blood, was a recipe for disaster.**

**Sure enough, the results of three of the tests performed on Jhaveri's blood—alkaline phosphatase, aspartate aminotransferase and creatinine—came back abnormally low. All three tests are used to detect liver problems.**

**Theranos could have asked to draw Jhaveri's blood again and rerun those tests, but that might have made the Walgreens executives suspicious. So instead, it did something else.**

**Matthew Kahn:** Now, let's look at your test results. Do you see any results for yourself for alkaline phosphatase or aspartate aminotransferase?

**Nim Jhaveri:** I do not, sir.

**Matthew Kahn:** So, did you know when you had your test run on August 13, 2013, that you were not going to get these results, but your colleagues were?

**Nim Jhaveri:** It was my understanding that we were getting the exact same test.

**Matthew Kahn:** OK. Do you know why you didn't get back results for alkaline phosphatase and aspartate aminotransferase or creatinine?

**Nim Jhaveri:** At that time, I did not know why.

**That's Nim Jhaveri, finding out from PFM's lawyers *four years after* the demo, that Theranos simply decided to withhold three of his test results.**

**Matthew Kahn:** OK. And if... if you didn't get back those results because, for example, Dr. Young thought those results were abnormally low and should be removed, would that be something that would concern you?

**Nim Jhaveri:** As a patient... As a patient, yes.

**Matthew Kahn:** Why is that?

**Nim Jhaveri:** I'd like to know why they were removed. Was there something wrong with my health? Or was there something wrong with the test itself? So I can take the proper actions.

**Matthew Kahn:** Theranos never told you that, did they?

**Nim Jhaveri:** No, sir.

**Jhaveri had been duped at the front end of the demo, and again at the back end.**

**The following month, the companies announced their partnership and Theranos opened its first blood-draw site in a Walgreens store in Palo Alto. Over the next year, it would open 40 more such sites in**

**Walgreens stores in Arizona and collect and test the blood of tens of thousands of patients.**

**With the Walgreens partnership in the bag, there were new investors to recruit, and more demos to run.**

**That's after the break.**

## **SEG B**

**A little over a year later, Theranos was riding high. On the strength of its commercial launch in Walgreens stores, the company had raised several hundred million dollars at a price per share that valued it at \$9 billion. Elizabeth had been featured on the cover of *Fortune* magazine and was being fêted as the world's youngest self-made female billionaire.**

**She wasn't done raising money, though. Among other prospective investors, she was in discussions with BDT Capital, the Chicago merchant bank that made cameos in episodes two and four.**

**On October 11, 2014, BDT executives were due to fly to Palo Alto to meet Elizabeth and Sunny. During their visit, they planned to try out the Theranos technology by getting their blood drawn at the local Walgreens store.**

**Again, careful preparations were made the day before. At 5:50 p.m. on October 10th, Christian Holmes, Elizabeth's brother, sent his sister and Sunny an email laying out several scenarios to ensure that the BDT executives' test orders would prompt a fingerstick draw.**

**At the time, Theranos advertised more than 200 blood tests on its menu. But what it didn't advertise was that it could only do fewer than half of them on fingerstick samples. Its Edison devices could only run 12 fingerstick tests and the third-party analyzers it had secretly modified—chiefly the Siemens ADVIA 1800—could only run another 60 or so. All the other tests on its menu had to be performed on a regular-size sample of blood drawn the old-fashioned way—from a vein in the arm.**

**That wasn't something Elizabeth wanted the BDT executives to know, as her brother's email explicitly stated. Here's what Christian wrote at the top of the email:**

*Assumptions here from [Elizabeth] are that we must not do venous draw, and we cannot tell them that their order prompts venous if it does.*

**The email went on to outline two options to prevent a venous draw. The first was to drop the tests that couldn't be run by fingerstick from the BDT executives' orders and tell them they couldn't be performed. The second was to drop the tests without telling them and hope they wouldn't notice.**

One of the “negatives” of this second scenario, Christian wrote, was that the receipt printed by the Theranos app would only show the tests performed, and that might lead the BDT executives to notice that some of their tests were missing. He wrote that, if that happened, a woman named “Ciara” could distract them from looking at the receipt as she welcomed them into the blood-draw room.

The *one* thing you don’t want to do when you’re committing fraud is put any suggestion that you’re going to mislead someone *in writing, in an email*, that’s going to be saved on a server. Yet, that’s exactly what happened here. It’s the kind of evidence prosecutors *love*, and they clearly plan to use it. This email is on their exhibit list.

If you’re Elizabeth, this email looks really bad, even if she’s not the one who wrote it. And when SEC attorneys confronted her with it in the summer of 2017, her answers weren’t exactly convincing.

**Jessica Chan:** What is he referring to here when he says that the assumptions here from you are that we must not do venous draw and we can't tell them that their order prompts venous?

**Elizabeth Holmes:** Honestly, I don't know. My understanding in looking at this now is that this is a situation where whoever was coming had told us they were coming and that they wanted to do a fingerstick and we were trying to be prepared to do a fingerstick. So that's my best... best understanding of it.

**Jessica Chan:** Do you recall telling Christian that... that a venous draw must not be done?

**Elizabeth Holmes:** No.

**Jessica Chan:** Do you recall telling him that, you know, he shouldn't tell them if the order prompts a venous draw?

**Elizabeth Holmes:** No.

**Jessica Chan:** Why would it be important not to tell people that their order requires a venous draw?

**Elizabeth Holmes:** I think this was a case, and this is my... my best understanding from having reviewed it recently, in which whoever was coming wanted a fingerstick, and so we were trying to communicate to our teams, "they've told us that they're coming to do a fingerstick, please do a fingerstick."

**Of course they wanted a fingerstick. Elizabeth had told them Theranos could perform the full range of lab tests with one.**

**The SEC lawyers pressed Elizabeth about the second scenario laid out in the email, the one in which someone would distract the BDT executives from looking at the receipt.**

**Jessica Chan:** Why was it necessary to have Ciara distract the person from looking at the receipt?

**Elizabeth Holmes:** I... I don't know why this was written here. My understanding is that we followed exactly what the SOP is that we did at retail, which is this case A. That would have been my expectation and I believe that's what we did for this visit.

**SOP means "standard operating procedure." Case A was the first scenario laid out in the email, which involved dropping the tests that couldn't be performed on fingerstick from the order and being transparent with the BDT executives about it.**

**Rahul Kolhatkar:** What's your basis for that belief? Did you review some other documents that suggest the SOP was followed?

**Elizabeth Holmes:** I did not review other documents, but it's my understanding that's what we always did.

**Rahul Kolhatkar:** Have you spoken with Christian Holmes about this, this document?

**Elizabeth Holmes:** I have not.

**The SEC lawyers were clearly skeptical of Elizabeth's answer. When they asked Sunny about the email a month later, he was blunter about how bad it looked.**

**Sunny Balwani:** Yeah, this is really stupid. I didn't... I wish I'd read that at that point and... But I don't condone this. It's impossible to hide from the patient what tests were not done or what were done. Now, I don't think this actually happened, by the way. I didn't pay attention to this email then, but I don't think this was actually ever carried out, to the best of my knowledge.

**Rahul Kolhatkar:** How do you know?

**Sunny Balwani:** I would have heard about it. I mean, if something like this, where somebody is violating the SOPs, I was always a stickler to that, that I would... I would like to find out if something is happening.

**Rahul Kolhatkar:** I mean, a cynical person could read this and think that what Mr. Holmes is trying to do here is hide the fact that Theranos does venous draws.

**Sunny Balwani:** Yeah, which is the stupid part because venous draws are a known fact. If... I mean, a lot of our investors actually did go to Walgreens, did get a venipuncture. It's a common practice that we did.

**That last answer is misleading. It's true that a large proportion of Theranos's blood draws were venous draws, but it tried hard to keep that fact hidden from investors.**

**It's unclear whether the second scenario, the one in which the BDT executives would be distracted from looking at the receipt, was carried out—forgive me if I don't take Elizabeth's and Sunny's word for it that it wasn't. But the mere fact that it was laid out in an email as an option will reinforce prosecutors' narrative that Elizabeth thought it was OK to mislead investors.**

**And as far as this demo is concerned, the deception wasn't over.**

**Theranos didn't have confidence in the results of several of the tests one of the BDT executives had ordered. Rather than be upfront with him, the company used the same playbook it had with Walgreens' Nim Jhaveri the year before. Dan Edlin, Elizabeth's chief of staff, sent an employee named Anam Khan an email instructing her to drop the questionable results from the executive's lab report without telling him.**

**This time, though, there was a snag.**

***"I have some bad news," Kahn replied. The BDT executive "called this morning about his test results. He checked the app Saturday evening and was able to see all his results, and now there are some missing. I told him that I'd have to look into it and that someone from the lab would reach out to him, obviously didn't mention anything about a redraw."***

**Edlin alerted Christian Holmes, who alerted his sister and Sunny. Elizabeth responded, "Good you forwarded in realtime."**

**The SEC lawyers didn't ask Elizabeth about this, but they did question Sunny about it.**

**Jessica Chan:** Did you ever notify this person that the results... that you weren't confident in the results that had been released to him?

**Sunny Balwani:** My guess is yes. That was the normal CLIA SOP, so that should have happened. That's my expectation.

**CLIA stands for Clinical Laboratory Improvement Amendments. It's the 1988 federal law that governs clinical laboratories.**

**Jessica Chan:** So you think he might have been apprised of it, but you don't know whether he was told?

**Sunny Balwani:** I don't know for sure. I don't remember. But what I would say is I'll be very surprised if it didn't happen.

**The discussions with BDT continued throughout the fall of 2014. As we discussed in episodes two and four, BDT's CEO, Byron Trott, was impressed with Elizabeth and was considering making a big investment in Theranos.**

**But Trott, an alumnus of Goldman Sachs, was a serious investor and he wasn't done with his due diligence. He wanted to keep kicking the tires on Theranos' technology. So, another demo was arranged. One that would require more smoke and mirrors.**

**That's after the break.**

**SEG C**

**BDT Capital was considering investing \$500 million in Theranos, which was going to be the single biggest investment in the startup to date. But there was more. Trott was also talking to Elizabeth about bringing in co-investors who would put up another \$350 million.**

To educate these co-investors about Theranos, BDT had drafted a 21-page memo describing the company and its capabilities. Before circulating it, Trott emailed it to Elizabeth to give her an opportunity to make changes and edits.

In a section titled “Technology & Hardware,” the memo read, “Samples for all tests are run on one proprietary diagnostic machine, an unprecedented capability in testing and a significant technological competitive advantage versus peers.”

Needless to say, BDT didn’t make this up. It was merely repeating in the memo what Elizabeth and Sunny had told Trott and his colleagues during a series of meetings and calls over the previous three months.

So naturally, when Trott paid another visit to Theranos on December 30, 2014, he expected his blood sample to be run on, to quote from the memo, “one proprietary diagnostic machine.”

But, as you’ve probably guessed by now, that’s not what happened.

Ahead of his visit, Trott had emailed over a lab order and this order posed a particular challenge for Theranos. It included two blood-clotting tests that the newer version of Theranos’ proprietary device, the miniLab, couldn’t handle. To perform one of the tests, Theranos’s laboratory had previously used a big robotic liquid handler made by a Swiss company, but had stopped the practice.

**On the eve of Trott's visit, Theranos employees debated what to do. In an email exchange with Christian Holmes and three other employees, a member of the lab named Kathryn Rommel offered a solution. She volunteered to do the tests manually. Another employee who was coordinating the demo forwarded her offer to Sunny and asked him how to proceed. Sunny emailed back:**

*Run manually but needs to be accurate.*

**A lab employee performing the tests manually at the bench was a far cry from the cutting-edge technology Elizabeth was selling Trott on.**

**When the SEC later confronted Elizabeth about this, she tried to distance herself from the demos and to pass the buck to Sunny. She's likely to do the same thing if she takes the stand at trial.**

**Jessica Chan:** Do you recall that certain assays were being run manually?

**Elizabeth Holmes:** I... I don't have specific recollections of it. Again, I was trying to speculate earlier about my best understanding of how these technology demonstrations were done outside of the clinical lab process, but I'm... I'm not sure.

**Jessica Chan:** OK, and so who would have the best understanding as to how the demonstrations were run in the CLIA lab?

**Elizabeth Holmes:** I... I believe Sunny would be the best person to... to ask.

**Rahul Kolhatkar:** For VIPs, would Sunny let you know how the demonstrations were run?

**Elizabeth Holmes:** I'm sure he did sometimes. I don't have memory of specific conversations with him.

**Even after the issue with Trott's blood-clotting tests was resolved, there remained a problem with his test order. One of the other tests in**

**the order, chloride, was run on a modified Siemens ADVIA machine and came back abnormally high.**

**Once again, Theranos suspected the result was inaccurate. Following what was now a well-established pattern, Elizabeth gave emailed instructions to withhold the result from Trott's test report.**

**Here's how she justified it to the SEC:**

**Jessica Chan:** Are you instructing the team there not to include the CL test on the report?

**Elizabeth Holmes:** I'm not sure. Reading it now, I read this to mean, if you have concerns about the value, don't report the value. But again, I don't have a recollection of this email exchange.

**Jessica Chan:** OK. Why wouldn't you tell Christian to just include it on the report but ask the patient for a redraw?

**Elizabeth Holmes:** So I'm speculating here, but my understanding was, if you think that the concentration is incorrect, then you should not include it.

**Jessica Chan:** OK. But I guess I'm just wondering why wouldn't you just include it but say, you know, this is too high, we can't rely on it, let's do a redraw?

**Elizabeth Holmes:** I mean, I'm not a laboratory professional, but my understanding is if you believe it's wrong, you can't report it.

**Jessica Chan:** OK. And so, do you know if the person who was tested here was told that this result wasn't reported on his lab report?

**Elizabeth Holmes:** I don't.

**Elizabeth claimed that dropping the chloride result from Trott's lab report is something that she ordered for safety reasons, but it's a good bet her bigger concern was not giving him any hint that Theranos' tests were unreliable.**

I've viewed the video of this exchange and of Elizabeth's entire three days of SEC testimony several times. When she's dodging or obfuscating, Elizabeth has a tell. She nods her head in little staccato beats and looks intensely at the questioner with her eyes wide open. It's as if she thinks the dodges and obfuscations will be more effective if she delivers them more forcefully.

BDT didn't end up investing in Theranos. But if Elizabeth takes the stand, as her lawyers have indicated she very likely will, prosecutors may confront her with the firm's detailed notes because they're a contemporaneous record of her lies. Especially that memo BDT wrote for co-investors based on what Elizabeth and Sunny told it. The one that said, "samples for all tests are run on one proprietary diagnostic machine."

The memo... Elizabeth had no good answers for.

**Jessica Chan:** Did you ever tell BDT Capital that all of your tests work on one box, which is different from your competitors?

**Elizabeth Holmes:** I don't remember saying that, but that's what the miniLab is designed to do.

**Jessica Chan:** So it's not true that all of Theranos' tests were being performed on the miniLab, correct?

**Elizabeth Holmes:** Correct.

**Jessica Chan:** That a majority of the tests were actually performed on commercially available machines, correct?

**Elizabeth Holmes:** Absolutely.

CREDITS

***Bad Blood: The Final Chapter* is a Three Uncanny Four production. The show is hosted by me, John Carreyrou.**

**Our show is produced by Lena Richards, Rahima Nasa, and Jennifer Sigl with help from Shane Mckeon. Emily Saul is our reporter. Jenny Kim is our production manager.**

**Laura Mayer is our executive producer.**

**The show was mixed by Kevin Seaman. Casey Holford composed the theme music.**

**I hope you've been enjoying *Bad Blood: The Final Chapter*. And I'd love to hear your thoughts on the show. Your feedback goes a long way. It helps us make the best show we can make and it only takes a few minutes. Just head to [Bad Blood dot fans](#) on the browser of your choice to answer a few questions. We're looking forward to hearing from you.**

**And, if you like the show head over to Apple Podcasts, Spotify, Stitcher, or wherever you get your podcasts and hit subscribe. Leave a rating and a comment while you're there. It really helps new listeners find the show.**

**Thanks for listening. For Three Uncanny Four, I'm John Carreyrou. We'll be back next week.**