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CAUSE NO. 2009-73894

SUGAR CREEK INTERIORS, INC.	X	IN THE DISTRICT COURT
	X	
VS.	X	HARRIS COUNTY, TEXAS
	X	
AQUARIUM DESIGN GROUP, L.L.C.	X	234TH JUDICIAL DISTRICT

ORAL DEPOSITION OF
DENNIS G. HOOPER, M.D., Ph.D.
August 30, 2011

ORAL DEPOSITION OF DENNIS G. HOOPER, M.D., Ph.D., produced as a witness at the instance of the Defendants Alabama-Mercer, LTD. and Randall Acres, LLC, and duly sworn, was taken in the above-styled and above-numbered cause on the 30th day of August, 2011, from 12:03 p.m. to 5:00 p.m., before Laura D. Glenn, CSR in and for the State of Texas, reported by machine shorthand, at the law offices of Thomas Carnahan, 1190 North Carroll Avenue, located in the city of Southlake, state of Texas, pursuant to the Rules of Civil Procedure and the provisions stated on the record.

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A P P E A R A N C E S

FOR THE PLAINTIFF
MR. LARRY PARRISH
Parrish & Shaw
775 Ridge Lake Boulevard
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Memphis, Tennessee 38120
(901) 766-4388

FOR THE DEFENDANT
MR. MICHAEL R. ROSS
Tribble, Ross & Wagner
3355 West Alabama
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Houston, Texas 77098
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ALSO PRESENT
Ms. Lela Canter

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I N D E X

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P R O C E E D I N G S

(Beginning at 12:03 p.m.)

DENNIS G. HOOPER, M.D., Ph.D.,

having been first duly sworn, testified as follows:

EXAMINATION

BY MR. ROSS:

Q. Please state your name.

A. Dennis, middle name Glenn, G-l-e-n-n, Hooper, H-o-o-p-e-r.

Q. What is your profession?

A. I'm a pathologist and a microbiologist.

Q. And what is your professional address?

A. 4100 Fairway, F-a-i-r-w-a-y, Court, Number 600, Carrollton, Texas 75010.

Q. You're a medical doctor?

A. Yes.

Q. And do you hold a license from the State of Texas to practice medicine?

A. Yes.

Q. And it's my understanding that you and the Texas

Medical Board, there's -- there's an order or an agreed order affecting your license?
A. Yes.
Q. And -- so my understanding is that you -- you are permitted to practice clinical pathology, but prohibited from

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practicing anatomical -- anatomical pathology; is that correct?
A. I am -- if I practice anatomic, it has to be under supervision.
Q. I see. All right. And clinical pathology has to do with what?
A. It's the study of body fluids and of microbes, blood bank, urinalysis and chemistry, hematology, all those areas that don't have to do with looking at tissue or autopsy.
Q. And anatomical pathology has to do with what?
A. Anatomic has to do with autopsy review and tissue review and diagnosis of tissue, as well as looking at Pap smears.
Q. All right. My understanding of your license is that you can do lab work till the cows come home, but you are not to treat patients; is that -- is my understanding correct?
A. Well, pathologists don't treat patients anyway. I haven't treated patients since my internship in internal medicine.
Q. Okay. Well --
A. But we don't -- even if -- even if I wasn't under order, we don't treat patients.
Q. Okay. But -- but you are under order that prohibits you from treating patients?
A. I -- I don't recall that order. I see --

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Q. I'm just asking.
A. No, that -- that order doesn't say you can't treat patients. It says that you cannot practice anatomic path without supervision. And you can't have a physician's assistant working for you.
Q. Would anatomic pathology include treating a patient?
A. No.
Q. Would clinical pathology include treating a patient?
A. No.
Q. All right. My understanding of what you do is that you operate a lab and doctors send you work to do, lab work to do and you perform that and then give them the results; that's part of what you do?
A. Yeah, I don't operate the lab. I -- I'm the medical director of the lab. There's an operations officer, there's a CEO. And I oversee what the laboratory does for the doctors and their orders to look at clinical specimens.
Q. And those lab results are used by the treating doctor to help them in coming to a diagnosis?
A. That's correct.
Q. But you don't come to a diagnosis?
A. Not -- not with those lab tests.

Q. Well -- in -- in your work at all, since you don't treat patients, do you ever come to a diagnosis?
A. I don't come to a diagnosis. I review as a -- as a

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legal expert, medical/legal expert, I review other diagnoses and see if those physicians have the documentation that supports their diagnosis, and then I render an opinion as to if this is appropriate diagnosis that the doctors have made.
Q. I understand. And that's -- that's -- okay. In your -- well, you don't treat patients, correct?
A. That's correct.
Q. And since you don't treat patients, you don't come to a diagnosis about patients you don't -- because you're not treating them?
A. That's correct.
Q. Okay. But you're telling me you are called upon like in a -- such as this case, you're called upon sometimes to render a medical opinion; is that right?
A. That's correct.
Q. And in that context, you would review other doctors' medical records and even their diagnoses to see whether or not you agreed with it?
A. That's correct.
Q. Okay. Let's back up about your career.
Did you -- did you start practicing -- were you a Navy doctor?
A. Yes.
Q. And when did you start in the Navy?
A. I was a microbiologist from 1976 to 1979. And I was

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working on my Ph.D. out of UC Davis, University of California at Davis at -- as well as being stationed at San Diego Naval Hospital as a microbiologist. Applied to med school and got into my home state at Nevada. And went to Reno and started med school, finished my Ph.D. at UC Davis, which is near Sacramento and traveled back and forth for three years to complete my Ph.D. thesis at Davis. And finished my Ph.D. in 1982, graduated from UC Davis.
And then in 1983, I finished the M.D. and graduated from University of Nevada Reno. And then applied for internship. I was on a Navy scholarship during med school, so I applied for internship at Navy San Diego and got it as an internal medicine doctor. Because in the Navy, you can only go into internal medicine or something the first year so that you can be ready to go on a ship.
And then after that, you can apply for residency. If you are lucky enough to go on a ship, then you have to wait for your time on the ship before you can come back and do your residency.
I was selected early and allowed to stay in the residency program in pathology. And because I had finished my Ph.D., it was either going into infectious diseases or microbiology pathway through path. And I chose the latter and did my residency in pathology, finished in 1988, and became

staff at San Diego Naval Hospital in charge of microbiology.

And a year later, I was selected as chairman of pathology. And after much of gnashing of teeth that I didn't want this, I was either -- I was told, do you want to go to Guam, or do you want to be the chairman? And so I took the chairman. It sounded better than Guam.

So I took the chairmanship and I was chairman for five and a half years. And at that time, I was also specialty advisor to the surgeon general in pathology and I also was -- they moved me into this area called --

Q. Wait, wait. Stop, stop.

A. Okay.

Q. When -- when did you join the Navy?

A. I joined in 1976 as a master's degree in microbiology.

Q. And when did you obtain your M.D.?

A. 1983.

Q. And how long were you in the Navy -- well -- how long were you in the Navy?

A. I was in 25 years. And I'm retired now.

Q. Okay. So what is the highest rank that you achieved in the Navy?

A. Captain, which is the same as colonel in the Air Force. '06.

Q. Okay. A captain in the Navy is the same as a colonel in the Air Force?

A. Yes. Hard to understand, but it's true. A captain is the captain of a ship, and then commander is one under that, so --

Q. All right. So you were a Navy doctor for many years?

A. Too many. I was a -- I stayed in until I had been active duty for 16 years. And then I got out, stayed in the reserves for another nine, and then retired as a captain reservist.

Q. Okay. Was there some sort of allegation about theft that, you know -- some piece of equipment from the Navy?

A. Yes.

Q. What was that about?

A. When I was chairman -- as chairman, I was always delegated to make sure that we reviewed equipment and that we would get rid of equipment or we'd buy new equipment. And we would always have to recommend to two admirals whether or not we wanted this piece of equipment retired or purchased.

And I had -- we did a lot of flow cytometry work, which was looking at cells in leukemics and HIV patients. And there was this huge flow cytometer which became outdated and -- Becton, Dickinson had it and we returned it, it was under contract. We returned it to them and the paperwork all went through the proper procedures.

And I had an individual who was a disgruntled

employee who turned me and two of the senior officers in for stealing this piece of equipment. He said he had pictures of us -- actually, a semi-truck coming up to the back of the Naval hospital and we were putting this piece of machinery in our -- in this truck. He didn't have any pictures.

And it opened up an investigation that lasted two and a half years of -- of everything that I did. And I just got tired of that. And that's why I left the Navy as an active duty and went into the reserves. And --

Q. I see.

A. -- they found nothing wrong.

Q. Okay.

A. I didn't steal anything. I was not a crook.

Q. Okay. Well, let's talk about this.

You had a -- did you have a laboratory in the State of Nevada?

A. Yes.

Q. Was your license for that laboratory revoked by the State of Nevada in 1999?

A. Yes.

Q. And was it for misrepresentation of facts in obtaining CLIA certification and failure to allow inspection; was that the basis?

A. Yes. And -- first of all, I -- it wasn't just my lab, this was a group of doctors who had the lab. And I was

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the senior representative. But there is an explanation for that, but ---

Q. Go ahead. What's your explanation?

A. We had a pathologist who was the actual medical director. And I was one of the senior partners in this limited liability corporation. And she had -- we were CLIA certified for years.

Q. And let's say what CLIA is.

A. Clinical -- CLIA stands for Clinical Laboratory Improvement Act of 1988. They are the oversight -- overseers of laboratory services so that everybody has a standard laboratory throughout the country.

So if you go and get a test for clotting in this laboratory and you have it done across the street, they're the same. And so we have to abide by the same procedures, etcetera. And -- and CLIA reviews every two years.

And we had gone through a number of CLIA inspections. And the group had decided to go through the next higher-up group called College of American Pathology, which is the gold standard for laboratories.

And Dr. Manalo, who was our medical doctor, had informed people that she had applied to CAP -- College of American Pathology for this representation or certification. And then she left. She left in November. And I was the only

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Nevada licensed physician to pick up the pieces.

So I took -- I came in and picked up the

directorship and found out that she had not done anything for CAP and we had like three weeks left before we had to do it under federal guidelines.

So I self-reported to CLIA and I self-reported to CAP that there's no way that we could do it. And CLIA got very upset out of San Francisco and came over. And we had subsequently sold part of our lab and we had closed everything else by the time they came over, which was in January. I reported this in -- in early December. They came over in mid January and found that we had closed. And I had already sent them a letter saying we were closed.

And they got really upset. And because I was the medical doc director, they sanctioned Nevada Bioscience and said that -- that they could not bill Medicare or anything for two years and that I couldn't be a medical director of a lab for two years.

And so I wasn't working in the medical director area anyway, but not -- that was -- that was very upsetting to me because it wasn't my doing. But I was picking up the pieces of that mess. So that's the story.

Q. Okay. So then you began to practice as a pathologist in California at Martin Luther King, Jr. Hospital; is that correct?

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A. That's correct.

Q. In 2005, the California medical board found you guilty of negligence and incompetence; is that correct?

A. That's correct.

Q. And your license was revoked and you were put on five years probation; is that correct?

A. That's correct.

Q. And I have a note here with terms and conditions to be effective January 11, 2006.

What does that mean, that your probation period started in 2006?

A. Yes.

Q. And my information is that then the State of Nevada took action against your license in 2007 because you didn't report the California action?

A. No, I did report -- this is where I trusted attorneys. I trusted my attorney would report, self-report. And he said he would. And he reported 32 days instead of the 30 days. So Nevada got upset and they -- they sent me a letter, but because I had self-reported, they -- they didn't do anything about that letter, they just gave me a letter saying that.

And -- and I self-reported to Texas as well and told them what had transpired. And Texas gave me the same probation that California did. And Nevada did, too.

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And so since that time, Nevada's has run out because there's -- they -- they just had -- they didn't tie it to anything with California. And California's, I can't -- I can't deplete that until I move back there and work. So it

stays on the record.
And the way -- I -- I told Texas, you can write the order whatever way you want, which they would, but I said that I'm not going to do anatomic path forever and ever, amen, so you can -- you can write it the same as California did. So they -- they wrote it for California or in the same manner.
So the -- unless I go back to California and work for -- for -- I have to take courses and everything in anatomic path again, then that probation stays on and Texas stays on until California's is removed.
Q. So you're on a perpetual probation, it sounds like?
A. I know. I get to know the -- the lady who comes by every quarter and she -- she says, this is a dumb order. And I say, ma'am, we're just abiding by the rules, so --
Q. So what is the status of your Nevada license?
A. It -- I let it expire because I didn't practice in Nevada anymore. But they have written to me saying if I want to come back, all I do is reapply and --
Q. And the status of your California license is that you are on probation, and to get off probation, you have to actually practice in California under --

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A. Half time.
Q. Half time under supervision or some --
A. The only thing I have to do in California is if I read slides, I have to have those reviewed. I can work as a clinical pathologist all I want. But anatomic, I have to have those slides reviewed before I can sign them out.
Q. And -- and then what is the status of your Texas license, you are under this -- under probation as well?
A. That's right.
Q. And what can you do under the Texas license?
A. I can do clinical pathology, which is overseeing laboratories, looking at body fluids, microbiology, fungus, things like that.
Q. And what are you prohibited from doing?
A. I cannot read slides unless I'm supervised.
Q. Okay. All right.
A. Or do autopsies, which I don't -- I don't do those or windows anymore.
Q. Were you licensed, at one time, in the State of Wyoming?
A. Yes.
Q. And what's the status of that license?
A. I have let that lapse. Because if you've ever been to Wyoming, it's pretty boring. And I was in Jackson Hole. We had a lab there and there was -- it was very little to do

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unless you like to ski and almost kill yourself, so I let that lapse.
Q. Have you been licensed in any other state?
A. Yes, in Arizona.
Q. And what is the status of that license?
A. That, I let lapse because it was no -- I -- I was

doing that because I was filling in locum tenens -- that's l-o-c-u-m t-e-n-a-n-s (sic), I think. And that's filling in for pathologists in Yuma. And Yuma, Arizona it's not your garden space of America either, so I let that lapse after a while.

Q. Have you been licensed in other state?

A. No, that's enough.

Q. All right. Have you ever been excluded from testifying by a judge under a Daubert or Frye hearing? And you know what I mean when I talk about Daubert and Frye?

A. Yes, and 402 hearings --

Q. Yes.

A. -- yes. No, I have not ever been excluded. Nor has the data from Realtime Lab.

Q. Have you ever been sued for malpractice?

A. Yes.

Q. How many times?

A. Twice.

Q. Let's talk about each one. Tell me about the first one.

A. The first one was I was working at LabCorp as a locum tenens and I signed out a case of a benign nevus and I had it peer reviewed and they agreed. And two years later, the patient came back and was told -- they did a biopsy and -- and sent it to another lab and they said it was melanoma. So they called for the slides from -- that I had read and had peer reviewed and LabCorp couldn't find the slides.

So there was no discussion. I was covered under CNA Insurance and because LabCorp couldn't find the slides, they settled and then CNA settled for me. And it went on my record as slides could not be located for --

Q. Where was that case filed?

A. San Diego County.

Q. What was the name of the plaintiff?

A. Oh, I can't remember.

Q. What was the year that it was filed?

A. I think it was in 1990 somewhere. The early 1990s.

Q. Tell me about the other case.

A. There -- this was a case that was in Martin Luther King Hospital that was -- we got a biopsy of an endometrial curettage and -- which is scraping of the endometrium when the patient is bleeding a lot through menstrual cycles. And I found a -- a very significant sarcoid-looking lesion that I thought was malignant.

And I showed it around our department, which is the -- the way to do things, especially if it's abnormal. Had it peer reviewed. Sent that out to Armed Forces Institute of Pathology and to a place called Immunopath in Los Angeles. And they agreed with me that it was a sarcoid lesion. And I had called the pathology -- or the OB/GYN and told him, be extremely careful, do not do surgery until we get a final diagnosis. And I would strongly recommend that you re-biopsy

this patient because this is abnormal.
And instead, the surgeon, who was a resident, went into -- into this case unsupervised by his attending physician and took out the whole uterus of this 44-year-old black lady. And we got the uterus, we -- we looked at the entire -- we cut many, many blocks of this uterus and we couldn't find any tumor.
And so we -- there again, by -- I was head of quality assurance at that laboratory department and I instituted an investigation myself as to why this happened. And we discovered that in the histology department, which is the area that cuts the tissue, there was a mix-up of the blocks. And we couldn't track it.
And so we found that there was a brain tumor in the same run of patients and some of that floated from one -- one -- it sounds ridiculous, but it happens occasionally, but it happens more at King Hospital than anyplace else. It

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floated from one block to another. And in that block, there was a piece of brain tumor in the uterus block.
And so we reported that. And that was in 2000. And I reported it to quality assurance, to the risk management and said, this needs investigation. King Hospital did not investigate it at all. And didn't hear anything more.
I left -- I got a Texas license in 2001 and moved to Tyler, Texas as medical director there. And not until 2004 did I hear that there was an issue with this case.
And so I thought, well, obviously, they're going to see that this was investigated and -- and it wasn't. It was a systems error, it wasn't a pathologist error.
And so I -- I went to the medical boards and explained this and they said, well, we have five other cases and -- and none of cases were -- they were all peer reviewed as well.
But this one became a big issue with this -- the medical boards because not only was I investigated, but the surgeons and the hospital. And the hospital ultimately closed for a number of reasons. The patient sued the hospital, as well as me. I was dismissed because it was a systems problem and it was a hospital problem and the medical boards didn't want to hear that.
So -- so there I sit. I have a nice piece of paper of the dismissal of the case showing that they found

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that it was the histology department, but the medical boards would not reverse its decision on that case, so --

Q. When was that case filed?
A. I think it was filed in 2006.
Q. Where was it filed?
A. In Los Angeles County.
Q. Do you remember that patient's last name?
A. No. But it's --
Q. Do you remember the first name?
A. No. No, I can't remember them. I'm sorry. I try

and block those patients' names out. We -- we talk about them in pathology as the uterine tumor or the liver tumor.
Q. I understand.
A. It's strange, but that's how we work.
Q. Are you board certified?
A. Yes.
Q. What are you board certified in?
A. Anatomic and clinical pathology.
Q. And who has certified you?
A. American Board of Pathology. And I am board certified until the -- January of 2012. And then I don't know if I'm going to renew it or not.
Q. Okay.
A. I have to take another test.
Q. But again, that certification has --

A. Be -- it's been maintained.
Q. But it's in an area where you have no direct patient contact, correct? You don't treat patients under that certification?
A. Yeah, it -- American Board of Pathology, we don't treat -- we're not certified -- we're not boarded to treat patients, we're boarded in our expertise of -- of --
Q. Pathology?
A. -- the clinical laboratory or the anatomic pathology.
Q. Okay. Tell me about Realtime Labs. And what I'm looking for there is your present practice, who -- with whom do you practice?
A. Would you clarify that question?
Q. Are there other doctors at Realtime Laboratories here in Carrollton, Texas?
A. There's -- there's partners in the group. There's no other pathologists at the present time. There's Ph.D.s.
Q. Okay. Your -- are any of the other partners medical doctors?
A. Yes.
Q. How many?
A. Two others.
Q. And what are their specialties?
A. Dr. Bolton is an anesthesiologist and he's -- he

practices at the VA Hospital in Maine and in Virginia. And Frederick Guilford, G-u-i-l-f-o-r-d, is an M.D., ear, nose and throat doc and he practices in Palo Alto, California.
Q. So they don't really do work for Realtime Laboratories?
A. They're -- they're on the quality assurance boards, but they -- and they review all of our quality assurance records, but they don't -- they're not pathologists, so there's no reason for them to be in the laboratory. But they do review quality assurance.
Q. You're the only pathologist there?
A. That's right. In most laboratories, there's only

one. I.e., LabCorp or Quest, they only have one medical director.
Q. How many other folks work at Realtime Labs?
A. At the present time, six.
Q. And what are their positions?
A. We have a Ph.D. in microbiology, we have a med tech -- medical technologist, we have a molecular biologist, we have a vice president of molecular biology -- well, he's vice president of laboratory operations, but his degree is in molecular biology and he's been certified to -- to be a lab supervisor by CLIA. And we have a CEO and we have an MBA. And we have a CPA, a part-time CPA.
Q. Well, do you have any worker bees like clerks and

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secretaries and such --
A. Well, the MBA is --
Q. -- or are they --
A. Well, they're all lab techs. We all act as working in the labs. And we're all worker bees. We work very hard. The MBA is -- he is a -- acts as an office manager where he oversees all the patient records, billing, any communications between docs and the laboratory.
Q. Do you know Dr. Andrew Saxon?
A. Yes.
Q. Have you read the report that he's prepared in this case?
A. No.
Q. Do you know Bruce Kelman?
A. Yes.
Q. Have you read the report that he's prepared in this case?
A. No.
MR. PARRISH: Do we have that?
MR. ROSS: Yeah. It was all produced with our designation of experts.
Q. (BY MR. ROSS) At the request of Dr. Campbell, Realtime Laboratories did a mycotoxin panel report -- I guess that's what you call it -- on Cindy Hunter; is that correct?
A. If I could see that one.

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Q. Sure.
A. Yes, this is a copy of a mycotoxin panel report released by Realtime Lab on Mrs. Hunter.
MR. ROSS: Oh, let's go ahead and have this marked as Exhibit 1.
(Exhibit Number 1 marked.)
Q. (BY MR. ROSS) I see it says qualitative test results.
Are there qualitative test results and quantitative test results?
A. Yes.
Q. What are -- what's the difference? What is qualitative?
A. Qualitative means if -- if we have done our

validations to say what is -- what do we want to call as positive, what do we want to call as negative or present or not present. And so we have drawn lines with graphs that we have done in validations on a number of specimens, spike specimens that we have taken the mycotoxins and put in specific amounts of toxin into these body fluids and we have determined that our level -- our lowest level of detection of each of these toxins is a certain point of parts per billion.

And because of that, we can say if it's over that level of detection, it's present; if it's under that level, it's not present.

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Q. And so Realtime Lab was given a specimen of Cindy Hunter's urine; is that correct?

A. That is correct.

Q. And ran tests on that and here are the results in Exhibit 1, correct?

A. That's correct.

Q. And essentially what you're doing with this test is determining whether certain mycotoxins are present or not present; is that correct?

A. That's correct.

Q. All right. And so for tricothecenes, the determination is not present; is that correct?

A. That's correct.

Q. Okay. What are mycotoxins?

A. Well, mycotoxins are chemicals. That's the first criteria. And they are produced by fungi. And fungi are called -- the study of fungus is called mycology. Therefore, myco, fungus, toxins, toxins. So fungal toxins. And these are actual chemicals that are produced by the molds.

And a number one example of what a toxin is, a mycotoxin is penicillin. And penicillin was discovered because there was bacteria on the plate and then a mold was growing on it and it was inhibiting the bacteria around it. And they figured out, well, that must be poisonous to the bacteria.

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So they have subsequently identified thousands of mycotoxins that are produced by these different fungal species and the mycotoxins are produced for a reason. Not that these fungi have brains, but they can detect whether or not there's an individual -- or if there's another organism that is causing them problems. If there is, if they're taking that as a threat, they then will manufacture a toxin to kill the others. So --

Q. The fungus or the mold will do that?

A. The fungus or the mold will make this poison to kill other molds or other bacteria. And so that's why they're called mycotoxins. And subsequently, they've been found to be biohazards, they are used in bioterrorism, have been used in bioterrorism. They have been documented by the Department of Defense, which is one of the reasons I was very interested in them years ago, as a very detrimental chemical and can -- and

they are carcinogens and they are lethal.
Q. In sufficient quantities; is that true?
A. No. There is no documentation as to what the minimal amount is needed to cause a problem.
Q. Well, you mentioned possible use of -- in biological warfare?
A. Yes.
Q. And has there been studies on the use of mycotoxins in biological warfare?

A. Yes.
Q. Now, you said there's no studies or no information concerning the amount -- the dose, I guess, that would be necessary to cause a problem in the human. Did I understand --
A. No. No, I didn't say that. I said --
Q. What did you say?
A. -- there is no documented minimal amount. I know Dr. Saxon loves to say that you need a bucket load to hurt somebody. And he has no documentation to say that. He has no scientific literature as I have documented many times in -- in refuting Dr. Saxon's irresponsible statements to say that you need a -- a large amount of toxin.
If that's true -- and I have emphasized this to him many times -- why is it that we can go to Burger King or to Wendy's and eat a very small amount of toxin from a toxigenic E. coli and get severe diarrhea or get put in a hospital and the -- the amount of toxin in that hamburger is extremely small.
So he has no documentation and no proof to say that a minimal amount is not important.
Q. Okay. If I'm understanding you correctly, however, we -- we -- that is, the scientific community doesn't know what the minimum level is in general for the -- for the population; is that an accurate statement?

A. That's an accurate statement, but to say that minimal amount is not important is an inaccurate statement as -- just as inaccurate -- or just as accurate as that statement.
MR. ROSS: Okay. Object to the nonresponsive portion of the answer.
Q. (BY MR. ROSS) I want to hand you what we'll mark as Exhibit 2.
(Exhibit Number 2 marked.)
Q. (BY MR. ROSS) And ask if you can identify that document.
A. Yes.
Q. What is it?
A. This is an environmental testing mycotoxin panel on a specimen that was submitted from Water Street, Number 1230, in Jackson, Florida, or came from that area or came from that investigator. And it was on a sample of room labeled number ten. And it's aflatoxins -- that's a-f-l-a-t-o-x-i-n,

ochratoxin, o-c-h-r-a-t-o-x-i-n, and tricothecenes, t-r-i-c-o-t-h-e-c-e-n-e-s. And they -- and we give different levels.

Q. Okay. This -- this document shows that Realtime Laboratories did some environmental testing on a -- a bulk -- a bulk sample that -- is that --

A. We did mycotoxin testing.

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Q. Did mycotoxins testing on a bulk sample?

A. Yes, we did.

Q. All right. And this -- it says, customer, Parrish/Hunter, that's attorney Parrish and Cindy Hunter?

A. That's correct.

Q. Okay. And so -- so this was done on a bulk sample taken from Ms. Hunter's office, was it not, or do you know?

A. This came with the chain of custody format that was labeled a number of specimens. Number ten is the one that was requested of us and it gave a description as to where -- where it came from. And it came from where it says on that form, a wall. And then referred to the chain of custody form.

Q. And it came from Jackson, Florida which is probably Richard Lipsey.

Do you know Richard Lipsey?

A. I know of him, yes.

Q. Okay. And the results as to aflatoxins show they were not present; is that correct?

A. That is correct.

Q. Whereas the test on Cindy Hunter shows aflatoxins are present, correct?

A. That is correct.

Q. Can we conclude from that that -- well, let me back up.

A person can have aflatoxins from ingesting

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food; is that an accurate statement?

A. I don't have evidence to show that, nor do I see any literature that states specifically that a level of aflatoxin is specifically caused by the ingestion of food. There's been a number of studies that show that if a patient eats corn products, that they can have -- and corn products have aflatoxin -- that their levels of urine are negative. And the CDC did that study.

They also found that patients who ate no corn products also had levels of aflatoxin present in their urine.

Q. And so the -- we wouldn't know where they -- we wouldn't know that they didn't get it from the corn product because they didn't eat the corn product, but we don't know where they got it?

A. We have anecdotal reviews of our -- of the medical literature of our patients that have come through Realtime Labs that we've looked at the medical data. And we have seen that -- especially autistic children are on a very extreme modified diet of no corn products or very little corn products, they have no -- they don't drink coffee, which

ochratoxin has -- they don't eat peanuts or peanut butter because that's where aflatoxins come from and these kids have aflatoxin and ochratoxin in their urine.

They also have a history of sinusitis. And when you culture their gut, their -- their stools, you find

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aspergillus or yeast in their gut.

So the theory that a patient gets these toxins only from food is a little bit -- no, it's very naive and has not been reviewed specifically by Dr. Saxon, Kelman, etcetera and to say -- to be able to say that.

We took, in our validations as well, we reviewed 54 patients who had no history of exposure, abnormal exposure in -- in walls or sick buildings. They had no history of symptoms as described by CDC. And when we reviewed their urines or their nasal secretions or tissues from autopsy specimens, we found no aflatoxin. We found no ochratoxin. We found no tricothecenes. Yet they ate normal amounts of peanut butter, they love to eat the peanuts and they ate corn flakes and they ate every kind of corn product that you could think of. They can process those toxins. And they can stop the -- the toxins from acting the way they do on some of these other patients.

So this is -- this is -- what we have -- or we have observed, as well as what clinicians have observed that we -- we see, that these patients do not eat -- they're very modified in their diets and they still have the toxins present.

Q. That's going to trigger a number of questions, but --

A. It usually does.

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Q. Well, first, with regard to Cindy Hunter, she has -- the sample from her office shows no -- let me see if I'm saying this right.

The sample from her office shows aflatoxin not present, yet the -- the test result from her is aflatoxin is present, and so from that, can we conclude that whatever the source of aflatoxin present in Cindy Hunter, it did not come from her office?

A. No, I can't conclude that. I can conclude that there's a high possibility that it did not -- did not come from specimen number ten.

Q. Okay.

A. But I cannot say that it -- and I can't even say that for sure because I don't know how much of a sample that was sampled, but I can say that in the sample that we received at Realtime Lab, there was no -- or there was -- let's see -- there was no aflatoxin present in that sample.

Q. Okay. Did you test any other environmental samples?

A. No.

Q. I want to talk to you about -- you mentioned autistic children and autistic children -- you're saying they have these various mycotoxins and they have symptoms like

runny nose and -- I don't know what you said about their bellies, gastro -- tummy problems?

A. Yeah. Very good.

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Q. And -- gastroenterology, I guess, is the word.

A. Yes. Gastrointestinal.

Q. Yes. And yet, if I'm understanding you, you're saying because they're autistic, they are -- they don't -- they're not given -- they don't eat peanuts or peanut butter that have some aflatoxins in it and they don't eat corn or grain products because they have mycotoxins in it, they're kept from that.

A. Let me clarify what you just said. Because we have reviewed 19 autistic children in our laboratory, which is not a lot. And we've looked at their diets, we've looked at their activities and their specimens, stool specimens, we've got laboratory reports from other labs and taken all that and looked at it. We found that these -- and then looked at their history.

And the mothers protect these children extremely well, which is totally understandable, that they watch what they eat because there's a fear that this is environmental and they've been told so many things. And we are not saying that mycotoxins are the only thing that is an issue here, we are saying that what we have found in these autistic children is ochratoxin and aflatoxin specifically in these children's urine.

When you look back at their history, they have -- 95 percent of each of those children or all those

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children have had a history of an ear infection within the first three to five months of their life. And they -- they were treated and they may or may not have got better just with antibiotics.

They also are severely constipated and -- and they react in different ways mentally. I have gone to autistic meetings where I've seen these children who are at the spectrum -- at all ends of the spectrum and are treated with antifungals and with glutathione and with B-12 folate and they get -- they improve.

And they can -- I've seen the films where these kids are beating themselves up or banging themselves on the wall or doing things that are -- you know, would frustrate themselves as well as their parents, and yet after they're treated by some of these docs with this stuff, they improve. And they can actually sit and read a book to the -- these kids.

Now, they're not totally better. Because if they don't continue treating them with antifungals and glutathione, they -- they fall back.

So what is causing all this, I don't know. But I do know that these kids are very well controlled in their diet.

Q. And so the source of the aflatoxins and ochratoxin

apparently is not their diet, it's something else?

A. I believe that's true. And I believe it's due to the sinus problems or the gut problems they have with their organisms growing.

Q. I don't understand. What's due to their --

A. They all have a sinus problem or colds, a drippy nose --

Q. Yes.

A. -- or ear infection. And when you culture those, oftentimes they have an aspergillus growing in their sinuses.

Q. I see.

A. When you culture their stools, they have a yeast or an aspergillus growing in their stools. Ninety percent of their -- their flora in their gut is due to a yeast or a fungus. We all have normal bacteria hopefully, knock on wood. So --

Q. Well --

A. But these are all anecdotal things, we have not published that.

Q. What is glutathione? Do they have a glutathione deficiency?

A. Yes.

Q. What is glutathione?

A. Okay. If you have a normal cell, all of us in this room have glutathione present in every cell. We need glutathione. And what it does, it's a -- it's a reduction oxidation potential where it -- it acts like a Pac-Man where it hands off hydrogen from glucose to another product.

So in the glucose pathway, in order for us to break down glucose, we have to have glutathione in these pathways. In biochemistry, we learned about glutathione in med school. We all said, okay, I -- I hope we pass the test with that. So we learned that.

Then we find out that when we go and treat a patient with Tylenol overdose in the I -- in the intensive care unit, we give them something called N, dash, acetyl, a-c-e-t-y-l, N-acetyl cysteine, c-y-s-t-e-i-n-e. N-acetyl cysteine. If you go to any biochemistry book, that's glutathione. So when we're treating a toxic overdose of a drug in the ICU, we're using glutathione. But we call it N-acetyl cysteine. Okay. Or NAC, they call it, N-A-C.

So the docs will use an NAC product. If -- if you can get rid of the toxins with NAC or glutathione, the patients improve. The reason that the glutathione is deficient -- and this is my theory again, but it's a strong theory -- in all of the kids that we've looked at that are autistic and every patient that is -- a problem with molds that has effect to the mycotoxins, they're all deficient in glutathione. And they're deficient in a gene sequence called glutathione transferase. And that's been published --

MR. PARRISH: Spell the transferase.

A. Transferase, t-r-a-n-s-f-e-r-a-s-e. I was never good at spell -- spelling contests, but I've learned to do that in depositions now, sound it out.

So these guys are -- are deficient in one or both genes of glutathione transferase. And every patient that has been -- not every patient has -- like in Hunter, she hasn't had this test that I know of. But others that I have looked at in medical record reviews that have had that test and that are mold -- are mycotoxin patient, they're deficient in one or both of those genes. And the autistic kids all are.

And this is documented in the literature. Glutathione transferase is a deficiency in chronically lymphocytic leukemias and patients who have bladder cancers, they all have that deficiency of the glutathione transferase.

So it's not something I have just thought of. I wish I would have thought of it because it's a -- it's a great find. But it's something that can't be refuted because it's in the literature in peer-reviewed journals that a deficiency of this magnitude can cause problems.

Q. Okay. And treating an autistic child, giving them glutathione improves their symptoms? When I say --

A. The ones I have seen, yes. And I haven't seen a large amount.

Q. But this is anecdotal, we -- you don't have tests and so forth?

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A. I do not, no.

Q. Getting back to Cindy Hunter, you agree that it's very unlikely that Cindy Hunter's aflatoxin came from the sample that you tested which is number ten, I think?

A. It is unlikely on the piece of sample that I got that aflatoxin is present.

Q. But aflatoxin is found in -- in peanuts, is it not, peanuts and peanut butter?

A. Yes.

Q. And other foods such as corn or grains?

A. Yes.

Q. Okay. And ochratoxins are also present in grain products and red wine and coffee?

A. Yes.

Q. Well, then, I see Mrs. Hunter -- Mrs. Hunter's results were present for ochratoxin, could one possibility be that she has ochratoxin positive or present in this test because she ingested wine or coffee or some grain product?

A. That is a probability. I would say it's a low probability, but -- because of my studies on -- on normal patients, but it is a probability. We cannot rule that out. But because we found ochratoxin in the -- in the sample present, in the number ten specimen, I cannot rule out that it did not come from there either.

Q. You can't rule it out from the sample, you can't

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rule it out from the fluid, it could be either?

A. Yes.

Q. Okay. And in your -- in your -- your -- in the Realtime report, Exhibit 1 relating to Mrs. Hunter, you have limit of detection for ochratoxin, two parts per billion and aflatoxin, one part per billion; is that correct?
A. Yes.
Q. Now, as I understand your testimony, that's just a line or a level that you draw -- if it's above that, you say it's present; if it's below that, you say it's not present?
A. That's correct.
Q. So is there -- well, I guess I should say it this way: There is not, is there, a reference range relating to the amount of ochratoxin or aflatoxin that's -- would be considered dangerous or abnormal or high -- is there a reference range?
A. Realtime Lab is about the only laboratory at the present time that can have enough data to say that any -- any mycotoxin isolated from a patient is detrimental. And --
Q. Let me stop you there.
A. Okay.
Q. Any -- any level is detrimental?
A. Any level that we can detect.
Q. Present is detrimental is what you're saying?
A. That's -- we believe that you should not -- if

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you're normal, by looking at our normal patients that we looked at in our validations, any level of mycotoxin present is not -- not good. I'll give you another --
Q. Would -- would -- I guess like you're saying ochratoxin is -- can be -- coffee can produce or -- or if somebody drinks coffee, it could result in a test of present ochratoxin in an individual?
A. It's a possibility, yes.
Q. A lot of people drink coffee. Do a lot of people have ochratoxins present?
A. No.
Q. Okay. Why is that?
A. I believe they have the glutathione transferase genes able to allow -- or disallow the mycotoxins from entering the cells. And so the --
Q. Does that -- is that having to do with the immune system?
A. Yes.
Q. Are you an immunologist?
A. No, but we study immunology and we -- we work with flow cytometry, we identify lymphocytes and we also work with a -- different types of diseases of the immune system, HIV. We're the ones who diagnose HIV. Or not diagnose, but we're the ones who do the testing for HIV. So we can opine on what happens in the immune system in disease states.

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Q. Well, somebody with HIV -- that's HIV positive -- or I mean, AIDS, the very acronym means acquired immune deficiency syndrome, does it not?
A. Correct.

Q. So a person that has AIDS, almost by definition, has lower defenses to various diseases because their immune -- their immune system is deficient?
A. That's correct. And AIDS is probably not the best example to use, but there are other patients who have their immune system changed by their lymphocyte subpopulations, which there are many, and the mycotoxins can affect the different subpopulations of lymphocytes. And that's documented in the literature as well.
Q. Getting back to the range, you said Realtime Laboratories is the only one that has a -- have you established a range for aflatoxins, or is it this two parts per billion and so forth that you have?
A. That's our level of detection.
Q. That's your level of detection, but -- okay. But there's no one else, no government agency, no learned body, no peer review literature that establishes a range for aflatoxins in the human body?
A. The USDA gives you a range for how much is allowed in food. We have knowledge of a number of peer-reviewed papers that are coming out of universities that look at the

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levels of toxins in animals and humans and they use levels of detection very similar to Realtime Labs.
Q. Well, the -- the FDA or USDA, they're establishing levels, for example, for peanut butter --
A. That's right.
Q. -- for human consumption or they're establishing levels in grain or whatnot for animal feed; is that correct?
A. That's right.
Q. But aside from -- aside from that, is there any agency, learned body, peer-reviewed literature that says -- that establishes a range for -- for example, for aflatoxin or ochratoxin -- for example, sugar in the body, I mean, a person is diabetic and they have sugar in the body, it's -- there's a range. If it's -- the level of sugar that's in a person's body, if it's over a certain level, that's bad; if it's under a certain level, that's bad; if it's within that range, it's okay.
Is there anything similar to that for ochratoxins or aflatoxins?
A. These -- these levels, if it's over a certain range, it's bad; if it's under a certain range, it's not bad. It's not -- this is not diagnostic as is a glucose level. It's not diagnostic of diabetes. It just says your glucose is high.
Q. Right.
A. It's all the clinicians' review of everything. Now,

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there are papers -- and I brought those with me to talk about -- there's -- there's a peer review journal in 2009 that talks about the immune response among patients exposed to molds. And then there's also one that was written in 2010, fungal exposure endocrine problems in patients with sinus problems that cause growth hormone deficiency. Which then, if

you have a growth hormone deficiency, you have an immune deficiency.

So -- and those are published in very reputable journals, Allergy and Internal -- International Journal of Molecular Science and Toxicology and Industrial Health. So I brought that. You could use that as an exhibit if you'd like, but --

Q. I'm sure Mr. Parrish will ask you about this. He's nodding yes, so I'm going to -- I will defer for now. I may have some questions after he's asked you questions.

MR. PARRISH: You can have that so you'll have it when I ask questions about it.

MR. ROSS: Okay. So I can ask questions about it. I can have this sheet of paper. Okay.

Q. (BY MR. ROSS) Now, what is the method -- or I should say -- let me rephrase that question.

When you tested Ms. Hunter's urine for the presence of tricothocenes, aflatoxins and ochratoxins --

A. Yes.

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Q. -- the technology you used is ELISA; is that correct?

A. ELISA. Those are all capital letters, E-L-I-S-A. And that stands for enzyme-linked immunosorbent assay.

Q. And you wrote an article about mycotoxin tests in the Journal of Molecular Science 2009?

A. Yes.

Q. Is that an Open Access journal?

A. Yes.

Q. That means you pay them some money and they print your article?

A. No.

Q. What does it mean?

A. It's no different than -- I know Dr. Saxon believes that Open Access is not a reasonable way to publish, but about 70 percent of all medical journals are now Open Access and every journal you must pay something. And if I recall, we didn't pay anything for this because it was such an accepted journal. But an Open Access is just -- it's on PubMed, Publication Medicus, and it's accepted, so --

Q. Was your article peer reviewed?

A. Yes.

Q. Do you know who peer reviewed it?

A. No.

Q. Do you know how many doctors peer reviewed it?

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A. No. And anybody who does that -- if Dr. Saxon says that you should have so many, which I have heard him say, then he is not ethical. Because you cannot use -- you cannot know who your peer -- peers are who review your journal.

Q. I thought you paid about $600 to have that article published.

A. That may have been. I don't remember. Do you have evidence to show that?

Q. Well, I'm not -- I believe you testified that way in another deposition and I'll -- I just don't want to dig it out right now. I'll dig it out later when I start walking through that --
A. I don't recall if we paid anything or if we didn't, but --
Q. Okay.
A. But other people, especially if Dr. Saxon publishes on his non scientific papers, he certainly does -- I would -- I would assume he would pay.
Q. What is the -- do medical journals have an impact factor?
A. I have no idea.
Q. Okay. Did you publish data for validation of your mycotoxin ELISA in your paper?
A. Yes.
Q. Well, you would agree that data would need to be in

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the paper in order to be evaluated by other medical professionals?
A. Yes. Are you implying it isn't? Is Dr. Saxon implying it isn't?
Q. I'm -- I'm asking you whether there -- you had -- what data did you have?
A. I had the ELISAs and we also had a -- the procedure that we did at that time, an immunoaffinity column.
Q. So you're saying there is data for independent analysis of the tricothecene assay --
A. Yes.
Q. -- in your paper?
Did you publish information about the ELISA test for aflatoxins and ochratoxins in that paper?
A. No, we -- we published on the immunoaffinity column, and we have had that -- the ELISA test reviewed by CLIA and they have sent that review to Medicare offices in Baltimore as they stated to us -- and they sent it on to CDC as well. And they review those and if they don't like them, it would be just like the IRS, they'd come and say, we -- we don't like this. If they do like them, they don't ever pat you on the back and say, attaboy, they just let you keep going.
So we've had our validations reviewed three times by CLIA and all those government agencies. And last Friday, we just had the College of American Pathology come in

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and do a very thorough investigation at our request for certification through CAP and they reviewed our validations as well and found no deficiencies.
Q. Is that printed or published somewhere?
A. It just happened last Friday, so it will be.
Q. And -- and the previous ones, were they published or printed somewhere?
A. In order to get CLIA certification, the only way that you know that your laboratory is doing well is you have your CLIA registration certificate. And you have -- we have

a --
Q. Well, let me just ask you this: Are you saying that the CLIA folks have reviewed your validation procedures relating to ELISA relating to tests in urine for tricothocenes, aflatoxins and ochratoxins?
A. That is correct.
Q. And you're still CLIA certified or whatever name it is?
A. That's correct. And now we're CAP certified.
Q. CAP being?
A. College of American Pathology.
Q. All right. And, again, all that is published somewhere that can be reviewed?
A. What, the validations?
Q. Yes, by the -- CLIA.

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A. CLIA comes in to look at our procedures.
Q. I understand that. Do they write anything up where somebody could read it?
A. They give us a statement saying, these are your deficiencies in your laboratory or these -- and -- or you pass. And -- and in their checklist, they have validations as one of their checklists, the criteria and they review those criteria. And if they find everything right, they just say, move on. If they find a deficiency, they cite it as a -- a deficiency against a statute in the federal government.
And we have never been cited by a statute in that -- and then we were just inspected in December of this year and we -- we have one deficiency and that was that we sent things to our reference lab if we -- if we want to do bacteriology, we send things to LabCorp Dallas.
And the statute in CLIA says you must say LabCorp, Willow Street -- 3856 Willow Street, Dallas. So we had to change our procedure to say that it's -- the complete address, just not Dallas. That was our only deficiency after three days of review.
Q. Have you only done the one test on -- on Cindy Hunter?
A. Yes.
Q. Would the results be more reliable if you ran multiple tests?

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A. Would you clarify that?
Q. Should you --
A. More reliable means what and more tests on what?
Q. Well, you -- you tested Mrs. Cindy Hunter's urine for the presence of aflatoxin, ochratoxin and tricothecene, but you only tested once, correct?
A. Yes.
Q. Would good laboratory practice suggest that you should run the tests more than once?
A. Only if the doctor has ordered it.
Q. Well, sure.
A. Good laboratory practice doesn't -- if your controls

and your standards are in -- within guidelines of your procedures, then you don't repeat it. That's normal laboratory practice.

Q. You would only repeat it if the doctor requested it or ordered it?

A. Yes.

Q. And --

A. And what we do now is we strongly suggest to the clinician that as they follow in treatment, that -- that the patient have a retest in a month to two months. Because what we have found is -- and what we have seen in these patients is that as they are treated, the amount of mycotoxins goes up in their urine so they're -- they're leaving their body.

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And that may explain, in my opinion, why her tricothecenes were negative at first. I don't know if she's -- she's not had another test, but we do know of patients that have had tricothecenes found in the house, they cannot find stachybotrys, we find no tricothecenes in their urine, but we find these other toxins, the docs start treating, and as they do treat, we find that the toxins, all the levels increase, including tricothecenes and start to show up. And then -- then they taper off as the patient is treated and -- and improves.

So the fact that she has no tricothecenes present, if she had been treated, there's a great possibility that the tricothecenes would be present in her urine later. We don't have any evidence to show that. But we do have patients who -- who have seen that -- we've seen that in -- before, same scenario.

Q. I understand. And is the treatment directed toward eliminating mold in the person's body as opposed to directly eliminating the mycotoxins?

A. The majority of clinicians that we receive specimens from use a gamut of things. They use the antifungals and they use glutathione, they use cholestyramine, c-h-o-l-e-s-t-y-r-a-m-i-n-e. And that's to absorb the toxins in the gut. And then they use B-12 folate. And they use a number of amino acids to rebuild the patient's immune system.

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So what -- what actually helps them, I don't know. I do know that they use the full gamut of things. Would we be able to take a break?

MR. ROSS: Absolutely. Anytime you want to take a break, just speak up. Let's take a break.

(Recess from 1:25 to 1:40 p.m.)

MR. ROSS: All right. Well, are we back on the record?

THE REPORTER: Yes.

Q. (BY MR. ROSS) We took a short break. Are you ready to proceed?

A. I am.

Q. Would you agree or disagree with the American College of Occupational and Environmental Medicine, the World

Health Organization, the American Academy of Allergy, Asthma and Immunology and the Institute of Medicine that despite voluminous literature on the subject, the causal association between inhalation of mold and health problems remains weak particularly relating to mycotoxins?

A. No.

Q. You do not agree with that?

A. I can explain why.

Q. I'm sure your lawyer will get into that.

A. Okay.

Q. Oh, well, why don't I ask you. Why?

A. Yeah, why not. All those papers were written by knowledgeable people back in the early to mid 2000s. They were all written on molds with very little, if any, statement as to the mycotoxins.

Since those papers were written, mycotoxins have been a -- published in a huge amount of articles. The subject of mycotoxins, I guess, is a better way -- and they have been published in the molecular literature, the environmental literature and in the medical literature. That is not to say that those papers were not well thought out by individuals like Saxon, etcetera, but they were -- they're antiquated now, they're not up to date. And I don't know the reasons why they wrote those and I review those all the time.

And I believe they did that in all sincerity at the time, whether or not -- whatever drove them to say that, I don't know. But it's out of date. It's extremely out of date now. And those individuals need to update their -- their profiles.

Q. Have mycotoxin immunoassays been validated for environmental testing?

A. In our laboratory, yes.

Q. And when you say in your laboratory, is that because CLIA has -- whatever -- reviewed you; is that why you say that?

A. We do -- we do that because we validate every test.

But environmental testing in general doesn't need to be validated.

Q. Okay.

A. There is no regulatory oversight of environmental testing. And I say that with clarification. Because if you -- on the mycotoxin area, there is no oversight. In fungal cultures and bacterial cultures on environmental, there is oversight by different agencies.

Q. Say that again.

A. In bacterial and fungal cultures --

Q. Oh, I -- I --

A. -- there is oversight in the environmental areas. In the environmental laboratories.

Q. Is there any peer-reviewed literature that inhaled mycotoxins cause neuromuscular problems?

A. There are -- there is recent literature that I

brought today to show that mycotoxins and/or molds in sick building syndrome and sick buildings do cause a large amount of clinical symptoms. One of them could be fatigue and muscle issues.

Q. Well, you said and/or mold. I mean, mold and mycotoxins are two different things, aren't they?

A. Yes.

Q. Okay.

A. Yeah. And I brought a number of papers that show

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one or the other in -- in -- depending on who you read, which one. And these are all published since 2008. Most of them in 2010 and 2011.

Q. Is there any peer-reviewed literature that says inhalation exposure to mycotoxin causes sore throat or hoarseness or cough at levels that would be encountered in an office environment?

A. With all that, no.

Q. Okay. I have a three- or four-page list of researchers that have come to the conclusion of exposure to mycotoxins in an office environment or school or residence don't cause adverse effects in the occupants, but these are dated 2000 through maybe 2004.

A. Uh-huh.

Q. Are you going to tell me those are -- what you told me earlier, those are essentially --

A. Those are outdated --

Q. They may have been correct when written based on the information available, but in your opinion now, they're outdated?

A. I believe that's true. And Dr. Petska, P-e-t-s-k-a, at Michigan State is at the forefront of his -- in his publications on what these toxins do intracellular to cause neurologic problems, to cause problems in the cells in the lungs and the respiratory epithelium. So -- and he's

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published significant amount even before that. But since that, he's published an extreme amount of material.

And Straus has published on the environmental side and then many others which I brought have published since that time.

Q. Okay. Is dose response an important concept in dealing with toxins?

A. Dose response is a very important concept in dealing with toxins. However, when you look at dose response of E. coli enterotoxin in -- coming from hamburger meat, how much is needed to cause the patient to go into -- into the intensive care unit, how much is required in the body? But we know it's caused by an enterotoxigenic E. coli.

Same thing with mold toxins. Same thing with Tylenol overdose. How much is actually needed in a patient to cause that toxigenic overdose?

Q. Well, but Mrs. Hunter is not suffering from E. coli problems, is she?

A. No, but you can relate that to the same thing is how much is -- you're asking how much is required to cause a problem in a -- in a patient. We don't know. We don't know that in E. coli, we don't know that in Tylenol. We don't know that -- we do know if we measure Tylenol in the blood and it's high, they're probably going to be in the overdose stage.
But on bacterial toxins, we don't know. We

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just know they cause problems. Fungal toxins, same thing.
Q. But you don't know --
A. How much.
Q. -- the amount and you don't know specifically the amount in -- in Cindy Hunter that would be required to cause problems?
A. That is correct. All I know is that we found it.
Q. Which is what you were engaged to do?
A. Correct.
Q. Incidentally, how much are you being paid for your time in deposition?
A. I receive $450 an hour for prep and for depo time.
MR. ROSS: Off the record.
(Off the record from 1:50 to 1:51 p.m.)
Q. (BY MR. ROSS) Do you have any information available to you one way or another whether Mrs. Hunter had some symptoms before she was exposed to mold?
A. I don't believe so.
Q. So you don't know one way or the other?
A. No.
Q. That's a correct statement?
A. That is a correct statement.
Q. Could there be alternate causes for some of the health effects which Mrs. Hunter is claiming?
A. There's a possibility.

0060

Q. Okay. For example, if I told you she was involved in a motor vehicle accident in April of 2005 and sustained whiplash and reported neck tightness and tingling in the fingers, could it be that the involvement in the motor vehicle accident is something that caused her tingling as opposed to exposure to mycotoxins?
A. Well, as you and I have discussed, it's not my position to diagnose, but I saw nothing in any of the medical charts or records to indicate that the clinician or -- or people who evaluated Mrs. Hunter thought that that was an issue.
Q. And I just want to clear up that part again. Your -- your position is not -- in this process, is not to diagnose, correct?
A. Correct.
Q. What is your --
A. My position is to evaluate the medical records, evaluate the environmental records, evaluate the testing and make a correlation between the symptoms, the findings and the clinical evaluation and the environment and can I draw some

conclusions that are high degree of medical certainty that all these things are related.

Q. So you're not diagnosing, but you are reaching a medical opinion?

A. Correct.

Q. The AflaTest, a-f-l-a-t-e-s-t, by VICAM, Inc., are you familiar with that?

A. Yes.

Q. Okay. And is that the test you used to test the levels of aflatoxin in Mrs. Hunter?

A. No.

Q. Okay. In reaching your -- your opinions, which I'm sure Mr. Parrish is going to ask you about, did you -- did you rely on a report from neuropsychologist Nancy Didriksen?

A. Yes.

Q. But you would agree she has -- she's -- she holds a Ph.D., she is not -- she's not a toxicologist, is she?

A. No.

Q. She's not an industrial hygienist, is she?

A. No.

Q. She's not an immunologist, is she?

A. No.

Q. She holds a Ph.D. and is a neuropsychologist?

A. That's correct.

Q. I'm going to read a series of statements and see whether you agree or disagree.

Mycotoxin immunoassays have not been validated for environmental testing and, therefore, are not useful in determining whether exposure to a chemical has caused an injury.

Do you agree or disagree?

A. I disagree.

Q. All right. Detected levels of -- the detected levels of mycotoxins from surface samples cannot be extrapolated to airborne exposure. You may not have an opinion one way or the other.

A. I don't have -- you're right, I don't have an opinion because I -- I have not done studies on that. And -- nor have I seen -- I've seen Straus' studies on airborne mycotoxins in dust, which are significant -- there are significant findings. I don't recall them being any correlation with -- with surface mycotoxins. But I don't know what that would -- what correlation would be necessary anyway.

Q. And in your test of Mrs. Hunter's urine, determining present or not present, you're looking for the actual mycotoxin, you're not looking for an antibody; is that correct?

A. That is correct.

Q. Aren't you glad to see me flipping these pages?

A. Yes. I'm extremely glad. Keep flipping.

Q. Is it true that aflatoxin would not be expected to be in an indoor environment because it is -- aflatoxin is not

produced by molds growing on building materials, or do you have an opinion one way or the other on that?
A. I have an opinion on that, and that's absolutely not

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true. Aspergillus flavus produces aflatoxin and -- and can produce ochratoxin -- but mostly aflatoxin and has been found on building materials and on drywall in homes where it's exposed.
Q. Okay. You have some peer review literature that says that?
A. Yes. And the -- we have the ERMI test -- the ERMI is E-R-M-I, capital letters, and that's Environmental Readiness Mold Index. And that's established by the EPA. And they can do 34 different DNA tests on an environmental sample. They find flavus. And when we find -- when they find flavus, we find aflatoxin. And it is documented that aflatoxin is produced by flavus. F-l-a-v-u-s.
Q. Patents, have you applied for a patent?
A. Yes. Many.
Q. From Realtime Labs?
A. No.
Q. No?
A. From Medical Service Consultation International.
Q. Oh. Does that own Realtime Labs?
A. Yes, it does.
Q. Okay. Well, have you applied for patents relating to the tests that you used to determine whether mycotoxins are present or not present from testing a patient's urine?
A. Yes.

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Q. And what is the status of that patent that --
A. It's gone back and forth with the patent reader. And we met with -- we went to Washington in June of this year to meet with them. And she had no other issues and she -- according to my attorney at Barnes & Thornburg -- our attorney, that it -- unless she comes up with some other issue, it will probably issue in September.
Q. Okay. Right now, it's --
A. It's a utility patent that --
Q. -- utility patent -- what's a utility patent?
A. When you first write a patent, you file it under provisional. So you write it, you file it and that's the date that it -- it's activated. And so we activated it in 2006. And then you have a year to modify it or change it and then you submit it exactly that year and it's called a utility patent after that.
It sits in the U.S. patent office, the U.S. PTO for 18 months before the reader even gets to it. So the middle of '08 is when the reader got to it. It published in '08. And then the reader reads it and either rejects or accepts some of the claims. And there are claims that are called specific claims and non specific claims. I think those are the terms you use. Or dependent and independent claims. That's what it is.

And when you do independent claims, you want to make sure that they're broad enough to cover everything. And our independent claims, for the most part, have been accepted. Now we're -- we're working on the dependent claims.

And it's very difficult because it's talking legal gibberish in the most part. But we've got down to one claim. One last claim that I want in there before she issues it. And so that's what I went to Washington for. You usually don't have to go to Washington to talk with them. But I wanted to talk with her. And so I -- we -- our attorneys went and I went and we discussed what this claim is and --

Q. Is the reader an attorney?

A. She's an attorney and she's a molecular biologist and a microbiologist.

Q. As she reviews the patent, is she -- or a patent application, is she looking to see whether somebody else already has something like that filed?

A. Oh, yes.

Q. Is she passing judgment on the validity of your tests?

A. Yes. She looks at the validations, she looks at everything. She looks at -- it's just horrible. It's tortuous. Anybody who says working with a patent is easy is either foolish or a liar. Or both.

Q. Is there any lab other than Realtime Lab that validates tests for the presence of mycotoxins in human urine?

A. On the -- for commercial reasons, no. But there are universities that perform these tests for research validations and that is Case Western. Vanderbilt did the tricothecenes, filed a patent on that as well after ours. And CDC does -- does something. We don't know what CDC does yet, but we're trying to find out.

Q. Are --

MR. PARRISH: I don't think we've had -- what you mean by CDC.

A. Oh, Center for Disease Control in Atlanta. And I do know that Dr. Groopman -- G-r-o-o-p-m-a-n -- has done significant work on the aflatoxins in patients since the 1980s looking at urine with the immunoaffinity columns. To my knowledge, he hasn't used the ELISA technique.

Q. (BY MR. ROSS) What percentage of your cases, if that's the right term, are involved in litigation?

A. Oh. Maybe one percent.

Q. Okay. Have -- had you been involved with -- in other legal cases with -- involving attorney Larry Parrish?

A. Yes.

Q. How many?

A. At the present time, we've completed one and there's one that I was notified about that I don't know where -- where it's standing in Tennessee right now. And that's the only one.

Q. So there have only been three, this one and the two you just --
A. To my recollection, yes.
Q. Are there any peer-reviewed articles that validates the mycotoxin tests in human urine?
A. Ours, yes.
Q. Well, your literature. Other than your article, is there any other peer-reviewed literature?
A. The Groopman papers talk -- they discuss in great detail about the aflatoxins. Groopman also did a large study in the -- in 2004 to 2006 on aflatoxins in children's urine in Kenya when he associated that with Center for Disease Control. So he's published that. And those had to be validated to -- to publish.
So -- and in ochratoxin, I did bring some articles that were written by New York University that they did a study on patients with ENT -- in ENT patients. And they published those ochratoxin ELISA tests.
Now, they don't tell how -- what kit they used or -- or maybe they did -- oh, yes, they did. They talked about Bio -- Biofarma, I think. How -- that's in there. I can't remember who they used.
Q. Well, is there literature that val -- or not validates -- is there -- yes, validates -- is there a peer-reviewed article that validates the mycotoxin tests that

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Realtime Laboratory uses to test for the presence of mycotoxins in human urine?
A. Other than what Realtime has published?
Q. Yes, other than what Realtime has published.
A. I don't know how that -- how they would do that. But I know there's -- there's an issue with Saxon saying that, but I don't know how he would propose that we do that.
Q. So --
A. We're welcome to listen to his ideas.
Q. So is the answer no?
A. There is the answer no. Well, now, let me clarify that. We have done -- we have validated our tests against mass spectroscopy, which is -- it's not a clinical use, it's a research use. So I don't -- I can't answer -- that's the only thing I can say about that. So to go back to your question, no.
Q. Okay. Mass spectroscopy, you say you validated it against mass spectroscopy.
A. Spectroscopy.
Q. Yes. I was going to say, how is that done, but that might not be a very good question.
Did -- who performed the mass spectroscopy?
A. There's a lab up in Minnesota -- and I never can say their name. We can certainly provide that information. And it was only done on three samples because they cost like

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$2,500 apiece.
Q. So if I'm understanding you, you ran your tests, you

come up with your results, then these folks in Minnesota run the mass --

A. Mass spec. Call it mass spec.

Q. Mass spec test and either come up -- and presumably come up with the same results?

A. Uh-huh.

Q. Yes?

A. Yes.

Q. Do you consider authoritative the position paper from the American Academy of Allergy, Asthma and Immunology in 2006 called the Medical Effects of Mold Exposure?

A. I -- I look at that as authoritative in one regard and that is mold. And -- but it's outdated, as I stated. And it has nothing to do with mycotoxins.

Q. Okay. Do you consider authoritative the ACOEM evidence-based statement about adverse human health effects associated with molds and indoor environments -- that's the American College of Occupational and Environmental Medicine -- dated 2002?

A. No.

Q. Just no?

A. No.

Q. Why not?

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A. Well, I'm glad you asked that question. First of all, it's outdated. And the individuals who published that information have no -- without being impolite to their -- their background, they don't have any background in laboratory medicine. They -- I don't think they've ever entered a laboratory to -- to say -- to say any information like this. If they have, I would like to see that criteria that they use to -- what is the basis for them saying that, other than they publish. And -- and they're not experts in the field of mycology or environmental medicine, or for that matter, laboratory medicine. So that's why.

MR. ROSS: I'll pass the witness.

(Beginning at 2:15 p.m.)

EXAMINATION

BY MR. PARRISH:

Q. For the court reporter's sake, let's change chairs, so when you're answering me -- answering me, you'll be facing her and she won't have to be -- take your chair so you've got your -- you can take your water, too. I'm going to concentrate on just questions that you were asked first and then I'll ask some questions.

As far as the Texas Medical Board limits on your practice of anatomical pathology, were you given some leeway in actually drafting those?

A. I did draft it.

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Q. Okay. So -- and how did that go?

A. It went -- well, they -- I went -- I went down to the medical boards and met with them and I said, I -- look, I don't want to work in this area and here's what California

said and what do you guys want to do? And they said, well, you draft it and we'll see what happens. And then this attorney named Marty, she came back and she had a few changes, but basically it was the same thing that I said.

Q. Okay. So you didn't -- not only did you not object to the restriction, you were given the freedom to write it and you have no objections to it to this day?

A. No, I don't.

Q. And it doesn't inhibit any work that you do at all?

A. No.

Q. And that does not have a negative effect on your board certification in anatomical pathology, does it? You remain --

A. No.

Q. -- board certified?

A. I inform the board every year of what -- what I'm doing and how I'm doing it. And last year, I notified them that they can -- they'll note that my board certification is up on January 1st of 2012 and I said, I'm too old and I do not want to take any more tests.

Q. Okay. So you expect that board certification to

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lapse --

A. Right.

Q. -- just because --

A. I was grandfathered until I moved to Texas. And then once I -- I took the boards in 1990 -- 1990 and got board certified. And as long as I didn't take another board certification, they were grandfathered. But when I -- and you have to have -- if you move to another state, you have to have a test within the last ten years. And I moved in 2001, missed it by six months, so I had to take another board certification in 2001. And I took it and passed it and then that's good for ten years.

So if you -- now the rules for all board certifications are that you have to retake something every ten years or you don't renew your board certification. I'd rather stick nails in my eyes than take another test.

Q. Okay. Because these tests are -- are exacting, right, you have to study for them, you have to be prepared for them?

A. Right.

Q. They're time-consuming?

A. Very. And expensive.

Q. And -- but as far as your -- your skill in anatomical pathology, you still have all the skills to do an autopsy if you needed to?

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A. I -- I hesitate to say yes on that regard because it's like in anything, I haven't done an autopsy since 2000. And it's like you trying a case in tax or family, whatever. If you don't have the skills for it, you lose that. If you don't do it all the time. I do not -- and I do not want the skills back to do an autopsy. I don't want to look at slides

again.
So I have to be honest and say, I -- I don't think I'm qualified to -- to do anatomic path anymore. I would not want to.
Q. All right. Now, relate your prior experience, however.
You do do mycotoxin testing on tissue, do you not?
A. That's right.
Q. And that tissue is collected by autopsy sometimes and biopsies?
A. And biopsies and autopsies. And then we request it from the pathologist who has made the diagnosis, they send the tissue to us and then we process it by extracting it for mycotoxins. We don't look at slides, we don't -- we don't make any diagnosis of those slides.
Q. And do you, on occasion, consult with pathologists who are doing autopsies?
A. I do.

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Q. And your -- you feel confident and can carry on a -- an intelligent and controlled conversation?
A. And I have been in -- I have sat in autopsies and -- and actually observed them and directed the pathologist, I want that piece of tissue, I'd like a piece of that, I'd like that -- and which I'm qualified to do. I just don't want to run the whole thing anymore.
Q. All right. You said that there was no research concerning the minimums needed to quote, unquote, cause a problem.
By a problem, you were having reference to what?
A. Are you speaking about a problem with mycotoxins, or molds?
Q. Well, let's take molds first and mycotoxins second.
A. Okay. There's -- there's a lot in the literature about presumed amount of molds that are necessary. That's not well documented for causation of -- of an issue with a patient. Mycotoxins, there -- there's definitely not a lot in the literature on mycotoxins up until 2010, 2011 about what are these metabolites, what are these mycotoxins and what's the value of -- of finding them.
It is my contention that any mycotoxin present in a human tissue is an issue that should be dealt with by the clinician.

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Q. All right. I'll get back to that. But when you're saying problem in your answer, are you talking about illness or a malfunction of the human body?
A. Yes. It's a symptom.
Q. Okay. But it's not just a -- you're not talking problem generally, you're talking about what's going on inside the human body?
A. Correct. It's a symptom with a malfunction of some

kind metabolically.
Q. You answered a question, if I wrote my note down correctly, you said Saxon, Kelman, etcetera.
Who is the etcetera and what was the significance of that answer?
A. Well, these people -- and -- and I'm talking in general now about Dr. Saxon, Dr. Sudakin, S-u-d-a-k-i-n, Dr. Kelman, Dr. Gotts, G-o-t-t-s, are -- in their own light, they look at themselves as experts in the field of mycology and mycotoxins with no real documented peer-reviewed literature other than what they cite in ACOEM and AAAI, etcetera.
They were associated very closely with a group called GlobalTox out of Oregon, Washington state and California that subsequently was discussed in the Wall Street Journal as a conflict of interest group that was hired by insurance agencies to prove that environmental toxins -- not

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just mycotoxins, but environmental toxins in general are not a problem -- not a metabolic symptom causing problem to patients. And so this was revealed in a -- I think it was a 2007 Wall Street Journal article.
And since that time, Dr. Gotts has been brought in to a number of TV interviews to bring up these issues that he, in one or many ways, tries to deny. So it makes you think that these -- these -- their opinions should not be respected because of their lack of experience in -- in the areas that they opine in, as well as their conflict of interest.
Q. Okay. Did GlobalTox, after the exposure in the Wall Street Journal, change its name to Veratox?
A. Yes.
Q. Same people?
A. Same people. To my knowledge, they have the same people. Maybe more.
Q. All right. But when -- why would it be of interest to insurance companies to gather proof from these sources for that purpose?
A. That would be purely speculative on my part.
Q. Well --
A. It would be not nice for me to say all that, but I believe it's to prevent patients from being remunerated or -- or reimbursed for problems that have occurred because of malfeasance on the part of an owner.

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Q. An insured?
A. Yes.
Q. Okay.
A. Of an owner of a building or of a school district or whatever.
Q. And Dr. Saxon, Dr. Kelman, Dr. Sudakin, Dr. Gotts and -- did I get them all, or is there another one?
A. Yes, there's one more, but I can't remember his name.
Q. Okay. They have consistently testified in cases

where you've testified for the opposition, have they not?
A. They have been hired as the opposing experts. We have never come to testifying.
Q. Okay. Have -- do these people attend the seminars that you attend, do they publish in current publishing, are they respected, do they have standing among their peers in the field of mycology or mycotoxins?
A. Well, they must have some respect somewhere because they did publish in 2004 to 2006. They -- they do not have the expertise in mycology and immunology and in molecular that they -- they say they have. What were some of the other things that you asked?
Q. Well, as far as participating in current research and the current studies that are being done in this area?
A. I haven't seen any published articles, journals. I

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have not been in any scientific discussions with them or seen them discuss anything in scientific organizations.
Q. Okay. Did you have occasion to critique what Dr. Saxon had said about you in another case?
A. Yes.
Q. And that was a case in Las Vegas?
A. Yes.
Q. Where he was -- was disclosed as the expert, he was to testify on the other side?
A. That's correct.
Q. And Dr. Saxon had written things about you?
A. Correct.
Q. Okay. I'm going to show you a copy of something and ask you if you can identify it. Okay. You have something that I've just handed you that's dated April 7, 2010. And it has at the top your name and address and telephone number, fax numbers. And it says re: Report of Andrew Saxon, M.D. regarding -- what's the name of the case?
A. Pauluk, P-a-u-l-u-k, versus Clark County Health District.
Q. Okay. And this is your rebuttal to what he had said about you; is that correct?
A. That is correct.
Q. And you wrote it to whom it may concern?
A. That's right.

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Q. And this one is not signed, but is it -- can you identify it as what you wrote?
A. It is what I wrote, yes.
Q. You could sign it right now if you needed to?
A. I could.
MR. PARRISH: First I'm going to ask that this be marked as Exhibit 3.
(Exhibit Number 3 marked.)
Q. (BY MR. ROSS) I'm going to ask you to read that, even though it's a few pages long.
MR. ROSS: You're going to have him read the whole thing into the record?

MR. PARRISH: Yeah.
MR. ROSS: It's an exhibit. Okay. Well, I'm going to object to the form of the question.
Q. (BY MR. ROSS) Okay. Now you can read.
A. Oh, my. Okay. To whom it may concern: I have reviewed the report prepared by Dr. Andrew Saxon and signed on March 8th, 2010 regarding the methodologies and opinions surrounding the case of Pauluk versus Clark County Health District. I have also reviewed the other medical experts for the defense and it appears that each of the experts have the same opinions which lead -- leads one to believe that there is a conflict of interest involving the experts. This theme is played out throughout the statements of Dr. Saxon and others.

0080

Dr. Saxon emphasizes in his qualifications section that he is a diplomate of the American Board of Internal Medicine and the American Board of Allergy and Immunology. He also states that he is diplomat of the American Board of Diagnostic Laboratory Immunology since 1990. Much unlike today, at that time, to a diplomat of such a group was allowed by grandfathering into the Board and the diplomat did not have to demonstrate knowledge in the area of laboratory medicine. Therefore, this credential means little in that regard when one must focus on the performance and application of immune based testing in the clinical arena. I question how Dr. Saxon actually received his -- this certification. Did he receive the certification through actual demonstration of knowledge in the field or was he grandfathered in. It is by the latter. By review of his over 185 peer-reviewed scientific papers regarding his research in immunology, there is not one paper in this lengthy curriculum vitae that demonstrates that he would be a valid expert in mycology, fungal related illness, or mycotoxin related illnesses. His board certification is noted to have obtained -- have been obtained in the '70s -- 1970s and there has been no documentation of interest or publications in the areas of mycology, mycotoxins or related illnesses since that time. Also, there is no evidence that Dr. Saxon has any knowledge in the areas of clinical laboratory validations and

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testing as set forward by Clinical Laboratory Improvement Amendment guidelines.

Second page. Dr. Saxon states that it is critical to keep in mind in trying to define any new processes or assays, as in all science, it is necessary to follow generally accepted methods and to use the overall scientific method in order to reach valid conclusions, end quote. Dr. Saxon also cites his involvement of a statement of the American College of Occupational and Environmental Medicine, parenthesis, ACOEM, close parenthesis. This statement was challenged in the scientific community and an expose on the entire group was published in the Wall Street Journal on January 9th, 2007. Basically the expose discussed Dr. Saxon and his cronies. It was discovered that the ACOEM paper was

written by people who regularly are paid experts for the defense side in mold litigation. The ACOEM did not disclose this fact, nor did this paper state such facts. The dual roles held by these individuals demonstrated how conflicts of interest can color the debate on emerging health issues and influence litigation related to it. Two other medical societies also published statements on mold, which was written, in part, by legal defense experts. Those societies didn't disclose this when the papers were released. Later, in 2004, the American Academy of Allergy, Asthma and Immunology posted on their Web sites the following statement: The

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research in 2004 was reviewed and the studies have demonstrated adverse effects -- including immunotoxic, neurologic, respiratory and dermal responses -- after exposure to specific toxins, bacteria, molds or their products.

Associates of Dr. Saxon, Dr. Bryan Hardin, Dr. Bruce Kelman, Dr. Terr -- T-e-r-r -- and Dr. Sudakin were all allegedly tied to a company named Veratox which worked for legal defense in mold and related cases. There was indeed conflict of interest, a question of professional integrity, and a lack of concern for patients who were generally ill from some type of environmental exposure to molds, bacteria, etcetera and their products. It is then questionable as to the motivation of these professionals in their crusade to quote, quiet the scientific endeavors of others, end quote. With this discovery, it leads many in the scientific community to question the motivation of the AAAAI statement appearing in February 2006. The statement, as well, was authored by those who were cronies of Dr. Saxon.

In Dr. Saxon's Basis of Opinions on page three of 17, he cites the Hooper paper of 2009 as being co-authored by Dr. Gray. Obviously, Dr. Saxon has not read the paper because there is no such author present. This brings into question Dr. Saxon's competence in this matter.

In the, quote, opinions section, Dr. Saxon -- Dr. Saxon is wrong on the following:

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Number one, Dr. Hooper is not board certified in internal medicine or any specialty recognized by the American Board of Medical Specialties. Dr. Hooper is board certified by the American Board of Pathology in both anatomical and clinical pathology, parenthesis, see CV, Exhibit A, close parenthesis. Once again, this brings into question Dr. Saxon's competence to review reports in this matter.

Dr. Saxon cites that the license for a laboratory in Nevada was revoked in the State of Nevada in 1999 for misrepresentation of facts in obtaining CLIA certification and failure to allow inspection.

In italics, the following statement is made: The CLIA certification and failure to allow inspection in the Reno laboratory was due to the fact that the laboratory had before sold and closed. Hence, there was, quote, a failure to

allow inspection, close -- or end quote. The State of Nevada did not revoke any laboratory license. The CLIA certification was revoked because there was no laboratory to inspect. Dr. Saxon obviously did not read the revocation correctly and obviously doesn't understand laboratory licensure. He is not qualified in this area to opine.

Next page. Paragraph three, Dr. Saxon cites the issues surrounding California Medical Board and thus the issues in Nevada and Texas.

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And in italics, the next paragraph states, the issues surrounding Martin Luther King Jr. Hospital and the California Medical Board are irrelevant because it involved anatomic pathology diagnosis. The issues surrounding the Pauluk case are all involving clinical pathology in which Dr. Hooper has not been challenged. The issues in Nevada and Texas involve the findings in California. The findings are a public record. End italics.

Fourth paragraph. Dr. Saxon cites that Dr. Hooper has not provided the necessary validation to make the RT-PCR scientifically acceptable.

In italics, the following paragraph is written: Polymerase chain reaction, parenthesis, PCR, close parenthesis, testing is generally accepted for identifying molds in humans and animals. This test is conducted at major medical centers throughout the U.S. Other clinical laboratories also perform such testing for identification of fungal DNA. The test can be relied upon in Realtime Laboratories, parenthesis, RTL, close parenthesis, LLC. This test and the validations surrounding such a test have been reviewed extensively and on multiple occasions by the State of Texas CLIA inspectors. Such findings have also been sent to the regional CLIA office, the national CLIA office and CDC. Realtime Laboratories, LLC has provided the proper validation to the proper authorities, end italics and that paragraph.

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Fifth paragraph. Dr. Saxon cites that the DNA detection by gene amplification or PCR can be a highly sensitive technique but suffers from issues of specific and contamination, both of which lead to false positive results.

Next paragraph in italics, the concerns of Dr. Saxon for specificity and contamination regarding false positive results are unfounded. The process of RT-PCR was designed to prevent such contamination. It is a closed system. Realtime Lab performs DNA, quote, wipe tests, end quote, regularly, positive and negative controls and proficiency testing to demonstrate that contamination is not present and also that the test is specific for the DNA probes and primers being used. All organisms used as controls are from the American Type Culture Collection, parenthesis, ATCC, close parenthesis, or organisms obtained from and verified by the Environmental Protection Agency, parenthesis, EPA, close parenthesis, Cincinnati, Ohio. Obviously, Dr. Saxon is not qualified to discuss new PCR techniques since he has not done

any original documented peer review work in the area of Realtime PCR. He has also obviously not been updated in the area of Realtime PCR. Dr. Saxon is not qualified in this area to opine.

Sixth paragraph. Dr. Saxon cites many arguments regarding qualitative versus quantitative PCR.

Next paragraph in italics, Dr. Saxon is

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incorrect in his statements of qualitative versus quantitative PCR testing. I have reviewed, again, Dr. Saxon's CV and there is not one peer reviewed paper on Realtime PCR. Realtime PCR can report qualitative results as well as quantitative results. It is obvious that Dr. Saxon has no knowledge or experience with Realtime PCR, therefore, is not qualified to opine on this topic, end italics.

Seventh paragraph. Dr. Saxon questions validations using various probes and primers.

Next paragraph in italics, the validations performed in Realtime Lab have been conducted on the EPA DNA probes and primers and the specific DNA probes and primers which were designated and patented by Realtime Lab. Those probes and primers have been specifically validated in human tissue using known control organisms and specific amounts of organisms. Again, Dr. Saxon has neither a history of performing realtime PCR nor he or any -- or nor has he any peer-reviewed publications in this area. Dr. Saxon is not qualified to opine in any area of Realtime PCR.

Eighth paragraph. Dr. Saxon's opinion on our publication is incorrect and is just that, his opinion. Our publication appeared in a peer-reviewed journal. Dr. Saxon has no publications of original data on this topic in a peer-reviewed journal.

Ninth paragraph. The validations at Realtime

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Lab for the mycotoxins have been reviewed. Validations have been conducted with mass spectroscopy on selected specimens. The validations are written for qualitative determination. However, actual quantitative values are available to clinicians and researchers if needed. The limit of detection, parenthesis, LOD, close parenthesis, has been determined in the validations with spiked specimens. All tests conducted at Realtime Lab, whether ELISA or with immune columns were validated in the proper methods using CLIA guidelines as documented in the paper published in 2009. All tests conducted on Mr. Pauluk's samples were validated.

Tenth paragraph. If Dr. Saxon's premise that all validations should be published before those results can be accepted, then approximately 50 percent of all laboratory tests conducted in the U.S. would not be appropriate to be conducted on patients. Dr. Saxon demonstrates his lack of knowledge in this area and demonstrates that he is not qualified to opine on this subject.

Last paragraph. In conclusion, Dr. Saxon is very free to criticize the work conducted at Realtime Lab, yet

I am unaware of any work Dr. Saxon actually has done to prove our work wrong or right. The criticisms he makes are questionable, especially in the light of his history of conflict of interest as witnessed by the article in the Wall Street Journal in 2007. Respectfully submitted,

Dennis Hooper, M.D., Ph.D.

Q. Now, you were asked about the numbers of people in the population that are susceptible to having these adverse effects from mycotoxins.

Do you recall that line of questions?

A. I do.

Q. Okay. With reference to people who might get mycotoxins from drinking coffee, eating grain, etcetera, if they are not susceptible to the negative impact of the mycotoxins, do those mycotoxins just go through them as waste material?

A. We -- we believe so. We don't know what happens to them. We can't detect them in the urine, we can't detect them in any nasal secretions or any other body fluids. We believe that in some way, they're -- the macrophages or the cells in the blood pick them up and distribute them somewhere to get rid of them. We don't know how.

Q. So if you do a urinalysis on a person who has ingested mycotoxins of that type, the urinalysis would show nothing, would show no mycotoxins?

A. Yeah, in -- in most cases, that's -- that's true.

Q. Okay. Have there been any studies that somebody who is known not to be susceptible is ingesting known mycotoxins so that it's studied, what happens with the mycotoxins in their body?

A. The Groopman study is the only one that I'm familiar with out of Kenya that they know that these kids eat a lot of corn products and they didn't have a lot of aflatoxin in their urine.

Q. Okay.

A. Unless they were sick.

Q. All right. I'm going to ask you more about that in a minute. But you answered a question with respect to the source of ochratoxins, aflatoxins, tricothecenes that is specifically referencing the -- those mycotoxins that were found in Cindy Hunter's urine. And the question was whether those were sourced to sources other than the environment in her office.

And your answer was probably a low probability or -- could you explain that further?

A. Well, we have -- we have studied foods and we do know that we can find some mycotoxins in foods. We know -- I'll give you an example of purple onions that you find in these food stores. When we sample -- if you notice it, you'll see mold on most of the purple onions. If you take that mold and grow it, it's Fusarium. And Fusarium is a high producer of tricothecenes.

So we know that the -- there's a great possibility that if you eat those, that you'll get some kind of tricothecenes. So we've tried that. We have -- we've all

0090

eaten it. We all like purple onions. And we know of patients who ate purple onions -- that's how it came to our attention. And these patients who ate the purple onions had tricothocenes on some of them, others had nothing. We ate them and we didn't have anything.

Q. By "we," who is --

A. The laboratory staff.

Q. You?

A. I did, yeah.

Q. Okay. All right.

A. And we didn't get any mycotoxins in our urine. So why? If these are prevalent in the -- I also have tested our -- our staff because we work with these all the time. And we also eat a lot of Mexican food and we eat a lot of popcorn and we eat things with aflatoxins and we drink a heck of a lot of coffee. And we don't have ochratoxin, we don't have aflatoxin and we don't have tricothecenes in our urine.

So -- and we are asymptomatic, except we complain a lot about working. But we -- so there's a -- there is -- although that is not published, that is a -- that's something that we have observed. I don't know if that answers your question.

Q. So -- but you -- none of you live in a moldy environment in your homes or in your office?

A. That's right. Yes, that's right.

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Q. And from your experience, if you were in a moldy environment day and night or eight hours a day or for some period of time over a long period of time, you think the result might be different?

A. We would assume that, but we don't know for sure. We do know that we have sampled families in -- on a saddle, a mother and a daughter who the daughter had significant symptoms, the daughter -- or the mother had none, lived in the same house with huge amounts of -- of fungal elements, stachy, aspergillus, penicillin and the -- the child had a number of mycotoxins, the mother had none.

Q. Okay. This gets into the susceptible persons, right?

A. Yes.

Q. And has -- do you have any data on which you can make a -- a statement concerning the percentage of the population that would fall into the susceptible category?

A. The only thing that we can attribute to is looking at CDC's most recent documentation of how many patients get sinusitis. And they believe 33 percent of all asthma patients are due to molds, 33 percent of all the asthma/sinusitis patients are due to molds. And with that in -- in -- with that knowledge, we believe there's approximately 30 million people in the United States that could have an association

with mycotoxins and molds.

That's -- we -- we don't know for sure if that's true. We trust CDC's documentations on how much asthma/sinus problems are due to molds.

Q. Okay. Is this still an area that is needing further study?

A. Definitely.

Q. And you're saying asthma/sinus.

Can you have asthma without sinus?

A. Yes.

Q. So it's the sinus part that's the issue?

A. No.

Q. Okay.

A. No, not with CDC. It's both.

Q. It's both?

A. Uh-huh. They don't separate the two that I recall.

Q. So this includes asthma patients that don't have sinus --

A. Sinusitis and it -- they include patients with sinusitis.

Q. Okay. The talk about range, do you even know what Mr. Ross is referring to when he speaks of range?

A. Well, I think he -- in fairness to him, he -- we're all used to looking at what our range of sodium is, what our range of cholesterol is. We know that if it's low, we're great; if it's high, we're not so great. We don't have

documentation to say if there's a low amount of mycotoxin present, that it's okay. What we believe at Realtime Lab and what the -- what a number of research people as well as publications are starting to say is that any type of toxin present from bacterial or fungal is a problem in that patient. So there is -- there shouldn't be a range. It's either there or it isn't.

Q. Okay.

A. Now, maybe time will tell differently.

Q. So the presence of any mycotoxin in a patient from your standpoint is that treatment is required?

A. Yes.

Q. As long as that mycotoxin remains in the cells of a person, is it doing damage?

A. Yes.

Q. So the only persons that you know of at the present state of the -- the art of the literature who are not injured by mycotoxins in their body are those where the mycotoxin does not invade the cells?

A. In our opinion, yes, that's the case.

Q. And you mentioned bacteria. What are endotoxins?

A. They're toxins that are produced by Gram-negative bacteria. There's two types -- well, there's many types of bacteria. But the two major types are Gram-positive, which are blue, and Gram-negative, which are red by a special stain

called the Gram stain. And a Gram-positive organism produces exotoxins; in fact, it spits out toxins.

Staph infection on potato salad is an exotoxin. You eat that toxin and it causes great problems in potato salad. Botulism is the same thing. Or tetanus. They're all exotoxins. They are secreted, then they live outside in the environment, they just hang around there.

Endotoxins are from Gram-negative bacteria, they sit on the surface of -- of a bacteria like an E. coli. And so an E. coli makes these toxins and they just sit there and they're sticky. And they sit in this membrane.

So you could have four or five different types of strains of E. coli in a hamburger meat. And if you have the right one, then you eat that and you can eat that endotoxin because it's inside the membrane. You eat that and it can be creating great problems to you.

Exotoxins are heat stable. In other words, that's why you -- you can put potato salad out in the heat and the heat will allow you -- the organism will grow and secrete that and the heat -- that hot potato salad allows you to grow endotoxins. You can kill them with heat. Therefore, if you cook the hamburger long enough, you're going to kill those endotoxins. Wendy's didn't do that.

Q. Okay. Well, do molds produce bacteria that produce endotoxins?

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A. Well, molds don't produce bacteria, they -- they produce other molds.

Q. All right. Well --

A. They produce toxins which are chemicals. And they are heat stable. They can stand very high temperatures. We had to make sure that we could -- they could withstand the temperatures of the Dallas heat in transportation. So we heated them to 180 degrees centigrade, which is about 260 degrees Farenheit and we would test them before and heat them for seven days and then retest them. They were still there in the same quantities.

Q. In the environmental studies, for instance, that Dr. Lipsey does -- and if you'll take a swab swipe picking up substances, goes to the laboratory and oftentimes it comes back with bacteria, Gram-negative bacteria with some quantitative analysis of the endotoxins, is that just a coincidence that those Gram-negative bacteria are at the same place that the -- let's say, an aspergillus might be?

A. Well, in the previous years back in the 1990s and early 2000s, it was believed that it was a coincidence. But I think in reviewing the literature and in seeing what we see, that there is this -- this joint relationship between bacteria and fungi that -- and they call them biofilms where they're created and they feed off of each other.

Q. What feeds off of --

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A. The bacteria and the fungi. They -- they coexist together and they co-occur. And that's one of the reasons I

brought this one paper that was written in -- just this year on indoor air, co-occurrence of toxic bacterial and fungal metabolites in moisture damaged indoor environments.

Q. Is that a -- a statement that has to be taken as the environment that allows endotoxin producing bacteria to live and thrive would be the same environment that live -- that allows aspergillus to thrive?

A. Yes.

Q. Do endotoxins have the same effect inside the body as mycotoxins, same cell --

A. Inside the human body?

Q. The human body.

A. No. The endotoxins, as you know, create diarrhea, inflammatory response in the intestinal tract, they can cause fever. The toxins from molds do a number of things, depending on where the indoor product -- where the indoor organ is. If it's an ochratoxin, it can be found in renal cell cancers, it can be found in kidneys, it can cause problems in the urinary tract, cause urinary tract infections.

Aflatoxin can go to liver and -- or no -- yeah, liver and causes adenocarcinoma of the liver, which is cancer. And that's been documented in -- on all of our forms and -- the work in the lab with aflatoxins, you must be knowledgable

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of the fact that aflatoxins are carcinogenic, as well as ochratoxins.

Q. Okay. Your urinalysis, do they detect endotoxins?

A. No.

Q. So your --

A. We don't do endotoxin tests.

Q. Is there any endotoxin testing available?

A. Yes.

Q. And where is that and how --

A. I don't know who does it, but I do see results and I can't remember who does them. And I don't know of their validations, so I can't speak to them.

Q. Okay. You were asked a question about exposure that is -- particularly Cindy Hunter's exposure and her office environment and you were asked if you agreed or disagreed with the statement. Your answer included the words, with all of that, no.

Do you know what you meant with -- by all of that -- with all of --

A. Well, you would think I would remember that because it was just said, but no, I can't remember.

MR. PARRISH: It would take a while for you to find that question. Okay.

Q. (BY MR. PARRISH) I'll ask a question in that area.

As far as being exposed to mycotoxin producing

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molds in an office environment, is that a different exposure than would be the case in an outdoor environment?

A. I would -- I would strongly believe so. Because the outdoor -- you would have less -- less fungi to come in

contact with the body because of the atmosphere, because of the movement of air.

Inside a building -- and I attribute this to our -- our ability to keep everything airtight now in that we have no windows that we open, we have no movement of air except our air conditioner. And perhaps the air conditioner vents are just as contaminated. So I see the inside being a much greater potential for contamination than the outside.

And I'll give you an example of that in that we have asked people to send us the air filters that you put on your furnace vents that you can buy at Home Depot and just replace that I only replaced once a year before I started doing this. And we took it. And if you take those out, you'll see the amount of dust after one month on these filters.

If you take that and take a piece of that and extract it in just plain old phosphate buffered saline and then test that, we have found toxins in many buildings and they can't find the stachybotrys or they can't find some -- and we say, go back in, find it. You'll find it. And sure enough, they go into the wall and they find the stachybotrys

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near a leak.

So these toxins are present, they're on dust particles and they're floating around and they can be -- we can find them in the filters, we can find them in dust on -- and we can find them in the pieces of wallboard that they send us.

Q. All right. What do you bring to your knowledge of the subject because you are microbiologist and a pathologist?

What does the microbiology aspect of your training give you an ability to analyze that you would not have if you were not a microbiologist?

A. Yeah, as an M.D., I'm -- I'm qualified, because of my internship training, to see patients. If I really wanted to again, I could see patients. I'm not -- even by the -- the court order or by the medical board, I'm not ordered to not see patients. I can't make a diagnosis of an anatomic slide with that.

That's the M.D. part of our training. We never supposedly lose that. I question that ability, but it's like anything else.

Then you have a Ph.D. like myself or somebody else and we've been trained in microbiology. We can look at fungus, we can look at bacteria. So if I just had a Ph.D., I could opine on what do these bacteria do in -- in the house or what do they do in the laboratory. I could not opine on

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something that's done in the human body.

But because I have both of them, I have been allowed in -- in many -- in every court case I've been associated with to opine on the microbiology and the environmental testing that I see on -- from -- done by the CIHs or the --

Q. What is a CIH?
A. Industrial hygiene -- certified industrial hygienists. They -- they give their reports and then I take the -- the reports from the doctors and -- and the medical data that they have supplied and I assume that and I can bridge them together as causation. And I've been allowed to do that because of both degrees.
Q. All right. Do you know anybody else who is doing research or at least publishing in the area of mycology who is both an M.D. and a microbiologist?
A. I believe this -- this group out of New York -- wherever they are. This one. Doctor -- no, they're all M.D.s. There's one Ph.D. with them, but no, I -- I don't --
Q. The microbiologist without a medical degree does have a good deal to contribute to the total analysis of this subject?
A. Oh, yes.
Q. And Dr. David Straus is an example of that, is he not?

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A. Correct.
Q. He's a Ph.D. microbiologist, but he's not a physician?
A. That's correct.
Q. So he can testify all about the fungi and the bacteria and what they do in the environment, but he stops at that door and cannot testify as to what all of that fungi does inside the human body?
A. That's right.
Q. He may read about it and he can say what he's read about it, but he can't opine as to what happens inside the human body?
A. That's true.
Q. But you can?
A. Yes.
Q. Did you sign an affidavit concerning Nancy Strong?
A. I don't know. Are you going to make me read that?
Q. No.
A. Because I'll deny it if I have to read it. Yes, I did. Strike that from the record.
Q. Let me see.
MS. CANTER: You said Strong.
MR. PARRISH: Excuse me. That's why -- I mean Hunter. It's another case.
A. Do you want the affidavit?

0102

Q. (BY MR. PARRISH) Yeah. If you can identify it. Can you identify what you have in front of you there as an affidavit that you signed, read --
A. Created.
Q. -- wrote, created, all of that?
A. Yes.
Q. And it has attached to it Exhibits A through H, does it not?

A. No, it goes longer than that. M.
Q. M. Okay, A through M.
MR. PARRISH: And I'll ask that this be marked as Exhibit 4.
(Exhibit Number 4 marked.)
Q. (BY MR. PARRISH) With respect to Exhibit 4, if I were to go through and ask you all of the questions that would cause you to give the same information that appears in Exhibit 4, would the information be exactly the same?
A. Yes.
Q. So you've given -- made this under oath and the oath is on page ten.
Do you reaffirm that oath here today?
A. I do so do that.
Q. Okay. And in this Exhibit 4, you do opine with respect to the causation of Cindy Hunter's medical conditions, do you not?

A. I do.
Q. All right. Now, I want to direct your attention to one of the exhibits, that being Exhibit G. And it has Hunter 1201 at the bottom.
Do you see that?
A. I do.
Q. Now, that's the report of Dr. Didriksen, is it not?
A. Yes.
Q. It's a neuropsychological consultation?
A. Yes.
Q. You read that, did you not?
A. Yes.
Q. And does this have an exhaustive history concerning Mrs. Hunter?
A. That's a very good term for it, yes.
Q. I mean, she -- it covers everything from cradle to grave, just about?
A. Just about.
Q. And one of the things that it does is provides a source to determine what pre-exposure health conditions that Cindy Hunter had?
A. Yes.
Q. And you were asked earlier if you knew concerning her pre-exposure medical conditions and I believe you answered that you did not think you knew that, correct?

A. That's correct.
Q. But you did -- you do know what Dr. Didriksen said in -- in producing this as a part of her report?
A. Yes.
Q. And is it not true that the only pre-exposure health issues that Mrs. Hunter reported were eczema, allergies, anxiety and a whiplash?
MR. ROSS: Objection, leading. You can answer if you --
A. Yeah, I know, but I can't remember all the things.

MR. PARRISH: Let's go off the record for just a minute.

(Off the record from 3:13 to 3:14 p.m.)

Q. (BY MR. PARRISH) Now, you're reviewing Exhibit G to your affidavit, which is Exhibit 4 to your deposition.

And can you answer the question about whether the only pre-exposure health conditions Mrs. Hunter reported were eczema, allergies, anxiety and a whiplash?

MR. ROSS: Objection, leading.

A. Now, I'm going to go over the -- the -- just the history that Dr. Didriksen says that she had a history of eczema as a preschooler.

Q. (BY MR. PARRISH) Right.

A. She also was -- had a history of a chipped left bone in her wrist -- chipped bone in her left wrist in the ninth

0105

grade. And then she also had a history of anxiety regarding medical procedures because of something that she had with a pulmonologist and a bronchoscopy. And she had allergies and so that all was related to the anxiety.

And then she went over the history of her parents. None of this, I thought, was something that stuck with me as far as an issue with previous problems. And that's why I answered it that way. It was -- anything -- I mean, it's nothing that we don't all have. Like my mother would say that, oh, they had -- my sister had eczema and actually, she had a little bit of a blister or something. But what eczema was to certain people, I -- I just -- none of this stuck with me as a real problem.

Q. Okay. So the -- the history speaks for itself, anybody can read it as thoroughly as they want.

But what you're saying is that on considering the history that Dr. Didriksen reported, there was nothing about that history that you related in any way to the post-exposure symptoms?

MR. ROSS: Objection, leading.

A. That -- that is correct.

Q. (BY MR. PARRISH) Okay. Now, this report of allergies, why would it be that allergies post -- pre-exposure would not indicate to you some susceptibility or some exacerbation?

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What are the differences in allergies and mycotoxin responses?

A. Well, if -- if she had an allergy to something, say a mold or to -- to anything, you would -- you would remember this as you're -- as you're growing up because the -- the more times you're exposed to an allergen, the more complications you -- you get. And that happens in an asthmatic patient, it happens in somebody who has allergies where you would -- you would know for sure if you had a big issue with an allergen.

She didn't seem to note that, that -- that she recalled -- or according to Didriksen, there was no issue of a lot of allergy association with severe reaction. And then

after this exposure, she develops symptoms that are linked as far as what CDC writes as far as problems with molds and -- and what I have seen with toxins as time goes -- since we've started this, that these are -- her reactions are related to the molds and the -- the mycotoxins. I don't know if I've answered that.

Q. Isn't a standard allergic reaction something that's different from what mycotoxins cause you to do?

You could have an allergy to mold and you could have mycotoxin reactions at the same time, but they would not be the same symptoms?

A. I have not seen mycotoxins cause the same problems as an allergy to mold. An allergy to mold and an allergy to

0107

anything, you get bronchospasms, you get closure of the -- of the airways, you get difficulty breathing. You can get skin rashes. But the majority of the problems with an allergy is -- and a reaction to that is the bronchospasms. And that's why, in an asthmatic, they have to give that. The different -- like theophyllines and different drugs to open up the bronchi as -- again.

In a mycotoxin, it's -- it's a build-up that I have seen and I have -- I believe occurs because the toxins, you start breathing them in, you build up a little bit, you develop a -- a small problem, you get -- the longer you're in that building and the more associated you are with the toxins and you get skin rashes, you get neurological problems, you get bladder problems, you can get a whole plethora of issues that involve these toxins. And they don't cause -- you don't sit there and writhe on the floor like you do in asthma.

Because you can actually stop breathing in an asthma patient or an allergic response where you might have to give a needle into the heart if you have a real problem or given different drugs to -- to stimulate opening the bronchi or to -- to stop things -- or start things going again.

In mycotoxins, that isn't the way it is. They're slower. So it's not an allergic response.

Q. Is it -- if you have an allergic response and you get away from the allergen, your response goes away, right?

0108

A. In most cases, until you're re-exposed.

Q. Okay. So that's an exposure thing. If you have mycotoxins in your system that you have taken in from being in a building that's contaminated with molds, you can go away from that building and you don't recover by withdrawing yourself from the environment, do you?

A. The patients that are removed from the building, they do start to recover somewhat. They never fully recover until they're treated for the -- the mycotoxins to be removed. They can be treated to get the molds removed.

Q. And the mycotoxins will never leave until they there's treatment to --

A. We believe that to be the case, yes.

Q. And you can get rid of the mold in the system, but

that antifungal does not have any restorative effect as far as the cells that are damaged by the mycotoxins?
A. That's correct.
Q. So if -- if -- if Cindy Hunter's treatment has involved exclusively antifungals up to this date and you did a new -- another urinalysis today, what would be your expectations of your findings?
A. Well, this would all be hypothetical again. But from what we have seen with patients who are treated with antifungals, the mycotoxins don't leave the body readily. So we may some increase in mycotoxins in the urine, but not too much.
But if they start treating to increase the immune response and to help those lymphocytes improve, then we'll start seeing mycotoxins increase in the urine.
Q. Okay. An increase of mycotoxins in the urine is a sign that mycotoxins are leaving the body?
A. That is correct.
Q. If there is no treatment, you do the urinalysis before there's any treatment and the mycotoxin counts are high, what does that indicate?
A. Say that again.
Q. Okay. If -- if the mycotoxin count from your urinalysis in a patient who has had no treatment, no antifungal treatment, no anti mycotoxin treatment, what does that indicate about the state of that person's health?
A. We -- we believe by watching the patient as they're treated, that -- and if they have a -- if they have a certain amount of mycotoxin in their urine and then when they're treated it goes up even more, we believe that they had so much in their body that there was no place else for it to go. There was no end organ receptors.
Q. Well, let's take Exhibit 1 here, which is your report on your November urinalysis. And you -- you just say present. It says, limit of detection -- and I'm just looking at the aflatoxin. It says, limit of detection, 1.0 ppb and you have present.
You don't know -- do you ever -- you just have present or not present, right?
A. Let me go over this. Years ago, when we first did this, we were reporting semi-quantitative results because we believe our -- our validations are semi-quantitative; in other words, semi-quantitative is described as where is your point of cut-off and does that move as you test more and more patients. Our tests -- our level of detection doesn't move statistically.
So we were reporting that. We had a CLIA inspector who came in and said, you can't do this. You can only report present or not present. She was incorrect, but we couldn't fight her on that issue.
So then we appealed to the College of American pathology and asked for them to come in and inspect and we

asked FDA to review our stuff. And FDA agreed that we can put these levels back on our report now and -- as did CAP as of Friday. So our new reports are going to have semi-quantitative results.

Q. Which --

A. Which means that we will then be able to say in Cindy Hunter, we found 2.5 parts per billion or 3.5 of aflatoxin. Right now, we could -- up until last Friday because of this CLIA inspector, we could not say anything but present or not present.

Q. Okay.

A. Even though she was wrong, she wielded a big stick.

Q. Different persons can have different quantities within their body?

A. We believe so.

Q. And someone who lived in an extraordinarily moldy environment for a long period of time and was very sick, would it be reasonable to assume they had more than somebody who was less sick and been in an environment for a less period of time, or is that a correlation that can be made?

A. I can't make that correlation.

Q. Okay. You were asked about your article, your 2009 article that is an exhibit to your affidavit being peer reviewed in the literature.

Is that even -- that's not even a correct description of what happens in literature, is it? Don't you -- don't some people subsequently write critiquing an article that someone else has done?

A. And they publish that?

Q. Yes.

A. They do that in letters, letters to the editor and papers. But I'm unfamiliar with -- unless they're doing a study of -- of a number of papers.

Q. Okay.

A. And I don't -- I can't remember what they call that. But if -- if somebody were going to critique our paper and publish that critique, they would do it as a letter to the editor.

Q. Okay. Did the article that you published in 2009 generate any letters to the editor?

A. No, I would liked to have seen that. But no, it didn't ever get any letters.

Q. So as far as criticism of what you published in that article, you know of none?

A. No. Only through Dr. Saxon and his comments to us in litigation cases.

Q. And he hadn't published --

A. In Pauluk.

Q. He hasn't published that, has he?

A. No.

Q. So it's fair to say that you would be very attuned to hear any criticism, but none has been voiced?

A. That's correct.
Q. Except by Dr. Saxon's non-published litigation critique?
A. Yes.
Q. All right. Get my stack out of the -- got to have a time out.
A. Yes.

MR. PARRISH: Okay.
(Recess from 3:28 to 3:41 p.m.)
(Exhibit Numbers 5 - 21 marked.)

Q. (BY MR. PARRISH) Okay. You made reference to letters to the editors and critiques of -- of works that were published.
As to the AAAI article and the ACOEM article, there were some critiques, were there not?
A. Very many, yes.
Q. And one of them was by Dr. Marinkovich, was it not?
A. I believe so.
Q. And he was actually a member of ACOEM and he was expressing his views how ashamed he was that this organization had -- had published something like that?
A. I imagine that's true.
Q. And who is Dr. Marinkovich?
A. Well, he's dead now, but he was an M.D. in -- in California that when I was getting started, he was sick. And he was seeing patients who had environmental exposures and was very well respected, as far as I know, and developed a malignancy and died.
Q. But he was a person who had a lot of respect in the field of studies of environmental toxins, was he not?
A. That's correct.
Q. And his standing was hardly able to be criticized for his work in that sort of thing?
A. To my knowledge, that's true.
Q. And Dr. Kaye Kilburn is another one of those pioneers in this area that has a lot of standing and a lot of credentials that are not just made up credentials, real stuff?
A. That's true.
Q. And didn't Harriet Ammann criticize the AAAI article?
A. Yes, she did.
Q. And who is Harriet Ammann?
A. Well, I -- I don't know her too well. I've never met her. But I think she was with CDC, if I recall. But I don't know what -- what agency she was with, but she was -- she saw a lot of -- of patients that had to do with mold and mycotoxins, or at least her belief that they were mold. And that's the only thing I know of her.
Q. But she is known in the field, you can --
A. She's quoted a lot.
Q. You could bring her name up in -- at a seminar or something and everybody would know who you were talking about?

A. That is correct.
Q. And some may know her better than others, but she's out there?
A. Yes.
Q. And wasn't there -- one of the authors that was shown on one of these articles who recanted his authorship and asked that his name be removed?
A. There was one.
Q. Do you know who that was?
A. No, I can't remember.
Q. Dr. Port --
A. Oh, Portnoy. Portnoy, yes. P-o-r-t-n-o-y.
Q. Okay.
A. And he -- he -- see, I didn't really care too much at that time what -- what these people were arguing because it was all mold and it was all old stuff. But Portnoy said that he didn't have anything to do with this paper and that's all I remember.
Q. But his name was put out there --
A. Put out there, yeah.
Q. -- as if he had been an author?
A. That's right.
Q. And he -- he's now doing reports and making speeches at seminars and all, saying much the same as what you are in the area of his particular expertise?
A. That's true.
Q. Now, you talked about the datedness of the articles being 2006 as sort of outdated insofar as this field is concerned; is that correct?
A. Yes.

Q. And PubMed is an Internet-based online service that you can go on and you can search terms and words and -- and find out what's going on in the -- in the field of medical literature?
A. Yes.
Q. You can limit it to a -- a period of time so you can look for the last five years for mold exposure or for stachybotrys or for mycotoxins?
A. That's true.
Q. And it could -- it changes every day, I presume, but would it shock you to know that a search last week showed 2,500 articles in the last five years on -- on mold exposure?
A. No, it wouldn't surprise me.
Q. Or on mycotoxins, 204 articles in that same period of time?
A. No, that's --
Q. Okay. And is this an indication that this is an area that's very much under scrutiny and study in the scientific community?
A. I know it's under scrutiny and it's also under study, so --
Q. By medical scientists and by microbiologists and

others who have --
A. And lawyers.
Q. And lawyers. Okay. You -- you generally keep up
with the literature, do you not?
A. I do, yes.
Q. And of the things that have been published in the last five years, what would be the ratio of those publications that would agree with what Dr. Saxon has published and those that agree opposite of that?
A. I don't -- since when? The last five years?
Q. The last five years, yeah.
A. I don't know of any myself, but I don't go looking for things that aren't scientifically stressed. If I see papers that have opinions, but there's no science in them, I'm not interested. So I can't say for sure. But I would say in the scientific area, where they're presenting data, it would be zero.
Q. Okay. So you have not seen any articles like the AAAI report or the ACOEM report since those reports were done?
A. No.
Q. Okay. You haven't looked at all the literature, but --
A. No, the -- the WHO report, I've seen that one.
Q. Okay.
A. World Health Organization, but -- and that doesn't -- that isn't as negative as the AAAI.
Q. Well, the World Health -- actually, it's just a few pages in the World Health Organization report that can be
interpreted as negative. If you read the rest of the report, it doesn't -- it doesn't turn out so negative, does it?
MR. ROSS: Objection, leading.
A. Yeah, if you -- yeah, to me, the -- the WHO report was neither negative or positive for me in the scientific area.
Q. (BY MR. PARRISH) Okay. You brought with you today some articles that are recently published that you considered to be on point that support your view of -- that you've testified here today; is that correct?
A. That's correct.
Q. I'm going to hand you what's been previously marked as Exhibit 5 and can you briefly state what that is, what the title -- if you can read the title of the article so the record will be committed -- will be here and we can identify that title with that number.
A. This -- this is titled, Exposure to indoor mold and children's respiratory health in the PATY study, P-A-T-Y and they're all capitals. And this was published in the Journal of Epidemiologic Community Health in 2008.
Q. Is that a peer-reviewed journal?
A. It is.
Q. Okay. And what's -- what did you deem significant about that article?

A. That it's -- that it reviewed a bunch of children's
0119
exposure -- of 58,000 children in -- in a cross-sectional study of children throughout Europe. And the conclusion that they came to is indoor mold exposure was consistently associated with adverse respiratory health outcomes in children living in many different diverse countries.
Q. Okay.
A. And these were children exposed to different issues in the homes or in buildings.
Q. Okay. And does that have a reference section so that it refers to other published literature?
A. Yes, it does.
Q. How many references does it have?
A. Let's see. It's 36 different references.
Q. And that's just other literature that has been published?
A. Yes.
Q. Okay. I'll hand you what's been previously marked as Exhibit 6.
And what's the title and -- of the journal and why did you consider that to be significant?
A. The title is, Visually observed mold and moldy odor versus quantitatively measured microbial exposures in homes. And this was published in the Science of Total Environment in 2010. And it was just comparing different methods of assessing mold exposure in conjunction with kids with asthma.
0120
And there were a number of homes evaluated. They took the ERMI test, which I discussed earlier, and they -- they talked about the results in air and dust samples that they indicated different types of potential microbial exposures from dust versus air and they -- they suggested doing more studies on this area.
Q. And is that a peer-reviewed journal?
A. It is.
Q. Okay. Does it cite other studies?
A. It cites -- they don't number them in this case, but I think there's probably about 60 journals.
Q. Okay. Journal articles?
A. Journal articles they recited -- they cite.
Q. And I'll hand you what's been previously marked as Exhibit 7. And could you tell me the title and the publication, the date of publication and what you found to be significant about that?
A. The title is, High environmental relative moldiness index -- or ERMI -- during infancy as a predicate -- a predictor of asthma at seven years of age. And this was published in 2011, if I recall. Yeah, August of this year. And it's the -- the gist is that early exposure to molds as early as one year old increase the risk of asthma.
And this is peer reviewed and there is 31 papers -- peer-reviewed journals that they cite as well. This
0121

is written out of the University of Cincinnati.
Q. So the authors are -- they wrote for the University of Cincinnati?
A. They -- they work at the University of Cincinnati. They wrote in the Annals of Allergy and Asthma.
Q. I'll hand you what's been marked as Exhibit 8. And if you can give me the title, the publication and what you thought was significant about that.
A. Okay. Detection of macrocyclic, m-a-c-r-o-c-y-c-l-i-c, trichothecene mycotoxin in a caprine, which is a goat, tracheal instillation model. And this is by Straus and his group at the University of Texas. And the reason I brought this is because it shows that they are using the -- they use a kit called the QuantiTox kit to look at mycotoxins, especially trichothecenes from animal goat models.
And it just shows that you can challenge the animals to these toxins and they do -- they do get -- you can find them in the -- in the blood or in the respiratory secretions.
Q. And this was published when?
A. This was published in -- I think this is published in 2009. Yeah. 2009. Toxicology and Industrial Health.
Q. All right. And that's a peer-reviewed journal?
A. Peer-reviewed and there are at least 50 papers again.

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Q. In support of their position?
A. That's right.
Q. I'll hand you what's been marked as Exhibit 9. And give me the title, the journal, the --
A. Okay. This is, Detection of Airborne Stachybotrys chartarum Macrocyclic Trichothecene Mycotoxins in the Indoor Environment. And this is, again, a Straus paper. And his last name spelled S-t-r-a-u-s.
And it's -- it talks about how -- this was written in 2005, but it's a paper I refer to a lot because it how -- it's how I build the mycotoxin evaluation for especially tricothecenes. And he used different samplers to test the dust particles. And he found the mycotoxins in the dust particles.
Q. Okay. And that was 2005, you said?
A. Right. And it was peer reviewed and doesn't have all his -- I didn't give you the whole paper. I'll -- I'll have to get you the whole paper because there's -- there's about five pages to this. 737 -- oh, no, there's 12 pages and I -- and on top of it, there's something that has nothing to do with the paper.
Q. Okay. Just detach that.
A. Okay.
Q. Okay. But you are familiar with it, you know it's peer reviewed --

0123

A. Oh, yes.
Q. -- it's accepted in the scientific community?

A. Right.
Q. I'll hand you what's been marked as Exhibit 10.
Can you tell me the title, the publication, the date and what's --
A. Measurement of mycotoxins in Patients with Chronic Rhinosinusitis. And this was written out of the Head and Neck Surgery Journal, Otolaryngology. And this was published in 2010, if I recall. No, 2011. It was submitted in 2010, but it was published in 2011. And it's written -- this comes out of New York University.
And this is on mycotoxins and how they are found in the sinus tissue of patients who they take out the polyps -- or they take out respiratory epithelium out of the sinuses. And they find the -- they found tricothecenes in patients who were exposed to the stachybotrys and Fusarium.
This is peer reviewed -- it's a short communication, but it's peer reviewed. And there's only five papers there, but they're very powerful papers.
Q. Okay. And I'll hand you what's been marked as Exhibit 11. If you could tell me the title, the journal, the date of publication and what's significant about that.
A. The title is Immune Response among Patients Exposed to Molds. And this is in the International Journal of

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Molecular Sciences. And this is published by a number of people. Dr. Edmondson, E-d-m-o-n-d-s-o-n, is the lead author.
And these are -- this is out of the University of Michigan, if I recall. And the abstract that -- well, the -- they point out that they can -- the -- the trichothecenes produced by stachybotrys cause adverse reactions in individuals exposed to mold contaminated environments. And they have cellular and humoral responses that they taught about in the blood on these lymphocytes.
They talk about T-cell proliferation and what the macrocyclic trichothecenes are and then they -- they summarize it that says, IgE mediated or other non-immune mechanisms could be the cause of all these patients' symptoms. And they list the -- the symptoms very similar to what Mrs. Hunter has. And there's a list of references that are 36 -- there's 36 papers and it is peer reviewed.
Q. All right. Hand you what's been previously marked as Exhibit 12 and -- and if you'll give me the title of the journal, the date of publication and --
A. This is Airborne Endotoxin and Beta-D-glucan in the particle size fragmentation -- PM -- in Agricultural and Home Environments. And this is published in 2011 under Aerosol and Air Quality Research.
Q. Under, is that the --
A. That's the name of the journal. And the conclusions

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of this are that there's a high proportion of microbial endotoxins and Beta-D-glucan which is the surrounding antigen in -- in a mold in homes. And they compared this to farms.
The data suggests further that there was --

they should do better size selective air sampling in homes. So -- and this has about 70 journals that they cite.

Q. Journals, or articles?

A. Articles.

Q. And I'll hand you what's been previously marked as Exhibit 13.

A. This is titled, Frequency and Species Distribution of Gliotoxin -- G-l-i-o-t-o-x-i-n -- Producing Aspergillus Isolates Recovered from Patients at a Tertiary Care Cancer Center. And it's written in Journal of Clinical Microbiology in December of 2005.

And we are using this journal article to build on our DNA probes and the fact that gliotoxins are found in patients who have immune deficiencies or they're transplant patients. And they -- they -- after a year after being transplanted with kidney or liver or whatever, 33 percent of them die of a fungal infection even if they're treated with antifungals.

So we -- we believe that the toxin is what's killing the patient, not the organism itself. This was published out of M.D. Anderson and this -- they -- they're

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continuing to do their research in this area.

Q. Okay.

A. That was 13.

Q. And that's --

A. And that's peer reviewed and there's -- 14. And there's more junk on here that is not -- I don't know how I got this in there, but this is stuff I don't need.

Q. Okay. Now, this M.D. Anderson, that's M.D. Anderson in Houston --

A. Yes.

Q. -- the -- a renown hospital?

A. Right.

Q. And cancer focused?

A. That's right.

Q. Okay. I'll hand you what's been previously marked as Exhibit 14 and could you give the title, the journal, the date and what's significant?

A. This says, Fungal exposure endocrinopathy in sinusitis with growth hormone deficiency called the Dennis-Robertson syndrome.

Q. Published in?

A. And this was published in 2009.

Q. What journal?

A. In Toxicology and Industrial Health.

Q. Peer -- peer reviewed?

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A. Peer reviewed. And there's 45 peer-reviewed journals that it cites under references. And it's a study of 79 patients who've had a history of mold exposure, but they also have the same symptoms as Mrs. Hunter in fatigue, chronic sinusitis.

They also -- this patient had a problem with

the pituitary and -- or these patients. There were 79 of them. And they cite Realtime Labs' procedures in this paper in that they say that the symptoms seen in this -- in the rhinosinusitis and the problems with the pituitary were related to mycotoxins.

Q. So your article in 2009 is cited there?

A. No, not our article.

Q. Okay.

A. The actual laboratory doing the work.

Q. Okay. All right. Make that Exhibit 14.

Hand you what's been previously marked as Exhibit 15.

A. Molds, mycotoxins and sick building syndrome. This was published in 2009 by David Straus. And it's -- it's a whole review, a very strong review of molds and mycotoxins, especially with stachybotrys. But they also cite penicilliums -- or he does -- and talking about indoor health problems, symptoms. And what it is is a review of literature.

And he has -- he's given approximately -- I'd say about 50 -- again, 50 good papers that he cited on -- on molds and mycotoxins.

Q. Is that somewhat of a bibliography?

A. No, it's references. He -- he just goes through and he looks at every study that was -- that he deemed was important and talked about how -- how people found things that -- air sampling, test -- test building descriptions, air sampler descriptions. And they were --

Q. Well, surely he cites Dr. Saxon's work in here, does he not?

A. No. No, he doesn't.

Q. How many pages is that?

A. This is --

Q. It's a lengthy article?

A. Yeah, it's about 30 pages.

Q. Okay.

A. No, it's 20 pages.

Q. And I'll hand you what's been previously marked as Exhibit 16.

A. Okay. Sarcoidosis, asthma and asthma-like symptoms among occupants of a historically water-damaged office building.

And this talks about the fact that we -- as pathologists, we find -- and as pulmonologists, they find a lot of granulomatous disease that looks like TB. And they don't find any TB organisms. And they ultimately give the diagnosis because it's a -- a rule-out diagnosis called sarcoidosis. And there's -- and they start out this paragraph by -- or this paper by saying, sarcoidosis is a granulomatous disease of unknown etiology with evidence of exposure to microbial agents such as mold.

And -- so they build on this that -- they give the statistics on how the water-damaged office buildings have

not only bacteria, but mold and they cause problems with pulmonary disease that has been, in the past, diagnosed as sarcoidosis.

Q. And that's peer reviewed?

A. Peer reviewed. And there is a -- again, these people don't number them, so I'm estimating around 30 references.

Q. I'll hand you what's been marked as Exhibit 17. What's that?

A. Okay.

Q. Title?

A. Use of Insurance Claims Data to Determine Prevalence and Confirm a Cluster of Sarcoidosis Cases in Vermont. And this was written in June of '09. And it's written by a group of M.D.s in Vermont and -- at the Department of Health. And their conclusions were interesting about sarcoidosis again. And they say, we reported the first statewide sarcoidosis

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prevalence in the United States. This prevalence exceeded previous limited and unsubstantiated U.S. reports. Even with Vermont's elevated sarcoidosis prevalence, the presence of a cluster in this building was apparent.

And they're saying that they find this huge amount of sarcoidosis which is associated with molds or -- or bacteria in patients in Vermont.

Q. Okay. Peer reviewed?

A. Peer reviewed and it's in -- it's a public health report. And there were 18 peer -- references they note.

Q. Public health report of Vermont --

A. Of Burlington, Vermont Health Department.

Q. Okay. Hand you what's been previously marked as Exhibit 18 and --

A. This is called, Toxicology of mycotoxins. This is written out of Portugal, which I'm sure Dr. Saxon would not like. But the -- the gist of this whole thing is -- it was written in 2010 and it's -- the statement says -- and I did not bring the whole paper, but it is peer reviewed. Mycotoxins are more toxic than pesticides. Studies are moving from whole animal work to investigating biochemical mechanisms in isolated cells and the mechanisms of toxicity.

And so then they talk about aflatoxin and ochratoxin. And it's anticipated that more fungal metabolites will be recognized as dangerous toxins and permitted statutory

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levels will decrease in the future.

Q. What's metabolites?

A. Toxins.

Q. Okay. I'll hand you what's been marked as Exhibit 19.

And what is that?

A. The title is, Exposure assessment to mycotoxins in workplaces: Aflatoxins and ochratoxin A occurrence in airborne dusts and human sera. This was published -- I know, I stated that these are old articles, but this was a good one.

A lot of our assumptions and a lot of papers on ochratoxin A are based on something -- on this paper as well as others, but this was published in 2002.

And they talked about sampling 44 samples of airborne particulates in Italy and -- where the three most susceptible foodstuffs, cocoa, coffee and spices are also processed. And they talked about -- they say in their last sentence, ochratoxins A in workers' sera showed higher level results than mean level in Italian population, showing that inhalation in this workplace can be considered a route of exposure additional to and probably higher than the consumption of contaminated foodstuffs.

Q. So inhalation was studied in 2002 before Dr. Saxon even has proposed that there were no studies involving inhalation?

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A. That's right.

Q. I'll hand you what's been marked as Exhibit 20.

A. Okay, this one, I don't know how helpful it is, but it was interesting to me. In vivo Hypoxia -- or low oxygen -- and a Fungal Alcohol Dehydrogenase -- which is an enzyme -- Influences the Pathogenesis of Invasive Pulmonary Aspergillosis. A mouthful. And this was published in July of 2011. And it's just -- it talks about --

Q. What journal?

A. Oh, in the -- I don't know what journal. I can't -- I think this is -- I can't tell you. Can't remember where I got this. It's -- he comes out of Montana State and I think --

Q. It's cut off at the bottom, is it not? The copying cut off of the --

A. It's an Open Access Journal, which -- and I think it has to do pathogenicity, but I can't remember the name of the article. And I think this is it, PLOS Pathogens, but I don't know for sure.

Q. Okay. How do you know it's peer reviewed?

A. Oh, because it's Open Access, freely available online and it's -- it's -- I don't take anything but peer-reviewed journals, so -- and it came through us through PubMed, so that's -- that's an area that only lists peer-reviewed journals.

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The editor is -- who is this journal? Let's see. Here it is. Yeah, PLOS Pathology. That's what it is. And the editor is out of the school of medicine University of California at Los Angeles, UCLA. So the -- the actual editor who gave approval to this was Dr. Filler, F-i-l-l-e-r. And so -- and he's from UCLA, so --

Q. Dr. Saxon is from UCLA, isn't he?

A. Yes, he is.

Q. Maybe somebody on the faculty there disagrees with him?

A. Could be.

Q. And did you say when that was published?

A. In July of 2011.
Q. Hand you what's been previously marked as Exhibit 21.
What is that?
A. Co-occurrence of toxic bacterial and fungal secondary metabolites in moisture-damaged indoor environments. This was written in Indoor Air in 2011. And it talks about all the bacterial and secondary mycotoxins that are found. And their final sentence is, we show toxic bacterial metabolites need to be considered as being part of a very complex and diverse microbial exposure in moldy buildings.
Q. All right. And the date?
A. 2011.

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Q. And cite references?
A. Yeah, there's at least 12.
Q. Okay. And are those 20 articles typical of the kind of articles that are being published?
A. Yes.
Q. Just a little bit more detail and a little bit more --
A. Yeah, I didn't pull any of the -- the molecular stuff. But there's plenty of molecular papers that are being published on what these mycotoxins actually do.
Q. Well, my next question to you is, what do these mycotoxins do? We've talked about they get inside the body.
A. I brought a -- funny you should ask. I brought a PowerPoint that I don't have -- I didn't publish -- or print it, so I can send you guys the three copies -- the three pages. It's just three pages.
MR. PARRISH: Okay. And let's preserve the next exhibit number for this and he'll get your information and send it directly to you.
THE REPORTER: Okay.
Q. (BY MR. PARRISH) So this will be Exhibit 22.
A. This is what the mycotoxins do. But this is the blood vessel --
Q. Now, when you're saying "this," because we've got a written record, you're talking about the purple --

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A. I have a -- a picture -- I don't know what you call this -- a picture.
Q. Well, it's the first -- it will be the first page of Exhibit 22.
A. Okay. And it's called LDL and atherosclerosis. But it shows they -- the purple cells as the lining of a blood vessel. And this is -- right here at the top of the picture is the -- the actual blood flowing through. And there's a monocyte -- this is a -- a cell --
Q. This being the red?
A. The pink cell that is at the very top is the monocyte. And it is migrating through the blood. And it's the scavenger. It's looking for picking up any kind of garbage, like mycotoxins, etcetera. It can -- this monocyte

can travel through these endothelial cells and end up in the tissue.

Q. So it gets outside the blood cell?

A. It gets outside the blood vessel.

Q. Okay.

A. And it can associate with different chemicals like cytokines. Cytokines stimulate lymphocytes. And it can associate with oxidized LDL and cause smooth muscle cell growth proliferation.

Q. Is that a bad thing?

A. Depending on where the smooth muscle grows, yes.

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Q. Okay.

A. It can also cause macrophage foam cells. If these macrophage develop foam cells, they deposit back up into the blood vessels and they cause atherosclerosis. So then you get closing of the arteries.

So anything that can stimulate this monocyte to get garbage in it like a mycotoxin could -- could cause atherosclerosis, it can cause smooth muscle problems.

The second page of this shows how we're protected by HDL, which we're all very -- very cognizant of HDL in our cholesterol. But we have these -- again, the blood vessels with the monocyte, the garbage man, and then you have HDL floating in your blood. HDL protects us. So the more HDL we have, the less problems that can occur with a toxin or whatever.

And then we get something now that's coming out -- that we -- we're starting to measure in our laboratory called oxidized LDL. And the more oxidized LDL that we find, the more problems is occurring at the blood vessel level or at the muscle level or at the neural level.

So a patient with mycotoxins will have increased oxidized LDL and will cause problems at the blood vessel level. And the final thing --

Q. LDL, that's what you don't want in your cholesterol?

A. You don't want LDL.

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Q. That's the bad cholesterol that they refer to?

A. And then now there's a newer one that the -- that the cardiologists have published in 2008, oxidized LDL. And that's even a precursor to LDL. So if you have oxidized LDL, it's really bad.

The third one and final one is just a very complicated picture, but there's only two proteins that -- that we, in mycotoxins, are concerned with and it's something called Nrf2 and the Keap1. And these two associate very closely together and maintain the membrane of a cell, which is this bottom oval-shaped, moon-like structure. This is the -- this is the surface of a cell, this is the blood and this is inside.

Q. Now, this the blood, that's the darker-colored --

A. And this is -- yeah, the -- the upside of the slide. The bottom part of the slide is the inside of the cell and

then all these proteins here. And if mycotoxins are associated with this, they cause disruption of these two proteins, the two proteins then cause problems inside the cell. And the two proteins, again, are Nrf2 and Keap1. And if that occurs --

Q. Wait. What -- you've got a little orange star there that says ROS and you referred to that as mycotoxin?

A. Well, it's -- it's a reactive oxygen species. So it's a -- mycotoxin is one of the -- it's other toxins as

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well. But this is how mycotoxins work.

So it associates with these two antigens and stops everything from going into the cell if -- or it allows things to go into the cell if it's high enough. If it's low enough and stopped by glutathione, these two can't get into the cell and everything functions very well.

So it's a -- this takes a lot to explain. But the bottom line is that there are identified proteins now that protect the cells or allow the cells to live longer in the presence of toxins if they have something like glutathione to keep them -- keep these together.

Q. So how does the mycotoxin get inside the cell?

A. It -- it can -- there's -- there's other models that show that these have receptors, it's sort of like an arm sticking out of the cell membrane. And it will recognize this structure, the ROS, or the mycotoxin. And when the mycotoxin floats by, it picks it up and pulls it into the cell.

Q. And what would stop that from happening?

A. The glutathione. The glutathione would increase these Keaps and Nrfs so that it won't happen.

Q. So --

A. It will block that -- those receptors.

Q. And if you can keep the mycotoxins outside the cell --

A. Then the macrophages or those monocytes will come

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and pick them up and gobble them up and spit them out in the urine.

Q. Okay. If, on the other hand, the mycotoxins get into the cell --

A. Then they --

Q. -- then you have a different issue?

A. Then they get involved with DNA and protein synthesis and they can affect everything from myelin sheath problems to GI problems to bladder problems, whatever end organ they're invading.

Q. Okay.

A. So they send out signals in their DNA to other areas. I wish I could have thought of this, but this is areas that Dr. Petska is working on.

Q. And if the mycotoxin gets inside the cell, doing the things you said, how do you get it out of that cell?

A. Well, you wait -- you -- you won't get it out of that cell. It will kill the cell sooner or later. The cell

dies. And it's always living and dying. And when it dies, the toxin just moves to another cell. Because it's a chemical, it's not going to die.

But if you can protect and build your other cells up to keep them from invading, then the -- the garbage men, the monocytes, the macrophages will pick up the mycotoxins and spit them out.

Q. So --

A. Because they can't invade the other cells, the healthier cells.

Q. So when you're talking about the glutathione and similar treatment modalities, you're talking about empowering the cells that are not invaded so that the mycotoxin will -- when it comes -- when it kills the cell that it's in, will have no other place to go?

A. Or when the cell just dies of old age.

Q. When it dies, the mycotoxin that was in that cell gets out of the cell and it's in the blood?

A. Yeah, it can be released --

Q. It's just --

A. -- anywhere --

Q. -- floating -- waiting -- looking for another cell to get into?

A. Uh-huh.

Q. And --

A. Now, keep in mind that this -- the models that have been proposed are fairly well documented in the literature. I'm summarizing it to become a little more simplistic than it actually is.

Q. All right. But for illustration purposes, for non scientists --

A. Yes.

Q. -- this is an accurate enough picture?

A. Knock on wood, yes.

Q. Okay.

A. At the present time, that's how we believe and that's what the literature is showing.

Q. So if the other cells are not empowered to keep that mycotoxin from invading the cells, it will invade other cells just like the one that it invaded?

A. It will be -- it will -- the receptors on other cells will recognize it and pull it into that cell.

Q. And it will do the same thing in those cells?

A. Yes.

Q. And it's -- you said change DNA.

What do you mean by that?

A. It mutates it, it causes mutagens. And so that's how aflatoxin causes a -- adenocarcinoma of the liver. That's how ochratoxin causes renal cell cancer. It causes mutagenesis of the DNA.

Q. And while all this is going on, this intracell activity of mycotoxins, the body that's encasing all of this

is reacting in different ways?
A. To --
Q. Mucus, coughs --
A. Yeah, it's just like a cancer --
THE REPORTER: I'm sorry, I didn't get --

mucus --
Q. (BY MR. PARRISH) Coughs.
A. So that the -- it's just like a cancer patient. The -- the cells are changed and so the patient is reacting in some way to that.
Q. Okay.
A. To an infection or to a -- to a malignancy.
Q. Now, back to the quantitative issue that Mr. Ross was raising.
If you -- I presume that the mycotoxin being a chemical is fluid?
A. Yes.
Q. And if you had just --
A. Well, wait a minute. It's fluid. No, it can exist in fluids, but it's a chemical. It can be -- it's a structure that can be solid.
Q. It can be solid?
A. Uh-huh. Yes.
Q. So it -- it could be --
A. It's a chemical.
Q. All right. Well, if you had such a small quantity, let's say below the detection levels that you report here, could it just affect one cell and be done?
A. I don't know. I can't tell -- I don't know enough about the quantification of it.

Q. Okay. Is this called pathways?
A. Yes.
Q. Okay. And is there something -- another aspect of pathways?
A. Molecular aspect -- I -- I would say molecular activity.
Q. Why do trichothecenes cause one condition, aflatoxins another, ochratoxins another and is there an affinity to organs or --
A. Yeah. And -- and if you look at these structures, like tricothecenes look just like hormones, progesterone and testosterone and estrogen. So that's why we have to take those hormones and do studies to see if our tests would recognize it as hormones. And it doesn't. There's enough change in the -- in the structure that we can't find it if it's just a -- if -- if it's a hormone.
So, yeah -- and aflatoxin -- the structures of these things, they look -- they're multi-ring structures and they have -- they look like other chemicals, like even a -- could look like a -- very similar to oil, the oil industry. But it doesn't -- it doesn't look exactly like that.
Q. Okay.

A. It isn't recognized by --
MR. PARRISH: Mark this as the next --
(Exhibit Number 23 marked.)

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Q. (BY MR. PARRISH) I'll hand you what's been marked as Exhibit 23. And you received the environmental study that Dr. Lipsey did?
A. That's correct.
Q. And that's part of your affidavit, that's one of the exhibits to your affidavit, is it not?
A. Yes. I got two reports. One dated 5/27 and one dated 6/4/2010.
Q. Okay. Now, these are color-coded -- I've got -- well, first of all, I'll ask you if you can identify these as the --
A. These are the same reports I got, yes.
Q. When you got them, they didn't have the coloring?
A. No, they didn't.
Q. Now, these are reporting sampling that was done in May of 2010; isn't that true?
A. Yes.
Q. And the -- that's six months roughly after you did your urinalysis, which is roughly six months after Dr. Campbell first saw her. And no aspergillus was reported as being in the environment at that time or no Penicillium. But here six months later, you're getting a report that shows aspergillus and Penicillium in almost all of the sampling.
A. Yes. I see on -- on 5/24 -- 5/27 -- I'm sorry -- I see Penicillium and aspergillus present in the Sugar Creek

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building, northeast baseboard, Sugar Creek building six grill vent, and Sugar Creek-9 mechanical room near -- near fron moldy tiles. I guess front.
Q. Okay. Now, if you look at sample ten, it's at the top of that page --
A. Right.
Q. -- which is Hunter 399.
A. Uh-huh.
Q. And that sample ten, you got a -- you got that and that's what you did your report on that is Exhibit 2?
A. Correct.
Q. And what does it show on there?
A. They have a four-plus stachybotrys species, a few Chaetomium. And we found no trichothecenes in this -- oh, no, no, we did find huge amounts of trichothecenes, 1.622 parts per -- to me, that's a large amount.
Q. And does that correspond to .4 --
A. No, four plus.
Q. Pardon me, four plus.
A. Four plus is the maximum that they grade. They grade one to four.
Q. So stachybotrys was found in sample ten and you found a large amount of --
A. Yes.

Q. -- tricothecenes? And you found ochratoxins in it?
A. Yes.
Q. But it doesn't show there that -- that there were -- that there was aspergillus?
A. No.
Q. But if you had ochratoxins and afla -- I mean, ochratoxins, what would -- if you found ochratoxins in that sample --
A. I would be looking for aspergillus ochraceus or -- that's o-c-h-r-a-c-e-u-s.
Q. But from what's on 399, Hunter 399, it doesn't appear to be there?
A. No.
Q. All right. What else do you see?
A. I see Chaetomium present.
Q. Is that a mycotoxin producing --
A. We -- we believe so, but nobody has published what is -- causes -- or if it produces any mycotoxin. It's a severely bad organism in the literature, in -- and it goes to brain and nerve tissue and has been found in brain tumors.
Q. Okay.
A. And been causative agent of brain tumors and death.
Q. All right. Now, this page shows Penicillium in sample six?
A. Yes.
Q. And in sample nine, it shows stachybotrys and aspergillus, right?
A. That's right. And Chaetomium.
Q. Okay. Then this is a direct microscopic examination and it shows --
A. Four-plus stachybotrys again.
Q. Okay. And the next one is direct microscopic examination report, just a continuation of it; is that right?
A. It shows the same thing as before, Penicillium in the grill vent and stachybotrys -- very low stachybotrys, but some present in the moldy tiles.
Q. It shows Penicillium?
A. Uh-huh. I did say that, yes. And it shows Chaetomium in the moldy tiles as well.
Q. All right. And that's just a --
A. And this is the -- this is the chain of custody that EMLab produced -- or that they produced. They filled -- Lipsey filled it out, sent it with the specimens to EMLab, and then number ten was sent to us, Realtime Lab.
Q. Okay. These are just other samples, right?
A. Now -- and then the one done on 6/4 is -- shows a large number of Gram-negative rods --
Q. Bacteria?
A. -- bacteria.
Q. And that's on what page?
A. Hunter 503.

Q. Okay. And are those all bad guys, endotoxin producing, or can you tell?
A. I can't tell from this. I can just say there's Gram-positive or Gram-negative rods.
Q. And can you -- can you say anything about the quantities here, 34,000,000, 31,000,000?
A. I can't say anything about that because I'm not used to looking at how many bacteria are found in floor dust.
Q. Okay. What else?
A. Same thing on the second page, Hunter 504. It just shows more Gram-negative rods.
Q. All right.
A. Hunter 505, same thing, more Gram-negative rods. And then we have a fungal culture report that was done on that same date, date of report -- this is -- the date of receipt was the first test, 5/27. And date of report is about seven or eight days later.
And they -- they find in Sugar Creek number five, which is a mechanical room under floor dust -- and this is on page Hunter 507 -- they find aspergillus nidulans, sydowii, ustus -- they found a number of organisms which are aspergillus that can produce the aflatoxins and ochratoxins. And then they find Penicillium. In number ten, they find aspergillus sydowii, aspergillus ustus, Penicillium and stachybotrys.

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So they find the organisms that produce ochratoxin and aflatoxin, they -- which is Penicillium and aspergillus and they find the organism that produces trichothecenes.
Q. Now, that is on the fungal culture report?
A. That's right.
Q. But on the earlier report --
A. The other one is just a tape.
THE REPORTER: I'm sorry, what was --
A. The fungal culture in the second one, the one that was -- I read originally was a direct microscopic, which is a tape lift.
Q. (BY MR. ROSS) Okay. And so --
A. Hunter 399 was --
Q. So you have to look at Hunter 399 and Hunter 507 to see exactly what sample ten contained?
A. That's right.
Q. And you can tell from what's Hunter 507 that it did contain the aspergillus and the Penicillium that would produce the ochratoxin that you found?
A. That's right.
Q. And are there other samples that showed aspergillus and Penicillium?
A. Yeah, the -- sample number three showed aspergillus, but it shows other organisms that I don't know if they produce

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mycotoxins, but it did find one that I thought was interesting in mucor, m-u-c-o-r. Mucor can -- if you find mucor in a

house and you have a diabetic in the house, get that diabetic out of the house immediately. Because mucor can kill the diabetic.

Q. Okay.

A. Even in small amounts.

Q. If you go back up to SC-5, there is a trichoderma?

A. Yes, that's a trichoderma specimen. But that produces tricothecenes. So they found -- they found the trichoderma in the culture and they also found the stachybotrys in the drywall of -- the paper of the -- number ten.

Q. All right.

A. So --

Q. The next --

A. And that's -- everything else is about the same. They found Chaetomium, Penicillium, aspergillus in all these. There's nothing else to comment on in these. Stachybotrys again, but that's found throughout.

Q. Now, are all of those findings consistent with what you -- what your -- your lab report reported?

A. Yes.

MR. PARRISH: Mark this, please.

(Exhibit Number 24 marked.)

Q. (BY MR. PARRISH) I'm going to show you what's been marked as Exhibit 24. This is a letter -- it has letterhead SCS and it's written to George Britton, October 22, 2009. And it -- it has markings, colorations on it. Those were put there by me for emphasis. But it's by Scott Stephens and he has all these things behind his name that indicate that he would be qualified to do a study, an environmental study on the premises.

Now, if this -- this is the only thing that existed by way of an environmental study before -- when -- when she saw Dr. Campbell and you did your first urinalysis in November of 2009, does this -- you've looked at this before, have you not?

A. I have.

Q. And this does not eliminate there being aspergillus or Penicillium or any other molds, does it?

A. No. This gentleman did -- according to his multiple letters behind his name that he is certified and qualified to speak and say what he says, he did recognize mold, but he does more than I've ever seen anybody do, which if he's qualified to do this, that he can say by looking at physical mold growth, that it's stachybotrys. We, who work in this all the time, have to have a microscope, have to have stains to look at these, have to have tape lifts or cultures.

So it's commendable that he -- he can say that this is definitely physical mold growth stachybotrys. I would say that he saw mold growth and it probably involved stachy, but it could have been other things like aspergillus or Penicillium, whatever.

Q. And there's only one other mold that he saw?
A. Well, he cites Cladosporium, which is another very difficult mold to cite just by seeing that's what it looks like on the wall. So you need to grow it on culture media or look -- it's very hard to even do a tape lift on Cladosporium, but you can do it.
Q. Okay. Well, otherwise in here, he doesn't do any invasive -- he doesn't go behind any walls and his air samples are just -- are not from inside the walls.
A. Well, yeah. He did say that he removed water-damaged cabinets. And then he said inspect hidden areas for physical mold growth, which I didn't understand what that meant for sure. That -- did he remove things, or is that his suggestions?
Q. Well, he -- this is protocol for --
A. So the bottom line is that he saw mold, and at times, I wondered if he -- if he really went behind the walls or if he -- and saw things or if he just was suggesting to do that.
Q. He does talk about it at the time when he's talking about his air samples.

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Air samples are very at the moment kinds of things, are they not?
A. Yes.
Q. He does cite the HVAC as an issue that needs to be dealt with?
A. Yes.
Q. And does he have some disclaimers that he includes at the end of his letter?
A. Yes.
Q. And I'll read --
A. As usual.
Q. Yeah. He said, the limited data gathered during the course of the SCS has performed the tasks set forth in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. SCS cannot guarantee and does not warrant that this microbial assessment has revealed all adverse environmental conditions affecting the site. Nor can SCS warrant that the assessment requested would satisfy the dictates of or provide a legal defense in connection with the environmental laws or regulations. The results of the report and any opinions reached by SCS are for the benefit of the client. The results and opinions set forth by SCS in this report will be valid as of the date of this report.
A. Yes.

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Q. Now, what -- if you can say -- and if you can't, can you say who could say -- that the molds that were found in -- in May of 2010 were there in October of 2009 and before?
A. I can quote an individual named Chin Yang, Ph.D. who works for -- he used to work for EMLab, well respected in mycology and mycotoxins -- mostly mycology. But he can -- and

I brought a deposition that he gave in California that I was involved with in a 402 hearing that --

Q. 402 meaning a hearing designed to disqualify unqualified experts?

A. Yes. Right. And both he and I were in there. And we both became qualified to -- to go to that Daubert or Frye hearing or whatever mixture. So -- but he can take the number -- he can go backwards with the half-lifes of an organism, a stachybotrys -- especially stachybotrys and he can say, if I find ten organisms now, how many organisms were present a year ago.

And it's been accepted in the -- in the courts. And I brought that. I don't know if you want to use that or not, but it's his -- it's his deposition in a case that he talks about half-lifes of stachybotrys, half-lifes of organisms and how he can date them back. I don't know how -- I cannot repeat all he said, but there's pages of it in here.

Q. Okay. Well, let's mark that as the next exhibit, which will be 25 and we'll make copies.

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A. I'm supposed to bring this back. This.

Q. Okay. Well --

A. It's special.

Q. You can take it all back, but we'll just mark it with an exhibit sticker on it.

(Exhibit Number 25 marked.)

Q. (BY MR. PARRISH) All right. So otherwise, other than the half-life --

MR. ROSS: Well, can --

MS. CANTER: This isn't the entire deposition either.

MR. PARRISH: Well, let's go on record and say what it is. This is -- says a deposition, Certified Reporting Services, it's page 35 through 74 -- actually, through 75. And it says at the top, Deposition of Chin Shan Yang.

A. Chin Yang.

Q. (BY MR. PARRISH) Well, it's got his middle name.

A. Oh, Chin Shan Yang.

Q. Okay. And you have selected these pages because these are the pages in which he talks about half-lifes and how the science is in that regard?

A. That's correct.

(Exhibit Number 26 marked.)

Q. (BY MR. PARRISH) I'm going to hand you has been identified as Exhibit 26 and just ask you if you can identify

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that.

A. Yes, I can. It's a transcript of a 402 hearing held in April of 2010 concerning the Rivera case as plaintiffs against AIMCO Pathfinder Village.

Q. And you -- this is a transcript of your testimony in open court in front of a judge, right?

A. That's right.

Q. And the issue was whether or not you were qualified

to be an expert witness in this case, Rivera versus AIMCO Pathfinder?
A. That's right.
Q. And the subject matter you were to testify about is the same as you've been testifying about today?
A. Correct.
Q. And you had the defense attorney questioning you, you had the plaintiff's attorney questioning you, you had the judge interacting with you?
A. It was ugly, yeah.
Q. And it lasted a long time?
A. A long time.
Q. And at the end of it, the judge on page -- well, the thrust of this was that ELISA testing is not accepted in the scientific community in general?
A. That's right. Yes, that's true.
Q. And the judge interacted with the plaintiff's

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attorney after you were off the stand and said to the plaintiff's attorney that he thought you were qualified?
A. She.
Q. She. I'm sorry. Okay. But what happened to the case after that?
A. It settled.
Q. Okay. So you didn't get to testify?
A. No.
Q. Have you ever gotten to testify in open court --
A. No.
Q. -- at a trial?
A. No.
Q. Okay. But you've never been disqualified?
A. No.
Q. And you had that question put on how many times -- you've got a list in your affidavit of the -- how many times you have been given depositions and how many different cases and when. And in all of them, you were challenged and in every one of them, if there got to be a hearing on the question, you were ruled to be qualified to testify?
A. That is correct.
Q. And considering the date, you've got more updated information today, but you had basically the same testimony to give then as you do now updated by more recent research?
A. Well, yeah, that's -- yes, that's true.

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MR. PARRISH: I'm through.
(Beginning at 4:52 p.m.)
RE-EXAMINATION

BY MR. ROSS:
Q. Which mycotoxin does coffee have?
A. Ochra.
Q. In terms of quantification -- I mean, you -- in fact, nobody knows how much aflatoxin it would take -- well, first of all, do you know how much aflatoxin is in Cindy Hunter?

A. I do, but I don't -- I didn't put it on that form, but I have it at my office.
Q. On the form, it just says it exceeds a certain limit?
A. That's right.
Q. Because you're just measuring present or not present, right?
A. If I was doing that today, I could put that on my form.
Q. Right. Because things have changed so that you can do that?
A. Uh-huh.
Q. But --
A. And I have worksheets back at the office that tell the value that I determined. And then I'd say -- like if it's

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five, I said, that's present. If it was .5, it's not present.
Q. But what you don't know is how much aflatoxin or how much ochratoxin would be required to be in Cindy Hunter to cause cancer; you just don't know that?
A. That's true.
Q. And nobody knows that in the scientific -- in the science community?
A. No. I -- I cite the MSDSs which is the material --
Q. When you say no, is that a correct statement?
A. Yes, that's true.
MR. ROSS: Okay. I pass the witness.
(Beginning at 4:55 p.m.)
RE-EXAMINATION
BY MR. PARRISH:
Q. As far as -- as what you do know about Cindy Hunter because of the mycotoxins you found in her is that she is at a higher risk for cancer than the population that does not have those mycotoxins?
A. I -- I believe strongly that's the case. And I cite MSDSs, which is the Material something -- I don't know what they stand for now, I'm too tired. But they -- they're forms that we must keep in the laboratory and tells what is the -- they cite different government regulations and different statutes. And something about statute 15 from OSHA that we must say -- if you work -- or if you have aflatoxin, any dose

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of aflatoxin is to be considered carcinogenic. And they don't give a level, they just say any. So --
MR. ROSS: Who is that?
THE WITNESS: It's an OSHA --
A. And I can supply those as an exhibit -- I should have those from now on as a -- they're -- whenever we buy aflatoxin and ochratoxin from Sigma Chemical or from Trilogy or any manufacturing chemical plant, they provide us with a sheet that's a -- talks about the carcinogenicity of it as well as how it should be handled.
And it says on there any level of aflatoxin should be considered carcinogenic. Now, they're talking about

in the bottle, but they don't talk about how much is in the human. But they specifically make us say -- we have to make a list of every potential carcinogen that we work with in the laboratory and provide that to OSHA.

Q. (BY MR. PARRISH) You -- we spoke about your 2009 article. You have another article that is due to be published eminently at the University of Texas --

A. Well --

Q. What --

A. -- it's not -- it's not at the -- it's the -- some of the authors on there are Dr. Patterson from the University of Texas Health Center in San Antonio. And he's reviewing this paper to give his final comments on it. And hopefully he

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likes the paper enough that -- but we think he does. And it is with aspergillus fumigatus. And looking at guinea pigs and aerosolization of guinea pigs with the organism and then they -- they euthanize the guinea pigs and we got the bronchial alveolar lavages as well as lung tissue. And we were able to measure how much organism is present by DNA, by culture and then by -- in the bronchial alveolar lavage and the tissue.

And then we also did mycotoxins. We're not publishing the mycotoxins yet, but we did find mycotoxins in the bronchial alveolar lavages. So it shows a small -- you can have a small number of organisms sprayed on a guinea pig in a closed area and they can actually get ochratoxin present in their lungs.

Q. Okay. And where would that be published?

A. When? It should be sometime this fall.

Q. A journal?

A. Where -- where -- we wrote it for the Journal of Molecular -- International Journal of Molecular Science again.

Q. Peer reviewed -- it's being peer reviewed?

A. Yes.

Q. And has been?

A. It has been. And it will go to the journal as another peer review.

Q. It will be peer reviewed at the journal?

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A. Yes.

Q. But it's something that you're expecting to come out in the fall?

A. Yes.

Q. Does it -- or it doesn't talk about mycotoxins, you said?

A. No. It talks about the organism.

Q. Did you gather data from which you may do another article where you concentrate on mycotoxins?

A. Mycotoxins, yes, we -- we do.

MR. PARRISH: Okay. All right. Well, I had one other question, but I've forgotten it, so let's just go. I quit.

THE WITNESS: Are you through, too?

MR. ROSS: Yes.
(End of deposition at 5:00 p.m.)
(Signature waived.)

CAUSE NO. 2009-73894

SUGAR CREEK INTERIORS, INC.	X	IN THE DISTRICT COURT
	X	
VS.	X	HARRIS COUNTY, TEXAS
	X	
AQUARIUM DESIGN GROUP, L.L.C.	X	234TH JUDICIAL DISTRICT

REPORTER'S CERTIFICATE
DEPOSITION OF DENNIS G. HOOPER, M.D., Ph.D.
August 30, 2011

I, Laura D. Glenn, Certified Shorthand Reporter in and for the State of Texas, hereby certify to the following:

That the witness, DENNIS G. HOOPER, M.D., Ph.D., was duly sworn by the officer and that the transcript of the oral deposition is a true record of the testimony given by the witness;

That examination and signature of the witness to the deposition transcript was waived by the witness and agreement of the parties at the time of the deposition;

That the original deposition was delivered to Michael Ross;

That the amount of time used by each party at the deposition is as follows:

Mr. Larry Parrish (2 hours, 28 minutes)

Mr. Michael Ross (1 hour, 59 minutes)

That $_____ is the deposition officer's charges to the Defendants for preparing the original deposition transcript and any copies of exhibits;

That pursuant to information given to the deposition officer at the time said testimony was taken, the following includes counsel for all parties of record:

LARRY PARRISH, Attorney for Plaintiff(s)

MICHAEL ROSS, Attorney for Defendant(s)

That a copy of this certificate was served on all parties shown herein on _____ and filed with the Clerk pursuant to Rule 203.3.

I further certify that I am neither counsel for, related to, nor employed by any of the parties or attorneys in the action in which this proceeding was taken, and further that I am not financially or otherwise interested in the outcome of

the action.

Certified to by me this _____ day of _____, 2011.

_____
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