

BRUCE J. KELMAN, PH.D. - 10/1/03

MERCURY CASUALTY vs. KRAMER

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Page 1

1 SUPERIOR COURT OF THE STATE OF CALIFORNIA
 2 COUNTY OF SAN DIEGO
 3 _____
 4 MERCURY CASUALTY COMPANY,)
 5 Plaintiff,)
 6 v.) Case No. GIN 024147
 7 MICHAEL KRAMER, SHARON KRAMER,)
 8 and DOES 1 through 20, inclusive,)
 9 Defendants.)
 10 _____)
 11 AND RELATED CROSS-ACTION.)
 12 _____)
 13
 14 DEPOSITION OF BRUCE J. KELMAN, PH.D.
 15 SAN DIEGO, CALIFORNIA
 16 OCTOBER 1, 2003
 17
 18 Reported by: Harry Alan Palter, C.S.R. NO. 7708
 19 PRS Job Number: 1-177542
 20
 21
 22
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1 Appearances:
 2
 3 For Defendants/Cross-Complainants:
 4 Kennedy & Richards
 5 By: John T. Richards, Esq.
 6 2870 Fourth Avenue, Suite 101
 7 San Diego, California 92103
 8
 9 and
 10 William J. Brown, III, Esq.
 11 1408 Mission Avenue, 2nd Floor
 12 Oceanside, California 92054
 13
 14 For Plaintiff/Cross-Defendant:
 15 Stone & Hiles, LLP
 16 By: David L. Schaffer, Esq.
 17 10950 Wilshire Boulevard, Suite 1515
 18 Los Angeles, California 90024
 19
 20 and
 21 Hager & Dowling
 22 By: Timothy P. Boris, Esq.
 23 319 East Carrillo Street
 24 Santa Barbara, California 93101
 25
 DEPOSITION OF BRUCE J. KELMAN, PH.D.,
 taken at 555 West Beech Street, San Diego, California,
 on Wednesday, October 1, 2003, at 9:05 a.m., before
 Harry Alan Palter, Certified Shorthand Reporter
 No. 7708, in and for the State of California.

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1 BRUCE J. KELMAN, PH.D.
 2 Mercury vs. Kramer
 3 Wednesday, October 1, 2003
 4 Harry A. Palter, CSR No. 7708
 5
 6 I N D E X
 7 EXHIBITS MARKED
 8 A Correspondence 45
 9 B Internet article 77
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1 SAN DIEGO, CALIFORNIA; WEDNESDAY, OCTOBER 1, 2003
2 9:05 A.M.

3
4
5 BRUCE J. KELMAN, PH.D.,
6 having been duly administered an oath in accordance
7 with Code of Civil Procedure Section 2094, was examined
8 and testified as follows:
9

10 EXAMINATION

11 BY MR. RICHARDS:

12 Q Doctor, would you state your name for the
13 record, spell your last name, please.

14 A Bruce J. Kelman, K-e-l-m-a-n.

15 Q Dr. Kelman, I served a deposition notice on
16 opposing counsel.

17 Have you seen that deposition notice before
18 today?

19 A Yes. It's in the file.

20 Q All right.

21 Do you know where in the file that is? What
22 part of it?

23 A If you give me volume I.

24 Q I took volume I from you. All right.
25

1 In that deposition, I asked you to produce
2 certain records at the deposition.

3 Did you read those records that I requested
4 that you produce?

5 A Yes.

6 Q Did you bring today essentially all the
7 records you relied upon in forming your opinions in
8 this case?

9 A Yes, this is the whole file.

10 Q And the file consists of one, two, three,
11 four, five, six -- seven volumes that you brought here
12 today?

13 A Yes.

14 Q I'm going to take an opportunity after we
15 talk for a little while to go through each of these
16 volumes to see the material you relied upon.

17 My name is John Richards. I represent the
18 Kramer family. They were sued by Mercury Casualty
19 Company in a post-water-damage/mold claim that they had
20 filed.

21 Do you understand that you're here today to
22 give expert-witness testimony in that regard?

23 A Yes.

24 Q Are you prepared today to give all the
25 opinions that you have formulated with respect to the

1 Mercury suit against the Kramers in their
2 cross-complaint against Mercury?

3 A Well, based on the material that I have.
4 We'll certainly -- yes. I should be able to cover all
5 the areas where I have opinions.

6 Q Is there any material that you haven't
7 relied on that you want to rely on in this case? Is
8 there any testing that you'd like to have done that you
9 haven't had done that you intend to rely on this case
10 that hasn't been done to this date?

11 A I guess I'd have to say if there's
12 additional materials produced, and I get them, I'd have
13 to evaluate them at the time. I have extensive
14 testing, which is in the file.

15 Q Sure.

16 A I don't know how to answer the question of
17 what I don't have.

18 Q This is not a trick question.

19 I'm sure you'll probably review some of the
20 expert-witness testimony that I will produce in this
21 case and maybe you'll have opinions about that.

22 Is there anything else out there that you
23 wanted to have done that you haven't done yet or that
24 you intend to do in this case?

25 A Well, I -- I've developed opinions of

1 everything that I've received. And --

2 Q Okay.

3 When were you first contacted by Mercury or
4 anyone from Mercury to give opinions in this case?

5 A I'd have to go back to the correspondence.
6 I don't remember exactly. In fact, I have no
7 recollection of exactly when I was contacted at all. I
8 think the initial correspondence I have is July of
9 2002.

10 Q Do you have a letter that showed that date?

11 A Yes.

12 Q May I take a look at that letter?

13 Do you recall off the top of your head what
14 the scope of your retention was? What were you being
15 asked to do in this case?

16 A Well, I've been asked to do a number of
17 things that's mostly been evaluating data or
18 information.

19 Q Were there any areas of expert testimony
20 that you were being asked to give an opinion upon, for
21 instance, the safety of the home for the Kramer family
22 and anything specifically you were specifically asked
23 to give your opinion upon?

24 A Well, no. Actually, I was just asked to
25 evaluate the data and give my opinion on what the --

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1 what opinion I developed on the information that I
 2 received.
 3 **Q For instance, in this letter dated July 9th,**
 4 **it says, "Please evaluate these results and advise**
 5 **whether in your opinion it is safe for the insureds and**
 6 **their daughter to return to the home."**
 7 **Was that an aspect of your initial retention**
 8 **that you understood to give that opinion?**
 9 A If it's in the letter, I was certainly asked
 10 to do that. Like I said, I don't remember the initial
 11 contact. I've always taken the approach of evaluating
 12 what I had as a toxicologist in giving my opinion.
 13 **Q As a toxicologist on July 9th, you have**
 14 **experience working in the mold-remediation industry.**
 15 **Would that be accurate?**
 16 A Well, I have experience evaluating potential
 17 health effects.
 18 **Q All right.**
 19 A And that's the area that I focus on.
 20 **Q And would you say that in July of 2002 that**
 21 **you were giving a neutral opinion about whether or not**
 22 **the Kramers could safely move back into that home?**
 23 A Um, I'm not sure how to answer the term
 24 "neutral." The opinion would be based on what the
 25 scientific evidence said about the level of exposure at

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1 the time.
 2 **Q When you were hired in July of 2002, was it**
 3 **communicated to you on or about that time that this**
 4 **case was going to go into litigation?**
 5 A I don't have any recollection of
 6 communication like that.
 7 **Q Were you aware upon your retention in this**
 8 **case that Mercury Casualty intended to use your results**
 9 **to file suit against the Kramers and their daughter**
 10 **that suffered from cystic fibrosis?**
 11 MR. SCHAFFER: Objection. Lacks foundation.
 12 THE WITNESS: Actually, the legal part of
 13 this has -- especially on my initial reviews -- was
 14 quite confusing. So I really had no idea how they were
 15 going to use the information.
 16 BY MR. RICHARDS:
 17 **Q Why was the legal aspect of this quite**
 18 **confusing? Can you expound upon that? What do you**
 19 **mean it was quite confusing?**
 20 A Well, it's always hard to follow -- first of
 21 all, I'm not an attorney. So I really don't understand
 22 the legal basis. I just do the science. And for me,
 23 it's always hard to follow who is suing whom over what
 24 because many cases I'm involved with, plaintiffs'
 25 attorneys, plaintiffs, defendants attorneys,

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1 plaintiff -- and as a nonattorney, I just stick to the
 2 science.
 3 (Mr. Brown entered the deposition
 4 at 9:12 a.m.)
 5 BY MR. RICHARDS:
 6 **Q Would it not be accurate, Dr. Kelman, that**
 7 **it has always been your opinion that there cannot be**
 8 **any dose of a mold that can produce a mycotoxin**
 9 **sufficient to cause a toxic reaction in any human**
 10 **being?**
 11 A Oh, absolutely not. In fact, I've written
 12 articles that clearly say that sufficient dose, you
 13 have well recorded -- and reported -- incidences of
 14 mycotoxicosis.
 15 MR. SCHAFFER: Now that Mr. Brown has joined
 16 us, can we tender a check for Dr. Kelman?
 17 MR. RICHARDS: Sure.
 18 Off the record real quick.
 19 (Discussion off the record)
 20 MR. RICHARDS: Back on the record.
 21 BY MR. RICHARDS:
 22 **Q You're familiar with this document I have in**
 23 **front of me, The Growing Hazard of Mold Litigation?**
 24 A Yes.
 25 **Q You prepared an article for a group called**

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1 **Legal Reform Now? They commissioned you to write an**
 2 **article?**
 3 A Well, the organization that contacted me was
 4 the Manhattan Institute for -- I don't remember the
 5 whole title. I'd have to look back --
 6 **Q Okay.**
 7 A -- but it was the Manhattan Institute that
 8 contacted me.
 9 **Q The Legal Policy at the Manhattan**
 10 **Institute -- does that sound correct?**
 11 A Yes, it was a representative of the
 12 Manhattan Institute.
 13 **Q And they put on a seminar in conjunction**
 14 **with the group called Legal Reform Now. Were you a**
 15 **part of that seminar?**
 16 A No.
 17 **Q Did you just write this paper for them?**
 18 A I was one of the coauthors of the paper.
 19 **Q Did you read the other paper they presented**
 20 **at the seminar entitled, quote, A New Plague: Mold**
 21 **Litigation and How Junk Science and Hysteria Built an**
 22 **Industry?**
 23 A Yes. I did read that after it was written.
 24 **Q All right.**
 25 **Are you familiar with that paper's authors,**

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1 **the Texas attorneys, that represent the**
 2 **insurance-defense industry?**
 3 MR. BORIS: I'll object as vague and
 4 ambiguous and lacks foundation.
 5 THE WITNESS: Um, other than seeing their
 6 names as authors, I was not familiar with them.
 7 BY MR. RICHARDS:
 8 **Q You don't know the insurance-defense lawyers**
 9 **at Hughes and Luce?**
 10 A No, other than talking to them once about
 11 the fact they were going to write something, no.
 12 **Q But did you have an opportunity to review**
 13 **their paper that they wrote?**
 14 A I read it once rather quickly.
 15 **Q They have chapters of their paper called**
 16 **"The Trial Lawyer/Remediator Complex."**
 17 **Did you read that?**
 18 A I suppose I did.
 19 **Q Are you familiar with anyone else in the**
 20 **industry who believes there's a complex called the**
 21 **Trial Lawyer/Remediator Complex? Have you heard that**
 22 **before, before reading this?**
 23 A Not before I read that.
 24 **Q All right.**
 25 **You wrote the article, then -- or you**

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1 **participated in writing the article, your testimony is,**
 2 **The Scientific View of the Health Effects of Mold; is**
 3 **that accurate?**
 4 A Yes.
 5 **Q Along with people you work with, Dr. Bryan**
 6 **D. Hardin?**
 7 A Yes.
 8 **Q Do you work with him?**
 9 A Yes.
 10 **Q And Corinne Robins? Do you work with**
 11 **Corinne?**
 12 A Yes.
 13 **Q As a part of this paper, you write in the**
 14 **paper you can be confident that it is nearly impossible**
 15 **for anyone to inhale a harmful dose of mold toxin in**
 16 **homes, offices, or schools because even the most**
 17 **heavily contaminated of them have total spore**
 18 **concentrations that are far lower than the values we**
 19 **calculate.**
 20 **Do you believe that statement to be true?**
 21 A Yes.
 22 **Q So you were of the opinion -- and you were**
 23 **of the opinion before Mercury hired you -- that it**
 24 **would be nearly impossible for anyone to inhale a**
 25 **harmful dose of mold toxin in a home?**

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1 A That's correct, based on the scientific
 2 calculations and the approaches that a toxicologist
 3 would use, you cannot -- the doses that we've
 4 calculated come out far below an effects level.
 5 **Q Did you consider, then, your position to be**
 6 **a neutral position when you determined whether or not**
 7 **it was safe for the Kramers to return to their home in**
 8 **July of 2002?**
 9 MR. BORIS: I'm going to object as vague and
 10 ambiguous, lacks foundation.
 11 THE WITNESS: I don't know what you mean by
 12 the term neutral. My assessment was based on
 13 scientific information that I've gathered from the
 14 scientific literature and my calculations of a maximal
 15 possible dose. And of course, I do that as a
 16 toxicologist from the standpoint of exposure to
 17 mycotoxins.
 18 **Q Let's talk about your background a little**
 19 **bit. You're a toxicologist?**
 20 A Yes.
 21 **Q Can you please give me a brief assessment of**
 22 **your educational experience after high school.**
 23 A I have a bachelor's degree from the
 24 University of Illinois in physiology and biophysics.
 25 **Q When did you obtain that?**

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1 A Oh, I -- let's see. 1969.
 2 **Q After that?**
 3 A Then a master's degree and Ph.D. from the
 4 department of physiology -- physiology and pharmacology
 5 at the University of Illinois, Urbana campus.
 6 **Q When did you obtain that?**
 7 A I believe -- let's see. Ph.D. was in 1975.
 8 And without looking at my resume, I don't remember if
 9 the master's degree was '71 or '72.
 10 **Q All right.**
 11 **Any other degrees that you hold?**
 12 A Not academic degrees.
 13 **Q Okay.**
 14 **Any other nonacademic degrees I should be**
 15 **aware of?**
 16 A Just my postdoctoral study and board
 17 certification.
 18 **Q And what are you board certified in, Doctor?**
 19 A Toxicology.
 20 **Q Are you a mycologist?**
 21 A No, toxicologist.
 22 **Q Do you know what a "mycologist" is?**
 23 A Yes, a mycologist would be someone would be
 24 someone who studies the growth and characteristics of
 25 fungi.

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1 **Q Are you an immunologist?**
 2 A The board certification covers the field of
 3 immunotoxicology, but I don't consider myself an
 4 immunologist.
 5 **Q You're not a medical doctor; is that**
 6 **accurate?**
 7 A That's correct.
 8 **Q Are you a microbiologist?**
 9 A Again, I consider myself a toxicologist. I
 10 have taken courses in microbiology, but I consider
 11 myself a toxicologist.
 12 **Q You don't hold yourself out to be a**
 13 **microbiologist, would that be accurate?**
 14 A Only aspects that would touch on toxicology.
 15 **Q How about an epidemiologist?**
 16 A No. I'm -- I don't consider myself an
 17 epidemiologist.
 18 And, again, the areas of epidemiology I
 19 would have expertise in are the ones that are
 20 associated with toxicology.
 21 **Q Give me a brief description of your**
 22 **employment since you obtained your Ph.D. in 1975.**
 23 A I'm not sure I could do that from memory.
 24 Let's see.
 25 I started with a postdoctoral appointment

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1 with the University of Tennessee on the campus of Oak
 2 Ridge National Laboratory. Then I obtained a grant
 3 from the Department of Energy, and that was converted
 4 to a staff position as an assistant professor. Then I
 5 moved to Pacific Northwest Laboratory, which is a
 6 national laboratory in Washington State.
 7 And at various times, I started off as a
 8 research scientist, senior research scientist, and at
 9 the time that I left, I had been a department manager
 10 and there were various reorganizations, but just leave
 11 it with department manager.
 12 **Q During what period of time were you at**
 13 **Pacific Northwest Laboratories?**
 14 A That was approximately 1979 to 1989, I
 15 believe.
 16 **Q During that period of time, did any of your**
 17 **work include the study of mycotoxin or fungi?**
 18 A It did not include the study of fungi. I
 19 believe I did a little bit of work with advising the
 20 Army on T2 toxin during that time period.
 21 **Q T2 toxin?**
 22 A Yes.
 23 **Q Is T2 toxin -- and you'll have to -- I**
 24 **apologize if I'm somewhat of a neophyte in the area.**
 25 **Is T2 toxin associated with mycotoxin produced from**

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1 **fungi?**
 2 A T2 toxin is a trichothecene, which is in the
 3 same class as mycotoxin. There are a number of
 4 different trichothecenes. At the time, they were not
 5 sure how the toxin was being produced. And part of the
 6 question was, was it being produced by microorganisms
 7 and then purified?
 8 **Q Have they ever come to a conclusion of how**
 9 **it was being produced?**
 10 A Um, I don't really remember because I was
 11 focused on the effects and potential effects and
 12 whether it was actually present.
 13 **Q All right.**
 14 **When you were doing your postdoctorate, did**
 15 **any of that work entail studies of fungi or mycotoxin?**
 16 A No.
 17 **Q What did you do after Pacific Northwest Lab?**
 18 A Let's see. I then went to work for a
 19 consulting organization called Golder Associates.
 20 **Q Golder?**
 21 A Yes.
 22 **Q G-o-l-d-e-r?**
 23 A Yes.
 24 **Q What type of work did you do with the**
 25 **consulting organization, Golder Associates?**

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1 A They asked me to come to join them and help
 2 organize a health-effects group.
 3 **Q And when you say "health effects," can you**
 4 **be more specific what type of health-effects group were**
 5 **you organizing?**
 6 A Well, my focus was toxicology. They were
 7 doing risk assessments at hazardous waste sites at the
 8 time. And the focus of the group was toxicology
 9 chemicals.
 10 **Q Did those chemicals involve mycotoxins?**
 11 A Not that I can recall today.
 12 **Q What types of chemicals were they? Like**
 13 **asbestos, lead, heavy metals -- these types of things?**
 14 A Those were three classifications. We also
 15 dealt with chemicals found in cleaning agents and
 16 household products. There was quite a variety.
 17 **Q How long were you with the Golder and**
 18 **Associates group?**
 19 A Let's see. I believe I officially left
 20 Golder Associates in 1998.
 21 **Q During your experience with Golder and**
 22 **Associates, did you ever work in the area of mycotoxins**
 23 **or fungi?**
 24 A Um, again, that was long enough ago, I don't
 25 remember if mycotoxins came up during that time period.

1 **Q All right.**
 2 **After you left Golder and Associates, what**
 3 **did you do then, Doctor?**
 4 A After Golder and Associates, I formed what
 5 was essentially my own practice as GlobalTox.
 6 **Q Do you have an ownership interest in**
 7 **GlobalTox?**
 8 A Yes.
 9 **Q Do you have partners at GlobalTox or is it a**
 10 **sole proprietorship?**
 11 A No. There's other people who own parts of
 12 it.
 13 **Q What does GlobalTox do?**
 14 A There's two components. The health
 15 component is focused on toxicology and industrial
 16 hygiene.
 17 **Q What's the other component?**
 18 A We have an engineering group, also.
 19 **Q Do you have a mycologist on staff at**
 20 **GlobalTox?**
 21 A No. But we rely on commercial labs for the
 22 mycology of what we're involved with.
 23 **Q What is the business of GlobalTox? I**
 24 **understand you're here today to provide an expert**
 25 **opinion in a legal case. Is that the business of**

1 **GlobalTox? To provide expert legal opinions?**
 2 A Well, it's one small component. The
 3 company -- the health part of the company has four
 4 major areas of activity: risk assessments, both
 5 hazardous waste and -- both EPA-type risk assessments
 6 and FDA-type risk assessments of drugs and products;
 7 general industrial hygiene.
 8 So that's taking measurements in workplaces
 9 and residences of a variety of different things.
 10 Investigative toxicology, which is a large part of what
 11 I do, and the industrial hygiene. And the fourth area
 12 would be testing -- safety testing of products.
 13 **Q You're not an industrial hygienist, are you?**
 14 A No. I'm a toxicologist.
 15 **Q You're not a member of the IAHA or whatever**
 16 **it is, the -- you're not a member of any trade**
 17 **organization that you hold yourself out to be an**
 18 **industrial hygienist?**
 19 A You may have been referring to the AIHA?
 20 **Q That's it.**
 21 A No, I'm not a member.
 22 **Q How much of your business is devoted to**
 23 **performing expert opinion in legal work versus doing**
 24 **these other areas you've just described?**
 25 A It's a little hard to separate because

1 initially, I'm often just asked to evaluate a problem.
 2 And sometimes that turns into litigation, sometimes it
 3 doesn't; but if I were to come up with an approximate
 4 number, it would be probably somewhere on the order of
 5 25 percent.
 6 **Q Have you ever testified in trial as an**
 7 **expert?**
 8 A Yes.
 9 **Q On how many occasions?**
 10 A Um, I don't remember the number. I brought
 11 my federal list of testimonies in the file.
 12 **Q Is that in volume I?**
 13 A Yes.
 14 **Q Can you show that to me, please.**
 15 **Does this list, Doctor, include all of the**
 16 **trials that you performed -- you've given**
 17 **expert-witness testimony in?**
 18 A For the time period that I'm required for
 19 the federal list, yes.
 20 **Q You say the "federal list."**
 21 **What is the "federal list?" Is there some**
 22 **requirement that you keep a list of this for something?**
 23 A Yes. In federal cases -- and I don't
 24 remember the exact time period -- but I'm required to
 25 have a list of all testimonies that I've given.

1 **Q This list goes back to 2000. And there's 14**
 2 **different occasions where you provided expert-witness**
 3 **testimony between 2000 and today.**
 4 **Does that seem about accurate?**
 5 A That would be all of them back to that time
 6 period.
 7 **Q And prior to 2000, did you give**
 8 **expert-witness testimony in a court of law?**
 9 A Uh, yes.
 10 **Q Have you ever not been allowed to testify as**
 11 **an expert in a court of law?**
 12 A Certainly not to my knowledge.
 13 **Q Have you ever given deposition testimony as**
 14 **an expert?**
 15 A Yes.
 16 **Q I didn't go through all of the various**
 17 **admonitions that we typically give in a deposition. I**
 18 **didn't think that was necessary.**
 19 **Before I go any further, do you need me to**
 20 **go through all of the admonitions of speaking up,**
 21 **saying "yes" or "no," and not "huh-uh" or "uh-huh" or**
 22 **do you feel comfortable with the deposition process**
 23 **that we can proceed?**
 24 A I think I remember the rules.
 25 **Q All right.**

1 **How many deposition testimonies have you**
2 **given as an expert witness?**

3 A Again, they're all listed. I don't remember
4 the number.

5 **Q These list your actual trial testimonies.**
6 **Typically with expert witnesses for every time they**
7 **testified at trial, they probably have given 10**
8 **depositions that never made it to trial.**

9 **Do you recall how many times you gave**
10 **deposition testimony like we're doing today as opposed**
11 **to trial testimony as an expert witness?**

12 A Well, this is -- my understanding of the
13 federal list is that I'm required to list all
14 testimonies.

15 **Q Oh. So the testimonies that are listed on**
16 **this federal list -- these 14 testimonies don't**
17 **necessarily mean you've given trial testimony; these**
18 **could have been depositions you've given?**

19 A Yes. Again, as a nonattorney, my
20 understanding is a deposition is a form of testimony.
21 So that's what's included in the list.

22 **Q You're accurate, but it's a different**
23 **setting.**

24 **So I'm going to go back to my previous**
25 **question and just ask you: How many times have you**

1 **actually stepped foot in trial and given testimony in**
2 **front of a jury since 2000?**

3 A I'd have to look at the list. The list
4 labels which are deposition testimony and which is
5 trial testimony.

6 **Q Why don't you take a look at the list. They**
7 **all say you gave deposition testimony, but I don't see**
8 **anything that distinguishes whether or not you gave**
9 **trial testimony.**

10 A Well, as near as I can tell from the list,
11 the trial testimony must have been previous to May 30th
12 of 2000. So you are correct. This is all depositions.

13 **Q All right.**

14 **So you have not given trial testimony since**
15 **May 30th, 2000? Would that be accurate?**

16 A Uh, yes.

17 **Q Do you have an independent recollection, as**
18 **you sit here today, of giving trial testimony at some**
19 **point?**

20 A Oh, yes.

21 **Q On how many occasions do you recall being in**
22 **front of a jury as opposed to being in here giving**
23 **testimony?**

24 A I really don't remember. I'm sure the total
25 is less than a dozen times.

1 **Q Okay.**

2 **Now, the federal list that we have here**
3 **indicates that you had 14 depositions taken in the last**
4 **three years.**

5 **Does that seem about accurate in terms of**
6 **how many depositions you've given as an expert witness**
7 **in the last three years?**

8 A Those are all the depositions.

9 **Q All right.**

10 **Of these 14 depositions that you've given in**
11 **the last three years, Dr. Kelman, how many of them were**
12 **you working for the defense as opposed to working for**
13 **the plaintiff?**

14 A Let me take a look.

15 To the best of my recollection, these are --
16 I was on the defense on these -- on all of them with
17 the possible exception of number 10, which I just don't
18 remember anymore.

19 **Q All right.**

20 **So of the depositions you've given as an**
21 **expert since 2000, you've always testified as an expert**
22 **with the exception of number 10, Joy Miller versus**
23 **Richard Cohen -- and you don't know whether or not you**
24 **testified as the defense expert or the plaintiff expert**
25 **in that case; is that accurate?**

1 A To the best of my recollection, those -- I
2 had been hired by the defense on those 14 cases.
3 Generally, my plaintiff cases do not go to
4 deposition -- in fact, generally, my cases don't go to
5 deposition.

6 **Q And why is that?**

7 A They settle.

8 **Q If you took your 25 percent of your business**
9 **that involves legal-expert-type opinions, can you give**
10 **me a percentage of that business as 100 percent, what**
11 **amount you testify for the defense versus the**
12 **plaintiff?**

13 **Is that a terrible question? Do you**
14 **understand what I'm asking?**

15 A I think you're asking how much -- the best
16 answer I can give you is about a third of the cases are
17 plaintiff and about two-thirds defense. Sometimes the
18 percentages change so it may -- over time, it may be
19 25-75.

20 **Q Who is Joel Cohen?**

21 A He's an industrial hygienist.

22 **Q Do you know Mr. Cohen?**

23 A Yes, I do.

24 **Q Did he do testing in this case?**

25 A Yes.

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1 **Q** Did you know Mr. Cohen prior to your working
 2 on this case?
 3 A Yes.
 4 **Q** How long have you known Mr. Cohen?
 5 A I really -- I don't remember specifically.
 6 I would -- perhaps three or four years. Maybe not -- I
 7 really don't remember.
 8 **Q** You've known him possibly as long as this
 9 federal list has been in existence since May 30th of
 10 2000?
 11 A Um, I just really don't remember.
 12 **Q** Sure.
 13 How many times have you worked with
 14 Mr. Cohen previous to your work in the Kramer case?
 15 A Again, I really don't remember a number.
 16 **Q** Okay.
 17 Workup of the admonitions that I didn't get
 18 an opportunity to give you is that I'm entitled to
 19 what's called a best recollection of a witness. And
 20 that may mean if I estimate how big a car was or how
 21 long a table was, if you have some basis for knowing
 22 it, I understand it may not be accurate, but I'm
 23 entitled to that best recollection.
 24 And you have worked with Mr. Cohen previous
 25 to the Kramer case; is that accurate?

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1 A Yes.
 2 **Q** Can you give me a best recollection? Was it
 3 two times? 50 times? Can you give me a ballpark for a
 4 range?
 5 A Um, I think probably not that will be very
 6 useful. It's certainly been more than two and I
 7 suspect less than 50, but I -- I really don't remember
 8 a number.
 9 **Q** In this case, who contacted Mr. Cohen to do
 10 the testing? Did you contact him or did the law firm
 11 that retained you contact him?
 12 A Um, I don't know. I may have recommended
 13 him, but I don't know who contacted him.
 14 Again, I don't remember if I had recommended
 15 him or not.
 16 **Q** Have you ever recommended Mr. Cohen to be
 17 used in conjunction with your work?
 18 A Yes. I consider him to be a very competent
 19 industrial hygienist.
 20 **Q** Do you work with any other industrial
 21 hygienists other than Joel Cohen?
 22 A Yes.
 23 **Q** In this case, do you know whether you paid
 24 for Mr. Cohen's services and then billed the insurance
 25 company or did the insurance company bill him directly?

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1 A I -- it wasn't done through me. So I don't
 2 know.
 3 **Q** Number 10, the case that you don't remember
 4 whether you testified as a plaintiff or defense expert,
 5 is the case of Joy Miller versus Richard Cohen.
 6 Is Mr. Richard Cohen any relation to Joel
 7 Cohen?
 8 A I don't think so. I certainly was never
 9 told so, if he is.
 10 **Q** What is it about Mr. Cohen's services that
 11 you think make him a very competent industrial
 12 hygienist?
 13 A Well, first of all, he's a certified
 14 industrial hygienist. That means he has a college
 15 degree in an area related to industrial hygiene and has
 16 worked in the field for -- I've forgotten how many
 17 years -- I think it's five years -- under the
 18 supervision of a certified industrial hygienist and has
 19 taken a very comprehensive exam and passed it.
 20 And then I don't remember the
 21 continuing-education requirements, but they're
 22 relatively -- for an industrial hygienist -- they're
 23 relatively rigorous. It means he's had to continue to
 24 keep up in some kind of coursework to maintain the
 25 certification.

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1 Any industrial hygienist I work with I
 2 personally interview and ask about their background and
 3 work practices and state of scientific knowledge. And
 4 I find him to be very competent in all those areas.
 5 **Q** You would agree with me that in this current
 6 remediation-of-mold industry, there's many people who
 7 hold themselves out to be industrial hygienists who
 8 aren't necessarily qualified to do that?
 9 A Yes, I would agree with that.
 10 **Q** Did you rely on any testing of Mr. Cohen's
 11 to form any of the opinions you have here today?
 12 A Yes. This testing is included with the
 13 environmental testing.
 14 **Q** And where is the environmental testing
 15 section?
 16 A I believe it starts in volume VI. Yes.
 17 **Q** Even though you're not a medical doctor,
 18 Dr. Kelman, do you have an understanding of what cystic
 19 fibrosis is?
 20 A Basically, yes.
 21 **Q** What is your understanding of what cystic
 22 fibrosis is?
 23 A It's a genetic disease that leads to
 24 abnormal secretion of mucus.
 25 **Q** Do you have an understanding when you were

1 rendering your opinions in this case that any of the
2 **Kramers suffered from cystic fibrosis?**

3 A At some time, I was told that Erin Kramer
4 had cystic fibrosis.

5 **Q Have you ever heard of a term "ABPA"?**

6 A Yes.

7 **Q And do you know what "ABPA" stands for?**

8 A Allergic bronchopulmonary aspergillosis.

9 **Q Do you have an understanding of what
10 allergic bronchopulmonary aspergillosis is?**

11 A A basic understanding, yes.

12 **Q What is your understanding?**

13 A In some individuals, it is possible to have
14 aspergillus species that actually reside in the lungs.
15 And in the case of patients with cystic fibrosis,
16 sometimes the pulmonary mechanisms that are effective
17 in normal individuals for removing particles from the
18 lungs are not effective or are not as effective.

19 The pulmonary organism -- the continued
20 residence of the organism in the lung tissue leads to
21 the formation of antibodies against that organism.

22 **Q Did you have an understanding that any of
23 the Kramers suffered from ABPA in this case?**

24 A Yes. Again, I don't remember time sequence
25 because it occurred over a substantial period of time,

1 but I was told that Erin Kramer suffered from allergic
2 bronchopulmonary aspergillosis.

3 **Q In the paper you wrote for the group Legal
4 Reform Now, you wrote that, "Such fungal colonization
5 in ABPA patients is without adverse health consequences
6 unless the subject is also allergic to the specific
7 fungus that has taken up residence. In that case there
8 can be ongoing allergic reactions to fungal substances
9 being released directly into the body."**

10 **Do you recall that?**

11 A Actually, that would be a section that was
12 written by Dr. Andrew Saxon, who's the head of clinical
13 immunology at UCLA and was one of our coauthors.

14 **Q Do you disagree --**

15 A I focused on the toxicology.

16 **Q Do you disagree with the statement about
17 that?**

18 A No.

19 **Q Did you learn at any time during your work
20 on this case that Erin had a specific reaction to
21 aspergillus?**

22 MR. BORIS: When? I'll object. Lacks
23 foundation. Vague and ambiguous.

24 BY MR. RICHARDS:

25 **Q At any time.**

1 A Well, by the diagnosis of aspergillosis,
2 that indicates the species of aspergillus.

3 **Q And did you have an understanding that she
4 was particularly susceptible to the exposure of fungi
5 of the genus aspergillus?**

6 A Um, again, as a toxicologist, she would not
7 be particularly susceptible to the mycotoxin part. And
8 that would be an area that I would defer to an
9 immunologist on.

10 **Q Because someone who suffers from ABPA could
11 have a reaction from the mycotoxin, but they also could
12 have an allergic or immunological response to the
13 aspergillus.**

14 **Would you agree with that?**

15 A Only part of that statement.

16 **Q What part don't you agree with?**

17 A Um, again, the -- when we talk about
18 mycotoxins, we need to talk about dose response. The
19 amount of mycotoxin produced is -- there's nothing in
20 the scientific literature that indicates there's a
21 problem with allergic reactions to the mycotoxin. The
22 literature indicates that if there's a reaction, it's
23 to the aspergillus organism.

24 **Q And in an allergic sense or immunological
25 sense?**

1 A Yes. I do not agree there's sufficient
2 mycotoxin produced to cause a mycotoxicosis.

3 **Q Because as you wrote in the paper for the
4 Group Legal Reform Now, you don't believe there can
5 ever be a sufficient dose created from an indoor mold
6 to produce a mycotoxin response?**

7 A Well, that's based on scientific
8 calculations. The paper that you're referring to is --
9 the foundation of that paper is the position statement
10 from the American College of Occupational and
11 Environmental Medicine. And that was based on a series
12 of calculations of how much mycotoxin it was possible
13 to be exposed to.

14 **Q And in the study that this paper is based
15 on, you're relying on an empirical study where the mold
16 that was used was stachybotrys; is that accurate?**

17 A No. The calculations -- well, the best way
18 I can answer that is the paper itself used as an
19 example calculations from the species stachybotrys.
20 I've done numerous calculations with numerous other
21 mycotoxins.

22 **Q Before we get into this -- in the study that
23 this paper is based upon, the stachybotrys was
24 presented directly into the lungs of mice; is that
25 accurate?**

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1 A There's several studies, but, yes, that was
 2 one of them, yes.

3 **Q That was the main one talked about.**
 4 **Based on that, it was extrapolated how many**
 5 **stachybotrys spores it would take to produce a reaction**
 6 **in a human being?**

7 A No. Actually, our calculations were based
 8 on no-effects levels. So we took an experiment where a
 9 number of end points were measured. And at least part
 10 of those calculations were based on levels of spores
 11 that were introduced into the lungs of the young mice
 12 that did not produce effects.

13 **Q And it's true that the study with the**
 14 **stachybotrys showed that given a sufficient dose, the**
 15 **mice reacted to the mycotoxins by having such problems**
 16 **as death and bleeding in their lungs?**

17 A Well, from that series of studies, those
 18 studies were done with whole spores. And at sufficient
 19 doses of whole spores, very massive doses, that was one
 20 of the end points.

21 **Q And at the lower doses in the study of the**
 22 **stachybotrys in the mice, they found there to be,**
 23 **quote, unquote, no effect. Is that accurate?**

24 A Well, depending on -- the basis of
 25 toxicology is dose response. And for any chemical or

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1 in this case, if we're talking about a similar end
 2 point with spores, a sufficient number will cause an
 3 adverse effect. As you get lower exposure, you have
 4 less effects until you reach a threshold where there is
 5 no effect.

6 So what we were interested in as part of the
 7 calculations, in the position statement was what kind
 8 of a dose would be a human equivalent to the doses in
 9 the experiments with mice where there were no effects?

10 **Q And how were effects measured? For**
 11 **instance, were you able to tell whether or not the mice**
 12 **developed a nonproductive cough?**

13 A In mice, that's not an end point that you
 14 would measure.

15 **Q You couldn't measure something like a**
 16 **nonproductive cough in a mouse. I mean that's just**
 17 **silly.**

18 A You may be able to measure it. I've never
 19 seen it done.

20 **Q What about fatigue? Could you measure a**
 21 **response of fatigue in a mouse? Was that measured as**
 22 **part of the response of the study?**

23 A You couldn't measure fatigue because fatigue
 24 is a symptom. The difference between a sign and a
 25 symptom -- a toxicologist works with signs. A "sign"

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1 is an objectively-measured entity. A "symptom" is
 2 subjective.

3 So to give you an example, if I were to say,
 4 "I have a headache," that's subjective. In fact, using
 5 the example of fatigue, if I were to say, "I feel
 6 tired," that's subjective. If you were to measure
 7 nerve-conduction velocity to my muscles and it changed,
 8 that's objective. There is no way to verify a
 9 subjective complaint.

10 **Q So it would be accurate to say that in the**
 11 **studies you relied upon to come to the conclusion of**
 12 **the dose response that's in this paper that you were**
 13 **unable to measure responses that are subjective as**
 14 **opposed to objective?**

15 A That's the definition of "subjective."
 16 **Q So, for instance --**

17 A It's not measurable by anybody else.

18 **Q Couldn't measure the memory loss of the**
 19 **mouse?**

20 A No. Actually, memory loss is an objective
 21 finding. It is possible -- it's not my area of
 22 expertise -- but you can test learning functions --
 23 actually, I have participated in that type of exercise
 24 with animals. In human beings, there are psychological
 25 tests that can be done that are much more difficult in

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1 human beings but can determine memory loss.

2 **Q Do you know if any of the mice in the study**
 3 **involving stachybotrys had cystic fibrosis?**

4 A Of course they didn't because this is a
 5 study of -- it's not a study of the cystic fibrosis.
 6 This is a study of the effects of spores on young mice.

7 **Q Stachybotrys spores.**

8 A In this study, yes.

9 **Q Have you ever participated in a study**
 10 **where -- well, let's just talk a little bit before we**
 11 **get into this further.**

12 **What is "mold"?**

13 A Mold is a member of the kingdom fungi. And
 14 it's a specific type of microorganism.

15 **Q And does mold release enzymes into the**
 16 **environment?**

17 A Yes.

18 **Q And, in fact, mold --**

19 A Yeah.

20 **Q Releases enzymes as part of its eating**
 21 **mechanism. It breaks down substrate by using enzymes?**

22 A Yes. Some of them -- that's exactly how
 23 some of them function.

24 **Q What is a "mycotoxin"?**

25 A A mycotoxin is a toxic material that's a

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1 secondary metabolite of mold that is produced by the
 2 organism.

3 **Q Do all molds produce mycotoxins?**

4 A The scientific data indicates that some
 5 molds produce some mycotoxins some of the time.

6 **Q The scientific data also indicates that some**
 7 **molds produce mycotoxins on a consistent basis.**

8 A Well, I'm not sure what you mean by the term
 9 "consistent." In fact, the data indicates that it's
 10 very difficult to predict, even under laboratory
 11 conditions, exactly what mycotoxins and how much will
 12 be produced by any individual mold.

13 **Q Within the genus aspergillus, how many**
 14 **species are there?**

15 A Oh, I have no idea.

16 **Q You're not a mycologist?**

17 A That's right.

18 **Q Within the genus penicillium, how many**
 19 **species are there?**

20 A Again, I would have no idea.

21 **Q Within the genus aspergillus, which of the**
 22 **species produce mycotoxins some of the time?**

23 A Again, I can't give you a full list because
 24 there's quite a few species, but fumigatus produces
 25 mycotoxins under some conditions. Aspergillus niger

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1 can produce mycotoxins under some conditions. Right
 2 now, those are the only two that I -- come to mind.

3 **Q What mycotoxins does fumigatus produce?**

4 A Again, there can be quite a spectrum. The
 5 most famous mycotoxin is aflatoxin, which can be
 6 produced under the right growing conditions.

7 **Q In fact, aflatoxin B1 is what it produces;**
 8 **is that correct?**

9 A That's one of the aflatoxins. It produces a
 10 spectrum of aflatoxins.

11 **Q Aflatoxin B1 is a known carcinogen; is that**
 12 **accurate?**

13 A Yes.

14 **Q Aflatoxin B1 causes liver cancer; is that**
 15 **accurate?**

16 A That's one of the effects of exposure of
 17 aflatoxin B1 at sufficient dose for a sufficient
 18 duration.

19 **Q Did you note that there was any aspergillus**
 20 **fumigatus in the Kramer residence?**

21 A At this point, I'd have to go back to the
 22 studies. There was aspergillus. I don't remember
 23 fumigatus.

24 **Q Sure. Would you take a look at the study.**
 25 **Here.**

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1 **(Brief pause)**

2 MR. RICHARDS: Why don't we take a
 3 five-minute break. I'm going to chat with my client a
 4 little bit.

5 MR. SCHAFFER: Okay.

6 (Recess)

7 MR. RICHARDS: Back on the record.

8 BY MR. RICHARDS:

9 **Q Doctor, before we took a break, I asked you**
 10 **to determine whether or not the species aspergillus**
 11 **fumigatus was ever discovered in the Kramer residence**
 12 **And you went looking through some of the test results.**
 13 **Do you have an answer to that question?**

14 A Again, I don't know if this is all of the
 15 reports because there's a lot of pages here, but I did
 16 find two areas, one of an analysis by a -- an
 17 accredited lab showing dust samples with fumigatus in
 18 them. That was the -- the samples were taken
 19 April 23rd, 2002. And one other report dated
 20 June 20th, 2002 was the date of the sampling, which
 21 shows one spore indoors and one spore outdoors. There
 22 may be others. That's all I could find on a fast look.

23 I think what's important from the standpoint
 24 of aspergillus fumigatus -- the toxicological issues --
 25 is that it has not been shown to produce aflatoxin when

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1 it goes on wallboard in laboratory studies. It has not
 2 been confirmed from environmental samples. And even if
 3 it had, if you calculate the amount that would be
 4 produced by, in this case, a single spore, limited
 5 number of spores, it's too small to produce any acute
 6 effect or chronic effect.

7 **Q You're not a medical doctor, though; is that**
 8 **accurate?**

9 A I'm a board-certified toxicologist.

10 **Q And how does any level of aspergillus**
 11 **fumigatus affect someone who has ABPA?**

12 A Um, again, from the -- I'm a toxicologist so
 13 you would need to ask an immunologist that. I could
 14 say that at the levels -- in fact, I've done the
 15 calculations from a maximal-possible-dose calculation,
 16 it would not produce sufficient mycotoxin to cause a
 17 mycotoxicosis, but the allergic effects would be --
 18 you'd need to ask an immunologist.

19 **Q Have you reviewed the reports of Dr. Hicks**
 20 **in this case?**

21 A There was a single report, I believe, that I
 22 reviewed by Dr. Hicks -- or a letter.

23 **Q Do you know who Dr. Hicks is?**

24 A I'd have to go back to the letter. From the
 25 best of my recollection, he was a pediatric

1 pulmonologist, but I need to go back to confirm that.
 2 MR. RICHARDS: I'm going to hand you what
 3 I'm going to mark as Exhibit A to the deposition.
 4 (Exhibit A marked)
 5 BY MR. RICHARDS:
 6 **Q It's a July 15th letter. Would you take an**
 7 **opportunity to just review that.**
 8 A (Complies) Yes. That's the one I
 9 received -- the letter part is. I don't think I
 10 received the attached material.
 11 **Q Did you consider that letter when you formed**
 12 **your opinions with respect to this case?**
 13 A From the standpoint of the toxicology?
 14 A Yes.
 15 **Q Yes.**
 16 A This doesn't address the toxicology.
 17 **Q Did this letter affect your opinions in any**
 18 **way in this case?**
 19 A Not with regards to the toxicology.
 20 **Q You were asked to form an opinion from the**
 21 **letter we looked at initially about whether or not the**
 22 **home was habitable for the Kramers and/or Erin Kramer,**
 23 **is that accurate?**
 24 A The initial letter asked about the safety,
 25 if I remember correctly.

1 **Q Did you consider that letter with respect to**
 2 **making any opinions about safety issues in this case?**
 3 A My opinions would have been with regard --
 4 in two areas: one is the potential for mycotoxicosis.
 5 The other would be relative exposure. In other words,
 6 was I looking at numbers which could introduce a risk
 7 that exceeded what would be found in a -- any other
 8 places that she was likely to be? But specifically
 9 with regard to ABPA, that would not be a consideration
 10 I would give as a toxicologist.
 11 **Q You wouldn't feel qualified to give that?**
 12 A That's correct.
 13 **Q Can I see this letter?**
 14 **Were you aware that Dr. Hicks is a doctor**
 15 **who was retained to give expert opinion for the defense**
 16 **in this matter?**
 17 A Actually, I don't -- no. I was not. I
 18 didn't know what his purpose was.
 19 **Q He goes on to state that, "Even though the**
 20 **remediation seems to have -- may have lessened the**
 21 **fungi levels in her house, it is entirely**
 22 **possible/plausible that small amounts of fungi could**
 23 **have so affected her to cause an exacerbation of her**
 24 **underlying ABPA."**
 25 **Did you read that?**

1 A Um, I don't remember if it's in the letter.
 2 I did.
 3 **Q Did you ever form the opinion that Erin**
 4 **Kramer suffered an exacerbation of her ABPA after the**
 5 **October, 2001, water loss was discovered?**
 6 A I would not have addressed ABPA directly
 7 other than whether her exposure would have put her at
 8 more risk than other areas. So, again, that's an
 9 allergic reaction.
 10 **Q So in addressing the safety issues, you**
 11 **didn't consider or weren't qualified to consider her**
 12 **allergic response to ABPA?**
 13 A Not beyond what she would be exposed to in
 14 any other environment.
 15 **Q Is that house currently safe for Erin Kramer**
 16 **to go back into?**
 17 A From the standpoint of potential
 18 mycotoxicosis, yes.
 19 **Q What about from the standpoint of her**
 20 **allergy to the species and the genus aspergillus?**
 21 A I'm not an immunologist so -- again, other
 22 than saying that her relative exposure there compared
 23 to outdoors in that area, compared to other activities
 24 going on in the area, compared to what she might
 25 encounter in the school -- the numbers that I see

1 certainly are not very high, but that's as far as I can
 2 go as a toxicologist.
 3 **Q And you have no opinion about her**
 4 **immunological or allergic response to that particular**
 5 **house?**
 6 A Well, we have the allergy reports. And I
 7 can -- as an immuno -- with a background in
 8 immunotoxicology, I can read the allergy reports, but
 9 in terms of the mechanism and clinical sequelae of
 10 ABPA, that's not an area of my expertise.
 11 **Q You were asked to go to that residence and**
 12 **determine whether from a mycotoxin standpoint it was**
 13 **safe for the Kramer family to go back in the house.**
 14 **Would that be accurate?**
 15 A No.
 16 **Q All right.**
 17 **What were you asked to do with respect to**
 18 **determining the safety of the house if not from a**
 19 **mycotoxin perspective?**
 20 A I was not asked to go to the house. I was
 21 asked to evaluate data that had been produced from
 22 measurements at the house.
 23 **Q You've never been at the house?**
 24 A That's correct.
 25 **Q You were asked to review data, to determine**

1 from the data whether, from a mycotoxin level, that
2 house was safe for the Kramer family to go back into?

3 A Well, two areas.

4 One was from the standpoint of potential
5 mycotoxicosis and the other was from the standpoint of
6 the amount of exposure that an individual could receive
7 in the house compared to what that individual could
8 receive in normal activities.

9 Q And as a toxicologist, you focus on the
10 issue of dose response.

11 Would that be accurate?

12 A Yes.

13 Q And it's your opinion that indoor mold can
14 never produce a sufficient dose of airborne spores to
15 create a mycotoxin response in a human being?

16 A No.

17 Q There are situations where an indoor mold
18 can produce mycotoxins sufficient to cause a response?

19 A There are situations in structures where
20 that's -- it's potentially possible.

21 Q I'm not asking if it's potentially possible.
22 We know it's potentially possible because we all agree
23 that mycotoxins at some level cause a response in the
24 human being.

25 A I don't see the relevance in the two parts

1 of that statement. We can determine at what levels
2 mycotoxins could cause an effect. That's part of the
3 calculations that I've done. Those same calculations
4 show that if you're in an atmosphere that contains
5 hundreds of millions to billions of spores per cubic
6 meter, that it is possible -- at least it raises the
7 possibility of having a mycotoxin effect at hundreds of
8 millions to billions. But in an office or residential
9 environment, you'd never ever find that kind of
10 concentration.

11 Q Have you in your experience ever seen a
12 residential home with indoor mold that produced a spore
13 count in the hundreds of millions or billions that
14 would be necessary to produce a mycotoxin response?

15 A I've never seen a spore count in the
16 hundreds of millions to billions.

17 Q So your opinion going into this Kramer
18 investigation was that prior to beginning this
19 investigation, you have never seen an indoor spore
20 count sufficient to cause a mycotoxin response?

21 A No.

22 It's at least possible in agricultural
23 settings to reach very, very high spore counts.

24 Q And let's take away the grain elevators and
25 those types of things which I think is what you're

1 talking about. Let's talk about residential homes.

2 Prior to going to the Kramer investigation,
3 have you ever heard of a home environment that produced
4 a spore count in the hundreds of millions to billions
5 that would produce a mycotoxin response?

6 A Well, I've certainly never seen spore counts
7 in the hundreds of millions to billions in a
8 residential environment.

9 Q Okay.

10 Why did you need to look at any of the data
11 then if in your opinion prior to going to the Kramer
12 residence, it was possible -- you've never heard of an
13 indoor environment that could produce sufficient spore
14 counts to produce a mycotoxin response? Why was it
15 even necessary to look at the data because it just
16 couldn't happen?

17 A Well, it goes back to the steps that are
18 pretty universally accepted that one would go through
19 to determine whether exposure to any chemical,
20 including mycotoxins, could have caused an effect.

21 So the first thing that would be considered
22 is is a chemical present? The second one would be if
23 it is present, has it ever been shown to cause the
24 claimed disease? The third one would be is it present
25 at a sufficient dose, meaning concentration and length

1 of exposure to have caused adverse effects? The fourth
2 one would be did the claimed disease precede the
3 exposure? And then the last one is a consideration of
4 alternative causes.

5 So in order to answer the question in the
6 way that's generally accepted in the scientific
7 community, it's important to be able to walk through
8 each of those steps.

9 Q I understand that. I mean I do.

10 I guess my question, though, is: You went
11 into this whole Kramer investigation having never seen
12 an indoor residence that could ever produce the amount
13 of spore counts that you believe sufficient to cause a
14 mycotoxin response; is that accurate?

15 A No. It's not my belief; it's what the
16 scientific literature shows.

17 Q Your interpretation of the scientific
18 literature says that no indoor residence has ever
19 produced sufficient spore counts to cause a mycotoxin
20 response.

21 A It's my interpretation and pretty broad
22 scientific consensus.

23 Q You would agree that there are many people
24 out there that would disagree with you about that?

25 A Not with the scientific basis for that

1 disagreement. Everybody's entitled to their own
 2 opinion.
 3 **Q Sure they are.**
 4 **A** In science -- the thing that defines science
 5 is the ability to go to data and draw a conclusion from
 6 actual data.
 7 **Q But --**
 8 **A** As opposed to a belief.
 9 **Q -- my question is: If it could never**
 10 **produce a mycotoxin response in people based upon your**
 11 **interpretation of the scientific data, then why did you**
 12 **need to review all this stuff? You could have just**
 13 **said, "It can't ever happen."**
 14 **A** It's not my belief it can never produce a
 15 mycotoxicosis. It's -- the data clearly shows you need
 16 to have a sufficient dose to produce a mycotoxicosis.
 17 When I started looking at the information, first of
 18 all, it's possible there they're measuring mycotoxins.
 19 That would be a research effort, but it's possible.
 20 I had no idea what the -- at the beginning,
 21 what the circumstances were here. So there was some
 22 indication of remediation, for example. It is possible
 23 if you were ripping out grossly moldy wallboard in a
 24 small contained area that you could get up to very high
 25 spore counts.

1 **Q Did you anticipate that the spore counts you**
 2 **were going to find in the Kramer residence were in the**
 3 **hundreds of millions and billions that you believe**
 4 **necessary to cause a mycotoxin response?**
 5 **A** I didn't have an anticipation.
 6 What I do is look at the data and relate the
 7 data to the scientific information. Frankly, I don't
 8 care which way it comes out.
 9 **Q You were hired to give a neutral opinion in**
 10 **this regard.**
 11 **A** You keep using the word "neutral." I was
 12 hired to use science.
 13 **Q How many times have you worked with Stone &**
 14 **Hiles in the past?**
 15 **A** I don't remember.
 16 **Q Well, I'm going to go back to my estimation,**
 17 **ballpark -- more than one, less than a hundred? Can**
 18 **you --**
 19 **A** It's more than one and I'm sure less than a
 20 hundred.
 21 **Q All right.**
 22 **Of the 14 cases we looked on in your federal**
 23 **list, did any of those cases involve work for Stone &**
 24 **Hiles?**
 25 **A** They may have. Let me take a look.

1 **Q Did I steal volume I from you? I think I**
 2 **did.**
 3 **(Brief pause)**
 4 **A** I'm sure there's at least one. I don't
 5 remember which one. It might have been Coved versus
 6 Shirley, but I don't remember which one.
 7 **Q Have you worked with Stone & Hiles on more**
 8 **than one occasion?**
 9 **A** Yes.
 10 **Q Has it been more than 10?**
 11 **A** I really don't remember. If it's more than
 12 10, it's not much more than 10.
 13 **Q Okay.**
 14 **So approximately 10 times? Would you say**
 15 **that?**
 16 **A** Well, within your one to a hundred limit,
 17 sure.
 18 **Q Okay.**
 19 **And who do you typically work with at**
 20 **Stone & Hiles? Is it Mr. Schaffer or is it Russell**
 21 **Hiles?**
 22 **A** I can remember -- actually, can we go off
 23 the record a minute?
 24 **MR. RICHARDS:** Sure.
 25 **(Discussion off the record)**

1 **MR. RICHARDS:** Back on the record.
 2 **THE WITNESS:** At the moment, I can remember
 3 three people.
 4 **BY MR. RICHARDS:**
 5 **Q Okay.**
 6 **A** I don't remember if they were different
 7 cases or how it was related, but -- two people other
 8 than Mr. Schaffer: an individual by the name of Frank
 9 Kurasz and Russell Hiles.
 10 **Q Other than this case, have you ever worked**
 11 **with Mr. Schaffer on any other cases?**
 12 **A** I think I have.
 13 **Q Since you formulated your opinions back in**
 14 **July of 2002 in this case, have you ever been given any**
 15 **additional work by Stone & Hiles?**
 16 **A** Um, I suspect so, but I don't remember
 17 specifically.
 18 **Q You understand what I'm saying. Is this the**
 19 **last case you've worked on them with or has there been**
 20 **additional work come from Stone & Hiles since?**
 21 **A** I suspect there have been additional cases,
 22 but I don't specifically remember.
 23 **Q Prior to your rendering some opinions in**
 24 **July of 2002, you had worked for Stone & Hiles. Is**
 25 **that accurate?**

1 A Yes, I think that is.
 2 **Q In any of the cases that you worked with**
 3 **Stone & Hiles prior to rendering your opinion in this**
 4 **case, have you ever been of the opinion that indoor**
 5 **mold levels caused a mycotoxin response?**
 6 A I rather doubt it because I've never seen a
 7 sufficiently high spore concentration in a normal
 8 residence to have led to a mycotoxicosis.
 9 **Q Do you know whether or not aspergillus**
 10 **sadawi [sic] produces mycotoxin?**
 11 A No, I don't.
 12 **Q Do you know whether or not aspergillus**
 13 **versicolor produces mycotoxin?**
 14 A Um, I believe there are some mycotoxins
 15 associated with versicolor.
 16 **Q Do you know whether aspergillus versicolor**
 17 **is a consistent producer of mycotoxin?**
 18 A I don't remember any laboratory studies
 19 showing under what condition it produces mycotoxin.
 20 **Q And as for the term "consistent producer,"**
 21 **I'm talking about a fungi that produces mycotoxins more**
 22 **than 90 percent of the time.**
 23 A The laboratory data I've seen does not allow
 24 a determination of the frequency with which -- or even
 25 the specific condition -- reproducible condition --

1 under which mycotoxins are produced. So it's clear
 2 mycotoxins are produced by mold. It's not clear
 3 exactly what conditions lead to the production of
 4 specific mycotoxins.
 5 **Q Are you aware whether or not aspergillus**
 6 **ustus produces mycotoxin?**
 7 A Again, I have not seen any mycotoxin studies
 8 on that species.
 9 **Q With respect to aspergillus sadawi and**
 10 **aspergillus ustus, you're not aware of one way or the**
 11 **other?**
 12 A That's correct.
 13 **Q Can you give any significance that**
 14 **aspergillus sadawi, versicolor, and ustus were all**
 15 **found at the Kramer residence?**
 16 A Well, again, the mere presence of mold does
 17 not go to the issue of dose response. So one or two
 18 spores of any mold are incapable of producing
 19 sufficient amount of mycotoxins to cause adverse effect
 20 in a human being or an animal for that matter.
 21 The -- so, again, the way I would make that
 22 determination would be to use a maximal exposure
 23 question initially. And that would be under a very
 24 high spore concentration with a large number of spores
 25 could you have enough mycotoxins present to produce

1 mycotoxicosis.
 2 **Q And you've never in practice ever seen that**
 3 **happen in your experience?**
 4 A Seen a sufficiently high concentration of
 5 spores, yes. In construction situations, there's some
 6 very high measurements that have been obtained. And of
 7 course in agricultural settings.
 8 **Q I'm talking about in indoor residential**
 9 **homes. You've never seen that in practice occur that**
 10 **there are sufficient levels of mycotoxins to cause a**
 11 **response of any kind of mycotoxin-producing fungi?**
 12 A If I understood your question, I haven't
 13 seen a sufficiently high concentration of spores of any
 14 type in a normal residence. By normal, I mean not one
 15 that's undergoing active construction activities or
 16 destruction activities to produce a mycotoxicosis.
 17 **Q Let's talk about the mechanism by which a**
 18 **human being could be given a dose of fungi.**
 19 **There are at least two levels: One could**
 20 **ingest fungi and one could inhale fungi. Would that be**
 21 **accurate?**
 22 A Those are two mechanisms, yes.
 23 **Q And even in your paper which you wrote, you**
 24 **talk about in developing nations, there have been**
 25 **situations where people have ingested levels of fungi**

1 **that have caused fatal reactions. And that's a given,**
 2 **I would assume.**
 3 A Mycotoxicoses are -- we know a lot of
 4 mycotoxicoses -- and there are numerous reports,
 5 peer-reviewed -- very good reports of mycotoxicosis
 6 caused by ingestion of mold.
 7 **Q So clearly there have been situations where**
 8 **people have ingested a sufficient dose of mycotoxins to**
 9 **produce mycotoxicosis?**
 10 A Yes, there have.
 11 **Q How is the -- what is the mechanism by which**
 12 **mold can be given -- someone could be given a dose of**
 13 **mold vis-a-vis an airborne pathway?**
 14 A Um, I don't understand the question.
 15 **Q What is "conidia?"**
 16 A Conidia are fragments of molds. So it
 17 refers to the part that's analogous to a stalk that
 18 produces -- part of the spore-relating mechanism.
 19 **Q Conidia are actually in different shapes and**
 20 **sizes?**
 21 A Different organisms, yes.
 22 **Q And conidia is the portion of a mold that**
 23 **actually becomes airborne from a cone?**
 24 A It's one that can. There's other parts that
 25 can also become airborne.

1 **Q And when that becomes airborne, animals or**
 2 **human beings can ingest that by breathing that into**
 3 **their pulmonary system?**

4 A Well, normally, the term ingestion refers to
 5 eating.

6 **Q Fair enough.**

7 **They can bring that organism into their body**
 8 **by inhaling it into their pulmonary system?**

9 A That's correct.

10 **Q What does the term "remediation" mean to**
 11 **you?**

12 A That's a term that gained wide acceptance in
 13 the asbestos industry. And it was a term that was used
 14 to refer to removing asbestos from a building.

15 **Q Were you aware that there's asbestos in the**
 16 **Kramer residence?**

17 A If I was, I don't recall it now.

18 **Q What does the term remediation mean to you**
 19 **with respect to mold or indoor mold?**

20 A It's an absolutely incorrect usage of that
 21 terminology. The general usage means some kind of
 22 removal of the mold, but it's an incorrect terminology.

23 **Q Why is it an incorrect terminology?**

24 A People have been cleaning out mold for
 25 thousands of years. And that's a correct terminology,

1 situations -- not necessarily all situations, but many.
 2 So normally, the activities that I've seen from mold
 3 remediators is that they -- they try and treat mold
 4 like it's asbestos and use the same approaches.

5 And now, that's very expensive and it's
 6 unnecessary and it's not possible to remove all the
 7 mold because it comes right back again in the air. But
 8 you can -- it's just an overuse of technology to remove
 9 mold.

10 **Q When you say it's very expensive, you're**
 11 **aware that it's the insurance industry as a whole who**
 12 **picks up the tab for most of these mold remediators?**

13 A I really don't -- I don't have any data on
 14 who pays for remediation.

15 **Q How many times have you worked for Mercury**
 16 **Insurance before the Kramer case?**

17 A I don't think I've ever worked for Mercury
 18 Insurance. I think I've always been hired by an
 19 attorney.

20 **Q When you were hired in this case, you didn't**
 21 **have the anticipation that you were being hired for**
 22 **some kind of litigation?**

23 A Um, on this case, I don't remember at the
 24 beginning if it was labeled "litigation" or just "can
 25 you interpret these results?" It would make no

1 the difference being you can remove asbestos from a
 2 building and it doesn't come back.

3 If you remove mold from a building, there's
 4 mold in the air -- mold is ubiquitous. It's
 5 everywhere. You're going to end up -- it's not
 6 possible to make a mold-free environment unless you
 7 take a hospital bubble-type approach -- and even there,
 8 there's still molds even in the bubble.

9 **Q Do you believe that the remediation industry**
 10 **is illegitimate?**

11 A Remediation --

12 MR. BORIS: I'll object as vague and
 13 ambiguous. Lacks foundation.

14 THE WITNESS: I don't understand what you
 15 mean by the term "illegitimate."

16 BY MR. RICHARDS:

17 **Q There are people out here -- out in the**
 18 **current -- strike that.**

19 **There are many people right now calling**
 20 **themselves "mold remediators"; is that accurate?**

21 A Yes. I've seen that terminology.

22 **Q Do you think that that industry, those mold**
 23 **remediators are an illegitimate industry, meaning they**
 24 **can't really do what they say they can do?**

25 A I think it's a gross overreaction to many

1 difference to me.

2 **Q The test results that you reviewed in this**
 3 **case included a series of spore counts from a company**
 4 **called H.M. Pitt. Is that accurate?**

5 A Yes. That's one of the measurements I saw,
 6 yes.

7 **Q All right.**

8 **And the H.M. Pitt test results showed**
 9 **massive amounts of the genus aspergillus penicillium in**
 10 **the Kramer residence.**

11 **Do you recall seeing that in the**
 12 **October 29th, Pitt report?**

13 A I -- that's what they said.

14 **Q Do you disagree with that?**

15 A Yes.

16 **Q Why?**

17 A Well, if you're going to use the term
 18 "massive," it has to be massive in relation to
 19 something. The only notations I saw of "massive" were
 20 of what were called "bulk samples." I don't remember
 21 right now if it was a tape lift or dust.

22 The problem with labeling that as massive --
 23 a good laboratory such as an accredited laboratory,
 24 whether, for example, for a tape-lift sample will say
 25 there's massive amounts of -- that's one of the

1 categorizations they use for the amount of mold on the
2 tape lift. The problem is that it only accounts for
3 the amount of mold that was on the little tiny area of
4 tape that was put on whatever surface that was being
5 measured.

6 There's nothing to compare it to. Now, we
7 know that all surfaces have mold on it all the time.
8 So there's no way of -- and, for example, if there was
9 a little tiny colony, say the size of smaller than the
10 tip of my little finger and I put the tape right on top
11 of it, the laboratory would read that as massive. If
12 that was the only colony in the whole house, it would
13 give you no idea of what was in the house and certainly
14 no idea of what people were actually being exposed to.

15 If it was a dust sample, which would be the
16 other potential here, the problem there is that it's
17 measured in terms of the amount -- number of spores per
18 unit of measure of dust. That means that, again, using
19 the example if you had 10,000 spores and a gram of
20 dust -- a very dirty area -- that would be 10,000
21 spores per gram. But if you had 10,000 spores on a
22 very clean surface so that perhaps there's only a 10th
23 of a gram of dust, that calculates out to be 100,000
24 spores. Your interpretation of that, that the
25 environment -- that the clean environment, in fact, was

1 dirty, had a lot of spores in it -- when they have the
2 same number -- and the dirty environment led to the
3 wrong conclusion.

4 So the metric for measuring dust -- again,
5 there's nothing to compare it to. Now, it is possible
6 to take measurements for comparison, but that's almost
7 never done.

8 **Q In the mold-remediation industry, people I**
9 **talk to generally tell me it's the goal of the**
10 **remediator not to remove mold from the indoor**
11 **environment but to remove excessive levels of mold so**
12 **that the indoor environment and the outdoor environment**
13 **bear a similar amount of mold.**

14 **Is that your understanding of what the**
15 **remediators do?**

16 A Well, that's a -- that's a goal I would
17 agree with. It's not the stated goal of many
18 remediators.

19 **Q You mean some remediators say they will**
20 **provide an environment free of all mold?**

21 A I've never seen a remediator claim they were
22 going to provide an environment free of all mold, but
23 often they're -- the object is to remove -- uses
24 concepts of removing mold to the point where it's much
25 lower than the outside environment.

1 **Q You have to have a problem with the concept**
2 **that a remediator should try to lower the levels of**
3 **indoor mold to make it roughly equivalent to those**
4 **levels in the outdoor environment?**

5 A No. I -- that's a reasonable goal within
6 limitations of what the outside environment is.
7 There's a certain level of mold that's associated with
8 just people living in the house.

9 The -- most of the remediation companies
10 I've encountered prefer to treat mold as though it was
11 asbestos and use asbestos-removing techniques. In not
12 100 percent of the situations but in most situations,
13 that's not appropriate. But you have to look at the
14 individual situation.

15 **Q Do you have any criticisms of the work that**
16 **was done by H.M. Pitt Labs in this case?**

17 A Um, I would have to -- now, again, you need
18 to understand, my comments are not from the standpoint
19 of structural elements within a house. So I'm not
20 going to -- the issues of is a floor joist rotted out?
21 The structural issues are not my area of expertise.

22 So when I do an analysis, it's from the
23 standpoint of health. And I would have to say that
24 most of the activities I saw were certainly stringent,
25 beyond what was necessary from what -- from a health

1 standpoint -- and, again, from a toxicology
2 standpoint -- would be necessary to do in a residential
3 dwelling.

4 **Q Based upon H.M. Pitt's October 29th, 2001,**
5 **testing, they recommended that a remediation effort be**
6 **undertaken at the Kramer residence.**

7 **Were you aware of that?**

8 A Yes.

9 **Q Do you feel that was necessary?**

10 A I think their recommendations went beyond
11 what would be necessary if you were considering a
12 potential mycotoxicosis. I think that they recommended
13 an awful lot given what was present.

14 **Q What unnecessary things did they recommend**
15 **be done that you don't feel needed to be done?**

16 A I'd have to go back to the reports, then.

17 MR. RICHARDS: Okay.

18 Let's take a few minutes.

19 (Discussion off the record)

20 MR. RICHARDS: Back on the record.

21 BY MR. RICHARDS:

22 **Q Dr. Kelman, prior to our short break there,**
23 **I had asked you to take a look at Pitt and determine**
24 **from Pitt what unnecessary work you felt they had**
25 **recommended to be done.**

1 **Did you have an opportunity to do that?**

2 A Yeah. I think I found the report you're
3 referring to.

4 **Q After reviewing that report, did you come to
5 some conclusion about whether Pitt recommended
6 unnecessary work that didn't need to be done based upon
7 the air-quality testing?**

8 A Again, going from the standpoint of
9 potential health effects, which is generally one of the
10 objectives of doing this work, to reduce those
11 potential health effects -- and in my case, looking at
12 it from the standpoint of potential for a
13 mycotoxicosis, it appears to me they did more than was
14 really necessary.

15 The amount of work may justify putting up
16 a -- some kind of containment, just as you would any
17 construction dust. I think the materials -- air could
18 have been evacuated to the outside without HEPA
19 filtering. Again, a more economical approach would be
20 to have access to the outside and taking materials out
21 through that access from the kitchen so through a
22 kitchen window, for example. That saves you the cost
23 of double-bagging and still removes the material from
24 the environment without dragging it through the rest of
25 the house.

1 The HEPA vacuuming of all contents is a bit
2 of an overdoing the approach, although it is a common
3 practice.

4 Pitt uses this concept of clearance, which
5 is another concept borrowed from the asbestos
6 approaches. And I would maintain there will always be
7 mold present so it's next to impossible to clear an
8 area based on -- particularly based on any surface
9 counts. But even the air -- the problem with air
10 measurements is they are a snapshot in time. And the
11 outside air concentrations will vary significantly over
12 short periods of time.

13 The requirement that abatement workers wear
14 chlorine-gas filters is certainly an unnecessary
15 component of -- to the overall cost.

16 **Q Is it your opinion that the workers don't
17 need to take any kind of respiratory protection when
18 they were in the Kramer residence?**

19 A Well, it depends on the -- again, the
20 analogy would be to dust. In construction activities,
21 you can generate enough dust to exceed the -- what used
22 to be call nuisance dust standards.

23 In that situation, it is advisable to wear a
24 respirator. So wearing a respirator is -- depending on
25 the activity, that may be appropriate. Adding the

1 extra component of chlorine-gas filtration, which is a
2 second canister, if you will, means that it's harder to
3 move air through the mask and it's more difficult to --
4 it's another cost component where it's completely
5 unnecessary.

6 I guess -- from this report, those are the
7 major items of criticism I would have; that they really
8 overdid what needed to be done to clean it up based on
9 the mycotoxicosis consideration.

10 **Q Other than your opinion that H.M. Pitt
11 recommended that too much work be done to protect the
12 Kramer family, do you have any other criticisms of what
13 they did out there?**

14 MR. BORIS: I'll object. It misstates his
15 testimony.

16 THE WITNESS: Nearly all of the -- I guess
17 you'd call them industrial hygienists -- including the
18 individuals I reviewed -- were not well qualified to be
19 taking mold measurements and drawing conclusions from
20 the mold measurements. The proper person to do that is
21 a certified industrial hygienist with the appropriate
22 background in potential health effects of mold.

23 BY MR. RICHARDS:

24 **Q Do you have the opinion that any of the test
25 results that were done by Pitt were somehow either not**

1 **taken within proper protocol or otherwise inaccurate?**

2 A I can't tell because they haven't documented
3 their procedures properly. And the laboratory analyses
4 were not done in an accredited lab.

5 **Q Your belief that H.M. Pitt recommended too
6 much work to be done is solely based on your position
7 as a toxicologist with respect to the issue of
8 mycotoxicosis; would that be accurate?**

9 A Substantially. The only additional
10 consideration would be what would an individual be
11 likely to encounter in any other environment?

12 **Q What you're not considering in making that
13 opinion, however, is someone like Erin Kramer, who
14 suffered from ABPA and may have an allergic or
15 immunological response to this mold.**

16 **Would that be accurate?**

17 A Almost.

18 The -- I would not have an opinion on the
19 effect of the aspergillus on the aspergillois. The
20 immunological response would be to internal
21 aspergillus, not external aspergillus. I mean that's
22 the whole basis for ABPA. It's an internal reaction to
23 mold growing in the lungs.

24 **Q Correct, which they received from the
25 outdoor environment?**

1 A At some point, yes.

2 Q And your position that Pitt may have done

3 too much work -- I guess here's my issue.

4 You used the term, "I'm giving my opinion

5 from a mycotoxicosis basis." Then you interchange that

6 with health, which is a little broader because in

7 health we should be talking also about Erin Kramer and

8 her aspergillosis. You see what I'm saying?

9 A Yes, and that's fair, because as a

10 toxicologist, the two areas I would have an opinion in

11 would be relative to potential mycotoxicosis and to the

12 exposure that would be likely to be encountered inside

13 versus any other residential or school or office

14 environment.

15 Q Right.

16 But your opinion with respect to the scope

17 Pitt had -- being too much, in your words -- is

18 relative to a situation involving normal people and

19 their reaction and potential mycotoxicosis; correct?

20 A As a toxicologist, that would -- well, the

21 mycotoxicosis would cover both the CF condition and

22 normal people. That's not a different situation.

23 Q Right.

24 A The exposure issue would be the same in

25 terms of -- there's no more -- at the same spore

1 levels, it doesn't matter where that individual is.

2 So if they're likely to encounter those

3 spore levels outside and spend a significant amount of

4 time outside or in school or other dwellings, then the

5 inside measurement -- from the standpoint of risk would

6 present no more risk. But in terms of a specific

7 designation as to the aspergillosis, no, you need an

8 immunologist to do that.

9 Q And your opinion here today, particularly

10 with the extent of the scope of the Pitt work does not

11 address whether or not it was sufficient for the safety

12 of the child who has ABPA -- you're not addressing that

13 issue?

14 A Well, only to the extent that the kinds of

15 exposures we're talking about -- or potential

16 exposures -- were going to be clearly lower or about

17 the same as would be encountered outdoors from moldy

18 hay, from plants growing on a dwelling. So on a

19 comparative basis, I still think they were overdoing

20 it. But here I'm talking about a comparative risk

21 basis as opposed to specifically the condition of ABPA.

22 Q If the indoor spore counts of aspergillus

23 penicillium were, say, six to seven times higher than

24 the outdoor baseline spore counts, should that air

25 quality be remediated for a child who suffers from

1 ABPA?

2 A Well, first of all, there's a problem

3 because you're talking about aspergillus penicillium,

4 meaning -- an interpretation I have of that is that we

5 have noncultured cells or spores. So we don't know the

6 difference. If the issue is aspergillosis and you know

7 at that point the issue is aspergillosis, the species

8 of aspergillus is aspergillus.

9 And now I've forgotten the rest of the

10 question.

11 Q That's fine. You were talking about a

12 relative risk assessment. What I essentially got from

13 your testimony was that what I'm here today to say is

14 not how or whether or not the aspergillus is going to

15 present a danger to Erin Kramer, but if we look at the

16 outdoor environment which contains aspergillus and the

17 indoor environment which contains aspergillus, the

18 relative risk is the same for her.

19 Isn't that essentially what you told me?

20 A Yes.

21 Q My question is: At what point we have an

22 increase of indoor aspergillus in your opinion, do we

23 need to start lowering that to protect a child who has

24 aspergillosis if that indoor air has aspergillus at six

25 or seven times higher. Let's talk about the

1 aspergillus not the genus aspergillus.

2 At that point, shouldn't we reduce the spore

3 count for a child who suffered from aspergillosis?

4 A That's possible under some circumstances.

5 The problem is here -- you're talking about reducing

6 it. You have to have a very good idea of what

7 environment it's likely to be encountered outside the

8 home. If you're talking about a few hundred or even a

9 few thousand spores of aspergillus, that's not an

10 unusual measurement outside the home. It's not an

11 unusual measurement outside, around animals or hay or

12 or vegetation.

13 It's not unusual to find that level in some

14 areas in a bathroom, in any other part of a public

15 building that has moisture associated with it or where

16 there's plants being grown and contributing to the

17 excess or increased levels of moisture.

18 So again, you would have to put it in terms

19 of how much -- what's the spore count that we're

20 worried about? Just saying, well, we want to get six

21 or seven times -- for example, if you're outside

22 measurement happened to be 70 spores per cubic meter

23 and your inside measurement was 700 spores per cubic

24 meter, that's a pretty average measure for inside.

25 That just tells you particularly outside at that time

1 it was quite low. I don't think it's a decision that
2 can be made on absolute bases alone. You'd have to
3 compare it to the environment that's likely to be
4 encountered.

5 MR. RICHARDS: I'm going to hand you what
6 I'll mark as Exhibit B to the deposition, which is an
7 article that I believe you authored and I pulled off
8 the Internet.

9 (Exhibit B marked)

10 THE WITNESS: Okay.

11 BY MR. RICHARDS:

12 Q Did you author that article?

13 A I'm one of the coauthors, yes.

14 Q This article states on page 3, individuals
15 with allergic airway disease should take steps to
16 minimize their exposure to molds and other airborne
17 allergens. It is prudent to take feasible steps that
18 reduce exposure to aero allergens and to remediate
19 sources of indoor mold amplification.

20 Do you recall that being a part of this
21 article?

22 A I believe that was within the context of the
23 allergies.

24 Q Do you disagree with that statement?

25 A No. And that in no way conflicts with what

1 Company and/or his report?

2 A Again, I'll have to find the report. I
3 don't remember it specifically.

4 Q Sure.

5 A What was the time frame?

6 Q February 2nd is when he wrote the report.
7 That's a question-and-answer follow-up from the report
8 you're looking at. I think that's the original report.

9 A This is a January 30th letter?

10 Q Sorry. That's the one I'm talking about.

11 A One of the criticisms I have is -- with
12 Szaras's supposition of cross-contamination. There's
13 very little evidence with low numbers of spores that
14 you end up with significantly increased levels of
15 spores because of activity in one area of the house.
16 The filtering of the air for 24 hours under negative
17 pressure has certainly no scientific basis.

18 Again, if you're setting up a generalized
19 movement of air, decontamination chamber as defined by
20 decontamination, meaning someplace workers go to
21 isolate themselves, in this situation, spore counts are
22 not high enough to justify that. HEPA filtering --
23 exhausting HEPA-filtered air to the outside is silly.
24 Removal of drywall should be based on the presence of
25 visible molds.

1 I'm saying. You would take the steps, but there's no
2 absolute level you can get down to. So the steps have
3 to be in consideration to what a normal environment is.

4 Let me give you an example. That's not
5 saying that it's prudent to put an atopic individual
6 into a bubble. You can decrease the levels, but you
7 can't get them to zero.

8 Q After January 7th, 2002, H.M. Pitt
9 determined that there was still amplified levels of
10 aspergillus penicillium in the Kramer residence. Were
11 you aware of that?

12 A If I remember the reports in that time
13 frame, there was more inside than -- I think they had
14 outside measurements at that point.

15 Q They did.

16 Mercury Insurance brought out a company
17 called Szaras to determine what additional steps might
18 need to be taken in order to reduce the indoor air
19 spore counts.

20 Did you read the Szaras report?

21 A Yes.

22 Q Szaras recommended, in fact, a number of
23 things be done, which I'll represent to you that
24 Mercury agreed to do based on this report.

25 Do you have any criticisms of the Szaras

1 So once you get beyond an area --
2 water-damaged drywall needs to be replaced if it's
3 truly water-damaged, but that's a structural issue.

4 From the standpoint of mold growth, if
5 there's no mold growth, it needs to be removed. It
6 seems like they're asking for a lot of removal of
7 drywall beyond what they had identified as actual mold
8 growth.

9 They actually go on to say that -- they have
10 some conflicting information because they're saying
11 remove the drywall a foot beyond the mold growth. And
12 that is -- that's reasonable based on the potential for
13 not having damaged material there. They talk about
14 industry guidelines for spore concentration levels, and
15 there are none. I don't know what they're talking
16 about there.

17 I think that would be the -- my criticisms
18 of what they recommended.

19 Q Szaras Company recommended on January 30
20 2002, that additional work be done to reduce the spore
21 count in the Kramer residence.

22 Would that be accurate?

23 A Well, it appears they're recommending
24 additional work from this scope.

25 Q Do you disagree with Szaras's position that

1 **additional work needed to be done in the Kramer**
 2 **residence as of January 30, 2002?**

3 A From the situation of work relative to the
 4 kitchen, actually time frames -- I'm not sure of the
 5 time frames. If there was additional mold inside the
 6 house that had nothing to do with the kitchen, I really
 7 haven't focused on that.

8 This again -- Szaras is an outfit that
 9 started in the mold -- in the asbestos area and takes
 10 an extremely cautious approach that drives costs very
 11 high, unnecessarily. So I would suspect based on what
 12 was found elsewhere in the house that would have
 13 nothing to do with the kitchen that they would -- for
 14 the reasons I just outlined, they're asking for
 15 components that are going to increase the costs.

16 **Q And who would bear those costs? The**
 17 **insurance company?**

18 A I have no idea.

19 **Q Well, we do know that the insurance company**
 20 **was involved so in this case, these increased costs**
 21 **would affect the insurance company.**

22 A I don't -- I have no idea what the coverage
 23 issues were.

24 **Q And, again, you're not here today in any way**
 25 **to offer an opinion as to coverage issues in this case?**

1 A Oh, no.

2 **Q And what mold in the house should be covered**
 3 **versus what mold in the house should not be covered in**
 4 **terms -- you're not here to offer that?**

5 A No. I wouldn't know that. Not for coverage
 6 issues.

7 **Q What I'm trying to get at, Dr. Kelman, is is**
 8 **it your opinion that there needed to be more work done**
 9 **in the Kramer residence in order to clean up the mold**
 10 **in January and that Szaras just requested that too much**
 11 **be done or that as of January, no additional mold**
 12 **cleanup needed to be done?**

13 A I don't think I have a complete enough
 14 determination of what visible mold was present and what
 15 the physical condition of things were.

16 In the standpoint of concentration of spore
 17 counts in the air, which as a toxicologist, what I
 18 would be working with, there was some amplification,
 19 but it didn't appear to be excessive. Normally, what
 20 you'd do is the cleanup is based on -- or properly, the
 21 cleanup is based on finding visible mold.

22 **Q You are aware that Szaras found visible mold**
 23 **when they were there, during the inspection?**

24 A In the house, that was true.

25 **Q And they also found visible mold in the**

1 **crawlspace in an area that was affected by the kitchen**
 2 **water line?**

3 A You're talking about the construction
 4 materials in the crawlspace?

5 **Q Yes. Well, there was mold in the crawlspace**
 6 **area.**

7 A I think I do remember there being some
 8 counts of mold in the crawlspace area.

9 **Q So it's your opinion that additional cleanup**
 10 **needed to be done. You just think Szaras was too**
 11 **stringent, to use the term, in their cleanup scope?**

12 A Well, the issue that I've encountered in
 13 these reports is that somehow the mold in the
 14 crawlspace significantly increased the mold in the
 15 house. And we don't have any evidence of that.

16 **Q Do you have any evidence that it didn't**
 17 **happen?**

18 A No. I normally go on positive evidence.

19 If you can't show that you have additional
 20 load being introduced, meaning that the background
 21 that's already present is sufficiently high, you can't
 22 differentiate, then what's the point of -- from the
 23 standpoint of taking action based on the potential for
 24 increase to do further cleanup?

25 **Q You don't know one way or another, though,**

1 **whether the mold in the crawlspace contributed towards**
 2 **the positive increased testing that we found in January**
 3 **in terms of the spore counts in the house?**

4 A Well, let's look at the January testing.
 5 This would be the testing from general analytical
 6 laboratories.

7 Is that the one you're referring to?

8 **Q Yes.**

9 A Well, in January, they don't appear to have
 10 taken any outside measurements.

11 **Q I don't think GAL did, but we can look at**
 12 **January 7th, Pitt testing as well, which is similar.**
 13 **And also, they did take the outdoor testing.**

14 A Okay. Two samples that were collected,
 15 noncultured samples -- one from outside that showed a
 16 principal measurement of cladosporium of 4,000 and
 17 aspergillus penicillium as 2,800, and a measurement
 18 taken in the hall kitchen dining area with a
 19 cladosporium count at almost 29,000. So that's below
 20 outside -- and an aspergillus penicillium measurement
 21 that's approximately twice as high as outside.

22 Just from those measurements, that's well
 23 within the range of kind of normal variation that you'd
 24 expect to see.

25 So I couldn't draw a conclusion from this

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1 very limited kind of sampling that it was necessary to
 2 do anything more from a -- again, an exposure
 3 standpoint.
 4 **Q From a mycotoxicosis exposure standpoint.**
 5 A Yes.
 6 **Q Not an allergic standpoint as it applies to**
 7 **Erin Kramer.**
 8 A Well, again, a spore count of 6,200 is
 9 something you'd expect to find in many environments and
 10 it wouldn't be unexpected outside.
 11 So it does not appear that this environment
 12 is going to -- expose her to more than she would be
 13 exposed to in her normal activities unless she spends
 14 all her time in the house.
 15 **Q How much were you paid for your work in this**
 16 **case, Dr. Kelman?**
 17 A Um, I get paid the same amount no matter
 18 what I do.
 19 **Q And do you charge 350 an hour to work for**
 20 **Stone & Hiles?**
 21 A On this case, I believe that's what I'm
 22 charging.
 23 **Q And these are all your bills here?**
 24 A I believe those are the invoices.
 25 **Q Do you know what it totals, approximately?**

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1 A No, I don't.
 2 **Q Ballpark looks like it totals about \$30,000.**
 3 **Does that seem accurate?**
 4 A I have no idea. I've never added it up.
 5 **Q Well, ballparking, do you have any**
 6 **recollection?**
 7 A No. And of course, that would be what the
 8 company is paid.
 9 **Q You own the company; correct?**
 10 A I'm one of a number of owners.
 11 **Q Dear Mr. Schaffer, your letter says of**
 12 **July 23rd. On July 9th, 2002, you requested Bruce**
 13 **Kelman of Ph.D. of GlobalTox to analyze air samples of**
 14 **the Kramer residence by Joel Cohen of the Cohen Group**
 15 **on June 20, 2002. This letter is signed by you.**
 16 **Are you the one who drafted this letter?**
 17 A Yes.
 18 **Q Any reason why you referred to yourself in**
 19 **the third person? Seems like a secretary or something.**
 20 A I couldn't figure out how else to say that.
 21 **Q Did anybody else do analysis or work on this**
 22 **case besides you at GlobalTox?**
 23 A Depending on what the issues were. One of
 24 the CIHs would have assisted me or I have staff that
 25 does -- summarizes data and flags things out. I still

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1 go back through the whole thing, but it's much easier
 2 for me and quicker if that's done ahead of time.
 3 **Q And you don't recall whether or not you**
 4 **contacted Joel Cohen or whether or not Stone & Hiles**
 5 **contacted Joel Cohen to do this testing?**
 6 A No. I wouldn't have had the authority to
 7 direct him to go do the testing, anyway.
 8 **Q What do you mean you wouldn't have the**
 9 **authority?**
 10 A Well, that would have had to come from
 11 Stone & Hiles. I could have suggested it, but that
 12 would be it.
 13 **Q You state in here that, "Mold growth**
 14 **observed in and around the home was unrelated to the**
 15 **work in the kitchen and in the low-level garage."**
 16 **What do you base that statement on?**
 17 A The counts we were reading at the time of
 18 other leaks and other moisture sources in the house.
 19 **Q What other leaks were there at the time?**
 20 A Um, again, I don't remember the time frame.
 21 There were reports of -- I think there was a problem in
 22 one of the bathrooms. And, again, I'll have to go back
 23 to the records because at this point I don't remember.
 24 **Q You don't recall as you sit here today what**
 25 **other leaks or water sources made mold growth in the**

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1 **home unrelated to the work in the kitchen?**
 2 A Not at this point. That was more than a
 3 year ago.
 4 **Q And you're not here today to make any kind**
 5 **of coverage opinions on what the insurance company**
 6 **should be fixing and what they shouldn't?**
 7 A No.
 8 **Q So if there was a leak in the bathroom, you**
 9 **don't know whether or not that would be a covered loss**
 10 **as you sit here today?**
 11 A No, I would not.
 12 **Q You note in reviewing the test that the**
 13 **levels of penicillium indoors that Cohen did were**
 14 **higher than that in the outside air.**
 15 **Do you recall that when you reviewed the**
 16 **Cohen report?**
 17 A Yes, I think they were slightly higher.
 18 **Q How do you compare the Cohen report to the**
 19 **January 7th testing done by H.M. Pitt? Are those**
 20 **results similar?**
 21 A Similar in what sense? I don't understand.
 22 **Q Spore count analysis, indoor versus outdoor?**
 23 **Ratio of indoor to ratio of outdoor spore counts? Were**
 24 **they higher? Were they lower?**
 25 A Again, that -- that was some time ago. I

1 can look, but I don't remember.
 2 **Q Why don't you take a look for me in the**
 3 **January 7th Pitt analysis versus the Cohen analysis and**
 4 **tell me how they're different and how they're similar.**

5 A The first most obvious thing is that the
 6 Cohen sampling is much more extensive. It includes
 7 both cultured samples and noncultured samples. The
 8 information I had about how the samples were taken and
 9 the conditions under which they were taken is much more
 10 extensive.

11 The analyses in Cohen's case were done by an
 12 accredited laboratory. And I do not believe that's
 13 true for the Pitt laboratory samples. If we are to say
 14 that somehow they're equivalent, in general, the Cohen
 15 measurements tend to be significantly less.

16 It's clear that there's some minor
 17 differences in percentages, but they aren't enormous in
 18 terms of looking at the percentage for each of the
 19 major genuses that are present.

20 **Q You stated that the Cohen records tend to be**
 21 **significantly less than what it appears to be in the**
 22 **Pitt report of January 7th, 2002; is that accurate?**

23 MR. SCHAFFER: Results, not records.

24 BY MR. RICHARDS:

25 **Q Results.**

1 So it's a little bit of a -- I can't tell if
 2 they used equivalent techniques. They certainly didn't
 3 use the same laboratories to do the analyses. The use
 4 of an accredited laboratory is very important because,
 5 one, you get documented consistency. And the other is
 6 you don't have a potential conflict between the person
 7 taking the measurements and the person reading the
 8 measurements.

9 **Q Do you feel, then, an explanation is the**
 10 **Pitt Labs are just inaccurate?**

11 A I can't tell. It's either that the Pitt
 12 Labs used a different technique -- it could be that the
 13 people doing the analyses count differently since the
 14 Pitt lab is not accredited, I'm not sure who's looking
 15 at it and how they arrive at their conclusion.

16 And it's entirely possible that the spore
 17 counts were significantly lower -- it's a different
 18 time of year, different level of moisture, indoors and
 19 outdoors. I don't -- in August -- this August, I
 20 believe it was dry. In January, 2002, I don't remember
 21 whether it was wet or not.

22 All of those things would -- could influence
 23 the indoor measurements.

24 **Q You go on to state in your report that**
 25 **Mr. Cohen's measurements indicate that, "There does not**

1 A Yeah. They tend to be.

2 **Q Do you know what work, if any, was done**
 3 **between the time of January 7th, 2002, and the June**
 4 **Cohen testing to reduce airborne spore counts in the**
 5 **Kramer residence?**

6 A I don't remember at the moment.

7 **Q I'll represent to you for the purposes of**
 8 **the question that no work had been done between January**
 9 **and the time of the Cohen testing.**

10 **And given that, can you explain to me how**
 11 **the spore count in the Kramer residence could be**
 12 **significantly lower than it was in January?**

13 A Um, sure.

14 First of all, we've got only two samples.
 15 So there's no way of determining the amount of
 16 variation that was going on as a result of the sampling
 17 itself. Also, I have no idea how Pitt took the
 18 samples. So he may have introduced some energy into
 19 the house just by the number of people that were
 20 present or how they walked through the house that was
 21 different than the measurements taken by the Cohen
 22 Group.

23 The other thing is that if the water sources
 24 had -- were no longer as active and the mold growth had
 25 gone down, you'd expect to see lower measurements.

1 **appear to be a greatly increased level of risk over**
 2 **outside air for the occupants of this building."**

3 **Do you remember writing that?**

4 A I don't remember writing it, but if it's in
 5 the report, I wrote it.

6 **Q What do you mean "does not appear to be**
 7 **greatly increased level of risk"? Are you stating that**
 8 **there's potential for some risk?**

9 A Well, there's always a potential for some
 10 risk whether you're indoors or outdoors. The
 11 comparison here is that you don't have significantly
 12 increased levels in the house compared to outdoors.

13 **Q A physician with detailed knowledge of the**
 14 **clinical condition of the child must be consulted for a**
 15 **specific determination of the safety of this**
 16 **environment.**

17 **Do you still agree with that?**

18 A Yes.

19 **Q Have you ever seen any report from any**
 20 **physician in this case regarding health risks**
 21 **associated with Erin Kramer and exposure in that house?**

22 A I saw a report eventually from
 23 Dr. Marinkovich. And I recently -- a few -- yesterday
 24 or the day before -- got a deposition from Dr. Conrad.

25 **Q In fact, in that volume you're looking at**

1 right now, you tagged Dr. Marinkovich's letter with a
2 red sticky?

3 A Yes.

4 Q Is there any reason that you put
5 significance on tag with a red sticky here today?

6 A There are two things. One is originally, I
7 received a report on Mrs. Kramer, not Erin Kramer, and
8 had responded that I didn't have a report on Erin
9 Kramer. The other is that it's buried in the middle of
10 a very large volume, and I wanted to know where it was.

11 Q Do you have any disagreement or are you
12 going to enter any opinion about whether or not that
13 house is currently safe in its current environment for
14 Erin Kramer with respect to her aspergillosis?

15 A Only in relation to other exposures but not
16 specifically to the aspergillosis.

17 Q Not to her aspergillosis. So you'd leave
18 that to the opinion of physicians?

19 A Well, as I said, if the question is, is she
20 at greater risk in the house, the spore counts indicate
21 not. Greater risk than outside or in other dwellings.
22 If it's a question of in terms of absolute numbers, is
23 that an appropriate environment for Erin, that would be
24 something her physician has to answer.

25 Q And would she be at greater risk indoors

1 than outdoors based upon those January 7th Pitt testing
2 that was done?

3 A I don't think you can really tell from these
4 measurements. They aren't -- the aspergillus
5 penicilliums are measurements for the one sample. One
6 is somewhat higher, but it's not enormously higher so
7 our comparison number is pretty tough, particularly in
8 light of the fact we've got a nonviable measure. We
9 don't know whether it was aspergillus penicillium.

10 I think in the end, the answer is -- this
11 doesn't indicate there's a problem, but it's not a very
12 good set of measurements.

13 Q What other opinions do you intend to offer
14 at trial that I have not covered yet today?

15 A Well, I don't know what I'll be asked at
16 trial. I can tell you what my current opinions are.

17 Q What are your current opinions that we
18 haven't touched upon?

19 A Could I have -- I need volume I.

20 I don't know how well this was discussed,
21 so -- and I'll try not to be repetitive.

22 But I guess the first one is that dose
23 response is the heart of toxicology and that briefly,
24 "dose response" means that there is a level at which
25 exposure to a chemical produces no effect. And as you

1 increase the dose, you get a greater response.

2 I think we did a fairly complete job of
3 talking about when mycotoxins are produced and the
4 ability to extrapolate from mold on a wall to the
5 presence of mycotoxins. So they're not always
6 produced. We can't predict when they're going to be
7 produced or when they are produced. And we really
8 can't even predict what spectrum, what specific
9 mycotoxins are produced even under laboratory
10 conditions -- very controlled laboratory conditions.

11 And each one of these areas I've included
12 the reference material that I'm relying on.

13 Another one that we haven't talked about,
14 the musty smell, the microbial volatile organic
15 compounds that you smell from mold, are not very toxic
16 in and of themselves. At the concentrations that you
17 would encounter in any kind of a building, you could
18 not get a toxic dose. They have low odor thresholds
19 and they're not pleasant, but the toxicity is actually
20 very low.

21 The other area is that even assuming a
22 maximum possible dose -- and I've included the
23 calculations for how that dose is calculated -- so if
24 we assume the greatest concentration of mycotoxin
25 produced that's been measured in the laboratory per

1 spore -- and we use a number of 200,000 spores because
2 in our experience, that's about as high a level as
3 people want to stay around -- and there's literature
4 citing this that supports that as a very high level --
5 and using a normal breathing rate, which is an
6 overstatement for most people indoors because the
7 normal breathing rate covers both at rest and vigorous
8 activity, and most people don't do vigorous activity
9 indoors for an extended period of time.

10 And if we assume that everything that's
11 breathed in is retained in the lungs -- in fact, people
12 are not vacuum cleaners. You breathe out most of what
13 you breathe in. And you consider an exposure duration
14 of 24 hours a day forever. So we have that person
15 living in the house or the room and we calculate the
16 dose for specific mycotoxins. Those doses come out to
17 be many orders of magnitude lower than either anything
18 that's been -- any study that's shown an effect,
19 adverse effect -- those would be laboratory studies.
20 Or in the case of aflatoxins -- now, I mentioned
21 earlier aflatoxin has not been shown to be present in
22 building materials or in the air in buildings.

23 But it's a powerful mycotoxin and it's the
24 only federally regulated mycotoxin. So we have an end
25 point in which the federal government says it's safe.

1 If we calculate what people -- and particularly
2 children -- are allowed to consume, that maximum
3 possible dose with all of those overstatements of
4 exposure comes out to be about 10 percent of what
5 children are allowed to eat.

6 I did a review and this is taken from the
7 medical records of signs and symptoms for Erin Kramer
8 and Mrs. Kramer. And this goes to the issue of has
9 exposure to the mycotoxin ever been shown to cause the
10 claimed disease?

11 In Erin's case, I did not find significant
12 claims of toxicity so I would leave that to the
13 immunologist. In Mrs. Kramer's case, we have a number
14 of subjective complaints, very few objective -- very
15 few signs.

16 **Q What objective signs did you note in there?**

17 A Well, the complaint, an objective sign --
18 for example, one complaint was an elevated temperature,
19 but I did not find in the record an actual measurement
20 of elevated temperature. On the subjective signs,
21 there are a number of things that I investigated in
22 terms of looking at the peer-reviewed literature to see
23 if they had been shown to see if mycotoxins had been
24 shown to cause them, particularly at the levels we're
25 talking about, but even cause them in general.

1 And for example, complaint of foggy-
2 headedness, neurological impairment has not been shown
3 in the peer-reviewed literature to result from exposure
4 of -- to mycotoxins absent frank toxicity, insomnia,
5 rapid weight loss, numbness in hands or feet.

6 Again, that's a -- at these doses for
7 inhaled mycotoxins, there's nothing in the literature
8 that indicates that. There's a complaint of a rash.
9 There is evidence in the literature under extremely
10 high exposure conditions of a rash being present from
11 handling stachybotrys-contaminated planters. These are
12 paper planters that stachybotrys was growing around
13 solidly. But that exposure condition is in no way
14 related to anything I could imagine for this type of an
15 exposure.

16 Excessive hair loss, night sweats, dark
17 urine, loss of concentration, short-term memory loss --
18 even fatigue -- are not documented in the
19 epidemiological literature as causally related to
20 exposure to mycotoxins in anything related to these
21 exposure conditions. The same with gastrointestinal
22 upset.

23 Then, in a limited fashion, because I rely
24 on physician diagnoses for the last part -- I guess I
25 should say I did notice in the medical records that

1 there were -- many of the complaints preceded the 2001
2 leak. I saw a similar pattern before and after.

3 I also found a notation that Mrs. Kramer's a
4 smoker, which is a -- in terms of looking at
5 alternative causation, a much more likely alternative
6 for causation. And it's astonishing that
7 Dr. Marinkovich eliminated that as a consideration for
8 respiratory problems.

9 **Q How much does the record indicate that
10 Mrs. Kramer smoked during that year?**

11 A Well, during that year?

12 **Q I mean a pack a day? Half pack a day?**

13 A There's numerous references to her having
14 smoked for 30 years, clearly having emphysema related
15 to smoking.

16 **Q Any question that is directly related to how
17 many cigarettes she smoked a day?**

18 A At various places I recall one notation of
19 three cigarettes a day and another record of a pack a
20 day for an extended period of time. Pulmonary function
21 tests, MRI, CT scans, allergy tests, and most of the
22 other tests outside of the emphysema-related findings
23 did not appear to show abnormalities.

24 **Q You would agree with me that mold and fungi
25 can exacerbate existing asthmatic conditions, wouldn't**

1 **you?**

2 A They can, yes.

3 **Q I'm sorry.**

4 **Go on, Doctor. Do you have any other
5 opinions?**

6 A I did not find a pulmonary function test
7 indicating asthma. The primary results that I found in
8 Mrs. Kramer -- the primary results that I found were
9 related to emphysema exchanges. I marked out a few of
10 the areas that I could cover the scope of
11 toxicity-related issues that Dr. Marinkovich addressed
12 where he appeared to be incorrect.

13 I mention the first one which was the
14 rejection of smoking as a cause of respiratory
15 irritation. He seems to rely extensively on
16 information -- patient histories without verification
17 of the conditions, which from a scientific standpoint,
18 would be an unverified claim, not something from a
19 scientific standpoint that would be used.

20 He states he believes the remediation
21 process was botched and spores were allowed to
22 penetrate into other rooms. He doesn't seem to have
23 any factual basis for that, or at least he doesn't cite
24 any factual basis for it. Some of these are repetitive
25 so I won't repeat the general areas.

1 **Q You don't intend to criticize**
 2 **Dr. Marinkovich's medical opinion in this case, do you?**
 3 A His toxicology, absolutely. His opinion
 4 relative to allergies I would leave to an allergist.
 5 His diagnosis of the patient is not
 6 something that I would address, but his lack of
 7 understanding of the exposure conditions and
 8 conclusions that he seemed to draw from them I would --
 9 I disagree with. His theory of circulating antibodies
 10 and their potential effects appears to be unsupported
 11 in the scientific literature.
 12 There appears to be no -- it appears to be
 13 unique to Dr. Marinkovich and certainly not supported
 14 by the general scientific community.
 15 I did note that he wrote his letter about
 16 Erin without examining her, which given the contents of
 17 the letter was -- I think he extended beyond where he
 18 should have without having actually seen conditions.
 19 His time sequence -- he says in his deposition that
 20 Mrs. Kramer had been exposed to mold before she
 21 developed a number of symptoms. And I found similar
 22 symptoms from before that exposure.
 23 He admits that he doesn't know whether the
 24 patient has circulating immune complexes, which is
 25 pretty surprising because most of his theory seems to

1 rest on that. Again, from a scientific perspective
 2 indicates that there is not scientific support for that
 3 conclusion.
 4 He states that he suspects mycotoxin
 5 exposure caused neurological symptoms and he says that
 6 without any idea of dose or exposure conditions,
 7 duration, the sequence, and those five causal elements
 8 that I discussed earlier.
 9 I think that covers certainly the areas that
 10 I currently have opinions on. It's possible if I get
 11 more information, I'll have additional opinions, but at
 12 the moment, I think that covers most of the areas.
 13 **Q What is the acceptable spore count level in**
 14 **an indoor environment for someone who suffers from**
 15 **aspergillosis of the genus aspergillus?**
 16 A I don't know the answer to that. You need
 17 to talk to an immunologist about that. I could only
 18 talk about the potential for mycotoxicosis and the
 19 risks relative to any other environment that individual
 20 would be in.
 21 **Q You would agree with me that about**
 22 **30 percent of the population is atopic; correct?**
 23 A I think I've seen figures in that area.
 24 **Q Do you know whether Mrs. Kramer is atopic?**
 25 A I believe I saw some serum testing. I don't

1 recall whether -- I'd have to go back to the record to
 2 see if there had been any other types of testing. I
 3 think at this point I couldn't answer that.
 4 **Q Do you know if Erin Kramer is atopic?**
 5 A Again, as a toxicologist, I don't know how I
 6 would separate the allergy component from the CF
 7 component.
 8 **Q You would agree with me that people who are**
 9 **atopic have a greater sensitivity to mycotoxin**
 10 **exposure?**
 11 A No.
 12 **Q Would you agree with me that people who are**
 13 **atopic have a greater sensitivity to fungi exposure in**
 14 **general?**
 15 A If they have an allergy to -- I mean if part
 16 of their atopia is they're allergic to mold, then yes.
 17 Greater than -- well, greater than the nonatopic
 18 population.
 19 **Q The essence of your opinion, Dr. Kelman, is**
 20 **that you believe that there is no evidence that mold**
 21 **can be toxic at indoor exposure levels?**
 22 A Well, at the specific levels that I've seen,
 23 the calculations indicate that you would be nowhere
 24 near a dose that could cause toxicity. If the doses
 25 indoors are very high under the conditions we talked

1 about earlier, then it's a possibility.
 2 **Q And the statement in your paper that I got**
 3 **off the Internet last night says, "Our survey of the**
 4 **extensive scientific literature on the subject leads us**
 5 **to conclude that there is no evidence that mold can be**
 6 **toxic at indoor exposure levels."**
 7 A That's correct.
 8 **Q You wrote that without reference to the**
 9 **Kramer house or what their levels were. That's just**
 10 **your general belief?**
 11 A That's after an extensive look at the
 12 literature, we confined spore concentrations indoors in
 13 residential environments sufficient to cause
 14 mycotoxicosis. That's what that says.
 15 **Q Did you believe that before you began your**
 16 **work at the Kramer residence?**
 17 A Well, that's what the scientific survey had
 18 shown at that point.
 19 **Q Right.**
 20 **This paper that I'm reading was dated**
 21 **July 17th, 2003. You did your work at the Kramer**
 22 **residence a full year before that.**
 23 **My question is: Did you have that belief**
 24 **before you started working at the Kramer residence?**
 25 A I had done the calculations before that.

1 We developed the -- we took a
2 maximum-exposure approach in about 2000. Now, that
3 approach does not say it's impossible. It just says
4 that at 200,000 spores per cubic meter, you do not have
5 the potential for mycotoxicosis. At higher
6 concentrations, you would.

7 So in a circumstance where you would have
8 significantly higher concentrations, then that has to
9 be evaluated relative to the concentrations.

10 **Q I'm just taking the words you have in**
11 **here: "... no evidence that mold can be toxic at**
12 **indoor exposure levels."**

13 A Well, read the whole statement.

14 **Q "Our survey of the extensive scientific**
15 **literature on the subject leads us to conclude that**
16 **there is no evidence that mold can be toxic at indoor**
17 **exposure levels."**

18 A Well, I have to have that in context to see.

19 Yes. That within the context of the
20 calculations that were shown in that publication.

21 **Q Did you have any contact or discussions with**
22 **Tom Yost at Mercury Insurance about the Kramers?**

23 A I don't think so. I don't recognize that
24 name at all.

25 **Q Did you ever tell Mr. Schaffer that your**

1 **opinion was that the -- there is no evidence -- the**
2 **opinion we just discussed about toxic exposure, did you**
3 **tell him that was your belief before you started doing**
4 **your work at the Kramer residence?**

5 A I certainly don't remember that sequence. I
6 just got data and was asked to evaluate it.

7 **Q Did you ever have a discussion with**
8 **Mr. Schaffer upon work on any other case prior to the**
9 **Kramer case where you told him it was your opinion that**
10 **there is no evidence that mold can be toxic at indoor**
11 **exposure levels? Did that ever come up in any other**
12 **case?**

13 A Well, first of all, within the context of a
14 maximum-possible-exposure calculation, that's been my
15 belief since I did the calculation. And I indicated I
16 think we developed that or the first time I did that
17 was around 2000.

18 And I have not -- we have presented that at
19 scientific meetings. The model has never been
20 criticized. So it has been a public statement for a
21 very long time.

22 **Q So the answer would be yes, that that issue**
23 **has come up prior to your work on the Kramer case, that**
24 **that is your belief?**

25 A Well, as soon as we did the maximal

1 calculations, that was clear and the science hasn't
2 changed.

3 **Q And essentially, your opinion is, then, that**
4 **that house is currently safe on a mycotoxicity basis**
5 **for the Kramer family?**

6 A Right. They will not get a mycotoxicosis
7 from breathing the air in that house.

8 **Q And you'll leave it up to Erin's doctors to**
9 **discuss whether in that house environment she's going**
10 **to have an allergic response to it?**

11 A I'll leave it up to a competent allergist,
12 yes.

13 **Q And you're of the belief that no more**
14 **remediation or any kind of mold cleanup, as you phrase**
15 **it, in the beginning needs to be done in the Kramer**
16 **residence?**

17 A From the standpoint of mycotoxicosis, no.
18 If there are structural issues, I'm not addressing
19 that.

20 **Q You don't know whether or not there's still**
21 **visible mold growth in the Kramer residence?**

22 A As of today? No.

23 **Q No, you don't know whether there's visible**
24 **mold growth?**

25 A That's correct.

1 **Q And if there was visible mold growth in the**
2 **Kramer residence, would you recommend that that be**
3 **cleaned up?**

4 A Yes.

5 MR. RICHARDS: Let's take a break. I think
6 we're about done.

7 (Recess)

8 MR. RICHARDS: Back on the record.

9 Dr. Kelman, just a couple follow-up
10 questions.

11 BY MR. RICHARDS:

12 **Q Do you have any opinion or do you intend to**
13 **render any opinion at trial as to whether or not**
14 **Mercury Casualty Insurance has returned the Kramer**
15 **residence to its pre-loss condition?**

16 MR. BORIS: I'll object. It's vague and
17 ambiguous. Lacks foundation.

18 THE WITNESS: I don't think that would be a
19 toxicology question so I currently have no opinion and
20 I don't know if I'll be asked.

21 MR. RICHARDS: That's fine.

22 BY MR. RICHARDS:

23 **Q Are there any other opinions you considered**
24 **during your break that you have yet to render -- are**
25 **there any other opinions that you have that you haven't**

1 given me today that you intend to testify to at trial
 2 with the exception of obviously reviewing some more
 3 expert-witness depositions and the like?

4 A It's certainly -- you covered all the areas
 5 I intend to have opinions in.

6 Q Have you reviewed Chin Yang's deposition?

7 A No.

8 Q Do you know who he is?

9 A Yes.

10 Q Do you have an opinion about him
 11 professionally? Is he a competent mycologist?

12 A Generally, he appears to be a reasonable
 13 mycologist.

14 Q Does he have a good reputation in the
 15 industry as far as you know?

16 A Um, the only opinion I believe I would have
 17 is that he seems to be a competent mycologist. He does
 18 not seem to be a good toxicologist. But aside from
 19 that --

20 Q What areas of his toxicology do you
 21 criticize or find weak or does he have particular
 22 opinions that you disagree with?

23 A Um, he does not seem to take into account
 24 dose when trying to describe responses, which is
 25 fundamentally, you really can't do that. You can't

1 You do understand that the testimony you
 2 gave here was, in fact, under penalty of perjury?

3 THE WITNESS: Yes.

4 MR. RICHARDS: Thank you very much for your
 5 time.

6 Stipulate to relieve the court reporter of
 7 his duties under the code. And if the original of the
 8 deposition is lost, stipulate that a certified copy of
 9 this deposition can be used for any and all purposes as
 10 the original?

11 MR. SCHAFFER: Fine.

12 MR. BORIS: So stipulated.

13 MR. SCHAFFER: Want me to act as custodian?

14 MR. RICHARDS: David will act as the
 15 custodian of record to make the transcript available
 16 upon reasonable notice and time of trial.

17 MR. SCHAFFER: Okay.

18 MR. RICHARDS: Doctor, I'm going to pay you
 19 for your time. It's 9:00 to 12:40. Two hours and 40
 20 minutes?

21 MR. SCHAFFER: 12:50 or 12:25?

22 MR. BORIS: Three hours, not two hours.

23 MR. SCHAFFER: 12:25 through -- make it
 24 12:25?

25 MR. BORIS: We're still on the record?

1 talk about the response without consideration of the
 2 dose.

3 So in general, that seems to be a mistake
 4 that he's consistently made.

5 MR. RICHARDS: All right. I'm done with
 6 your deposition, then.

7 I'm going to have the original of this
 8 deposition sent to Mr. Schaffer's office, who will
 9 notify me of any -- by the beginning of the trial in
 10 this case if there's any changes that are to be made to
 11 the deposition.

12 Sir, he will send you a copy of the
 13 deposition. You have the right to make changes to the
 14 deposition that you don't think accurately reflect what
 15 we said here today or any other change you wish to
 16 make.

17 I'll caution you now if you do make a
 18 substantive change, that I have the right to comment on
 19 that change at trial.

20 Do you understand that?

21 THE WITNESS: Yes.

22 MR. RICHARDS: At the end of that
 23 deposition, you'll sign that deposition under penalty
 24 of perjury and at the same time notify counsel of any
 25 changes and they'll let me know.

1 MR. RICHARDS: Yeah.

2 MR. BORIS: Okay.

3 MR. RICHARDS: Is that sufficient?

4 THE WITNESS: I don't know. Let me do a
 5 quick calculation.

6 MR. BORIS: I'll take an ASCII and a copy.

7 MR. RICHARDS: We can go off the record now.
 8 (The deposition concluded at 12:40 p.m.)

9 * * *

1 DECLARATION UNDER PENALTY OF PERJURY

2
3 I, Bruce J. Kelman, Ph.D., do hereby certify
4 under penalty of perjury that I have read the foregoing
5 transcript of my deposition taken October 1, 2003; that
6 I have made such corrections as appear noted herein, in
7 ink, initialed by me; that my testimony as contained
8 herein, as corrected, is true and correct.

9 DATED this _____ day of _____,
10 20____, at _____,
11 California.

12
13
14 _____
15 Bruce J. Kelman, Ph.D.
16
17
18
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21
22
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24
25

1 REPORTER'S CERTIFICATION

2
3 I, Harry Alan Palter, Certified Shorthand
4 Reporter, in and for the State of California, do hereby
5 certify:

6
7 That the witness named in the foregoing
8 deposition was, before the commencement of the
9 deposition, duly administered an oath in accordance
10 with Code of Civil Procedure Section 2094; that the
11 testimony and proceedings were reported
12 stenographically by me and later transcribed into
13 computer-aided transcription under my direction; that
14 the foregoing is a true record of the testimony and
15 proceedings taken at that time.

16
17 IN WITNESS WHEREOF, I have subscribed my
18 name on October 6th, 2003.

19
20
21 _____
22 Harry Alan Palter, CSR No. 7708
23
24
25

<p style="text-align: center;">A</p>					
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