

EXHIBIT 2

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 1

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF LOUISIANA

Civil Action No. 2:24-CV-228-WBV-DPC

KATHLEEN MOLLER,)
)
Plaintiff,)
)
VS.)
)
MARTIAN SALES, INC.; JOPEN,)
LLC; JOHNSON FOODS, LLC; LP)
IND., LLC; CAG HOLDINGS, LLC;)
RMH HOLDINGS, INC.; ABC)
INSURANCE COMPANY and John)
Does 1-4,)
)
Defendants.)
_____)

ORAL AND VIDEOTAPED DEPOSITION OF
SARAH D. KOWITT, PH.D.

Raleigh, North Carolina
Wednesday, February, 18, 2026
9:58 a.m.

Reported by: Sophie Brock, RDR, CRR

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 2

1 PURSUANT TO NOTICE, the above-entitled deposition
2 was taken on behalf of the Defendants at the law offices
3 of Kilpatrick Townsend & Stockton LLP, 4208 Six Forks
4 Road, Suite 1400, Raleigh, North Carolina 27609, on
5 Wednesday, February 18, 2026, before Sophie Brock,
6 Registered Diplomate Reporter, Certified Realtime
7 Reporter, and Notary Public in and for the State of
8 North Carolina.

9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 A. No.

2 Q. Have you been retained as an expert witness
3 in any matter other than this one?

4 A. No.

5 Q. How much have you charged in this case so
6 far?

7 A. I charge \$500 per hour, and I've sent in two
8 invoices for approximately 20 hours plus the invoice
9 that will be received today for \$4,000. So around
10 \$24,000 to \$25,000 -- oh, no, sorry, around \$14,000 to
11 \$15,000.

12 Q. Sorry, I don't know if I zoned out on your
13 answer or I can't do math. So 14,000 total for the
14 case altogether?

15 A. Mm-hmm. And there's a few hours that
16 I haven't charged for in deposition preparation.

17 Q. And that includes the payment that I owe you
18 today?

19 A. Yeah, I'm counting that in there.

20 Q. Okay. Have you -- I want to kind of delve
21 into your CV a little bit here.

22 A. Sure.

23 Q. Have you had any publications related to
24 kratom?

25 A. No.

1 Q. When did you first learn about kratom?

2 A. I don't know for sure.

3 Q. Was it prior to this case?

4 A. I had a general awareness of kratom prior to
5 this case.

6 Q. Prior to this case, had you done any work
7 related to kratom?

8 A. No.

9 Q. What level was your knowledge at about
10 kratom? Was it sort of on the scale of "I'm kind of
11 aware it exists" to "I've actually looked into this a
12 bit"?

13 A. I'm kind of aware it exists.

14 Q. Had you possibly seen it for sale?

15 A. Yeah, I've seen it for sale at gas stations.

16 Q. Okay. Any knowledge beyond it was something
17 that people might purchase?

18 A. No.

19 Q. Did you have any knowledge about what it was
20 used for?

21 A. No.

22 Q. Did you have any knowledge about how it was
23 used?

24 A. No.

25 Q. Where do you live?

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 16

1 A. I live in Chapel Hill.

2 Q. So is kratom legal in that state?

3 A. It's -- well, I live in North Carolina, and
4 it's not regulated in North Carolina.

5 Q. Is it legal?

6 A. I would say it's not regulated, and that
7 someone could purchase it and not be charged with a
8 crime for purchasing it.

9 Q. Okay. Is kratom legal for sale in the
10 United States?

11 A. I'd say there are some states that have
12 banned kratom, so not across the entire United States.

13 Q. But what about on a federal level? Is kratom
14 legal for sale pursuant to the regulations of the
15 federal government?

16 A. It's not approved.

17 Q. Okay, but is it legal?

18 MR. WAGAR: I'm going to object to the
19 form. What do you mean by "legal"? You know?

20 Go ahead.

21 THE WITNESS: Yeah, can you state what
22 you mean by "legal"?

23 BY MS. PAYTON:

24 Q. Is there any prohibition against the sale of
25 kratom on a federal level in the United States?

1 A. I don't know.

2 Q. Okay. What were you asked to do in this
3 matter?

4 A. I was asked to evaluate the adequacy of the
5 warning labels.

6 Q. And did you do that?

7 A. Yes.

8 Q. And tell me more specifically what you did --
9 your analysis -- to do that work of analyzing the
10 adequacy of the warning labels.

11 A. Sure. I took a few different steps. So
12 first, I evaluated whether the three general
13 requirements for warning labels were present and, if
14 so, if they were sufficient: So that includes was
15 there a signal word or a marker word; was there a
16 description of risks associated with the product, and,
17 if so, was that description sufficient. And in doing
18 so, I also evaluated research on risks associated with
19 kratom. And then I examined whether there are
20 instructions to avoid or mitigate those risks, and, if
21 so, if those instructions were sufficient.

22 I looked at the design of the warning
23 label: So where was the warning label placed on the
24 product package; how big was the warning label; how
25 conspicuous was the warning label; were there any

1 I described several different health risks associated
2 with kratom: so substance use disorder, liver
3 toxicity, seizures, cardiovascular effects, and death.

4 Q. Okay. So your testimony is those things that
5 you just listed out should be listed in the warning
6 label; is that right?

7 A. I did not say that those specific health
8 effects should be listed in the warning label.

9 Q. So explain that.

10 A. So I said that these are risks associated
11 with kratom, and I said that the warning label needs
12 to clearly describe risks associated with kratom.

13 Q. Okay. So -- and I'm asking a question, then,
14 what should be listed in there as the health risks?

15 A. I would say that these are some examples and
16 that it's not an exhaustive list.

17 Q. Did you prepare an exhaustive list of what
18 should be included in the warning label?

19 A. No.

20 Q. Okay. Were you asked to do that?

21 A. I was not asked to develop what I thought
22 would be an adequate warning label for kratom.

23 Q. Okay. So I think that goes to my first
24 question, which is, as part of the scope of what you
25 did, did you actually determine -- you made the

1 determination that the warning labels were inadequate;
2 correct?

3 A. Yes.

4 Q. Did you determine what they should say?

5 A. Well, I provided an example of an adequate
6 warning label related to products that contain iron.

7 Q. Okay. And beyond an example of an iron
8 product, did you determine what the label should say?

9 A. For kratom, specifically?

10 Q. Correct.

11 A. No.

12 Q. Okay. Now, the iron label that you used as
13 an example, was that warning mandated by FDA?

14 A. I want to look at my report.

15 It's a required warning.

16 Q. Okay. So the FDA has mandated iron
17 supplement products include that label; correct?

18 A. Yes.

19 Q. Okay. Is there a comparable mandated warning
20 for kratom?

21 A. Federally?

22 Q. Correct.

23 A. No.

24 Q. So let me ask the question better because
25 I realized it wasn't a great question.

1 Has the FDA made a determination of what
2 warnings should be included on kratom products?

3 A. No, and that's because they don't regulate
4 kratom products, nor have they approved kratom as a
5 dietary ingredient.

6 Q. Okay. So when you -- let me dig into that.

7 When you say the FDA doesn't regulate
8 kratom, what precisely do you mean?

9 A. I mean that kratom is not approved, and so
10 there's federal regulations for kratom.

11 Q. What do you mean by "approved," specifically?

12 A. They haven't approved it as a dietary
13 ingredient.

14 Q. Under what regulation?

15 A. I don't know, specifically.

16 Q. Okay. Do you know whether or not FDA
17 regulates kratom as a food product?

18 A. Do I know whether they do or they don't?

19 Q. Yes.

20 A. I would say they do not.

21 Q. Okay. And why do you say that?

22 A. Because it's not approved as a food or as a
23 dietary ingredient.

24 Q. Okay. So those are two different things;
25 would you agree with me? A food versus a dietary

1 ingredient --

2 A. Yes.

3 Q. -- under the regulations?

4 A. Yes.

5 Q. And you agree with me a food is different

6 than a dietary supplement; correct?

7 A. Yes.

8 Q. And you agree with me that a food is

9 different from a drug, under the regulations?

10 A. Yes.

11 Q. And they all are regulated under different

12 provisions in the Food, Drug, and Cosmetic Act; right?

13 A. I don't know, specifically.

14 Q. Okay. So when you say that FDA doesn't

15 regulate as a food, do you mean that they take no

16 regulatory action at all related to kratom?

17 A. Are you asking as a food?

18 Q. Correct.

19 A. I don't know, specifically.

20 Q. Do you know whether FDA has done any seizures

21 of kratom products in its history?

22 A. I don't know, specifically.

23 Q. Do you know whether FDA has ever done a

24 mandated recall of kratom products?

25 A. I don't know, specifically.

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 24

1 Q. Do you know whether FDA has ever issued
2 warning letters related to kratom?

3 A. Yes, I believe they have.

4 Q. And tell me about that.

5 A. I believe they've issued warning letters
6 about kratom products.

7 Q. Have you seen those warning letters?

8 A. I can't recall.

9 Q. Do you know why FDA has issued warning
10 letters about kratom?

11 A. I don't know.

12 Q. And do you know whether FDA has issued
13 warning letters specifically related to claims being
14 made on kratom products?

15 A. I don't know.

16 Q. Do you -- have you seen kratom products in
17 the market -- well, let me back up.

18 Have you looked at kratom products across
19 the marketplace?

20 A. What do you mean by "across the marketplace"?

21 Q. Have you looked -- I know from your report
22 that you looked at warning labels on its O.P.M.S.
23 kratom; correct?

24 A. Mm-hmm.

25 Q. Is that a yes?

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 29

1 A. I've met with people from FDA before. I've
2 given presentations to people at FDA.

3 Q. Who?

4 A. I gave a presentation about my Career
5 Development Award to lots of different people at FDA;
6 it was a webinar.

7 Q. Okay. And when was that?

8 A. That was in November of last year.

9 Q. And what is the Career Development Award for?

10 A. It's for developing and evaluating messages
11 on dual/polytobacco use.

12 Q. Now, I think I read in your CV you've done
13 work related to tobacco warnings; right?

14 A. Yes, that's correct.

15 Q. And that seems to be the primary on focus of
16 your research; am I correct?

17 A. No. I also have an NIH-funded grant on
18 cannabis warning labels.

19 Q. Cannabis and tobacco; correct?

20 A. Cannabis, tobacco, and I've done a little
21 research on alcohol.

22 Q. Okay. For all three of those products --
23 cannabis, tobacco, and alcohol -- are there federally
24 mandated warnings?

25 A. There are for tobacco products and alcohol

1 products.

2 Q. But not for cannabis?

3 A. No.

4 Q. And cannabis is regulated on a state-by-state
5 basis?

6 A. Yes, that's correct.

7 Q. Okay. And many states have mandated warnings
8 that they regulate on cannabis products; correct?

9 A. Yes, many states do.

10 Q. Okay. And some states have language in
11 Kratom Consumer Protection Acts regulating labels;
12 correct?

13 A. Can you state that again?

14 Q. Yeah. Are you aware that there's some state
15 regulations that mandate label content related to
16 kratom products?

17 A. Yes, I'm aware that some states have
18 regulated kratom and required warnings.

19 Q. Okay. Do you know what states those are?

20 A. Not off the top of my head.

21 Q. Did you review those regulations in preparing
22 your report?

23 A. I reviewed some states' warning labels for
24 kratom.

25 Q. And which ones?

1 A. I looked -- and this wasn't a formal analysis
2 because sometimes it can be hard to find those
3 regulations -- but I did a basic search on states and
4 their warning labels for kratom.

5 Q. Okay. And I think you said you reviewed some
6 of the warning labels mandated by state regulations;
7 right?

8 A. I reviewed what I could find, yes.

9 Q. And which ones?

10 A. I can't recall the specific states.

11 Q. Okay. How many?

12 A. Four to seven. I tried to find as much
13 information as I could.

14 Q. Okay. And did the warning label content in
15 the state regulations that you reviewed align with
16 your opinion that you're giving here today?

17 A. What do you mean by that?

18 Q. Were the warning labels that are mandated
19 under state regulations consistent with your opinion?

20 A. Well, my opinion was about the specific
21 warning labels in question. I didn't review states'
22 warning labels for their adequacy.

23 Q. Okay. What import did those state mandated
24 warning labels have on your opinion, if any?

25 A. They didn't play a role in my opinion.

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 36

1 A. Not that I can recall.

2 Q. On page 12, you also have "Conference
3 Presentations"; right?

4 A. Yeah. So page 12 includes "Published
5 Abstracts," and then page 13 has "Conference
6 Presentations."

7 Q. And these are the entire list of your
8 conference presentations throughout your professional
9 career?

10 A. Yes, to the best of my knowledge.

11 Q. And these are conferences that you're invited
12 to?

13 A. No, these are conferences that I submit
14 abstracts to and that the abstracts are peer-reviewed
15 and accepted.

16 Q. Have you published any material related to
17 kratom?

18 A. No.

19 Q. I think I know the answer to this, but have
20 you published any material related to mitragynine?

21 A. No.

22 Q. Have you done any research related to kratom
23 or mitragynine?

24 A. No.

25 Q. Have you presented any material related to

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 37

1 kratom or mitragynine?

2 A. No.

3 MS. PAYTON: What I'd like to do, if
4 you're okay, is just take a quick bathroom break.

5 THE WITNESS: Sure.

6 THE VIDEOGRAPHER: Off record at
7 10:38 a.m.

8 (Recess taken from 10:38 a.m. to 10:45 a.m.)

9 THE VIDEOGRAPHER: On record at
10 10:45 a.m.

11 BY MS. PAYTON:

12 Q. So what percentage of your time is spent on
13 research versus other issues?

14 A. What do you mean by "other issues"?

15 Q. Well, okay, so you do research; right?

16 A. Yes. Correct.

17 Q. What else do you do, as a professional?

18 A. I -- for the past three years, I've taught a
19 class in the School of Public Health at UNC, and
20 I mentor and advise graduate students and postdoctoral
21 fellows --

22 Q. So --

23 A. -- and I do some -- sorry -- I do some
24 service, as well.

25 Q. And what service?

1 A. I review journal articles. I serve on
2 advisory committees.

3 Q. Okay. So what percentage of your time is
4 research-related versus all of the other
5 administrative work you do, from teaching to mentoring
6 and journal review?

7 A. I'd say -- it's hard to say because some of
8 my research -- some of my mentorship of graduate
9 students is focused on research, so is it okay to
10 include that?

11 Q. I think so.

12 A. Okay. Well, then, I would say 90 to
13 95 percent of my time is spent on research.

14 Q. Either your own research or the mentoring of
15 others doing research?

16 A. Yes.

17 Q. And if you were to divide it between those
18 categories, your own research versus the mentoring of
19 others doing research, how would you divide that
20 percentage?

21 A. 75 percent of my time spent on my own
22 research.

23 Q. So I reviewed your CV, and here's the
24 conclusion that I came to. Tell me if this is right.
25 The area that you focus your research on is how to

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 39

1 communicate warnings; is that fair?

2 A. What do you mean by that?

3 Q. So it seems like it's focused on how to best
4 communicate warnings to people for maximum
5 comprehension?

6 A. That's some of my research, yes.

7 Q. And what else?

8 A. I also do research on communication
9 campaigns.

10 Q. And how best to communicate information to
11 the population?

12 A. Yes. Mm-hmm.

13 Q. Okay. So you're focused on how warnings and
14 information should be communicated; is that fair?

15 A. Well, I also examine how information is
16 communicated.

17 Q. Okay. How information is communicated and
18 then how it should be communicated?

19 A. Yes, that is a large portion of my research.

20 Q. And this gets into how consumers view text,
21 view language, view words, and view the length of
22 warnings; is that fair?

23 A. Yes, but that's not all of my research.

24 Q. Understand --

25 A. Okay.

1 Q. -- but a significant portion seems to be
2 around the issue of how do consumers view text, view
3 words, view the length of warnings; is that fair?

4 A. View and respond to. So I look at other
5 outcomes besides just attention.

6 Q. Okay. So there's two issues that could be
7 going on here: One is what is required under the law
8 to be put on a warning, versus what should be put on a
9 warning for maximum comprehension; is that fair?

10 A. And when you say, like, two issues involved
11 here, what do you mean?

12 Q. Well, you could break it into two parts?

13 A. My opinion on the warning label adequacy?

14 Q. No. Just -- I'm talking more generally about
15 your research. I'm just trying to understand --

16 (Over-speaking.)

17 A. Oh, my research. Okay.

18 Q. Yeah. Sorry, we're talking over one another,
19 so we shouldn't do that.

20 A. Oh, sorry.

21 Q. So these questions are just more me trying to
22 understand what you do and how you think about it more
23 intellectually.

24 A. Okay.

25 Q. So we have an issue, when it comes to a

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 41

1 warning, of what the government tells us should be on
2 a warning; right?

3 A. Yes, governments can mandate warnings.

4 Q. Okay. And then there's another issue, which
5 is what should be on a warning to maximize results
6 from the population?

7 A. Sure.

8 Q. What's the relationship between those two
9 things, if any?

10 A. Well, I guess government warnings could be
11 adequate and they could be inadequate. Is that what
12 you're getting at?

13 They could communicate everything that's
14 needed for a warning label or they could not. Is that
15 what you're getting at?

16 Q. I'm -- that's a good question --

17 A. Okay.

18 Q. -- is that the case sometimes?

19 A. Well, sometimes in my research I've found
20 required warnings to be adequate, and sometimes
21 I haven't found them to be adequate.

22 Q. Okay. Let's talk about tobacco --

23 A. Okay.

24 Q. -- which is, I think it's fair to say, one of
25 the most heavily regulated botanical products that is

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 42

1 available in the market; would you agree?

2 A. Can you clarify what you mean by "botanical
3 products"?

4 Q. Sure. Cigarettes is one of the most heavily
5 related [sic] consumer products in the market;
6 correct?

7 A. Regulated consumer products?

8 Q. Yes.

9 A. Sure, I'd say there's lots of regulations for
10 cigarettes.

11 Q. Particularly in the area of warnings; right?

12 A. Yes, there has been lots of developments in
13 cigarette warning labels.

14 Q. Do you think that cigarette warning labels
15 are adequate?

16 A. Well, there's different iterations of
17 cigarette warning labels. Are you -- are you
18 mentioning -- are you talking specifically about the
19 US --

20 Q. I am --

21 A. -- cigarette warning labels?

22 Q. Thank you for clarifying.

23 Let's say I went out and bought a pack of
24 cigarettes today, and read the label and the warning
25 on them, is it your opinion that as of 2025, the

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 57

1 Q. Was that an actual rebuttal report?

2 A. That's the title of the document that
3 I received. I don't know the formal definition of a
4 rebuttal report.

5 Q. Okay. I want to talk a little bit more in
6 depth about your report, which I think we've marked as
7 Exhibit 1.

8 A. Okay.

9 Q. I want to ask you first about the first
10 substantive paragraph that you have in your report,
11 which appears on page 2 of Exhibit 1 under
12 subheading (a).

13 A. Okay.

14 Q. It's the paragraph that reads "Warnings are
15 messages that communicate"; do you see that there?

16 A. Yes.

17 Q. As a source for that first sentence,
18 "Warnings are messages that communicate," you recite
19 to a textbook; is that right?

20 A. Yes.

21 Q. Do you use that textbook in your classes?

22 A. No. I don't teach a class on warning labels.

23 Q. Okay. So how do you use the textbook in your
24 work?

25 A. Well, the textbook has requirements for

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 58

1 warnings. It outlines the purpose of warnings. It
2 has best practices for warnings. So in my warning
3 label research, I refer to it.

4 Q. As a reference material?

5 A. Yes.

6 Q. Okay.

7 Do you need Kleenex?

8 A. Sorry. That would be great.

9 MS. PAYTON: Okay. Let's go off the
10 record.

11 THE VIDEOGRAPHER: Off record at
12 11:16 a.m.

13 (Off the record from 11:16 a.m. to 11:17 a.m.)

14 THE VIDEOGRAPHER: On record at
15 11:17 a.m.

16 BY MS. PAYTON:

17 Q. All right, back on the record.

18 How frequently do you refer to the textbook,
19 on average, in your research?

20 A. Well, right now, I'm writing -- there's an
21 updated version of the textbook that's going out, and
22 I'm writing one of the book chapters in the updated
23 version; so I've referenced the previous chapter quite
24 a few times in writing that book chapter.

25 Q. What chapter are you writing?

1 article. Would you agree with me there?

2 A. Yeah, I would agree with you.

3 Q. Are you aware of the synthetic
4 7-hydroxymitragynine?

5 A. General awareness, I would say I have.

6 Q. Do you know the content of the
7 7-hydroxymitragynine in the product at issue in this
8 case?

9 A. Can you state your question again?

10 Q. Yeah. Do you know whether the product at
11 issue in this case had 7-hydroxymitragynine in it?

12 A. I would have to look at the product label to
13 say for sure whether it was listed on there.

14 Q. Okay. Do you know whether the product at
15 issue in this case was a synthetic product?

16 A. I don't know.

17 Q. Okay. Do you know, for example, whether it
18 was created in a laboratory versus in a food product
19 facility?

20 A. I don't know.

21 Q. Do you know anything about the manufacturing
22 of the product at issue in this case?

23 A. And what do you mean by "manufacturing"?

24 Q. How it was made.

25 A. Okay. No.

1 Q. Do you agree with me that the kratom products
2 on the market vary widely?

3 A. Can you clarify what you mean by they vary
4 widely?

5 Q. Well, for one thing, the delivery method
6 varies: We have gummies, liquids, powders.

7 A. Sure, I'd agree that there's different kratom
8 products.

9 Q. And there's different manufacturing practices
10 that go into the creation of those different kratom
11 products; correct?

12 A. I would guess so, but I'm not familiar with
13 manufacturing processes.

14 Q. Are you familiar with the product
15 pseudoindoxyl?

16 A. No.

17 Q. Are you familiar with issues of pseudoindoxyl
18 or synthetic 7-hydroxy being mislabeled as kratom?

19 A. No.

20 Q. Do you have an opinion on whether the warning
21 labels on a pseudoindoxyl product should be different
22 than a natural leaf kratom product?

23 A. No, I don't have opinions on that.

24 Q. Same question. Do you have an opinion on
25 whether the label on a 7-hydroxy product should be

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 80

1 well-located, brief, persuasive
2 safety directive can be effective
3 in getting users to look at more
4 detailed warnings in an
5 accompanying instruction manual."

6 A. Yes, I agree that it says that.

7 Q. And that's also consistent with FDA guidance
8 on secondary location of warning; correct?

9 A. I don't know the FDA guidance.

10 Q. Okay. Do you have any reason to believe that
11 a secondary location for warning at all fails to
12 comply with FDA regulations on warnings?

13 A. I don't know the FDA regulations.

14 Q. You also opine that -- about the warning's
15 length and wording; correct?

16 A. Yes.

17 Q. And I think your position is it's too long?

18 A. I said the warnings were 132 words long.

19 Q. Okay. And that's, as I understand it, too
20 many words?

21 A. In my opinion, that's a lengthy warning.

22 Q. Okay. And is there any regulatory guidance
23 on the length of warnings that you're citing to?

24 A. I don't recall any regulatory guidance on the
25 exact length that a warning should be.

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 82

1 Q. And you pointed out some words that you felt
2 didn't comply with the warning best practices; right?

3 A. I pointed out some specific words that I felt
4 like were unclear or could be confusing.

5 Q. Okay. And one of those is Mitragyna
6 speciosa?

7 A. Yes.

8 Q. If you look at the ingredients, the
9 ingredient is Mitragyna speciosa; correct?

10 A. I see that listed, correct.

11 Q. Are there FDA regulations on what words
12 comply with best practices?

13 A. I don't know.

14 Q. Do you agree with me that the warning that we
15 have in Exhibit No. 4 has delineated sections?

16 A. Yes.

17 Q. Your opinion is that the warning is too
18 cluttered; am I right?

19 A. I didn't use that language, specifically.

20 Q. Okay. Do you believe that the warning label
21 is too cluttered?

22 A. Yes, I believe the actual warning label is
23 cluttered.

24 Q. What recommendations do you have to make it
25 less cluttered?

1 avoiding or mitigating those risks.

2 Q. Anything else?

3 A. There's other things you could change with
4 the design of the warning label to assist with
5 capturing and holding attention.

6 Q. What would those be?

7 A. So in my report, I laid out putting the
8 warning on the front of the product package using
9 symbols or icons to increase attention, ensuring that
10 the warning is optimally conspicuous by using colors,
11 as some examples.

12 Q. Any FDA regulation requiring that?

13 A. Well, we talked about the FDA pictorial
14 cigarette warnings, and that's included in the FDA
15 pictorial cigarette warnings.

16 Q. But any FDA regulation requiring colors or
17 pictorial?

18 A. Not to my knowledge.

19 Q. And, in fact, you were unable to tell me that
20 FDA has ever required a pictorial warning?

21 A. I just said that they required them -- or
22 they proposed them for cigarettes.

23 Q. Okay. They are not final?

24 A. What do you mean by "final"?

25 Q. Those pictorial warnings have not been

1 implemented as a final requirement?

2 A. I'm not sure as a final requirement. They
3 have not been implemented, that's true.

4 Q. Okay. And they are first of a kind?

5 A. Can you clarify what that means, "first of a
6 kind"?

7 Q. FDA has never required pictorial warnings on
8 any product prior to this proposal?

9 A. I can't recall any other examples of FDA
10 requiring pictorial warnings.

11 Q. Okay. And certainly nothing in the Food,
12 Drug, and Cosmetic Act requires them?

13 A. I don't know.

14 Q. I wanted to draw your attention to part of
15 your report where you say that (as read):

16 "Research shows warnings increase
17 attention by including images or
18 symbols (e.g. alert triangle
19 symbol) and using a conspicuous
20 sign (e.g. through the use of
21 color, location, contrasting
22 background, and other factors)."

23 I think you just told me about that; right?

24 A. So I said conspicuous design, and we
25 previously just talked about pictorial warnings.

1 Q. Okay. For that proposition, you cite to the
2 textbook; correct?

3 A. Yes.

4 Q. I could not find support for that proposition
5 in the textbook.

6 A. For what proposition?

7 Q. (As read):

8 "Research shows that warnings
9 increase attention by 1) including
10 images or symbols (e.g. alert
11 triangle symbol) and 2) using a
12 conspicuous design (e.g. through
13 the use of color, location,
14 contrasting background, and other
15 factors)."

16 A. Okay.

17 Q. Can you show me -- I don't mean to give you a
18 really hard question, but can you show me where I need
19 to look to understand that opinion more in the
20 citation that you gave?

21 A. Okay. I'd have to look through the book,
22 specifically, but the book talks a lot about
23 principles and best practices for warnings. And then
24 the book also talks about attention as one of the
25 outcomes that well-designed warnings effect.

1 Q. And I agree with you it generally does talk
2 about those things, but is there anything specific
3 about, for example, images, symbols, including the
4 triangle symbol, and the conspicuous design, that you
5 say here, because I could not find that?

6 A. Okay. I'd have to look through the book to
7 find specific sentences. But in general, the book
8 talks a lot about images and symbols and conspicuous
9 design for warnings, and it talks a lot about
10 attention and mechanisms through which warnings exert
11 effects.

12 Q. Okay. Because that's a lofty task, why don't
13 we save it for --

14 A. Okay.

15 Q. -- for a break?

16 A. Okay.

17 Q. You know what I'm saying? So you don't have
18 to sit here and leaf through it. But I just want to
19 know where in the book I need to go for that
20 particular proposition. Is that fair?

21 A. What are you asking me?

22 Q. I'll come back to that question --

23 A. Okay. Sure.

24 Q. -- after a break.

25 A. Sounds good.

1 Q. Okay. And so if I want -- these meta- --
2 according to your opinion, these meta-analyses will
3 allow me to conclude more probably than not that
4 consumers would have changed their behavior based on
5 some other hypothetical warning?

6 A. No. These meta-analyses show that
7 well-designed warnings can encourage behavioral
8 change.

9 Q. Okay. So these meta-analyses show that
10 well-designed warnings can influence behavioral
11 change; is that fair?

12 A. Yes.

13 Q. Okay. How do you know, though, more probably
14 than not, that a different warning would have changed
15 consumer behavior here?

16 A. Well, I can't say it would have changed
17 behavior in this case, specifically, because I can't
18 go back in time and tell. I say, "In general, more
19 probable than not, ordinary, reasonable consumers
20 would have altered their behavior."

21 Q. I think you say, "It is more probable than
22 not."

23 A. Yes, "It is more probable than not."

24 Q. Okay. But we actually don't know, because we
25 can't go back in time; correct?

1 A. Yes.

2 Q. And we don't even know what the alternate
3 warning is; correct?

4 A. What do you mean by that?

5 Q. So when you run behavioral studies of
6 consumer behavior related to warnings, usually you
7 show options: so, would this have changed your
8 behavior versus this? Correct?

9 A. Yes, I have used that methodology in my
10 research before.

11 Q. So what I'm struggling is we don't know what
12 the right label would look like according to your
13 report.

14 A. Well, I gave descriptions of what an adequate
15 warning needs to include, and that's description of
16 health risks, instructions for avoiding or mitigating
17 those risks, and optimal design, clear,
18 easy-to-understand language, readable --

19 Q. Yeah, and those are abstractions; correct?

20 A. I'm not sure what that means, "abstractions."

21 Q. Well, you give us some general guidelines of
22 principles that should be in a warning; correct?

23 A. Yes.

24 Q. But we don't have actually what the warning
25 should be, as drafted by you?

1 A. I did not provide an actual different product
2 warning; correct.

3 Q. Okay. So we don't know if that actual
4 product warning, as it should have been, would have
5 changed consumer behavior?

6 A. I can't say that it would have changed
7 Ms. Moller's behavior in this specific case. But what
8 did I say -- I can read it again -- but it's more
9 probable than not that ordinary, reasonable consumers
10 would have altered their behavior.

11 Q. What is an ordinary, reasonable consumer?

12 A. Typical consumer.

13 Q. What is that here?

14 A. I'm not sure what you mean.

15 Q. What is a typical kratom consumer?

16 A. An average user.

17 Q. What is an average user of kratom?

18 A. Are you asking me who an average user of
19 kratom is?

20 Q. You're the one that used that language. I'm
21 trying to understand what it means. What is an
22 ordinary, reasonable consumer of kratom?

23 A. Someone who uses the product in an average
24 way.

25 Q. So what is an average way of using a kratom

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 114

1 that's good for you?

2 A. Sure.

3 MS. PAYTON: Okay.

4 THE VIDEOGRAPHER: Off record at

5 12:45 p.m.

6 (Recess taken from 12:45 p.m. to 12:55 p.m.)

7 THE VIDEOGRAPHER: On record at

8 12:55 p.m.

9 BY MS. PAYTON:

10 Q. In our discussions today, you've used the
11 term "best practices" a number of times; correct?

12 A. Yes.

13 Q. Are best practices different than
14 requirements?

15 A. Well, it depends.

16 Q. Okay. In the context here -- I noticed that
17 your report uses "requirements," but we've talked a
18 bit about best practices, and what I want to
19 understand is, is your opinion giving us the best
20 practices for product labeling?

21 A. I've misplaced my report. I don't know what
22 I did with it.

23 (Discussion off the record with the court reporter.)

24 BY MS. PAYTON:

25 Q. Is your report giving us best practices for

1 labeling requirements on the kratom product?

2 A. My report talks about warning best practices.

3 Q. Okay. And are best practices different than,
4 say, legal requirements?

5 A. I'd say they could be.

6 Q. Okay. Sometimes they are, and sometimes
7 there are legal requirements; correct?

8 A. Sometimes required warnings align with best
9 practices, and sometimes they do not.

10 Q. Okay. And here, what you have told us is
11 what the best practices will be for this product;
12 correct?

13 A. I talk about requirements for warning labels
14 and best practices.

15 Q. Okay. Is the content of your report
16 requirements or best practices?

17 A. It's both.

18 Q. Okay. And what parts are requirements?

19 A. Well, in the beginning, I talk about general
20 requirements for warning labels, including a marker or
21 signal word, description of risks associated with
22 product use, and instructions for how to reduce or
23 eliminate risks.

24 Q. And what is the -- what is your authority
25 that that is a requirement as opposed to a best

1 practice?

2 A. So in Dr. Wogalter's Handbook of Warnings, he
3 talked about these as warning label elements.

4 Q. So it's the textbook?

5 A. Yes.

6 MS. PAYTON: Okay. No questions.

7 MR. WAGAR: Dr. Kowitt, I just have a
8 few questions that I want to ask you to clarify
9 things.

10 I want to make one statement on the record,
11 though.

12 Dr. Kowitt is not being offered here as a
13 regulatory expert or -- and the scope of her retention
14 in this case -- and I think it's self-evident in her
15 report -- she's not an expert on FDA regulations or
16 enforcement or application in -- you know, in this
17 country. I think she's answered the questions
18 nonetheless, and she has some familiarity with it, but
19 she's not being offered as an expert in that regard.

20 CROSS-EXAMINATION BY COUNSEL FOR THE PLAINTIFF
21 BY MR. WAGAR:

22 Q. Dr. Kowitt, you were asked a number of
23 questions about what a reasonable -- ordinary,
24 reasonable consumer would do, and in particular with a
25 warning label that is on the back of the O.P.M.S.

2/18/2026

Kathleen Moller v. Martian Sales, Inc., et al.

Sarah D. Kowitt, PhD

Page 123

1 BY MS. PAYTON:

2 Q. Okay. So one other question. I think --
3 I just wanted to clarify -- you told me that you've
4 never been hired to draft a warning label for any
5 product; correct?

6 A. Well, I'm funded right now to do research on
7 cannabis warning labels.

8 Q. Understand. But a company has never come to
9 you and said, "Hey, develop this label for us so that
10 we are compliant"; right?

11 A. Yeah, that's correct.

12 MS. PAYTON: Okay. Good. Those are
13 the questions I have. We really appreciate you taking
14 the time to talk to us. We have lunch over there for
15 you; just help yourself.

16 THE WITNESS: Okay. Thank you.

17 THE VIDEOGRAPHER: This concludes the
18 deposition. Off the record at 1:08 p.m.

19 (Whereupon, at 1:08 p.m., the deposition ceased.

20 Signature was reserved.)

21

22

23

24

25