

EXHIBIT 8

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IN THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF LOUISIANA

KATHLEEN MOLLER,

Plaintiff,

vs.

Case No. 24-0228-WBV-DPC

MARTIAN SALES, INC.;
JOPEN, LLC, a Texas
limited liability
company; JOHNSON FOODS,
LLC, a Wyoming limited
liability company; CAG
HOLDINGS, LLC, a Wyoming
limited liability
company; RMH HOLDINGS,
INC., a Wyoming
corporation, et al.,

Defendants.

REMOTE VIDEOTAPED DEPOSITION OF
EDWARD W. BOYER, M.D., Ph.D.

Tuesday, February 17, 2026
at 10:03 a.m.

REPORTED BY: CAROL A. KIRK, CSR-9139

Job No. MDLG7836483

1 A. I think -- I know I've seen it in
2 the lay press, but I don't know that I've seen
3 that in a scientific publication other than a very
4 early one.

5 Q. Have you seen publications
6 indicating that 7-hydroxymitragynine is 30 times
7 more powerful than morphine?

8 A. I don't know that I've seen 30.
9 I mean, I know that I've seen 10, 13. I don't
10 know if I've seen anything in the 30s. I don't
11 know if I've seen anything in the 20s. But
12 I think I've seen a 40 out there.

13 Q. 40. Okay.
14 Do you disagree with any of those?

15 A. I mean, no. Binding affinity is
16 what binding affinity is, but that's not the
17 measure of pharmacologic activity.

18 Q. What do you mean by that exactly?
19 So what is binding affinity? What is binding
20 affinity? Let's start there.

21 A. How well it binds to the receptor.

22 Q. And how is -- explain this for the
23 jury. So if something has a high binding
24 affinity -- well, strike that.

25 What is the difference between

1 news. Would more 7-hydroxymitragynine be bad
2 news?

3 MS. PAYTON: Object to the form.

4 A. I'm speaking as a chemist. Chemists
5 like to have no conversion happen at all once you
6 make a molecule; otherwise, you have to go back
7 and make it again.

8 Q. What is the maximum safe dose known
9 for mitragynine?

10 A. I don't know that there are any
11 publications that define a maximum safe dose, but
12 what I do know is that the concentration of
13 mitragynine found in Ms. Moller's blood was
14 insufficient to cause adverse effects.

15 Q. That wasn't my question.

16 My question was whether or not you
17 know the maximum safe dose for mitragynine.

18 MS. PAYTON: Object to the form.

19 A. I think I answered it pretty
20 directly. I'm going to stick with my previous
21 answer.

22 Q. So you're not aware of a maximum
23 safe dose in the literature?

24 MS. PAYTON: Object to the form.

25 A. I'm going to stick with my previous

1 answer.

2 Q. Are you aware of a maximum safe dose
3 for mitragynine in the literature?

4 MS. PAYTON: Object to the form.

5 A. I don't know that a maximum dose of
6 mitragynine has ever been defined, but what I can
7 say with confidence is that the amount of
8 mitragynine found in Ms. Moller's blood did not
9 cause any toxicity.

10 MR. COWGILL: And I'll move to
11 strike that portion of your answer as
12 nonresponsive.

13 BY MR. COWGILL:

14 Q. Do you know the maximum safe dose
15 for 7-hydroxymitragynine?

16 MS. PAYTON: Object to the form of
17 the question.

18 A. I know that no maximum safe dose has
19 been defined, but what I know is that Harmony
20 Moller's concentration of mitragynine, even at
21 158 nanograms per mL, was insufficient to cause
22 toxicity.

23 MR. COWGILL: I'll move to strike
24 your answer as nonresponsive.

25

1 Q. Have you reviewed the specification
2 sheets for the OPMS kratom at issue?

3 A. I have not.

4 Q. Do you have knowledge of the sources
5 of the kratom for the OPMS kratom at issue?

6 A. Broadly beyond Indonesia, no.

7 Q. Do you know whether the kratom at
8 issue is an extract or concentrate?

9 A. In this issue?

10 Q. In this case.

11 A. I'm sorry. In this case?

12 I believe it is powdered leaf
13 material, so it's not an extract or concentrate.

14 Q. And do you know the concentrations
15 of specific alkaloids within that leaf material,
16 such as mitragynine, 7-hydroxy, or pseudoindoxyl?

17 A. Having not reviewed the analyses,
18 no.

19 Q. You said you've received the test
20 results but haven't reviewed them. How many
21 documents did you receive as the test results
22 associated to the product at issue?

23 A. How many test results did I receive?

24 Q. How many documents?

25 A. How many documents related to the

1 of coffee or broccoli?

2 MR. COWGILL: I'll move to strike
3 the answer as nonresponsive.

4 BY MR. COWGILL:

5 Q. Have you ever seen serving sizes on
6 the labels of a variety of food and supplements?

7 A. I mean, when I go into -- when I go
8 into McDonald's, I have not. I've seen
9 recommended daily allowances for things like
10 vitamins.

11 Q. Have you seen the recommended
12 serving size for products purchased in a grocery
13 store, foods purchased in a grocery store?

14 A. Depends on what you're purchasing.
15 You know, there's usually a nutritional -- there's
16 usually nutritional information. They will
17 associate it with a serving size, but that doesn't
18 limit it in any way.

19 Q. Have you seen a serving size for
20 OPMS Silver?

21 A. I have not.

22 Q. Do you know the ingredients of OPMS
23 Silver?

24 A. Not having seen the analysis or read
25 the package that closely, no.

1 BY MR. COWGILL:

2 Q. Have you ever been to a facility
3 that packages OPMS Silver?

4 A. If you're talking about a factory
5 here in the United States that does it or after
6 the kratom is transhipped, no, I have not.

7 Q. Have you ever been to a facility
8 that in any way processes OPMS Silver?

9 A. Not that I'm aware of.

10 Q. What do you know about OPMS Silver?

11 A. Virtually nothing. Our interest as
12 a toxicologist begins with potential for adverse
13 events in the body. The manufacturer is largely
14 irrelevant to that question.

15 Q. What methodology did you use to
16 arrive at the opinions in your report?

17 MS. PAYTON: Object to the form.

18 A. I used my personal experience as we
19 described earlier on in the deposition. Sorry.
20 I used my personal experience as described earlier
21 on in the deposition.

22 I used either PubMed or Google
23 Scholar to identify relevant literature based on
24 the review of documents related to the case.
25 Depending on what I saw in the literature, I might

1 pull other references or look for other -- look
2 for other topic -- look for other citations on the
3 topic that I gained an interest in.

4 Q. Did you make any notes concerning
5 this case other than what's contained in your
6 report?

7 A. No. It's not my -- it's not my
8 practice to make notes.

9 Q. How much time did you spend
10 preparing your report?

11 A. I don't know.

12 Q. Based on my review of your report,
13 I understand you have both scientific and medical
14 opinions; is that correct?

15 A. I have to admit, I don't know the
16 difference between the two, because medicine
17 involves a lot of science, you know. I'm sorry.

18 Q. That's okay.

19 What's your understanding of the
20 difference between kratom formulations as used in
21 Southeast Asia versus the United States?

22 A. My broadest experience has been with
23 individuals who make kratom juice, which is then
24 chilled. Those are fresh leaves which are chopped
25 or ground up, boiled for two to three hours, then

1 then we'll stop for lunch, all right?

2 MS. PAYTON: Okay.

3 MR. COWGILL: Are you guys okay?

4 MS. PAYTON: Yeah.

5 MR. COWGILL: Doctor?

6 THE WITNESS: Sure.

7 - - -

8 (Boyer Deposition Exhibit 6 marked.)

9 - - -

10 BY MR. COWGILL:

11 Q. All right. I'm going to enter this
12 as Exhibit 6, and I'll backfill.

13 This is "Postmortem distribution of
14 mitragynine and 7-hydroxymitragynine in 51 cases,"
15 by Kei Osawa and Robert D. Johnson.

16 Is this the Osawa article that
17 you're referring to?

18 A. I believe so, yeah.

19 Q. Where in this article does it state
20 that there's a threefold postmortem redistribution
21 for mitragynine?

22 A. Slightly more than threefold. Go to
23 Table 3.

24 Q. Table 3. Let's take a look.

25 A. "Concentrations of mitragynine in

1 each case specimen."

2 Q. Meaning in a specific case of the
3 51 deaths analyzed, right?

4 A. Yep.

5 Q. All right. So where does this show
6 a threefold?

7 A. Go to patient 46. You have to find
8 "HOSB," hospital blood. It's 555.

9 Q. Okay.

10 A. Look at femoral blood at 1752. It's
11 a threefold increase, slightly more than threefold
12 increase.

13 Q. And that's one case. Are there any
14 others?

15 A. No, there are not. Well, actually,
16 there are others, but the amount of mitragynine
17 was non-detectable or -- yeah, it was
18 non-detectable.

19 Q. So your assertion is based upon one
20 patient and one table?

21 A. It's not an assertion. It's a
22 reporting of the content of the paper.

23 Q. Well, it's the content of patient
24 46 among 51, right?

25 A. Correct. It's not -- it's not an

1 assertion. It's written in black and white
2 directly in front of us.

3 MR. COWGILL: I'll move to strike
4 the answer.

5 BY MR. COWGILL:

6 Q. The only basis for your assertion
7 that postmortem redistribution is threefold for
8 mitragynine is based upon patient 46 among 51
9 patients examined in the Osawa article, correct?

10 A. It's the best data we've got. And
11 we know that because you can look at some things
12 like strychnine, which have a ratio of peripheral
13 to central blood of 15, but it doesn't change the
14 concentration 15 times.

15 So you can either infer the
16 diagnosis or you can establish it, and we are
17 establishing the finding. Yeah, it's based on one
18 patient, but it establishes that there's a
19 tripling of the postmortem concentration.

20 Q. So is one patient's experience in a
21 kratom overdose enough to establish that kratom
22 can cause a given adverse effect such as a
23 seizure?

24 A. I didn't understand that question at
25 all.

1 forensic pathologist, talks about decomposition,
2 they're talking about finding the body in a state
3 of decay.

4 Q. Where in this paragraph does it
5 state that?

6 A. The word "decomposition."

7 Q. There's no reference to bodies in a
8 state of decay in this paragraph, is there?

9 A. That's what decomposition means.

10 Q. You disagree that blood specimens
11 can suffer from decomposition?

12 A. I believe that -- I agree that blood
13 specimens can break down, but decomposition, as
14 used in this sentence, refers to state of decay of
15 the corpse.

16 Q. So let me ask you this. Specimen
17 decay could be a limitation when conducting a
18 study of this nature, right?

19 A. That's correct.

20 Q. This goes on to state "Specimens
21 were collected from multiple sites during the
22 normal course of an autopsy. However, no instance
23 where multiple specimens from the same site
24 obtained over a specific length of time, which
25 would have provided valuable data detailing the

1 change in concentration of these compounds over
2 time from a single site."

3 And so I think that gets at what you
4 were talking about, that there is -- postmortem
5 redistribution is changing over time and
6 eventually plateaus. So without multiple testing
7 at the same site over time, there's a limitation
8 here; fair to say?

9 A. That's fair.

10 Q. "Although peripheral blood specimen
11 like femoral blood is considered the gold standard
12 for quantitative work in our field, it is not
13 itself immune to the possibility of PMR due to
14 release of a compound from the muscle or fat
15 surrounding the peripheral collection site back
16 into the blood."

17 And so if I understand that
18 correctly -- and I want to make sure we're
19 explaining it well for the jury -- it's possible
20 that even when pulling a blood specimen from the
21 peripheral -- from the femoral blood, which is the
22 gold standard, it can still have -- when someone
23 dies, they can still have something like
24 mitragynine released from their blood or muscle
25 and get into the femoral bloodstream?

1 disassemble with that.

2 They may have an element of CNS
3 excitement, meaning they're more alert, but that's
4 different than agitation.

5 Q. What about tremors?

6 A. Again, tremors have been reported in
7 caffeine, but it's an inconsistent finding.

8 Remember, the toxidrome defines the
9 core features, and the core features are the
10 things that's present, just like we see in
11 Harmony Moller. We see vomiting, unresponsive to
12 antiemetics, and we have death in the setting of
13 known source, and a measured analyte in postmortem
14 blood.

15 Q. And so you disagree that the
16 toxidrome would also include things like anxiety,
17 agitation, restlessness, tremors, palpitations,
18 diarrhea, hypokalemia?

19 A. I've described hypokalemia already.
20 I just left it out of my last answer
21 inadvertently. Hypokalemia is a part of it. But
22 the toxidrome, as I mentioned, are the core
23 features that are present. Other things may be
24 present but may not.

25 Q. And when you referred to the level