

EXHIBIT 39

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November 12, 2025

Chip Wagar III, Esq.
Wagar Hickman LLC
1401 W. Causeway Approach
Mandeville, LA 70471

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

Dear Mr. Wagar,

I am an Associate Professor in the School of Medicine at the University of North Carolina at Chapel Hill. I completed my MPH and PhD in public health at the University of North Carolina at Chapel Hill, Gillings School of Global Public Health. I completed a postdoctoral fellowship in the School of Medicine at the University of North Carolina at Chapel Hill. I have extensive experience researching warnings for a variety of products, including tobacco and cannabis products. Previously, I served as a Co-Investigator on two NIH-funded grants examining cigar warnings (R01CA260822, 4 years and R01CA240732, 6 years). Currently, I serve as a Principal Investigator on a 5-year NIH-funded grant examining regulations for cannabis warnings and product risk communication (R01DA058003). Overall, I have published 20 peer-reviewed papers on tobacco and cannabis warnings that have been cited over 180 times. My research on warnings has examined the potential and actual effectiveness of warnings across various outcomes, including knowledge, attitudes, intentions, and behaviors. I have used a variety of research methods, including experiments and randomized controlled trials to examine the impact of warnings, literature reviews and expert panels to categorize product risks and develop new warning statements, content analyses to describe legal regulations for warnings, survey data analyses to examine exposure to warnings, and qualitative methodologies to understand perceptions of warnings. Attached is a copy of my Curriculum Vitae. My experience and background have allowed me to gain extensive insight into warnings.

Assignment

I have been asked to provide expert opinions regarding the death of Ms. Harmony Moller. This report opines on Defendant Martian Sales, Inc.'s silver kratom products, including an evaluation of the Defendant's warnings. I have reviewed the following records pertaining to this case:

- Photos of the Kratom packages discovered near Ms. Moller.
- Deposition of Mr. Mark Reilly (corporate rep)
- Deposition of Mr. Mark Reilly (personal role)
- OPMS website disclaimers
- The FDA's webpage on "FDA and Kratom"
- Import Alert 54-15
- Moller Third Amended Complaint
- Autopsy report of Ms. Moller

Opinions

It is my opinion that the warnings on the kratom packages discovered near Ms. Moller were not adequate for the reasons outlined below.

a. The Defendant's warnings did not warn about risks associated with product use.

Warnings are messages that communicate risks associated with product use to consumers. Warnings are necessary when risks associated with product use cannot be eliminated through product design.¹ The purpose of warnings is to communicate important safety information, influence or modify people's behavior to improve safety, and reduce or prevent health problems or personal injury.¹ Warnings also enable potential consumers to make informed choices on whether to use the product.¹ Warnings for products related to substance use generally contain three elements: 1) a marker or signal word (e.g., "WARNING"), 2) a description of the health risks associated with product use (i.e., description of the hazard and/or consequence), and 3) instructions for how to reduce or eliminate the health risk.

Regarding the second element of warnings stated above, warnings should clearly communicate the health risks associated with product use and list *specific* health risks, rather than vague health concerns.² The Defendant's warnings stated that "ingesting Mitragnyna Speciosa can be dangerous." No specific health risks are mentioned, and the term "dangerous" is unclear (e.g., to whom is the product dangerous? Why is the product dangerous? What dangers may result from using the product? How serious are the potential dangers?) The Defendant's warnings also state, "By opening this package you accept full responsibility for the use of the product including but not limited to any adverse events or health complications." However, the warnings never state that adverse events or health complications could occur, nor do they specify what those might be. Rather, the warnings disclose that the manufacturer will not be responsible for any adverse events or health complications. This in itself is not a warning of health risks. The need to disclose health risks in the warnings was especially important given that the risks were serious and non-obvious.

Research studies published before February 2023 (when the Decedent's death occurred) show associations between kratom use and health risks that include but are not limited to substance use disorder, liver toxicity, seizures, cardiovascular effects, and death. For instance, Eggleston et al. conducted a retrospective review of kratom exposures reported to the National Poison Data System, published in 2019.³ Of 2,312 kratom exposures documented in their publication, 935 cases involved kratom as the only substance.³ Moreover, they note that "Kratom most commonly caused agitation (18.6%), tachycardia (16.9%), drowsiness (13.6%), vomiting (11.2%), and confusion (8.1%). Serious effects of seizure (6.1%), withdrawal (6.1%), hallucinations (4.8%), respiratory depression (2.8%), coma (2.3%), and cardiac or respiratory arrest (0.6%) were also reported."³ Further, they note that "Kratom was listed as a cause or contributing factor in the death of four decedents identified by the county medical examiner's office."³

In addition, Kerrigan & Basiliere reviewed the origins, pharmacology, uses, and effects of kratom, published in April 2021. They noted several adverse effects associated with kratom, including "agitation, altered mental status, central nervous system depression, coma, confusion, dizziness, drowsiness/sedation, hallucinations, hepatotoxicity, hypertension, irritability, nausea, respiratory arrest, restlessness, seizures, tachycardia, and vomiting."⁴ While data and research on kratom continue to evolve, research conducted after the Decedent's death in February 2023 continues to confirm that kratom is associated with adverse health risks. As of November 2025,

the FDA on its webpage on “the FDA and Kratom” notes, “FDA has warned consumers not to use kratom because of the risk of serious adverse events, including liver toxicity, seizures, and substance use disorder (SUD). In rare cases, deaths have been associated with kratom use, as confirmed by a medical examiner or toxicology reports.”⁵ These research findings support the conclusion that there were known health risks associated with kratom use that the Defendant should have included in their warnings.

Further, in his deposition as the corporate representative of Martian Sales, Mr. Mark Reilly stated he was aware in 2021/2022 that “kratom has been linked to, by the FDA, to adverse reports, including death and dependence” (page 54, lines 8-13). In addition, in his deposition (personal role), Mr. Mark Reilly agreed that warnings should “communicate to consumers any significant health risks associated with the use of the product” and should notify consumers “if there’s a risk of death for selling the product” (page 30, lines 8-23).

b. The Defendant’s warnings did not provide clear instructions on how to avoid risks associated with product use.

Regarding the third element of warnings stated above, warnings should provide clear instructions for ways to minimize risks associated with product use. The only instructions for use on the Defendant’s products were: 1) “consult your healthcare professional to determine if this product is right for you, and if so, how to use it safely” (disclosed under “directions”); 2) “Consult your physician about potential interactions, other possible complications, and precautionary measures before considering this product” (disclosed in the warning label); and 3) “Inform your physician of the alkaloid content, labeled on the package” (disclosed in the warning label). No information on the product package tells potential consumers how much of the product can be consumed and over what timeframe—both of which are basic requirements for product packaging and labeling. Moreover, the warnings do not provide information on how to avoid adverse effects, how to identify adverse effects (e.g., symptoms), or how to respond to adverse effects (e.g., contact information for a poison control center).

The only stated instructions for use are to inform healthcare professionals. However, it is unlikely that healthcare professionals can advise consumers on kratom use, given that “No formal guidelines are available for treatment of kratom dependence or misuse, and only a paucity of evidence is available regarding long-term outcomes and success of treatment in primary care.”⁶ Moreover, while few studies have assessed healthcare professionals’ knowledge of kratom use, and those that have are limited by small sample sizes and a lack of generalizability, research shows potentially limited awareness and knowledge of kratom use by healthcare professionals. For instance, in a study of 257 pharmacists in Alabama, published in December 2023 by Penzak et al., 49.8% had not heard of kratom.⁷ Of the 50.2% who had heard of kratom, only “14% considered themselves knowledgeable or very knowledgeable about the herb.”⁷ In another study involving interviews with 12 public health and healthcare professionals, published in 2016 by Stogner et al., none had heard of kratom.⁸ Given that there are a variety of kratom products, it is also likely that healthcare professionals would not have been familiar with the specific product in question. In addition, the instructions to consult a healthcare professional provided on the Defendant’s products are not adequate to avoid or minimize risks associated with kratom use because research from nationally representative surveys shows that, in general, a majority of US adults do not disclose dietary supplement use to healthcare providers,⁹ nor do they have discussions with healthcare providers about substance use.¹⁰

In addition to not providing clear information on how to avoid risks associated with product use, the Defendant’s warnings contained unclear language regarding whether humans could

actually consume the product. Specifically, the warnings had statements that the product is “only for use as a botanical specimen” and that “Mitragyna Speciosa is an unapproved dietary ingredient.” If the product could indeed not be consumed by humans, then the warnings should have clearly and explicitly stated that humans should not consume the product. However, in his deposition as the corporate representative of Martian Sales, Mr. Mark Reilly agreed that this product is meant to be “consumed by humans” (page 88, lines 15-17), despite the products being labeled as “only for use as a botanical specimen.” Moreover, the advice to “consult your physician about potential interactions, other possible complications, and precautionary measures before considering this product” conflicts with the statement that the product is “only for use as a botanical specimen” because the only reason to consult a physician is if the product is meant to be consumed.

Finally, including warning information in secondary locations, such as on a product website, is insufficient if the warning on the actual product package is inadequate.¹ In other words, to be adequate, a warning should be placed directly on the product package because the product package is what consumers are most likely to see. Therefore, while the Defendant’s products stated in the disclaimer, “Please see full disclaimer at www.OPMSKratom.com,” and included additional information on health risks and dosing on the product website, because this information was not included on the actual product package, the Defendant’s warnings were not adequate in communicating risks or instructions to mitigate risks.

c. The Defendant’s warnings did not use language that was clear or understandable.

Warning adequacy is also evaluated by how warning content is communicated. In general, warnings should “use short, familiar words,” “use as little text as necessary to clearly convey the message,” “use short statements, rather than long complicated ones,” “use explicit language—tell exactly what the hazard is, what the consequences are, what to do or not do,” “use concrete rather than abstract wording,” and “use active voice rather than passive voice.”¹ In addition, warnings should inform consumers about potential product risks using language that is at the lowest possible reading level and minimize the use of technical terminology.²

The Defendant’s warnings did not comply with these warning best practices in several ways. First, the Defendant’s warnings did not use short, familiar words; rather, the warnings used terms that included “botanical specimen,” “unapproved dietary ingredient,” “Mitragyna Speciosa,” and “alkaloid content.” These are technical, scientific, and/or regulatory terms that are not suitable for a general lay audience. Second, the Defendant’s warnings did not use as little text as necessary to convey the message clearly. Specifically, the Defendant’s warnings were 132 words long. Lengthy warnings introduce clutter, reduce readability, and make it difficult to discern risks associated with product use. Research shows that brief, concise, uncluttered warnings are more effective than those with clutter.¹¹ In addition, the format of the warnings (all information listed in paragraph form using dense text) makes them more difficult to read and less effective at capturing and holding attention.¹ Third, the average grade level of both warnings was 10.7 (measured using Flesh-Kincaid grade level). Ideally, warnings for the general population should be as low as feasible (ideally <8th grade level).¹ Fourth, as mentioned above, the Defendant’s warnings did not use explicit or concrete language to communicate the risks (i.e., hazards and/or consequences) and instructions for avoiding the risks. These factors, especially when combined, support the conclusion that the Defendant’s warnings did not use language that was clear or understandable.

d. The Defendant’s warnings’ format did not optimally capture or hold attention.

Finally, in order to effectively communicate product risks, warnings must first capture and hold attention.¹ If warnings do not capture or hold attention, then they will not be able to effectively communicate risks or instruct consumers on how to avoid or minimize risks. Research shows that warnings increase attention by 1) including images or symbols (e.g., alert triangle symbol) and 2) using a conspicuous design (e.g., through the use of color, location, contrasting background, or other factors).¹ To the first point, meta-analyses (which represent the strongest possible literature with the least bias) by Noar et al. and An et al. related to warnings for food products (sugar-sweetened beverages) and substance use products (tobacco) show that warnings that use images or symbols improve warning effectiveness on cognitive outcomes (e.g., thinking about product risks) and behavioral outcomes to avoid or minimize risks (e.g., increasing intentions to quit smoking, dissuading use of sugar-sweetened beverages).^{12,13} To the second point, in a meta-analysis of safety warnings, Hancock et al. found that conspicuous warnings defined as the “extent to which the warning stands out from its surroundings, either in terms of luminance, the use of bright colors, the use of contrasting background, or other factors which may make the warning more vivid and eye-catching” significantly improved warning recall.¹¹ Similarly, in a meta-analysis of nutrition warnings and labels, Song et al. found that color-coded labels improved behavioral outcomes to avoid or minimize risks (e.g., nudging consumers’ purchasing behavior towards more healthful products).¹⁴

The Defendant’s warnings failed to comply with warning best practices to capture and/or hold attention since the warnings 1) did not use symbols or icons to increase attention and 2) were not optimally conspicuous (defined by a lack of color, placement of the warnings on the back of the packages, and the use of long, dense text to communicate information). While attention is not sufficient for determining whether a warning is adequate in and of itself, it is necessary to consider when determining warning adequacy.

Conclusions

It is my opinion that the Defendant’s warnings were not adequate since they 1) did not warn about risks associated with product use, 2) did not provide clear instructions for minimizing risks, 3) did not use language that was clear or understandable, and 4) did not use a format to optimally capture or hold attention. This is also reflected in how the Defendant’s warnings were designed. Specifically, in Mr. Mark Reilly’s deposition (personal capacity), Mr. Reilly agreed that there were no “scientific or warnings experts...involved in writing this [product] warning” and that the warning was written by an attorney (Page 9, lines 6-13).

Based upon the materials reviewed, my education and experience, the manufacturers in this case knew or should have known that users could be exposed to a risk of significant injury or death under normal conditions of its use. The warnings provided *did not reasonably inform an ordinary user of the nature and extent of the risk* of death or serious health risks, such as those noted in the literature and discussed above, nor the means to avoid them.

In the exercise of reasonable care, a manufacturer in similar industries *should have included* a warning that expressly described the risks of human consumption of kratom and the consequences of exposure.

Meta-analyses show that well-designed warnings can educate people about product risks and change behavior to minimize risks. For instance, in a meta-analysis of tobacco warnings (the field for which we have the most evidence regarding the impact of substance use-related warnings), Noar et al. found that “pictorial warnings were more effective than text-only warnings for 12 of 17 effectiveness outcomes (all $p < 0.05$).”¹³ Specifically, when examining different

outcomes, they found, “Relative to text-only warnings, pictorial warnings (1) attracted and held attention better; (2) garnered stronger cognitive and emotional reactions; (3) elicited more negative pack attitudes and negative smoking attitudes and (4) more effectively increased intentions to not start smoking and to quit smoking.”¹³

An example of an adequate warning related to dietary supplements is the FDA’s required warning on iron-containing dietary supplements. This warning states, “WARNING: Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under 6. Keep this product out of reach of children. In case of accidental overdose, call a doctor or poison control center immediately.” This warning states the health risks associated with the product (“accidental overdose,” “fatal poisoning”), actions an individual can take to avoid risk (“keep this product out of reach of children,”), and actions an individual can take in case the risk occurs (“call a doctor or poison control center immediately”). In addition, the language used in the warning is clear, explicit, concise, and short. Finally, the warning is required to appear “prominently and conspicuously” and be placed on the actual product package (not a supplementary location).

Had an adequate warning been given, it is *more probable than not* that ordinary, reasonable consumers would have altered their behavior—by not purchasing the product, not consuming the product, or changing their behavior in a way to mitigate risk and thereby have *avoided injury or death*. The burden of adding such a warning would have been minimal compared to the magnitude and likelihood of the harm.

The conclusions reached in this report are based on my education, training, and experience. I have no conflict of interest that would result in bias. I am being reimbursed through Plaintiff’s counsel for the work that I am providing as an expert on an hourly basis. I am not employed by any company that dispenses or promotes the use of kratom. I have never met Ms. Kathleen Moller, nor do I know the Moller family. My hourly rate for review and testimony is \$500 per hour in this case, including, but not limited to: research, document review, report writing, testimony, preparation, telephone consultation, or any other work. During the previous four years, I have not testified as an expert at trial or by deposition. I have never been disqualified as an expert witness, nor had my opinions stricken. I reserve the right to rephrase or alter my opinions as additional information is received. I reserve the right to supplement this report when further data, documents, or information becomes available and/or to correct it if errors are discovered. Further, at trial, I may use visual aids or demonstrative exhibits, such as diagrams, images, slides, or charts that illustrate and/or explain my opinions.

Sincerely,

Sarah Kowitt

Sarah D. Kowitt, PhD, MPH

References

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