David W. Brew, Ph.D.
Senior Toxicologist & Operations Manager

Paustenbach and Associates
970 West Broadway
Suite E - 126
Jackson, WY 83001

770-561-0961
dbrew@paustenbachandassociates.com

Academic & Professional Profile

Dr. David Brew is a toxicologist and risk assessor with five years of experience examining potential human health effects related to environmental contaminants, consumer products, occupational exposures, and airborne hazards. He has scientific consulting experience in toxicology, exposure and risk assessment, and industrial hygiene.

Health effects associated with asbestos, radionuclides, silica and per- and polyfluoroalkyl substances (PFAS) are a significant focus of Dr. Brew's work. He also has experience conducting risk assessments for human exposure to a variety of chemicals and radionuclides in air, water, food and consumer products.

In addition to his technical expertise, Dr. Brew has significant experience with project management, business development, staff recruiting/training and is currently the Operations Manager at Paustenbach and Associates.

Dr. Brew has been retained to provide expert witness testimony for clients concerning the health effects of chemicals in air and consumer products. He holds a doctorate in Environmental Health Science from the University of Georgia and has a Bachelor's degree in Applied Biotechnology, also from the University of Georgia.

Education and Degrees Earned

- Ph.D. Environmental Health Science, The University of Georgia, 2019
- Bachelor's degree in Applied Biotechnology, The University of Georgia, 2011

Experience Summary (Professional Career)

1. **Paustenbach and Associates**
   Senior Toxicologist & Operations Manager
   Jackson Hole, Wyoming Office
   August 2023 – Present

- Consultant in toxicology, occupational health, industrial hygiene, risk assessment, state-of-the-art, and safety.
- Currently focused on asbestos, airborne particles, silica, consumer product exposures (food and beverages), radionuclides, occupational exposures, and perfluorinated compounds
- Regional Unit Manager for the Firm's Jackson Hole, Wyoming, and Southern California offices.
- Manages the Firm's operations, including project management, staff training, workload analysis, and ensuring the Firm's work product meets our quality standards.
- Involved in litigation work, interpreting toxicological studies, conducting exposure assessments, assessing mathematical models for dose-response curves, and characterizing risks posed by chemicals in the environment.

2. **Paustenbach and Associates**
   Senior Toxicologist & Regional Unit Manager
   Jackson Hole, Wyoming Office
   February 2023 – August 2023

- Consultant in toxicology, occupational health, industrial hygiene, risk assessment, state-of-the-art, and safety.
- Currently focused on asbestos, airborne particles, silica, consumer product exposures, radionuclides, environmental toxicology, and carbon monoxide poisoning.
- Regional Unit Manager for the Firm's Jackson Hole, Wyoming, and Orange County, California offices.
- Involved in litigation work, interpreting toxicological studies, conducting exposure assessments, assessing mathematical models for dose-response curves, and characterizing risks posed by chemicals in the environment.

3. **Paustenbach and Associates**
   Toxicologist & Regional Unit Manager
   Jackson Hole, Wyoming Office
   July 2021 – February 2023

- Consultant in toxicology, occupational health, industrial hygiene, risk assessment, state-of-the-art, and safety.
- Currently focused on asbestos, airborne particles, silica, consumer product exposures, radionuclides, environmental toxicology, and carbon monoxide poisoning.
- Regional Unit Manager for the Firm's Jackson Hole, Wyoming office.
- Involved in litigation work, interpreting toxicological studies, conducting exposure assessments, assessing mathematical models for dose-response curves, and characterizing risks posed by chemicals in the environment.

4. **Paustenbach and Associates**
   Toxicologist
   Jackson Hole, Wyoming Office
   September 2019 – July 2021

- Consultant in toxicology, occupational health, industrial hygiene, risk assessment, state-of-the-art, and safety.
- Currently focused on asbestos, airborne particles, silica, consumer product exposures, radionuclides, environmental toxicology, and carbon monoxide poisoning.
- Involved in litigation work, interpreting toxicological studies, conducting exposure assessments, assessing mathematical models for dose-response curves, and characterizing risks posed by chemicals in the environment.

5. **Graduate Teaching Assistant**
   The University of Georgia; Athens, GA
   January 2012 - December 2018

- Prior to and during the pursuit of a doctoral degree, taught 287 students in seven different courses
- Developed and taught a graduate-level course in knowledge of pedagogical approaches and available support systems for new teaching assistants

Peer-Reviewer of Proposed Government Regulatory Positions/Documents

2020: Reviewed EPA's new proposed Risk Assessment Guidelines for Chrysotile asbestos. 136 pages of comments were submitted on May 26, 2020 to the Environmental Protection Agency.

Key Projects (Partial List)

1. **Prop 65 case:** A large apartment building in Los Angeles was alleged to have contained asbestos in the ceiling and trial lawyers filed suit against the landlords for not posting a Prop 65 warning. We conducted sampling and showed that the building has airborne concentrations below the "safe harbor" level (Spring of 2024)

2. **Evaluation of comments submitted by public on the proposed EPA MCL for PFAS drinking water**. Due to a likely upcoming legal challenge, we assembled all of the comments, evaluated them for merit and then identified how many of the comments had an impact on the final rule issued on April 10, 2024. (Spring of 2024)

3. **Setting a groundwater clean-up goal for PFOA and PFOS**. The Firm was retained to evaluate EPA's proposed "PFAS National Primary Drinking Water Regulation Rulemaking" of March 2023. Potential work would be to propose a clean-up level based on risk assessment principles. (Spring of 2024)

4. **Person most knowledgeable (PMK) for a foundry.** I was retained as a person most knowledgeable (PMK) for a foundry involved in asbestos litigation. (Winter of 2024)

5. **Evaluated if chemical exposures at a manufacturing facility could be the cause of two workers' deaths and injuries to others**. We were retained to evaluate an incident where a crew of contractors were allegedly exposed to some airborne agent during planned maintenance at a chemical manufacturer. We were part of a team to try to identify the likely chemicals that were responsible for the incident as well as conduct a risk assessment. (Summer of 2023)

6. **East Palestine Fire**: Evaluated the health risks to the community associated with the combustion products from a railcar involved in the East Palestine fire. (May of 2023)

7. **Derive an occupational exposure limit for a new and novel pharmaceutical agent**. A manufacturer wanted to identify an OEL before attempting to bring it into large production so that engineering or administrative controls could be identified and implemented. (Spring of 2023)

8. **Evaluate the possible hazards of NO, NOx, and PM2.5 from gas stoves**. We were retained to conduct a sampling plan and a health risk assessment of the emissions from various models of gas stoves. This came into national prominence in 2022 and 2023. (Summer of 2023)

9. **Evaluated the health risks of vermiculite packing**. A claim was made that there was an asbestos hazard due to the historical use of vermiculite as a packing material for shipping tritium and other radionuclides. (Winter of 2023)

10. **Evaluated alleged exposure to silica in self-leveling floor compound.** I was retained to evaluate claims that a homeowner was exposed to silica from a contractor performing floor repair in their house. (Spring of 2023)

11. **Conducted a comprehensive risk assessment of a former Navy Shipyard.** There had been soil remediation of a large navy shipyard that occurred over approximately the past 30 years. After the remediation was completed, the city planned to put offices and homes on the former site. The community was not convinced that it had been properly cleaned, so they filed various legal actions. We conducted a health risk assessment and published the analysis in a peer-reviewed journal. (2019 and still ongoing)

12. **Assess the likelihood of kidney disease due to working in a diluted sewage pumping station**. A claim was made that an employee who worked in a pumping station developed acute kidney failure due to breathing gases in the building. (Winter of 2023)

13. **Evaluation of a fire associated with ash from a wood to energy plant**. A pit where wood ash had been stored went exothermic and burned down the storage facility and also moved into a nearby forest. We were asked to make suggestions regarding how to prevent such an incident in the future and to conduct a companywide safety assessment. (Winter of 2023)

14. **Contaminated bottled water incident**. It was alleged that a firm that sold processed water had distributed a product that was alleged to cause liver damage in select consumers. We were part of an investigative team retained by the client to evaluate the validity of the claims and to try to identify the contaminant (if the claims were valid). (2022 and still ongoing)

15. **Asbestos disease potential posed by Vermiculite fireproofing**. Due to continued asbestos litigation, we were asked to assess a particular type of fireproofing to determine if the vermiculite was from the Libby mines. We were then asked to evaluate thousands of data points from air sampling and bulk sampling to determine if there was a health risk associated with reoccupying the building. (Winter of 2021 through Winter of 2022)

16. **Wood Ash.** We were retained by a major manufacturer of wood products to evaluate the SOP for the storage of wood ash (fly and bottom) from a wood-fired boiler. We provided suggestions on how to improve the SOP, as well as an update to their SDS for wood ash. (Winter of 2022)

17. **Respirators used in coal mines.** We were retained by a respirator manufacturer in a consumer protection case to evaluate claims that their respirators were defective and exposed coal miners to excessive dust concentrations between the early 1970s and 1998. We were asked to conduct a state-of-the-art analysis to determine whether the firm had acted responsibly in the design of the respirator and the instructions/warnings that were included with the product. (Winter of 2022)

18. **Respirators used by firefighters.** We were retained by a respirator manufacturer to evaluate claims that their self-contained breathing apparatus (SCBA) respirators that a firefighter used in the 1970s were defective and exposed them to asbestos in sufficient concentrations to cause their mesothelioma. We conducted a state-of-the-art analysis and risk assessment to evaluate these claims. We concluded that there was no evidence that the respirator would not have provided an applied protection factor (APF) of 10,000 if used appropriately. (Fall of 2022)

19. **Respirators used by abatement workers.** We were retained by a respirator manufacturer to evaluate claims that their supplied air respirators (SARs) and air purifying respirators (APRs) were defective and exposed an abatement worker onboard Naval vessels to asbestos in sufficient concentrations to cause their mesothelioma. We conducted a state-of-the-art analysis and risk assessment to evaluate these claims. We concluded that there was no evidence that these types of respirators would not have provided an applied protection factor (APF) of 1,000 and 50, respectively, if used appropriately. (Fall of 2022)

20. **Evaluated claims that work as a mason in the steel industry caused a worker's mesothelioma.** Contrary to what is commonly believed in the field of industrial hygiene, there was never significant exposure to asbestos for refractory masons in the steel industry. The only asbestos-containing products that they were potentially exposed to was from asbestos paper or mixing cement or masonry materials when lining or relining (chipping out and replacing a lining) industrial furnaces. We conducted a state-of-the-art analysis and risk assessment to evaluate if their mesothelioma was due to these alleged exposures. We found that childhood exposure to erionite was a more likely cause of their disease. (Summer of 2022)

21. **Contaminated grain**. We were retained by a major processor of grains to evaluate an unusual scenario. The firm had transported a large number of truckloads of wheat to a barge for transport to a food processing facility. The transport company failed to wash out the truck, which had previously hauled farm fertilizer, and parts per billion concentrations of fertilizer were present in the

grain. A risk assessment was required to decide what should be done with the grain. (Fall of 2021)

22. **Contaminated hair dye**. A firm was alleged, in the late 2010s, to have sold a hair dye containing a carcinogen that was frequently seen in hair dyes in the 1950s-1970s era. The plaintiff claimed that their cancer was due to this trace contaminant which could well be present in most dyes at the ppb level today. We conducted a risk assessment that estimated the absorbed dose. (Fall of 2021)

23. **Toxicity of herbal supplements**: A claim was made that the use of an over-the-counter vitamin supplement had caused acute liver failure. We conducted an evaluation of the toxicology of all of the product ingredients, the daily doses, and the various other factors that can cause liver failure. We concluded that the plaintiff's historical alcohol abuse was the more likely cause of their liver injury (cirrhosis of the liver). (Winter of 2021)

24. **Contaminated beverage recall**. We performed a fault tree analysis and field study to evaluate whether a beverage manufacturer, as alleged, performed a number of production runs that were contaminated with an agent that caused acute viral hepatitis in some consumers. This evaluation began with virtually no data, and we carefully examined the process, as well as the products, from two separate facilities. A report and risk assessment were issued. (Winter of 2021 through 2022)

25. **Accidental death of two chemical workers**. We were retained to evaluate an incident where two employees were exposed to some airborne agent for a relatively short period of time and, sadly, eventually died of pulmonary edema. We were part of a team to try to identify the likely chemicals that were responsible for the incident. It appears that we identified a new occupational hazard that is unique to some portions of the chemical manufacturing industry. (Fall of 2021 through Winter of 2022)

26. **Asbestos in spray insulation**. We were asked to evaluate an approximately 40-story skyscraper insulated with a cementitious material that contained Libby amphiboles. The tenants had a 30-year lease with a value of nearly $500M and the renter wanted to be released from the lease due to the presence of the fibers. We conducted the health risk assessment for the building. (Fall of 2021 through Winter of 2022)

27. **State-of-the-art defense regarding crocidolite in transmissions**. A firm that once manufactured transmissions in the 1950s-1980s era was sued when workers developed mesothelioma. We were asked to conduct a state-of-the-art analysis to determine whether the firm had acted responsibly given the

information available in publicly accessible information of the time. (Winter of 2021 through 2022)

28. **Evaluated an insurance claim by a large manufacturer regarding COVID-19.** A major manufacturer in the United States believed that they had suffered a loss of $4B due to the inability to produce goods due to COVID-19. Like many other firms, they believe their business interruption insurance should cover some of those claims. We were retained to evaluate whether their protective measures were state of the art and that they had done all that they could to control the spread of the virus. (Spring of 2021)

29. **Evaluated claims regarding alleged exposures during railroad work.** A plaintiff believed that they had suffered some injuries due to exposure to diesel exhaust, creosote, mineral spirits, carbon monoxide, and airborne particulates while being an engineer on a railway. (Spring of 2021)

30. **Researched the likely magnitude of exposure to asbestos in the steel industry.** Contrary to what is commonly believed in the field of industrial hygiene, there was never significant exposure to asbestos for the vast majority of jobs in this industry from 1950 to the current era. A comprehensive analysis of 34 years of industrial hygiene data was conducted and the data supported that view. (Spring of 2021)

31. **Studied exposures due to asbestos gloves in the steel, glassmaking, and laboratory industry.** A comprehensive analysis of published and unpublished data was conducted on this topic. (Spring of 2021)

32. **Allegations of exposure to trace benzene in calibration fluids.** Claims were made that trace concentrations of benzene were present in calibration fluids used in the automotive industry. Even though there are 20 - 30 years of knowledge that virtually non-detectable concentrations of benzene are in these fluids, claims were made that some persons developed acute myeloid leukemia (AML). (Winter of 2020)

33. **Evaluated exposures to beryllium in golf club manufacturing.** It was claimed that an employee who used a grinder in a golf club factory developed chronic beryllium disease (CBD). We were retained to evaluate the exposures and the probability that their disease, if accurately diagnosed, was due to these exposures. (Winter of 2020)

34. **Asbestos in laboratory products (1950-2010).** Claims had been made about unacceptable levels of exposure associated with using tongs with asbestos sleeves, gauze pads containing chrysotile asbestos, asbestos-containing gloves,

and other equipment. We were retained to conduct a dose reconstruction analysis to evaluate the validity of these claims. (Winter of 2020)

35. **NDMA in pharmaceuticals.** Was contacted by a manufacturer who was receiving claims that their product contained trace concentrations of nitrosamines. This is an issue that has been raised in the 1970s and 1980s, when our team gave advice to the FDA on how to set acceptable contaminant levels for over-the-counter and prescription drugs. (Winter of 2020)

36. **Evaluated the risk of an asbestos-related disease due to fiber drift at a shipyard.** Lawyers for the plaintiffs claimed that persons who worked very far away from a work area were overexposed. In this case, the sailor was allegedly exposed outside a ship within 200 yards of an exhaust duct. (Summer of 2020)

37. **Respirators and their limitations for protecting workers.** We were retained by a major manufacturer who sold disposable (sometimes single-use) respirators intended to protect workers from various dusts. The claim was that they often did not provide a protection factor of 5 or 10 and, as a result, did not always adequately protect persons who worked near asbestos in the 1970s and 1980s. (Fall of 2020)

38. **Evaluation of the possibility of developing hypersensitivity pneumonitis as a result of exposure to food flavorings while working in a Chinese or Vietnamese restaurant.** Due to the interest in alleged hazards due to exposure to diacetyl in consumer products (like popcorn), there were a number of cases filed in the restaurant industry regarding exposure to many different types of flavoring. (Fall of 2019 through Spring of 2020)

39. **Assessment of the potential adverse effects of vaping products containing nicotine and various flavorings.** In light of the national concerns about whether E-cigarettes are a public health problem or a benefit to those who are trying to quit smoking (or both), this project presented a classic opportunity for conducting a health risk assessment. (Winter of 2019 through Winter of 2022)

40. **Assessment of soil samples at a former Naval site.** Reviewed all the available information and assembled a scope of work to conduct a sensitivity analysis and risk assessment. (Summer of 2019 through Winter of 2022)

41. **Evaluation of claims that pigeon droppings caused chemical hypersensitivity pneumonitis (HP).** It was alleged that an employee of a railroad developed a potentially fatal fibrotic lung disease, due to occasional, outdoor, workplace exposure. An analysis of all published and case-specific material indicated that airborne exposure was not causal. (Fall of 2019)

42. **Assessment of hazards posed by replacing asbestos carburetor gaskets.** We were retained by a firm to evaluate the possible hazards to consumers replacing asbestos gaskets on carburetors on their personal automobiles. (Fall of 2019)

43. **Reviewed the toxicity of aluminum in potable water for an RV manufacturer.** Reviewed available literature on aluminum leaching and possible toxicity to consumers from potable water tanks. Found that there was a negligible risk to consumers from their product. (Fall of 2019)

44. **Assessment of hazards posed by carbon dioxide poisoning from keyless automobiles.** We were retained to evaluate the potential liability due to two citizens being poisoned by exposure to carbon monoxide from a keyless car. (Fall of 2019)

45. **Assessment of the hazards of asbestos-containing duct sealer**. We were retained by a firm to evaluate the possible hazards to workers applying, and later attempting to remove, a polymer-based duct sealer. (Fall of 2019)

Publications

Peer-Reviewed Publications

1. Stevens, M. E., **Brew, D. W.**, and Paustenbach, D. J. 2024. Occupational exposures to asbestos in the steel industry: An analysis of the AISI sampling campaign (1989–1997). Journal of Occupational and Environmental Hygiene. 1-11.

2. Stevens, M. E., Paustenbach, D. J., Lockhart, N. J., Busboom, D. E., Deckard, B. M., and **Brew, D. W.** 2024. The presence of erionite in North American geologies and the estimated mesothelioma potency by region. Inhalation Toxicology. 1-16.

3. Paustenbach, D. J., Stevens, M. E., Tuttle, B. P., Shore, R.A., Ligas, S. & **D. W. Brew.** 2023**.** Occupational exposure to asbestos in the steel industry (1972–2006). Journal of Exposure Science & Environmental Epidemiology.

4. Paustenbach, D., **Brew, D.**, Ligas, S. and Heywood, J., 2021. A critical review of the 2020 EPA risk assessment for chrysotile and its many shortcomings. Critical reviews in toxicology. 51(6), 509-539.

5. **Brew, D. W.**, Black, M. C., Santos, M., Rodgers, J., & Henderson, W. M. (2020). Metabolomic investigations of the temporal effects of exposure to pharmaceuticals and personal care products and their mixture in the eastern oyster (Crassostrea virginica). Environmental toxicology and chemistry, 39(2), 419-436.

Non-Peer Reviewed Publications

1. Dennis Paustenbach and **David Brew**. Speculation v. Fact: The Dangers of the Proposed EPA Risk Assessment on Chrysotile Asbestos. Asbestos Columns. HarrisMartin. February 2021.

2. Dennis Paustenbach, **David Brew**, Sabina Ligas and Jonathan Heywood. An Analysis of the 2020 EPA Risk Assessment for Chrysotile and Its Many Shortcomings. For The Defense. July 2021.

Book Chapters

1. Antonella Marrocco, MD, Ph.D., Alane Blythe C. Dy, MSPH, Ph.D., Thomas J. Slavin, MS, MBA, CIH, CSP, CSHM, CPEA, FASTM, FAIHA, Scott Dotson, PhD, CIH, DABT, Michael E. Stevens, **David W. Brew, Ph.D.** and Luis A. Ortiz, MD. 2024. Chapter 116: Silica and Silica Compounds. In: Farland, B., Klaunig, J.E., Levy, L., Helmut, G., Becker, R., and D. Paustenbach (eds.), *Patty's Toxicology*. Seventh edition. Wiley & Sons, New York.

2. **David Brew**, Ayla Pavelka, Jack Buddenbaum, Michael E. Stevens, Dennis Paustenbach and Robert D. Gibbons. 2024. Radiological risk assessment of the Hunters Point Naval Shipyard (HPNS). In: Primer on human and environmental risk assessment. D.J. Paustenbach. (ed.), *Human and Ecological Risk Assessment: Theory and Practice*. John Wiley & Sons, New York, NY.

Presentations at Scientific Conferences

1. 2023. (November). Dennis Paustenbach, **David Brew** and Michael Stevens. Fallacies Regarding Claims that Mesothelioma in Women is Increasing (allegedly due to asbestos exposure). DRI Conference. November 4, 2021. New Orleans, Louisiana. Platform Presentation.

2. 2023. (October). Dennis Paustenbach, **David Brew**, and Careen Khachatoorian. Dioxins vs. PFOA/PFAS: Similarities and Differences. Beyond Science and Decisions XIV: PFAS Limits: How Did We Get So Far Apart? October 17-19, 2023. Washington, D.C.

3. 2022. (March). **D. W. Brew** and D. J. Paustenbach. Historical Use of Laboratory Equipment as a Risk Factor for Mesothelioma: A Weight of Evidence Approach. Society of Toxicology. March 27-31, 2022. San Diego, California. Poster Presentation.

4. 2022. (March). R. L. Strobel, S. Ligas, **D. W. Brew**, A. Pavelka, and D. J. Paustenbach. An Analysis of Historical Workplace Exposures to Asbestos at U. S. Steel Facilities (1972-2001). Society of Toxicology. March 27-31, 2022. San Diego, California. Poster Presentation.

5. 2021. (November). Dennis Paustenbach and **David Brew**. Scientific Shortcomings in the 2020 EPA Asbestos Risk Assessment. DRI Conference. November 4, 2021. New Orleans, Louisiana. Platform Presentation.

6. 2021. (July). Dennis Paustenbach, **David Brew** and Haley Moyer. Mesothelioma, BAP1, and Genetic Susceptibility. Genetics Webinar – Johnson & Bell.

7. 2020. (December). **David Brew** and Dennis Paustenbach. Paustenbach's Thoughts on the State of the Risk Analysis Field. Society for Risk Analysis. December 17, 2020. Platform Presentation.

8. 2020. (December). **David Brew** and Dennis Paustenbach. Comments Regarding the EPA's Draft Risk Evaluation for Asbestos. International Society of Regulatory Toxicology and Pharmacology. December 2, 2020. Platform Presentation.

9. 2018. (November). Environmental Metabolomics for *In Situ* Monitoring of Eastern Oysters (*Crassostrea virginica*) Affected by Stressors from Point and Nonpoint Sources Along Coastal Georgia, USA. Society of Environmental Toxicology and Chemistry 39th Annual Meeting. November 4th - 8th, 2018. Sacramento, California, USA. Poster presentation.

10. 2017. (November). Metabolomic Investigations of the Temporal Effects of Exposure to Pharmaceuticals and Personal Care Products and their Mixture in the Eastern Oyster (*Crassostrea virginica*). Society of Environmental Toxicology and Chemistry 38th Annual Meeting. November 12th - 16th, 2017. Minneapolis, Minnesota, USA. Platform presentation.

11. 2017. (March). Occurrence and Ecological Risk of Pharmaceuticals and Personal Care Products in Two Georgia, USA Estuaries. 3rd International Conference on Environmental Pollution, Restoration and Management. March 6th - 10th, 2017. Quy Nhon, Vietnam. Platform presentation.

12. 2016. (November). Untargeted Metabolomic Investigations of the Eastern Oyster (*Crassostrea virginica*) Exposed to Pharmaceuticals and Personal Care Products. Society of Environmental Toxicology and Chemistry 37th Annual Meeting. November 6th - 10th, 2016. Orlando, Florida, USA. Poster presentation.

13. 2015. (November). Biomonitoring of Contaminants of Emerging Concern using Wild Eastern Oysters in Georgia, USA Estuaries. Society of Environmental Toxicology and Chemistry 36th Annual Meeting. November 1st - 5th, 2015. Salt Lake City, Utah, USA. Platform presentation.

14. 2015. (April). Environmental Metabolomics and Biomonitoring of Contaminants of Emerging Concern in Wild Eastern Oysters from Georgia, USA Estuaries. 2015 Georgia Water Resources Conference April 28, 2015. Athens, Georgia. Platform presentation.

15. 2015. (March). Environmental Metabolomics and Biomonitoring of Contaminants of Emerging Concern in Wild Eastern Oysters from Georgia, USA Estuaries. Carolinas Regional Chapter of the Society of Environmental Toxicology and Chemistry 2015 Annual Meeting. March 12th – 13th, 2015. Raleigh, North Carolina. Platform presentation.

16. 2014. (November). Environmental Metabolomics and Biomonitoring of Contaminants of Emerging Concern in Wild Eastern Oysters (*Crassostrea virginica*) from Georgia, USA Estuaries. Society of Environmental Toxicology and Chemistry 35th Annual Meeting. November 9th - 14th, 2014. Vancouver, Canada. Poster Presentation.

17. 2014. (August). Eastern Oysters as Biomonitors of Emerging Contaminants in the Georgia Estuarine Environment. 9th Annual Georgia Environmental Conference. August 20th - 22nd, 2014. Jekyll Island, Georgia. Poster Presentation. 2015.

18. 2014. (May). David Brew and Marsha Black. Validation of Eastern Oysters as Biomonitors of Pharmaceutical Pollution in the Georgia Estuarine Environment. Gordon Research Seminar and Conference. May 31 - June 6, 2014. Biddeford, Maine. Poster presentation.

Published Abstracts

1. B. P. Tuttle, M. E. Stevens, R. A. Shore, **D. W. Brew**, and D. J. Paustenbach. An evaluation of trends for mesothelioma mortality in women: Addressing the content of a recent Morbidity and Mortality Weekly Report (MMWR). Society of Toxicology 63rd Annual Meeting. March 10 – 14, 2024. Salt Lake City, Utah. Poster Presentation.

2. M. E. Stevens, **D. W. Brew**, and D. J. Paustenbach. Occupational Exposures to Asbestos in the Steel Industry: An Analysis of the AISI Sampling Campaign (1989-1997). Society of Toxicology 63rd Annual Meeting. March 10 – 14, 2024. Salt Lake City, Utah. Poster Presentation.

3. **D. W. Brew**, D. J. Paustenbach, N. J. Lockhart, D. E. Busboom, B. M. Deckard, and M. E. Stevens. The presence of erionite in North American soils and the estimated mesothelioma potency by region. Society of Toxicology 63rd Annual Meeting. March 10 – 14, 2024. Salt Lake City, Utah. Poster Presentation.

4. D. J. Paustenbach, M. E. Stevens, **D. W. Brew**, and A. Korchevskiy. Proposed occupational exposure limits (OELs) for various asbestos mineral types based on updated mesothelioma dose-response data. Society of Toxicology 63rd Annual Meeting. March 10 – 14, 2024. Salt Lake City, Utah. Poster Presentation.

5. D. Paustenbach, M. Hilsabeck, M. Stevens, B. Deckard, and **D. Brew**. Late Breaking Abstract - Proposed Acceptable Daily Intake (ADI) for Humans for Chronic Oral Exposure to Hydrazine. Society of Toxicology 63rd Annual Meeting. March 10 – 14, 2024. Salt Lake City, Utah. Poster Presentation.

6. **David Brew** and Dennis Paustenbach. Historical Use of Laboratory Equipment as a Risk Factor for Mesothelioma: A Weight of Evidence Approach. Society of Toxicology 61st Annual Meeting. March 27-31, 2022. San Diego, California. Poster Presentation.

7. R. L. Strobel, S. Ligas, **D. W. Brew**, A. Pavelka, and D. J. Paustenbach. An Analysis of Historical Workplace Exposures to Asbestos at U. S. Steel Facilities (1972-2001). Society of Toxicology 61st Annual Meeting. March 27-31, 2022. San Diego, California. Poster Presentation.

8. **David Brew**, Marsha Black. Environmental Metabolomics for *In Situ* Monitoring of Eastern Oysters (*Crassostrea virginica*) Affected by Stressors from Point and Nonpoint Sources Along Coastal Georgia, USA. Society of Environmental Toxicology and Chemistry 39th Annual Meeting. November 4th - 8th, 2018. Sacramento, California, USA. Poster presentation.

9. **David Brew**, Marsha Black. Metabolomic Investigations of the Temporal Effects of Exposure to Pharmaceuticals and Personal Care Products and their Mixture in the Eastern Oyster (*Crassostrea virginica*). Society of Environmental Toxicology and Chemistry 38th Annual Meeting. November 12th - 16th, 2017. Minneapolis, Minnesota, USA. Platform presentation.

10. **David Brew**, Matthew Henderson, Marsha Black. Occurrence and Ecological Risk of Pharmaceuticals and Personal Care Products in Two Georgia, USA Estuaries. 3rd International Conference on Environmental Pollution, Restoration and Management. March 6th - 10th, 2017. Quy Nhon, Vietnam. Platform presentation.

11. **David Brew**, Matthew Henderson, Marsha Black. Untargeted Metabolomic Investigations of the Eastern Oyster (*Crassostrea virginica*) Exposed to Pharmaceuticals and Personal Care Products. Society of Environmental Toxicology and Chemistry 37th Annual Meeting. November 6th - 10th, 2016. Orlando, Florida, USA. Poster presentation.

12. **David Brew**, Matthew Henderson, Donna Glinski, Marsha Black. Biomonitoring of Contaminants of Emerging Concern using Wild Eastern Oysters in Georgia, USA Estuaries. Society of Environmental Toxicology and Chemistry 36th Annual Meeting. November 1st - 5th, 2015. Salt Lake City, Utah, USA. Platform presentation.

13. **David Brew**, Matthew Henderson, Marsha Black. Environmental Metabolomics and Biomonitoring of Contaminants of Emerging Concern in Wild Eastern Oysters from Georgia, USA Estuaries. 2015 Georgia Water Resources Conference April 28, 2015. Athens, Georgia. Platform presentation.

14. **David Brew**, Matthew Henderson, Marsha Black. Environmental Metabolomics and Biomonitoring of Contaminants of Emerging Concern in Wild Eastern Oysters from Georgia, USA Estuaries. Carolinas Regional Chapter of the Society of Environmental Toxicology and Chemistry 2015 Annual Meeting. November 12th - 14th, 2015. Raleigh, North Carolina. Platform presentation.

15. **David Brew**, Matthew Henderson, Marsha Black. Environmental Metabolomics and Biomonitoring of Contaminants of Emerging Concern in Wild Eastern Oysters (*Crassostrea virginica*) from Georgia, USA Estuaries. Society of Environmental Toxicology and Chemistry 35th Annual Meeting. November 9th - 14th, 2014. Vancouver, Canada. Poster Presentation.

16. **David Brew** and Marsha Black. Eastern Oysters as Biomonitors of Emerging Contaminants in the Georgia Estuarine Environment. 9th Annual Georgia Environmental Conference. August 20th - 22nd, 2014. Jekyll Island, Georgia. Poster Presentation.

17. **David Brew** and Marsha Black. Validation of Eastern Oysters as Biomonitors of Pharmaceutical Pollution in the Georgia Estuarine Environment. Gordon Research Seminar and Conference. May 31 - June 6, 2014. Biddeford, Maine. Poster presentation.

Professional Honors/Awards

- Awarded the 2015 Procter & Gamble Fellowship for Doctoral Research in Environmental Science through the Society of Environmental Toxicology and Chemistry
- Member of the 2014 - 2015 Future Faculty Program at the University of Georgia

- Awarded the 2014 Outstanding Teaching Assistant Award from the Environmental Health Science Department, University of Georgia
- Awarded the rank of Eagle Scout from the Boy Scouts of America in 2007

Membership and Service to Professional Societies

- Journal of Exposure Science and Environmental Epidemiology
- Health Physics Society
- American Conference of Governmental Industrial Hygienists (Voting Member)
- The International Society of Regulatory Toxicology & Pharmacology (ISRTP)
  - Member of the Editorial Board (2023 – Present)
  - Beyond Science Workshop XIV: PFAS Limits: How Did We Get So Far Apart? (October 17-19, 2023)
    - Performed rapporteur duties and worked with the daily chairs to ensure a smooth technical operation
- Society of Toxicology (Full member)
- Society of Environmental Toxicology and Chemistry (SETAC)
- Sigma Xi (Associate Member)

Government & University Grants Awarded

2015: Innovative and Interdisciplinary Research Grant. Award: $1,500. The University of Georgia.
2015: Procter & Gamble Fellowship for Doctoral Research in Environmental Science. Award: $15,000
2014: Innovative and Interdisciplinary Research Grant. Award: $1,000. The University of Georgia.
2014: Georgia Water Resources Grant, Georgia Water Resources Institute. Award: $18,000
2013: Friends of the Marine Institute Graduate Research Award. Award: $1,000. The University of Georgia.
2013: Public Service and Outreach Graduate Assistantship. Award: $25,000. The University of Georgia.