Exhibit 131

December 6, 2024

J.J. Snidow, Esq.
Keller Postman LLC
150 N Riverside Plaza, Suite 4100
Chicago, IL 60606

RE: *Camp Lejeune Water Contamination Litigation: Parkinson's disease outcome*

Dear Mr. Snidow,

I am in receipt of your correspondence and materials regarding the above-named litigation. It is my understanding that this action relates to 5 bellwether plaintiffs who allege that they developed Parkinson's disease due to their exposure to contaminated drinking water for not less than 30 days between August 1, 1953, and December 31, 1987, at United States Marine Corps Base Camp Lejeune in North Carolina. The chemical contaminants in the water included the volatile organic compounds trichloroethylene, tetrachloroethylene, vinyl chloride, and benzene. The chemical contaminants existed at significant levels in the water. For example, the maximum reconstructed concentrations of these hazardous chemicals in Camp Lejeune water during 1983 were 156.6, 36, 33.5, and 2.4 times the maximum contaminant level allowed in drinking water by the United States Environmental Protection Agency, respectively.

My report in this matter concerns the results of my review and analysis of scientific evidence regarding the human health effects associated with exposure to the aforementioned volatile organic compounds, and specifically, the evidence for a general causal relationship between exposure to these chemicals at the levels found at Camp Lejeune and the subsequent risk of kidney cancer among the exposed.

My opinions in this matter pertain to the field of forensic medicine and forensic epidemiology. Forensic medicine refers to the intersection of medicine and law. Epidemiology is defined as the scientific study of disease and injury in populations, including prevalence, risk, and incidence in specific populations. Inferential conclusions regarding the prevalence, incidence, risk, and causation of disease must be based on the proper interpretation of epidemiologic study and the proper application of epidemiologic methods. The scientific field that dictates how probabilities may be inferred from epidemiologic data and methods and how the inferences can be applied to individuals or groups of individuals in a legal setting is forensic epidemiology, a discipline from within the field of forensic medicine. Forensic epidemiology provides the scientific basis for the evaluation of individual

causation, to the extent that probability or likelihood of causation may be evaluated. The methods applied in this report are consistent with those outlined in the Reference Guide on Epidemiology, from the Reference Manual on Scientific Evidence, published by the Federal Judicial Center and the National Academies of Science (3rd Edition, 2011), as well as in the text Forensic Epidemiology: Principles and Practice, published by Elsevier (2016). All of my opinions in this matter are given to a reasonable degree of medical and scientific certainty.

My qualifications to perform the analysis and render the opinions described herein are as follows:
I am Professor and Chair of Forensic and Legal Medicine with the Faculty of Forensic and Legal Medicine of the Royal College of Physicians (London, UK), and a consultant in the fields of forensic medicine and forensic epidemiology. I hold qualification as a member of the Faculty of Forensic and Legal Medicine (FFLM) of the Royal College of Physicians (UK). I hold the following relevant academic degrees and certifications: a doctor of medicine degree (Med.Dr.) from Umeå University, a doctor of philosophy (Ph.D.) in public health/ epidemiology from Oregon State University, a master of public health (MPH) in epidemiology and biostatistics, also from Oregon State University, and a master's degree in forensic medical sciences (MScFMS) with the Academy of Forensic Medical Sciences in the United Kingdom, *i.a.* In addition to my degreed education, I have completed a 2-year post-doctoral fellowship in forensic pathology at Umeå University in Sweden and hold a Diploma of Legal Medicine (DLM) with the FFLM. I am a fellow of the American Academy of Forensic Sciences, the Academy of Forensic Medical Sciences, and the American College of Epidemiology. I am also a Fulbright Fellow and held a 3-year roster appointment (2017-20) with the United States Department of State as a Fulbright Specialist in the field of forensic medicine.

I serve as tenured Associate Professor of Forensic Medicine and Epidemiology at Maastricht University, and a joint Clinical Professor of Psychiatry and Public Health and Preventative Medicine at Oregon Health and Science University School of Medicine, where I have taught courses for the past >20 years in forensic medicine, forensic epidemiology, and injury epidemiology. From 2005-2017 I held an appointment as an Adjunct Professor of Forensic Medicine and Epidemiology at the Institute of Forensic Medicine, Faculty of Health Sciences, Aarhus University, Aarhus, Denmark, and am a recent (2020-2021) visiting professor at University of Indonesia in the Faculty of Medicine.

I am the Editor in Chief of the Journal of Forensic and Legal Medicine (Elsevier), serve or have served as an associate editor or editorial board member of an additional 14 scientific peer-reviewed journals, and have published approximately 230 scientific papers, abstracts, book chapters and books, including the text for Elsevier, Forensic Epidemiology: Principles and Practice (2016). My scientific publications have been cited by other authors of peer-reviewed publications more than 5,000 times.

I have provided testimony in more than 450 civil and criminal trials in state and Federal courts throughout the United States, Canada, Australia, and Europe. Please see my CV for further details.

Documents reviewed:

In forming my opinions in this matter, I reviewed the literature and articles cited in this report as well as following documents supplied to me by your office:

- 2024.08.07 CL Water Lit [270] TRACK 1 PRETRIAL SCHEDULE ORDER (23-00897).pdf
- CLJ Letter to Freeman.odt
- Appendix to CLJ Letter.pdf

Report table of contents:

Relevant background facts pertaining to drinking water contamination at Camp Lejeune

In 1941, the United States Congress authorized over 14 million dollars for the construction of a military base that would become Marine Corps Base Camp Lejeune.[1] Today Camp Lejeune is the largest Marine Corps base in the United States and occupies 244-square miles on the Atlantic coast near the City of Jacksonville, North Carolina. The base includes training schools for infantry, engineers, service support, and medical support, as well as a Naval Hospital and Naval Dental Center.[2] Camp Lejeune has 9 family housing areas, and families live in base housing for an average of 2 years. Additionally, schools, day care centers, and administrative offices are located on the base. As of 2007, approximately 54,000 people were living and/or working at Camp Lejeune, including about 43,000 active-duty personnel and 11,000 military dependents and civilian employees. Camp Lejeune and the surrounding community are home to a population of nearly 150,000 people.[1]

Camp Lejeune water system and water contamination

In the 1980s, the Camp Lejeune military base obtained its drinking water from as many as 8 water systems, which were fed by more than 100 individual wells that pumped water from a freshwater aquifer located approximately 180 feet below the ground.[2] Each of Camp Lejeune's water systems included wells, a water treatment plant, reservoirs, elevated storage tanks, and distribution lines to provide the treated water to the system's respective service areas. Drinking water at Camp Lejeune was created by combining and treating groundwater from multiple individual wells that were rotated on and off, so that not all wells provided water to the system at any given time. Water was treated to remove minerals and particles and to protect against microbial contamination. After treatment, water was considered "finished" drinking water.

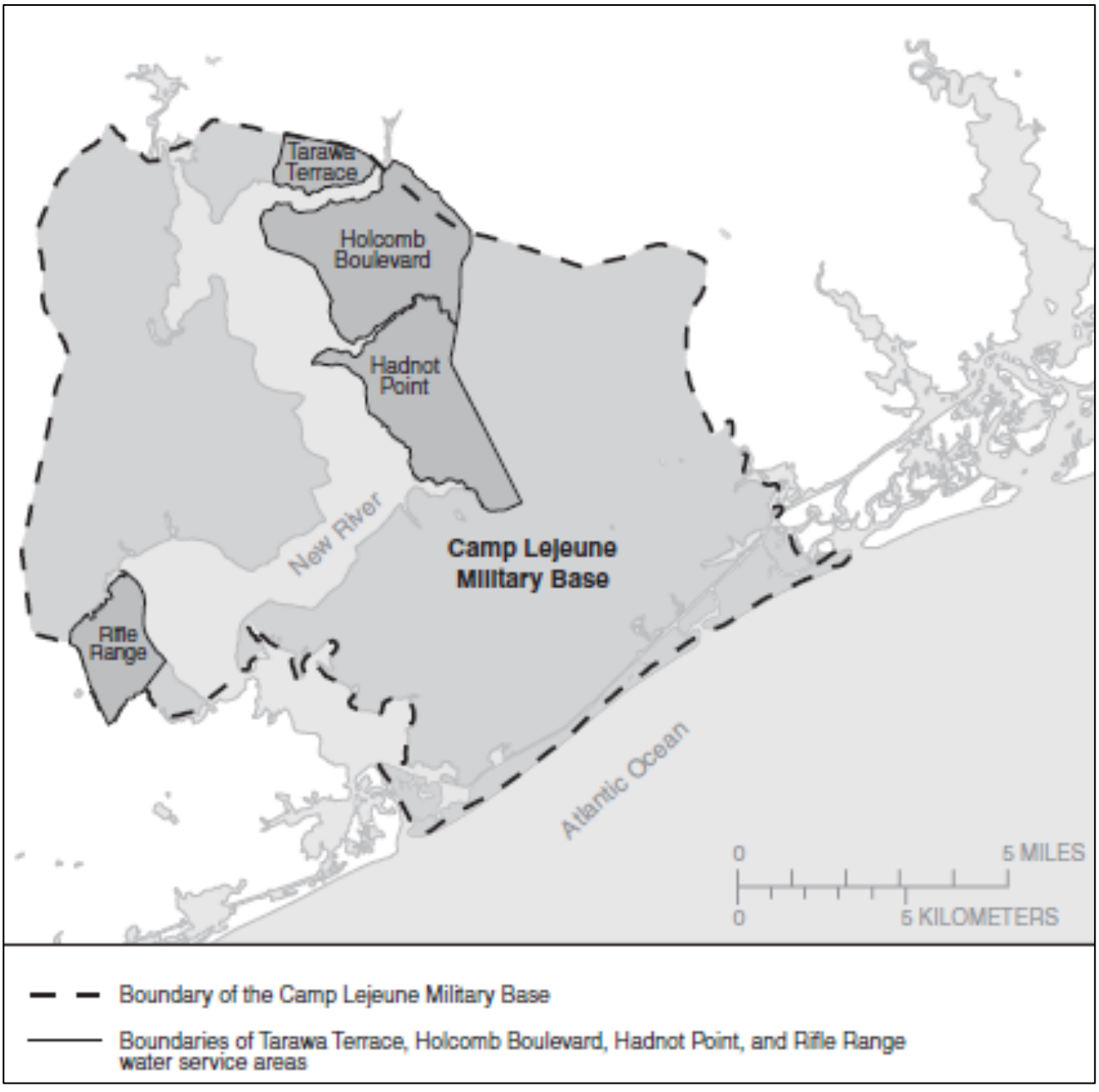
From the 1970s through 1987, Hadnot Point, Tarawa Terrace, Holcomb Boulevard, and Rifle Range water systems provided drinking water to most of Camp Lejeune's housing areas (*Figure 1*).[2] The water treatment plants for the Hadnot Point and Tarawa Terrace water systems were constructed during the 1940s and 1950s. The Rifle Range water system was constructed in 1965. The water treatment plant for the Holcomb Boulevard water system began operating at Camp Lejeune in 1972;

[1] US Marine Corps. Camp Lejeune History. https://www.lejeune.marines.mil/visitors/history.aspx

[2] US Government Accountability Office, Defense Health Care Activities Related to past Drinking Water Contamination at Marine Corps Base Camp Lejeune: Report to Congressional Committees, GAO-07-276, SuDoc. GA 1.13:GAO-07-276 (Washington, DC: US GAO, 2007). https://www.gao.gov/assets/gao-07-276.pdf

prior to that time, the Hadnot Point water system provided water to the Holcomb Boulevard service area. In the 1980s, each of these 4 systems had between 4 and 35 wells that could provide water to their respective service areas. In 1987, the Tarawa Terrace water treatment plant was shut down and the Holcomb Boulevard water distribution system was expanded to include the Tarawa Terrace water service area.

Figure 1. Selected Water Service Areas at Camp Lejeune Serving Base Housing from the 1970s through 1987.



In 1980, the Department of the Navy established the Navy Assessment and Control of Installation Pollutants (NACIP) program to identify, assess, and control environmental contamination from past hazardous material storage, transfer, processing, and disposal operations. Under the NACIP program, initial assessment studies were conducted to determine the potential for environmental contamination at Navy and Marines Corps bases.

Efforts to assess drinking water at Camp Lejeune for contaminants began in the 1980s, when the Navy initiated water testing at the camp. In 1980, one water test identified the presence of volatile organic compounds (VOCs) and a separate test indicated contamination by unidentified chemicals. From October 1980 to September 1981, 8 samples were collected from the Hadnot Point water system and analyzed for total trihalomethanes (TTHMs), contaminants that are a byproduct of the water treatment process. Results from 4 of the 8 samples indicated the presence of unidentified chemicals that were interfering with the TTHM analyses. Reports for each of the 4 analyses contained an Army laboratory official's handwritten notes about the unidentified chemicals: 2 of the notes classified the water as "*highly contaminated*" and notes for the other 2 analyses recommended analyzing the water for organic compounds.

In 1982, water monitoring for TTHMs led to the identification of trichloroethylene (TCE) and tetrachloroethylene (PCE) as contaminants in the Hadnot Point and Tarawa Terrace water systems at Camp Lejeune. Sampling results indicated that the levels of TCE and PCE varied but were up to 280 and 20.8 times greater than the maximum contaminant level (MCL) allowed in drinking water (5 parts per billion), respectively.

Table 1. Sampling Results from Hadnot Point and Tarawa Terrace Water System for May 1982 and July 1982.

		Concentrations of chemicals in parts per billion (ppb)	
Housing area	*Samples*	*TCE (MCL, 5 ppb)*	*PCE (MCL, 5 ppb)*
May 1982 samples			
Hadnot Point	1	1400	15
Tarawa Terrace	2	Not reported	80
July 1982 samples			
Hadnot Point	3	19	<1
	4	21	<1
	5	No data	1
Tarawa Terrace	6	Not reported	76
	7	Not reported	82
	8	Not reported	104

Former Camp Lejeune environmental officials said they did not take additional steps to address the contamination after TCE and PCE were identified at that time.

In July 1984, the Naval Assessment and Control of Installation Pollutants Confirmation Study tested water from 40 Camp Lejeune wells and 10 were contaminated. Eight wells at Hadnot Point and 2 at Tarawa tested positive for both TCE and PCE, and all wells at Hadnot Point had levels of benzene. The highest level of benzene contamination was 720 ppb at Hadnot Point well HP-602 on December 10, 1984, 144 times greater than the MCL allowed in drinking water (5 parts per billion).[3]

Camp Lejeune officials removed the 10 contaminated wells from service in 1984 and 1985. However, the wells were used intermittently through 1987 to supplement low water levels. By 1987, the contaminated wells at Hadnot Point and Tarawa Terrace were permanently closed.[4]

In 1988 the Department of the Navy issued a formal request for the Agency for Toxic Substances and Disease Registry (ATSDR) to perform a public health assessment (PHA) at Camp Lejeune and in 1989 the base was designated as a Superfund Site under the Comprehensive Environmental Response, Compensation, and Liability Act. Based on the limited information available at the time, ATSDR's 1997 public health assessment (PHA) cited past exposures to chemicals at Camp Lejeune as a public health hazard.[5] The 1997 report came to be regarded as deficient and was later unpublished by the agency.

In 2007 and 2013, Maslia and coworkers at ATSDR reported results from historical reconstruction of the contamination associated with the Tarawa Terrace and Hadnot Point systems, respectively, using ground water fate and transport and distribution system models.

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[3] Maslia ML, et al. 2013. Analyses and Historical Reconstruction of Groundwater Flow, Contaminant Fate and Transport, and Distribution of Drinking Water Within the Service Areas of the Hadnot Point and Holcomb Boulevard Water Treatment Plants and Vicinities, U.S. Marine Corps Base Camp Lejeune, North Carolina—Chapter A: Summary and Findings. https://www.atsdr.cdc.gov/sites/lejeune/docs/chapter_A_hadnotpoint.pdf

[4] Beckley-Jackson L. "Don't Drink the Water" The Camp Lejeune Water Contamination Incident. DttP. 2016;44(4):4-9. https://journals.ala.org/index.php/dttp/article/view/6223/8097

[5] US Agency for Toxic Substances and Disease Registry, Federal Facilities Assessment Branch, Division of Health Assessment and Consultation, Public Health Assessment for U.S. Marine Corps Camp Lejeune Military Reservation Camp Lejeune, Onslow County, North Carolina, NC6 170022580 (Atlanta, GA: Agency for Toxic Substances and Disease Registry, 1997).

Monthly average estimates of contaminant concentrations in each system were computed and reported in peer-reviewed agency reports.[3,6,7] *Table 2* shows the maximum reconstructed concentrations (MRC) of contaminant VOCs in finished drinking water from Hadnot Point and Tarawa Terrace Water Systems during 1983 and 1984, relative to the MCL allowed in drinking water. These results demonstrated that people who lived and worked in areas served by the Hadnot Point water system on Camp Lejeune drank water containing TCE at levels exceeding 150 times the MCL allowed in drinking water. Similarly, people served by the Tarawa Terrace system drank water containing 36 times the MCL of PCE. Drinking water from the Hadnot Point system also contained elevated levels of PCE, vinyl chloride, and benzene.

Table 2. Maximum reconstructed concentrations (MRC) of contaminant VOCs (parts per billion) in finished drinking water from Hadnot Point and Tarawa Terrace Water Systems during 1983 and 1984 relative to maximum contaminant levels (MCL) allowed in drinking water.

	Current	*Hadnot Point*		*Tarawa Terrace*	
Chemical	*MCL*	*MRC*	*MRC/MCL*	*MRC*	*MRC/MCL*
trichloroethylene (TCE)	5	783	156.6	1 to 10	0.12 to 2
tetrachloroethylene (PCE)	5	39	7.8	180	36
vinyl chloride (VC)	2	67	33.5		
benzene	5	12	2.4		

In 2017, ATSDR published its final PHA of Camp Lejeune. The "bottom line" of the updated PHA was:[8]

> *"Marines and Naval personnel, residents (including infants and children), and civilian workers were exposed to trichloroethylene (TCE), tetrachloroethylene (PCE), dichloroethylene (DCE), vinyl chloride, benzene, and other contaminants in the drinking water at Camp Lejeune from the 1950s through February 1985. Exposures to these chemicals increase the risks for cancers, birth defects, and other health-related problems."*

The North Carolina Department of Natural Resources and Community Development investigated a suspected off base pollutant of the water supply. Their 1985 report determined that the source of

[6] US Agency for Toxic Substances and Disease Registry, ATSDR's Current Health Study at Marine Corps Base Camp Lejeune, NC Use of Water-modeling Methods: ATSDR's Current Health Study at Marine Corps Base Camp Lejeune, NC Use of Water-modeling Methods, by Morris L. Maslia, SuDoc. HE 20.502:L 53/3 (Wilmington, DE: ATSDR, 2007).

[7] Maslia ML, et al. Analyses of Groundwater Flow, Contaminant Fate and Transport, and Distribution of Drinking Water at Tarawa Terrace and Vicinity, U.S. Marine Corps Base Camp Lejeune, North Carolina: Historical Reconstruction and Present-Day Conditions—Executive Summary. Atlanta, GA: Agency for Toxic Substances and Disease Registry; 2007. http://www.atsdr.cdc.gov/sites/lejeune/tarawaterrace.html

[8] US Agency for Toxic Substances and Disease Registry, Public Health Assessment for Camp Lejeune drinking water U.S. Marine Corps Camp Lejeune, North Carolina. 2017. https://www.atsdr.cdc.gov/sites/lejeune/2017-PHA.html

Tarawa Terrace's PCE contamination was from an off-base dry-cleaner. That business had been in operation since 1953, slowly polluting 3 wells in the Tarawa Terrace water supply system.[9]

Later reports determined that TCE seeped into wells located within 100 meters of equipment dumping grounds. In addition, massive fuel leaks into the groundwater from the Hadnot Point Fuel Farm (HPFF) have been implicated as the source of some of the VOC contaminants.[10] The fuel farm was constructed in 1941 and was comprised of 14 fuel tanks buried in the ground and one large 600,000-gallon tank located above ground. The fuel farm was within 1,200 feet from potable water well HP–602 which was also constructed in 1941.

The first documented fuel leak at the HPFF occurred in 1979 when an estimated 20,000 to 30,000 gallons of fuel leaked from an underground valve. The following year a condition survey revealed that because of age, failure to clean the tanks, and lack of maintenance, there had been a general condition of corrosion and deterioration of the tanks and connecting pipelines. An engineer recommended replacing the connecting piping, inspection of all the tanks for leaks, and repairing existing leaks. By March of 1983, Navy and Marine Corps officials determined that rehabilitation of the HPFF was not cost effective and in 1985, a recommendation was made to replace the HPFF with a new facility; the fuel farm was finally replaced in 1990.

There are no known records indicating that the Marine Corps made any attempt to remediate the 20,000- to-30,000-gallon 1979 fuel leak between 1980 and 1988. In a correspondence in May 1988, the facilities assistant chief of staff, notified the State of North Carolina that a 15-foot-thick fuel plume was contaminating the groundwater underlying the bulk fuel facility. The base Staff Judge Advocate noted that the fuel farm was losing fuel into groundwater at the rate of 1,500 gallons per month and warned that delays will result in an indefensible waste of money and a continuing threat to human health and the environment.

As many as 1 million military and civilian staff and their families might have been exposed to the contaminated drinking water for more than 30 years from 1950 to 1985.[8]

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[9] Rick Shiver, Summary Report: A Groundwater Investigation to Define the Source(s) of Tetrachloroethylene That Have Contaminated Three Community Water Supply Wells At Tarawa Terrace I Camp Lejeune Marine Corps Marine Base Onslow County, Report no. CLW 004826, North Carolina Department of Natural Resources and Community Development, 1985. http://tftptf.com/images/ShiverReport_TT_Cont_1985.pdf

[10] US Congress, House Committee on Science and Technology, Camp Lejeune Contamination and Compensation, Looking Back, Moving Forward: Hearing before the Subcommittee on Investigations and Oversight, Committee on Science and Technology, House of Representatives, One Hundred Eleventh Congress, Second Session, September 16, 2010, 111th Cong., 2d sess. SuDoc. Y 4.SCI 2:111-108 (Washington: US GPO, 2010). https://www.congress.gov/111/chrg/CHRG-111hhrg58485/CHRG-111hhrg58485.pdf

Notification and legislation

In April 1985, residents served by the Tarawa Terrace water system on Camp Lejeune were notified that 2 wells had been taken offline after the discovery of "*minute (trace) amounts of several organic chemicals*."[2] Beginning in 1999, certain families were alerted to their exposures when they were contacted by ATSDR or its contractors as part of the agency's effort to investigate "*birth defects and childhood cancers in children exposed in utero to VOC-contaminated drinking water*."[4] These notifications were limited to families with children born on base between 1968 and 1985. The Marine Corps eventually embarked on a comprehensive, individualized notification campaign in 2007 after Congress ordered it to do so in the 2007 Defense Authorization Act.[10] The Camp Lejeune Notification Registry, the primary output of this effort, now has over 279,000 registrants from all 50 states.[11]

A bipartisan coalition of legislators introduced the Camp Lejeune Justice Act of 2021 (CLJA) to provide "*long-overdue judicial relief*" for individuals exposed to contamination at Camp Lejeune.[12] The Act, which was incorporated as section 804 in the Honoring our PACT Act of 2022 included the following key elements:[13]

- Individuals who were exposed to contaminated water at Camp Lejeune are empowered to bring an action in the Eastern District of North Carolina "*to obtain appropriate relief for harm*" caused by their exposure. To qualify under the CLJA, claimants must have lived, worked, or been otherwise exposed to contaminated water for not less than 30 days between August 1, 1953, and December 31, 1987.
- Claimants who do file in court are entitled to a standard of proof lower than the preponderance-of-the-evidence standard typically used in tort cases: they need only show that **"*a causal relationship is at least as likely as not*."**

[11] Camp Lejeune Historic Drinking Water. https://clnr.hqi.usmc.mil/clwater/Home.aspx

[12] Press Release, Senator Thom Tillis, Tillis, Blumenthal, Burr, and Peters Introduce the Camp Lejeune Justice Act to Ensure Legal Rights for Water Contamination Victims (Nov. 4, 2021), https://www.tillis.senate.gov/2021/11/tillis-blumenthal-burr-and-peters-introduce-the-camp-lejeune-justice-act-to-ensure-legal-rights-for-water-contamination-victims

[13] U.S. Congress. H.R.2192 - Camp Lejeune Justice Act of 2021. https://www.congress.gov/bill/117th-congress/house-bill/2192/text

Characteristics of the major chemical contaminants detected in Camp Lejeune water

Trichloroethylene (TCE) is a colorless, volatile liquid.[14] Liquid TCE evaporates quickly into the air. It is nonflammable and has a sweet odor. The 2 major uses of TCE are as a solvent to remove grease from metal parts and as a chemical that is used to make other chemicals, especially the refrigerant, HFC-134a. The time it takes for TCE to break down varies by its location:

- TCE breaks down quickly in air.
- TCE breaks down very slowly in soil and water and is removed mostly through evaporation into the air.
- TCE is expected to remain in groundwater for a long time since it is not able to evaporate.
- TCE does not build up significantly in plants or animals.

TCE is a known carcinogen and is also known to cause other very serious side effects in humans. There is strong evidence that TCE can cause cancer in people. Lifetime exposure to TCE resulted in increased liver cancer in mice and increased kidney cancer and testicular cancer in rats. The Department of Health and Human Services (DHHS) considers TCE to be a known human carcinogen. The International Agency for Research on Cancer (IARC) classified TCE as carcinogenic to humans. The EPA has characterized TCE as carcinogenic to humans by all routes of exposure.

Exposure to moderate amounts of TCE may cause headaches, dizziness, and sleepiness. Exposure to large amounts may cause coma and even death. Eating or breathing high levels of TCE may damage some of the nerves in the face. Exposure to high levels can also result in changes in the rhythm of the heartbeat, liver damage, and evidence of kidney damage. Skin contact with concentrated solutions of TCE can cause skin rashes. There is some evidence that exposure to TCE in the workplace may cause scleroderma, an autoimmune disease, in some people. Some men occupationally exposed to TCE, and other chemicals showed decreases in sex drive, sperm quality, and reproductive hormone levels.

The EPA has set a maximum contaminant level (MCL) goal of 5 micrograms (μg) TCE per liter (5 ppb) as a national primary drinking standard.[15]

[14] Agency for Toxic Substances and Disease Registry. ToxFAQs™ for Trichloroethylene (TCE). https://www.atsdr.cdc.gov/toxfaqs/tfacts19.pdf

[15] United States Environmental Protection Agency. National Primary Drinking Water Regulations. https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations

In October 2023, the EPA proposed a ban on all uses of TCE.[16] This action, taken under the Toxic Substances Control Act (TSCA), would protect people from TCE-associated health risks by banning the manufacture, processing, and distribution of TCE for all uses. EPA's proposed risk management rule would take effect in 1 year for consumer products and most commercial uses and would implement stringent worker protections on the limited remaining commercial and industrial uses that would be phased down over a longer period.

Tetrachloroethylene (perchloroethylene, PCE) is a nonflammable colorless liquid.[17] It is used as a dry-cleaning agent and metal degreasing solvent. The time it takes for PCE to break down varies by its location:

- PCE breaks down very slowly in the air and so it can be transported long distances in the air. Half of the amount in the air will degrade in approximately 100 days.
- PCE evaporates quickly from water into the air. It is generally slow to break down in water.
- PCE may evaporate quickly from shallow soil or may filter through the soil and into the groundwater below. It is generally slow to break down in soil.
- PCE can break down to TCE, dichloroethylene, vinyl chloride, and ethene.

Studies in humans have shown associations between exposure to PCE and risks of developing kidney cancer, bladder cancer, multiple myeloma, and non-Hodgkin's lymphoma. In animals, PCE has been shown to cause cancers of the liver, kidney, and blood system. The DHHS considers PCE to be reasonably anticipated to be a human carcinogen. EPA considers PCE likely to be carcinogenic to humans by all routes of exposure. IARC considers PCE probably carcinogenic to humans.

Breathing high levels of PCE for a brief period may cause dizziness or drowsiness, headache, and incoordination. Exposure to higher levels may cause unconsciousness and even death. Exposure for longer periods to low levels of PCE may cause changes in mood, memory, attention, reaction time, and vision. Studies in animals exposed to PCE have shown liver and kidney effects, and changes in brain chemistry.

The EPA MCL for the amount of PCE that can be in drinking water is 5 μg per liter of water (5 ppb).[15]

[16] EPA. Biden-Harris Administration Proposes Ban on Trichloroethylene to Protect Public from Toxic Chemical Known to Cause Serious Health Risks. https://www.epa.gov/newsreleases/biden-harris-administration-proposes-ban-trichloroethylene-protect-public-toxic

[17] Agency for Toxic Substances and Disease Registry. Tetrachloroethylene – ToxFAQs. https://www.atsdr.cdc.gov/toxfaqs/tfacts18.pdf

Vinyl chloride (VC) is a colorless gas with a mild, sweet odor.[18] It burns easily, and it is not stable at high temperatures. VC is a manufactured substance that does not occur naturally. It can be formed when other substances such as trichloroethane, TCE, and PCE are broken down. VC is used to make polyvinyl chloride (PVC). PVC is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

The time it takes for VC to break down varies by its location. Liquid VC evaporates easily. VC in water or soil evaporates rapidly if it is near the surface. VC in the air degrades to other substances within a few days, some of which can be harmful. Small amounts of VC can dissolve in water. VC is unlikely to accumulate in plants or animals that are consumed by people.

Workers highly exposed to VC have developed a specific type of cancer known as angiosarcoma of the liver.[19] DHHS has classified VC as known as a human carcinogen. EPA has classified VC as a known human carcinogen by the inhalation route of exposure and classified it as carcinogenic by the oral route and highly likely to be carcinogenic by the dermal route. IARC determined that VC is carcinogenic to humans.

Breathing high levels of VC can cause dizziness or sleepiness. Breathing very high levels can cause loss of consciousness, and breathing extremely high levels can cause death. Some people who have breathed VC for several years have changes in the structure of their livers. People are more likely to develop these changes if they breathe high levels of VC. Some people who work with VC have nerve damage and develop alterations in immunity. The lowest levels that produce liver changes, nerve damage, and alterations in immunity in people are not known. Some workers exposed to very high levels of VC have problems with the blood flow in their hands. Not all of the effects of drinking high levels of VC are known at this time. If VC is spilled on skin, it will cause numbness, redness, and blisters. Animal studies have shown that exposure to VC during pregnancy can affect the growth and development of the fetus.

The EPA MCL for the amount of VC that can be in drinking water is 2 μg per liter of water (2 ppb).[15]

Benzene is a colorless liquid with a petroleum-like odor.[20] It evaporates into the air very quickly and dissolves in water. It is highly flammable. Benzene is made naturally in the environment from burning

[18] Agency for Toxic Substances and Disease Registry. Vinyl chloride – ToxFAQs. https://www.atsdr.cdc.gov/toxfaqs/tfacts20.pdf

[19] Toxicological Profile for Vinyl Chloride. Atlanta (GA): Agency for Toxic Substances and Disease Registry (US); 2024. Available from: https://www.ncbi.nlm.nih.gov/books/NBK601943/

[20] Agency for Toxic Substances and Disease Registry. Benzene – ToxFAQs. https://www.atsdr.cdc.gov/toxfaqs/tfacts3.pdf

wood and volcanic activity. It is also found in human-made sources like cigarette smoke and motor vehicle exhaust. Benzene is used in industry as a solvent and to make other products such as plastics, nylon resins, detergents, paint removers, and rubber goods. Benzene is especially important for unleaded gasoline because of its anti-knock characteristics.

The time it takes for benzene to break down varies by its location. In the air, benzene breaks down within a few days. It may also be removed from the air by rain or snow and go back to the ground. Benzene quickly evaporates from surface water and soil into the air. Benzene can travel through the soil and can get into groundwater. It is not expected to accumulate in plants or animals.

Medical scientists have concluded that people exposed to benzene for a long period of time can develop bone marrow cancers, including acute myelogenous leukemia as a result of the exposure. Studies in animals show that rats and mice exposed to benzene develop tumors at many sites in their body, and like humans, can develop leukemia. The U.S. DHHS and EPA consider benzene as a known human carcinogen and IARC has classified benzene as carcinogenic to humans.

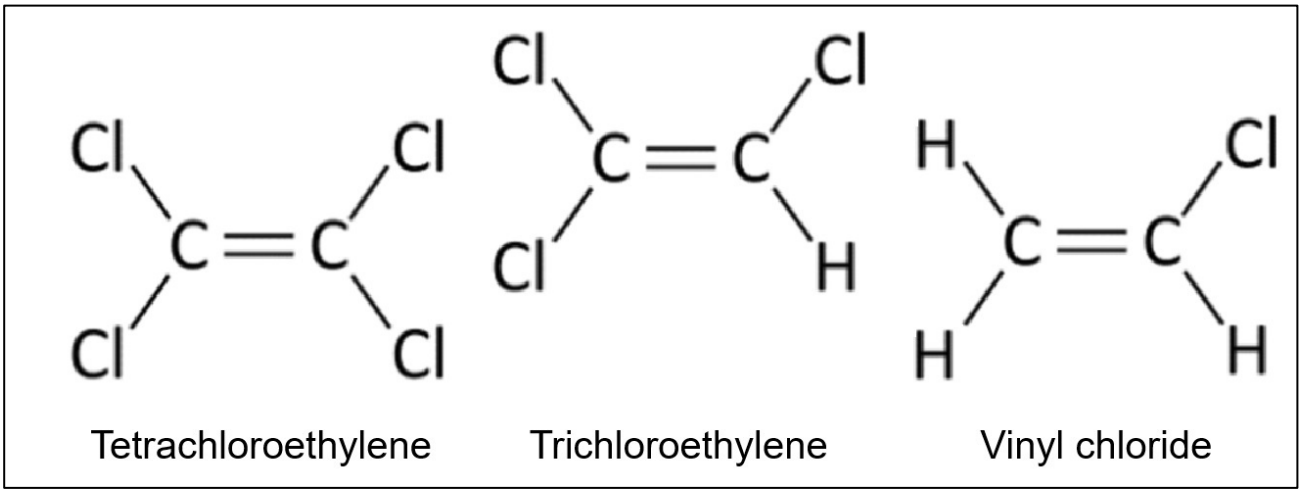
Breathing in benzene for a long period of time can affect blood cells and bone marrow. Reduced numbers of red blood cells and white blood cells have been seen in workers exposed to benzene. This can lead to anemia and reduce the ability to fight off diseases and infections. These changes were also seen in animals after breathing in benzene and after eating benzene for a long period of time.

The EPA MCL for the amount of benzene that can be in drinking water is 5 μg per liter of water (5 ppb).[15]

Degradation of the chemical contaminants of Camp Lejeune water

Tetrachloroethylene, trichloroethylene, and vinyl chloride are structurally similar compounds (*Figure 2*), varying only by the number of chlorines (Cl). These chemicals are broken down in groundwater and in the human body to other chemicals called metabolites that are known to mediate both the cancer and noncancer effects associated with the parent compound.[21,22]

Figure 2. Chemical structures of tetrachloroethylene, trichloroethylene, and vinyl chloride.



In the context of groundwater, PCE and TCE can be broken down by microorganisms. The microbial degradation mechanisms are different depending on whether the organism grows in the presence or absence of oxygen (aerobic or anaerobic, respectively).[23] *Figure 3* shows PCE and TCE degradation pathways by microorganisms.[24] Notably, **PCE breaks down to TCE** by the removal of one chlorine (dechlorination) anaerobically and that **vinyl chloride is a breakdown product of both PCE and TCE** after additional dechlorination.

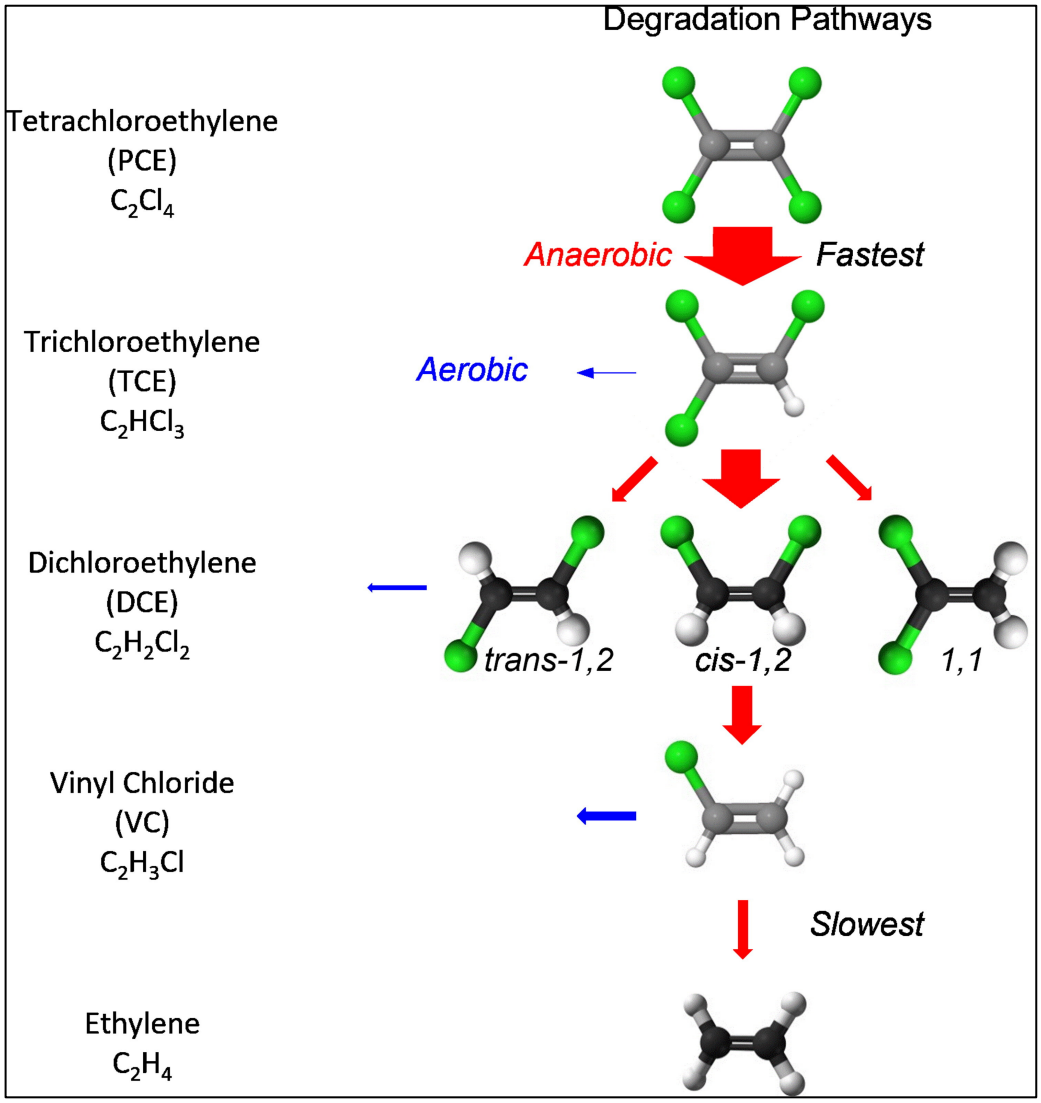
[21] Valdiviezo A, et al. Reanalysis of Trichloroethylene and Tetrachloroethylene Metabolism to Glutathione Conjugates Using Human, Rat, and Mouse Liver in Vitro Models to Improve Precision in Risk Characterization. Environ Health Perspect. 2022;130(11):117009.

[22] IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. Trichloroethylene, Tetrachloroethylene, and Some Other Chlorinated Agents. Lyon (FR): International Agency for Research on Cancer; 2014. (IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, No. 106.)
Available from: https://www.ncbi.nlm.nih.gov/books/NBK294281/

[23] Dolinová I, et al. Microbial degradation of chloroethenes: a review. Environ Sci Pollut Res Int. 2017;24(15):13262-13283.

[24] Emsbo-Mattingly SD, et al. Integrated differentiation of multiple trichloroethylene and tetrachloroethylene groundwater impacts using spatial concentration, biodegradation indices, chemical fingerprinting and carbon/chlorine isotope patterns. Environmental Forensics. 2022;24(5–6):329-350. https://doi.org/10.1080/15275922.2022.2047832

Figure 3. PCE and TCE degradation pathways and relative rates. Red arrows indicate anaerobic degradation, while blue arrows indicate aerobic degradation. The size of the arrows represents the relative reaction rates.

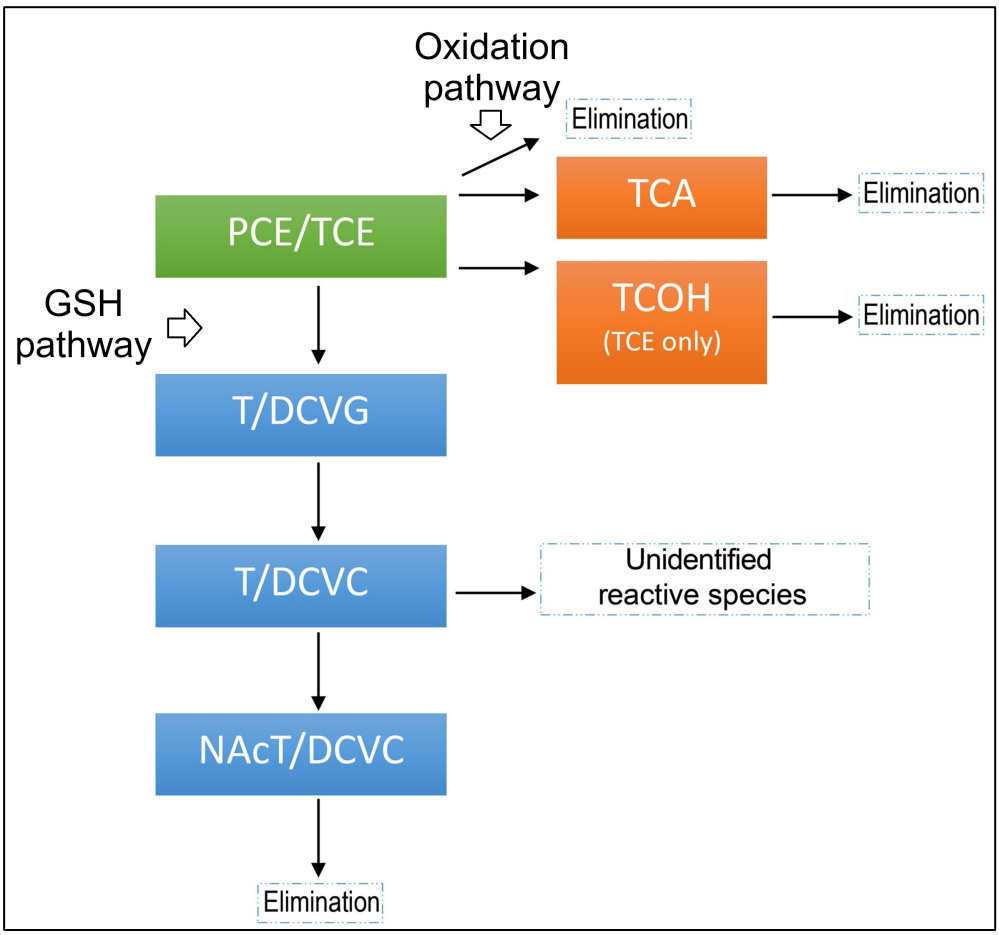


In the human body PCE and TCE are broken down (metabolized) through 2 pathways: oxidation and glutathione (GSH) conjugation (*Figure 4*). The major oxidative metabolites for TCE are trichloroacetic acid (TCA) and trichloroethanol (TCOH). Also, as part of the oxidation pathway, TCE is metabolized by cytochrome P450 system in the liver to a trichloroethylene oxide intermediate that is converted to the molecule chloral.[25] For PCE, only TCA has been consistently detected from oxidation.

[25] Lash LH, et al. Metabolism of trichloroethylene. Environ Health Perspect. 2000 May;108 Suppl 2(Suppl 2):177-200.

Major metabolites through GSH conjugation for TCE include DCVG, DCVC, and NAcDCVC. For PCE, GSH metabolites include TCVG, TCVC, and NAcTCVC.[26] Even though the metabolic flux through oxidation predominates for both TCE and PCE, their GSH conjugates are thought to be of critical importance as some of their metabolites formed in kidneys are known to be highly reactive and are genotoxic.

Figure 4. TCE and PCE metabolism via oxidation and GSH pathways. Adapted from Luo et al. 2018.[27]



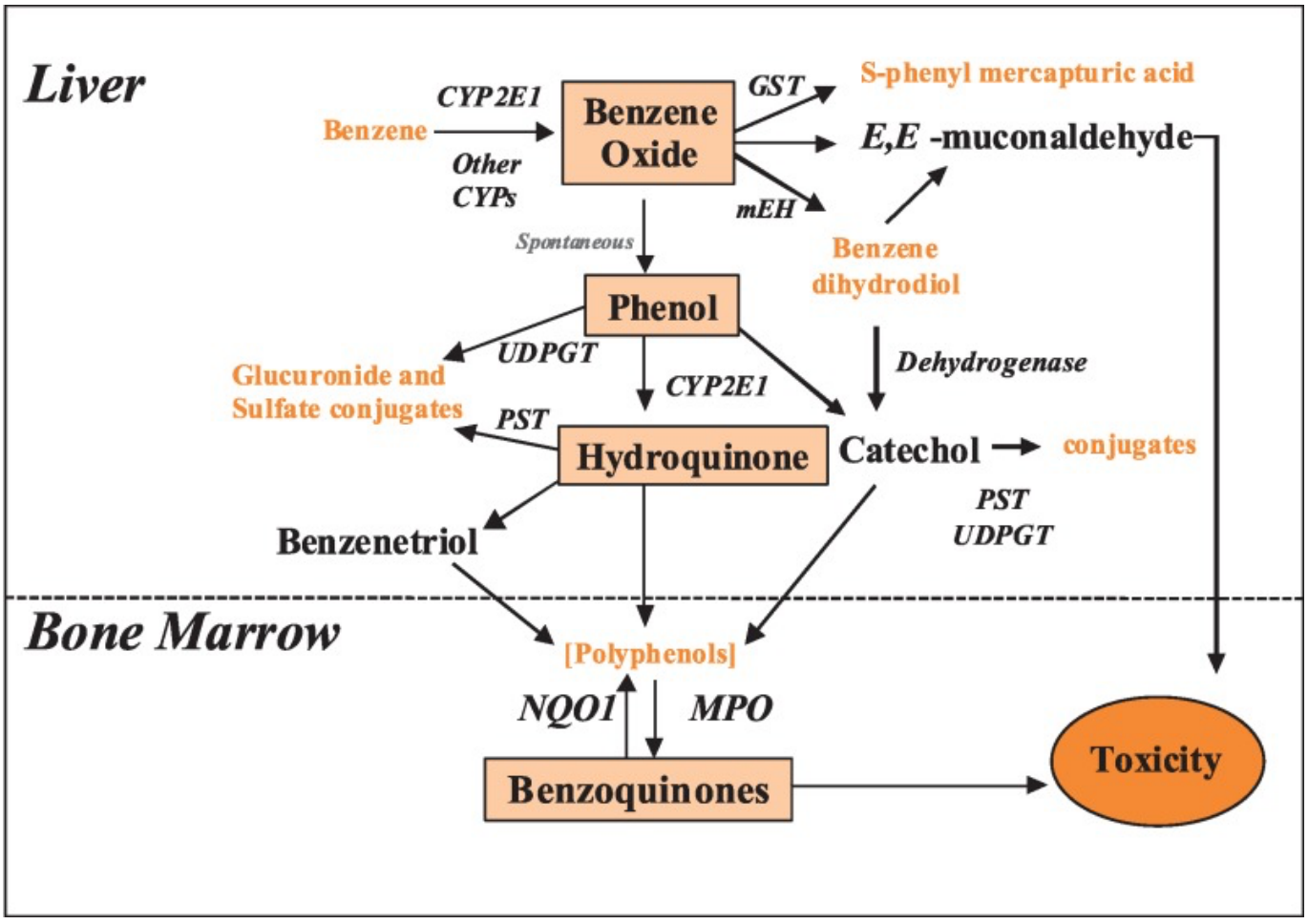
[26] TCE GSH metabolites: S-(1,2-dichlorovinyl)glutathione (DCVG), S-(1,2-dichlorovinyl)-L-cysteine (DCVC), N-acetyl-S-(1,2-dichlorovinyl)-L-cysteine (NAcDCVC).
PCE GSH metabolites: S-(1,2,2-trichlorovinyl)glutathione (TCVG), S-(1,2,2-trichlorovinyl)-L-cysteine (TCVC), and N-acetyl-S-(1,2,2-trichlorovinyl)-L-cysteine (NAcTCVC).

[27] Luo YS, et al. Comparative analysis of metabolism of trichloroethylene and tetrachloroethylene among mouse tissues and strains. Toxicology. 2018;409:33-43.

Benzene

Benzene must be metabolized to become carcinogenic. Its metabolism is summarized in *Figure 5*.[28] The initial metabolic step involves cytochrome P450-dependent oxidation to benzene oxide. Most benzene oxide spontaneously rearranges to phenol, which is either excreted or further metabolized to hydroquinone. Human exposure to benzene at concentrations in air between 0.1 and 10 ppm, results in urinary metabolite profiles with 70–85% phenol, 5–10% of hydroquinone. Benzene oxide and several other benzene metabolites are electrophiles that readily react with peptides, proteins and DNA and can thereby interfere with cellular function. It remains unclear what role these different metabolites play in the carcinogenicity of benzene.

Figure 5. Simplified metabolic scheme for benzene showing major pathways and metabolizing enzymes leading to toxicity. CYP2E1, cytochrome P450 2E1; GST, glutathione-S-transferase; NQO1, NAD(P)H:quinone oxidoreductase 1; MPO, myeloperoxidase; UDPGT, Uridine diphosphate glucoronosyl transferase; PST, phenol sulphotransferase; mEH, microsomal epoxide hydrolase.



[28] IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. Benzene. Lyon (FR): International Agency for Research on Cancer; 2018. (IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, No. 120.)

Studies that have assessed associations between exposure to drinking water contaminants at Camp Lejeune and adverse health outcomes

In 2007, Congress directed the National Research Council of the National Academies (NRC) and the Department of the Navy to jointly evaluate existing evidence of adverse health effects of prenatal, childhood, and adult exposures to toxic chemicals in the water at Camp Lejeune. The 2009 NRC report concluded that although the existing data could not reliably establish causal relationships between the chemicals present at Camp Lejeune and the medical conditions emerging among exposure victims, there was "*no scientific justification*" for the Navy and Marine Corps' continued delay in "*making decisions about how to follow up on the evident solvent exposures on the base and their possible consequences*."[29]

After publication of the 1997 ATSDR PHA, additional analyses and studies expanded the scientific knowledge about the contaminants in Camp Lejeune's drinking water. Further ATSDR studies of the base found links between:

- *in utero* exposure to TCE and benzene and neural tube defects[30]
- civilian work and military service at Camp Lejeune and risks for kidney cancers, rectum, lung, prostate, leukemias, and multiple myeloma[31,32]
- exposure to PCE, TCE, and benzene and preterm birth and birth weight issues[33]
- exposure to contamination at Camp Lejeune and male breast cancer[34]

Bove and collaborators recently reported follow-up results of their previous mortality study comparing risk of specific causes of death between Marine Corps bases Camp Lejeune- and Camp Pendleton-based cohorts between 1979 and 2018.[35] The authors emphasized findings as notable when both

[29] National Research Council. Contaminated Water Supplies at Camp Lejeune. Assessing Potential Health Effects. 2009. https://nap.nationalacademies.org/catalog/12618/contaminated-water-supplies-at-camp-lejeune-assessing-potential-health-effects

[30] Ruckart PZ, et al. Evaluation of exposure to contaminated drinking water and specific birth defects and childhood cancers at Marine Corps Base Camp Lejeune, North Carolina: a case-control study. Environ Health. 2013;12:104.

[31] Bove FJ, et al. Evaluation of mortality among marines and navy personnel exposed to contaminated drinking water at USMC base Camp Lejeune: a retrospective cohort study. Environ Health. 2014;13(1):10.

[32] Bove FJ, et al. Mortality study of civilian employees exposed to contaminated drinking water at USMC Base Camp Lejeune: a retrospective cohort study. Environ Health. 2014;13:68.

[33] Ruckart PZ, et al. Evaluation of contaminated drinking water and preterm birth, small for gestational age, and birth weight at Marine Corps Base Camp Lejeune, North Carolina: a cross-sectional study. Environ Health. 2014;13:99.

[34] Ruckart PZ, et al. Evaluation of contaminated drinking water and male breast cancer at Marine Corps Base Camp Lejeune, North Carolina: a case control study. Environ Health. 2015;14:74.

[35] Bove FJ, et al. Evaluation of mortality among Marines, Navy personnel, and civilian workers exposed to contaminated drinking water at USMC base Camp Lejeune: a cohort study. Environ Health. 2024;23(1):61.

the adjusted hazard ratio (aHR) was at least 1.20 and the ratio of the upper and lower bounds of the confidence interval (CIR) was ≤ 3.

Compared to Camp Pendleton Marines/Navy personnel, Camp Lejeune had elevated risk (aHR ≥ 1.20 and CIR ≤ 3) for cancers of the kidney (aHR, 1.21; 95% confidence interval [CI], 0.95, 1.54), esophagus (aHR, 1.24; 95% CI,1.00, 1.54) and female breast (aHR, 1.20; 95% CI, 0.73, 1.98). In addition, Camp Lejeune military personnel had elevated risk for death due to Parkinson disease, myelodysplastic syndrome and cancers of the testes, cervix and ovary.

The same team of researchers also recently reported the results of their study comparing cancer incidence between Marine Corps bases Camp Lejeune- and Camp Pendleton-based cohorts using individual-level data from US population-based cancer registries.[36] Compared with Camp Pendleton, Camp Lejeune Marines/Navy personnel had aHRs ≥ 1.20 with CIRs ≤ 3 for all myeloid cancers (HR, 1.24; 95% CI, 1.03, 1.49), acute myeloid leukemia (HR, 1.38; 95% CI, 1.03, 1.85), myelodysplastic and myeloproliferative syndromes (HR, 1.68; 95% CI, 1.07, 2.62), polycythemia vera (HR, 1.41; 95% CI, 0.94, 2.11), and cancers of the esophagus (HR, 1.27; 95% CI, 1.03, 1.56), larynx (HR, 1.21; 95% CI, 0.98, 1.50), soft tissue (HR,1.21; 95% CI, 0.92, 1.59), and thyroid (HR, 1.22; 95% CI, 1.03, 1.45).

In 2017, the same year as ATSDR's final Camp Lejeune PHA, ATSDR also reported the results of their assessment of the evidence for associations between the drinking water contaminants at Camp Lejeune and 16 diseases using the classification scheme outlined below.[37] The scheme made clear when the evidence for causality was "*at least as likely as not*" or at the level of "*equipoise and above*." The classification scheme used the following 4 categories:

1. Sufficient*: The evidence is sufficient to conclude that a causal relationship exists.*
2. Equipoise and Above*: The evidence is sufficient to conclude that a causal relationship is at least as likely as not, but not sufficient to conclude that a causal relationship exists.*
3. Below Equipoise*: The evidence is not sufficient to conclude that a causal relationship is at least as likely as not or is not sufficient to make a scientifically informed judgment.*
4. Against*: The evidence suggests the lack of a causal relationship.*

The criteria ATSDR used to define these categories were as follows:

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[36] Bove FJ, et al. Cancer Incidence among Marines and Navy Personnel and Civilian Workers Exposed to Industrial Solvents in Drinking Water at US Marine Corps Base Camp Lejeune: A Cohort Study. Environ Health Perspect. 2024;132(10):107008.

[37] Agency for Toxic Substances and Disease Registry. ATSDR Assessment of the Evidence for the Drinking Water Contaminants at Camp Lejeune and Specific Cancers and Other Diseases. January 13, 2017. https://www.atsdr.cdc.gov/camp-lejeune/media/pdfs/2024/10/ATSDR_summary_of_the_evidence_for_causality_TCE_PCE_508.pdf

Sufficient evidence for causation*: the evidence is sufficient to conclude that a causal relationship exists. This category would be met, for example, if:*

1. *There is sufficient evidence from human studies in which chance and biases (including confounding) can be ruled out with reasonable confidence, or*
2. *There is less than sufficient evidence from human studies but sufficient evidence in animal studies and strong evidence that the agent acts through a relevant mechanism in humans.*

Sufficient evidence from human studies can be provided by a meta-analysis and/or by several studies considered to have high utility.

Considerations in assessing the evidence include several of Hill's viewpoints: (1) temporal relationship, (2) consistent positive associations (e.g., ***risk ratio or odds ratio greater than 1.1****), (3) magnitude of the effect estimate (e.g., risk ratio, odds ratio), (4) exposure-response relationship, and (5) biological plausibility (Hill 1965).*

Equipoise and above evidence for causation*: The evidence is sufficient to conclude that a causal relationship is at least as likely as not, but not sufficient to conclude that a causal relationship exists. This category would be met, for example, if:*

1. *The degree of evidence from human studies is less than sufficient but there is supplementary evidence from animal studies and/or mechanistic studies that supports causality, or*
2. *A meta-analysis does not provide convincing evidence (e.g., the summary risk estimate is close to the null value of 1.0, i.e., ≤1.1), or if the meta-analysis observes a non-monotonic exposure-response relationship) but there is at least one epidemiological study considered to be of high utility occurring after the meta-analysis has been conducted, in which an association between the exposure and increased risk of the disease of interest has been found and in which chance and biases can be ruled out with reasonable confidence.*
3. *A meta-analysis has not been conducted, but there is at least one epidemiological study considered to be of high utility in which an association between the exposure and increased risk of the disease of interest has been found and in which chance and biases can be ruled out with reasonable confidence.*

Below Equipoise evidence for causation*: The evidence is not sufficient to conclude that a causal relationship is at least as likely as not or is not sufficient to make a scientifically informed judgment. This is a rather broad category that encompasses:*

- *evidence sufficient to conclude an association exists but where there is some doubt that biases can be ruled out and the animal and mechanistic evidence is weak, or*

- *evidence for an association that is so limited that there is substantial doubt that biases can be ruled out, or*
- *insufficient evidence to determine whether an association exists.*

Evidence against a causal relationship*: The evidence suggests the lack of a causal relationship.*

The use of this classification system is scientifically valid, uses sound methodology, and is consistent with my education, training, and experience over the many years I have been involved with the science of epidemiology.

As described above, the Camp Lejeune Justice Act of 2021 specified that claimants who file in court are entitled to a standard of proof lower than the preponderance-of-the-evidence standard typically used in tort cases and that they need only show that **"*a causal relationship is at least as likely as not*"** corresponding to the ATSDR classification "**Equipoise and above**".

Causation Analysis

Methods for epidemiologic investigation of causation: the Hill Criteria

The scientific basis for general and specific determinations of cause and effect were introduced through the inductive canons of John Stuart Mill [1862] and the rules proposed by the philosopher David Hume [1739]. In the current era, a practical approach to causation was laid out in a systematic fashion by Sir Austin Bradford-Hill in 1965. Hill outlined nine criteria (he called them viewpoints) by which population-based determinations of causation could be made when there is substantial epidemiologic evidence linking a disease or injury with an exposure, *e.g.* smoking and lung cancer. Hill's nine criteria have been universally adopted as a scientific basis for the evaluation of both general and specific causation. As used for evaluating both general and specific causation, the 9 criteria are as follows (*NB* The quoted sections and page numbers are from the 3rd edition of the Reference Manual on Scientific Evidence, a publication from the National Academies and Federal Judicial Center):[38]

1. *Strength of association* - Strength of association is generally considered to be the most important determinant of causation. Most simply stated, a strong association is more likely to indicate a causal relationship than is a weak association. Strength of association is measured by relative risk but can also be measured in general causation by the percentage decrease of an illness or injury in society if the injury cause were to be eliminated. This is also known

[38] https://www.nationalacademies.org/our-work/science-for-judges-development-of-the-third-edition-of-the-reference-manual-on-scientific-evidence

as the *etiologic fraction* that the particular cause contributes to the total societal burden of the disease.

"The higher the relative risk, the greater the likelihood that the relationship between exposure and disease or injury is causal. Assuming that an association is determined to be causal, the strength of the association plays an important role legally in determining the specific causation question—whether the agent caused an ***individual plaintiff's*** *injury"* (p. 602).

Strength of association is quantified by a comparison of the frequency of the injury or disease outcome among a group of individuals exposed to the hazard of interest to the frequency of the same injury or disease outcome in a population that is not exposed to the hazard. This is also known as the "base rate" of the condition. Strength of association can be quantified by relative risk (RR) or attributable risk percent (PC [probability of causation]). A relative risk of >2.0 implies that the exposure of interest caused the condition, and an attributable risk percent of >50% carries the same implication. The determination that an exposure was a "substantial factor in causing" a condition only requires that the exposure not be a trivial factor in causing the condition, and thus does not require a PC of >50%. **The Camp Lejeune Justice Act specified that claimants need only show that "*a causal relationship is at least as likely as not*".** That level corresponds to the ATSDR classification "equipoise and above" for which a relative risk of >1.1 is sufficient.

The formulae for calculating relative risk and attributable risk percent are as follows:

$$\frac{Risk\ of\ injury/disease\ among\ those\ exposed\ to\ hazard}{Base\ rate\ of\ injury/disease\ risk\ among\ unexposed} = RR$$

$$\frac{Risk\ of\ injury\ from\ hazard}{Risk\ of\ injury\ from\ hazard + Base\ rate\ of\ injury\ absent\ hazard} \times 100\% = PC$$

2. *Consistency* - The repetitive observation of a causal relationship in different circumstances strengthens the causal inference. Evidence of consistency can come from multiple studies of varied populations.
3. *Specificity* - In general causation this refers to the degree to which an exposure factor is associated with a particular outcome or population. A high degree of specificity is relatively uncommon, as many exposures can cause various diseases or injuries (*e.g.* cigarette smoking doesn't only cause lung cancer).
4. Temporality - the potential causal factor must precede the outcome it is assumed to affect. Other parameters of Temporality are important beyond sequence, including the latency

between exposure and the first indication of disease or injury. Temporality is an important factor to consider when assessing specific causation.

"When the latency period is known—or is known to be limited to a specific range of time…the time frame from exposure to manifestation of disease or injury can be critical to determining [individual] causation." (p. 601)

"*With regard to specific causation…there may be circumstances in which a temporal relationship supports the existence of a causal relationship. If the latency period between exposure and outcome is known, then exposure consistent with that information may lend credence to a causal relationship. This is particularly true when the latency period is short and competing causes are known and can be ruled out. Thus, if an individual suffers an acute respiratory response shortly after exposure to a suspected agent and other causes of that respiratory problem are known and can be ruled out, the temporal relationship involved supports the conclusion that a causal relationship exists. Similarly, exposure outside a known latency period constitutes evidence, perhaps conclusive evidence, against the existence of causation."* (p. 601)

5. *Biological gradient* - The outcome increases monotonically with increasing dose of exposure (also known as "dose-response"). This criterion may or may not have any relevance to specific causation; it is very important in the assessment of adverse drug reactions.

6. *[Biologic] Plausibility* - The observed association can be plausibly explained by known scientific principles. Hill put little stock in plausibility, asserting that it was a criterion "that I am convinced we cannot demand," as detailed scientific evidence describing an injury mechanism may lag behind observational evidence of a consistently observed causal association.

7. *Coherence* - A causal conclusion should not fundamentally contradict present substantive knowledge – it should "make sense" given current knowledge.

8. *Experiment* - In some cases there may be evidence from randomized experiments on animals or humans. Absence of experimental evidence of an injury or disease mechanism should not be confused with evidence against an investigated causal relationship, however. Most harmful exposures cannot be ethically investigated by experiments on humans.

9. *Analogy* - An analogous exposure and outcome may be translatable to the circumstances of previously unexplored causal investigation.

There is no formula or algorithm that dictates whether a causal inference is reasonable based on the Hill Criteria, as one or more factors may be absent even when a true causal relationship exists, and vice versa.

Overview of Parkinson's disease

Parkinson disease (PD) is the leading cause of parkinsonism, a syndrome manifested by tremors, slowness of movement, stiffness, and poor balance.[39] PD progressively worsens over time, although the rate of worsening varies greatly from one person to another. Many people with PD who are treated may be able to live years without serious disability. Several treatments are available that can help to manage symptoms and improve quality of life.

The signs and symptoms of PD can be divided into 2 categories: motor and nonmotor. Motor symptoms are those that affect movement of the body. These are the most obvious symptoms of PD. The main motor symptoms of PD are tremors, slowness of movement (called bradykinesia), stiffness (rigidity), and poor balance (postural instability). These symptoms are usually mild in the early stages of the disease. Symptoms typically start on one side of the body and spread to the other side over a few years. As symptoms worsen, a person may have difficulty with walking, talking, and performing other normal daily tasks. While symptoms typically progress slowly, this varies from 1 person to another. The motor symptoms of PD can be managed effectively for a significant period of time.

Nonmotor symptoms of PD are those that are not related to movement and can include the following:

- Cognitive dysfunction
- Psychosis
- Mood disorders (depression, anxiety, apathy/abulia)
- Sleep disturbances
- Fatigue
- Autonomic dysfunction (urinary urgency/frequency, constipation, orthostasis, erectile dysfunction)
- Olfactory dysfunction
- Pain and sensory disturbances
- Dermatologic findings (seborrhea)

Epidemiology[40]

[39] Chou KL. Patient education: Parkinson disease symptoms and diagnosis (Beyond the Basics). UpToDate.com

[40] Jankovic J. Epidemiology, pathogenesis, and genetics of Parkinson disease. UpToDate.com

PD is a growing source of disability and mortality among neurologic disorders. The estimated prevalence is 94 cases per 100,000 people, or approximately 0.3% of the general population 40 years of age and older. The yearly incidence of new cases ranges from 8.0 to 18.6 per 100,000 person-years. The incidence and prevalence of PD are rising. In 2016, the estimated global prevalence of PD was 6.1 million people, significantly higher than the 2.5 million in 1990. A similar trend has been observed in age-adjusted mortality from PD.

The incidence and prevalence of PD rise steadily in adults beginning in the fifth decade. However, PD is not solely a disease of older adults; approximately 25% of people with PD are diagnosed before the age of 65 years. Although the aging of the world population accounts for much of the increase in absolute numbers, the age-adjusted incidence is also rising, for reasons that are not fully understood.

Pathology and pathogenesis[40,4041]

The central defect in PD is dopamine depletion from the basal ganglia of the brain. This depletion causes in major disruptions in the connections to the thalamus and motor cortex and results in the classic parkinsonian signs of bradykinesia and rigidity.

The brains of patients with PD typically show depigmentation, neuronal loss, and gliosis, particularly in the substantia nigra pars compacta (SNc) and in the pontine locus ceruleus. Neuronal degeneration is also present in the dorsal nucleus of the vagus in the medulla and other brainstem nuclei. By the time the first symptoms of PD emerge, approximately 60% of the neurons in the SNc have been lost.

PD is also a disease of mishandling and accumulation of protein. Most, but not all, individuals with PD display intracellular protein accumulations known as Lewy bodies (LB). LB are highly comprised of the protein α-synuclein, within presynaptic dopaminergic neurons. During PD progression, α-synuclein pathology spreads from the brainstem throughout the cortices, which appears to correspond with disease severity. Neuroinflammation also plays a key role in the progression of the disease, involving resident immune cells of the brain, microglia, as well as peripheral monocytes, T-cells, and astrocytes.

Risk factors[40]

Age is the most important risk factor for PD. The incidence and prevalence rise steadily in adults beginning in the fifth decade. However, PD is not solely a disease of older adults; approximately 25% of people with PD are diagnosed before the age of 65 years.

[41] De Miranda BR, Greenamyre JT. Trichloroethylene, a ubiquitous environmental contaminant in the risk for Parkinson's disease. Environ Sci Process Impacts. 2020;22(3):543-554.

A family history of PD in a first-degree relative is associated with a 2- to 3-fold increase in the risk of PD. However, genetic forms of PD account for less than 10% of cases and most have a younger age of onset compared with sporadic PD.

Many environmental exposures have been identified as risk factors for PD in epidemiologic studies. Examples include the following:

- Exposure to pesticides
- Exposure to air pollution, including nitrogen dioxide and fine particulate matter
- High consumption of dairy products
- Living in urban or industrial areas with high release of copper, manganese, or lead
- Exposure to hydrocarbon solvents, particularly TCE (see below)
- Living in rural areas
- Farming or agriculture work
- The use of well water
- High dietary intake of iron, especially in combination with high manganese intake
- Reduced levels of dietary and sunlight-derived vitamin D

A variety of medical illnesses or exposures in early or mid-life have been associated with increased risk of PD in observational studies. Among the most consistently identified risk factors are:

- Excess body weight and metabolic syndrome
- Type 2 diabetes mellitus
- History of traumatic brain injury
- History of melanoma or prostate cancer
- Constipation
- Depression

The most consistently identified negative associations, or "protective factors", for PD are cigarette smoking, caffeine consumption, and physical exercise.

Evidence of a relationship between exposure to the volatile organic compounds detected in Camp Lejeune water and Parkinson's disease

In the following section, studies that have evaluated Parkinson's disease risk among the people exposed to contaminated drinking water at Camp Lejeune are summarized. Following that discussion, relevant epidemiologic and mechanistic studies that assessed associations between Parkinson's disease risk and the chemical contaminants found in Camp Lejeune water are presented

Camp Lejeune Studies

Bove and colleagues at ATSDR are conducting an ongoing cohort study to determine whether the military personnel and civilians that were exposed to contaminated drinking water at Camp Lejeune have increased risks for cancers and other chronic diseases. In their initial report, they compared disease-specific mortality rates between 154,932 Marine and Naval personnel that began service between 1975 and 1985 and were stationed at Camp Lejeune and a similar population of 154,969 from Camp Pendleton Marine Corps Base in California.[31] In a contemporaneous report the same investigators compared disease-specific mortality rates between 4,647 full-time civilian workers employed at Camp Lejeune between 1973 and 1985 with a comparison cohort of 4,690 Camp Pendleton workers employed during 1973-1985.[32] The mortality follow-up period for both studies was 1979-2008. In a recent report of their updated analyses the follow-up period was extended to 2018.[35] Results of these comparisons relevant to Parkinson's disease are summarized in *Table 3*.

Study investigators emphasized findings as notable when both the adjusted hazard ratio (aHR) was at least 1.20 and the ratio of the upper and lower bounds of the confidence interval (CIR) was ≤ 3. Although an appropriate CIR level for precision had not been specified nor validated in the literature, the authors considered CIRs ≤ 3 to indicate reasonable precision of the aHRs.

Table 3. Summary of Parkinson's disease mortality findings from the Camp Lejeune-related studies of ATSDR investigators using Camp Pendelton as the reference group. CIR, ratio of upper to lower limit of 95% confidence interval.

Study parameters	Study population	follow-up period	aHR	95% CI		CIR	Camp Lejeune cases	Camp Pendelton cases
				lower limit	upper limit			
Parkinson's disease mortality	Military personnel	1979-2008†						
		1979-2018	2.05	0.86	4.87	5.66	15	8
	civilian workers	1979-2008	3.13	0.76	12.86	16.9	5	4
		1979-2018	1.21	0.72	2.04	2.83	30	31

†Not evaluated due to small numbers

Initial analyses of the cohort with 1979 to 2008 follow-up were limited by the small number of cases, especially among military personnel. An approximately 3-fold higher risk of PD mortality was found

for civilian workers at Camp Lejeune compared to Camp Pendelton, although the small number of cases resulted in a wide confidence interval (HR, 3.13; 95% CI, 0.76, 16.9). The longer follow-up period of 1979 to 2018 resulted in more cases and both military personnel and civilian workers at Camp Lejeune had elevated risk of PD mortality compared to those groups at Camp Pendelton (HR, 2.05 and 1.21, respectively). The larger sample size resulted in more stable estimates and more narrow confidence intervals and smaller CIRs.

The study with 1979-2018 follow-up also evaluated hazard ratios for PD mortality by amount of time stationed or employed at Camp Lejeune between October 1972 and December 1985 with Camp Pendleton as reference.[35] Monotonic trends (HR increased progressively with higher exposure duration) with aHRs ≥ 1.20 were observed for kidney cancer among civilian workers but not military personnel (*Table 4*).

Table 4. Hazard ratios for death due to Parkinson's disease and 95% confidence intervals for the analysis of the amount of time stationed or employed at Camp Lejeune between October 1972 and December 1985 with Camp Pendleton as reference. Low duration: 1 – 5 quarters; Medium duration: 6 – 22 quarters; High duration: 23 – 53 quarters.

	Low duration				**Medium duration**				**High duration**			
	HR	**LCL**	**UCL**	**CIR**	**HR**	**LCL**	**UCL**	**CIR**	**HR**	**LCL**	**UCL**	**CIR**
Military personnel	2.07	0.62	6.95	11.2	2.63	0.91	7.66	8.4	1.59	0.51	4.96	9.7
Civilian workers	0.23	0.03	1.69	56.3	1.19	0.55	2.54	4.6	1.60	0.88	2.90	3.3

The selection of the Camp Pendleton Marine Corps Base as the comparison cohort was appealing because of its size and composition of military and civilians. However, the ground water at Camp Pendleton was also contaminated with volatile organic compounds and has been designated a superfund site by the EPA. Throughout Camp Pendleton's history, operators improperly disposed of raw sewage, burned solid waste, and mishandled various hazardous substances.[42] Together, these actions created contaminated areas scattered throughout the property. In an initial investigation, the Marine Corps found 9 areas of contamination. Waste generation operations include maintenance and repair of vehicles, landfill operations, waste disposal areas such as scrap yards, and firefighting drill areas. Between 1984 and 1988, the U.S. Navy assessed the base and identified soil and ground water requiring cleanup from decades of improper waste disposal practices. EPA added the site to the National Priorities List in November 1989. In December 1995, 14,000 cubic yards of soil containing TCE and Total Petroleum Hydrocarbons (TPH) were removed from a former fire-fighting drill field. The contamination at Camp Pendleton would serve as a **source of bias toward the null**

[42] EPA. Superfund site: Camp Pendleton Marine Corps, CA. Basehttps://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0902732

in comparisons of the health effects of groundwater contamination between the 2 bases, meaning that meaning that **the calculated hazard ratios underestimated of the true effect**.

In analyses internal to the Camp Lejeune cohort with follow-up between 1979 and 2008, civilian workers with above the median level of cumulative exposure for given contaminants had more than twice the risk of PD mortality compared to those with lower exposures (*Table 5*).[32] That relationship was found for each of the 4 contaminants, as well as for total VOCs. Most cases were also above the median average exposure for each of the contaminants.

Table 5. Hazard ratios (95% CI) for categorized (<median (ref.), ≥median)

	≥Median Exposure			
	aHR	**LCL**	**UCL**	**N**
Total VOCs	2.52	0.21	30.83	4
PCE	2.68	0.22	33.28	4
TCE	2.51	0.21	30.76	4
VC	2.81	0.23	34.59	4
Benzene	2.52	0.20	31.59	4

Goldman and associates used the same Camp Lejeune- and Camp Pendleton-based cohorts to test whether the risk of PD was higher in veterans who served at Camp Lejeune for at least 3 months between 1975 and 1985 compared with veterans who did not serve on that base.[43] The follow-up period was between January 1, 1997, and February 17, 2021. A total of 430 veterans had PD, with 279 from Camp Lejeune (prevalence, 0.33%) and 151 from Camp Pendleton (prevalence, 0.21%). In multivariable models, **Camp Lejeune veterans had a 70% higher risk of PD (OR, 1.70; 95% CI, 1.39, 2.07)**. The authors acknowledged that they could not be certain that everyone who resided at Camp Lejeune between 1975 and 1985 was exposed to biologically meaningful levels of contaminants, and that they were unable to account for other environmental exposures that individuals from either camp may have sustained before, during, or after military service. They stated, however, that inclusion of unexposed individuals in the Camp Lejeune cohort would tend to bias results toward the null.

The same team of investigators utilized the cohort of 172,128 marines residing at Camp Lejeune between 1975 and 1985 to test whether PD progression was faster in individuals exposed to VOCs in water at Camp Lejeune.[44] They used estimates derived by the ATSDR to classify individuals as exposed or unexposed to VOCs in residential water.[3] Among 270 persons with PD, 177 (65.6%) were

[43] Goldman SM, et al. Risk of Parkinson Disease Among Service Members at Marine Corps Base Camp Lejeune. JAMA Neurol. 2023;80(7):673-681.

[44] Goldman SM, et al. Parkinson's Disease Progression and Exposure to Contaminated Water at Camp Lejeune. Mov Disord. 2024;39(10):1732-1739.

exposed to VOCs in residential water. **Median cumulative exposure was 4970 µg/L-months, more than 50 times the permissible level.** Time until psychosis, fracture, and fall were all shorter in the exposed group, with aHRs exceeding 2: psychosis aHR, 2.19 (95% CI, 0.99,4.83); fracture aHR, 2.44 (95% CI, 0.91,6.55); and fall aHR, 2.64 (95% CI, 0.97,7.21). A significant response was observed for time to fall (*P* trend, 0.032). No differences were observed for time until death.

Studies of Parkinson's disease and volatile organic compounds

The 2017 ATSDR Assessment of the Evidence for the Drinking Water Contaminants at Camp Lejeune and Specific Cancers and Other Diseases concluded that there is *equipoise and above evidence for causation for TCE and PD* and that there is *below equipoise evidence for causation for PCE and PD*.[45] The report stated that the epidemiological evidence for TCE or PCE exposures and PD was limited because few studies have been conducted. The assessment placed high weight on studies and review articles that provided mechanistic information based on animal studies. In the following section, the epidemiologic and mechanistic studies evaluated in the ATSDR assessment, as well relevant studies published more recently, are summarized.

Epidemiologic studies

Guehl and colleagues reported a case of a 47-year-old woman who was professionally exposed to TCE for several months in an uncontrolled and unprotected environment.[46] She was a house cleaner and worked with TCE in poorly ventilated rooms. Later, she worked in the plastics industry where she was exposed to multiple solvents including TCE. She was diagnosed with parkinsonism in 1987, after 7 years of exposure.

Gash and collaborators reported a group of industrial workers who were exposed to TCE for 8 to 33 years and subsequently diagnosed with PD or parkinsonian features.[47] A questionnaire was mailed to 134 former workers, of whom 65 responded. Twenty-one self-reported at least 3 Parkinson signs/symptoms (slowness of voluntary movement, stooped posture, trouble with balance, slow walk or dragging feet, rigidity or stiffness, tremor, decreased facial expression); 23 respondents reported 1 to 2 signs/symptoms, and 21 reported no signs/symptoms. Fourteen of the 21 workers reported at least 3 signs/symptoms and 13 coworkers without self-reported signs agreed to further participation in the study. The most common routes of exposure were inhalation and dermal. At the time of the

[45] Agency for Toxic Substances and Disease Registry. ATSDR Assessment of the Evidence for the Drinking Water Contaminants at Camp Lejeune and Specific Cancers and Other Diseases. January 13, 2017. https://www.atsdr.cdc.gov/camp-lejeune/media/pdfs/2024/10/ATSDR_summary_of_the_evidence_for_causality_TCE_PCE_508.pdf

[46] Guehl D, et al. Trichloroethylene and parkinsonism: a human and experimental observation. Eur J Neurol. 1999;6(5):609-11.

[47] Gash DM, et al. Trichloroethylene: Parkinsonism and complex 1 mitochondrial neurotoxicity. Ann Neurol. 2008;63(2):184-92.

study 3 workers with chronic dermal and inhalation exposure to TCE had been diagnosed with PD; many coworkers displayed features of parkinsonism. This observation suggested a relationship between the TCE exposure and development of PD, parkinsonian features, and other movement disorders including tics and tremors.

In their 2013 meta-analysis (study of studies) Pezzoli and Cereda evaluated the association between solvent exposure and PD in 16 studies.[48] They obtained a summary odds ratio (OR) of 1.35 that increased to 1.58 when the analysis was restricted to 6 higher quality studies (OR, 1.35; 95% CI, 1.09,1.67; and OR, 1.58; 95% CI, 1.23,2.04).

In contrast, a Dutch population-based prospective cohort mortality study found no association between PD mortality and occupational exposure to solvents or to either chlorinated solvents (including TCE, PCE, and VC) or aromatic solvents (including benzene).[49] The study did, however, find associations between PD mortality and exposure to pesticides and extremely low frequency magnetic fields, but neither association with exposure duration nor a trend in cumulative exposure was observed. Similarly, a hospital-based case-control study found no statistically significant associations between PD and occupational exposure to either aromatic or chlorinated solvents as assessed by a job-exposure matrix.[50]

More recently, a nationwide case-control study of PD and occupational exposure to organic solvents in Finland found that continuous cumulative exposure to chlorinated hydrocarbons (per 100 ppm-years, 5-year lag) was associated with adjusted incidence rate ratio (IRR) of 1.235 (95% CI, 0.986,1.547), with stronger associations among women and among persons who had more census records.[51] In their analysis of individual solvents including PCE, TCE, and benzene, higher levels of exposure were not associated with increased incidence of PD (*Table 6*).

[48] Pezzoli G, Cereda E. Exposure to pesticides or solvents and risk of Parkinson disease. Neurology. 2013;80(22):2035.
[49] Brouwer M, et al. Occupational exposures and Parkinson's disease mortality in a prospective Dutch cohort. Occup Environ Med. 2015;72(6):448-55.
[50] van der Mark M, et al. Occupational exposure to solvents, metals and welding fumes and risk of Parkinson's disease. Parkinsonism Relat Disord. 2015;21(6):635-9.
[51] Sallmén M, et al. Parkinson's disease and occupational exposure to organic solvents in Finland: a nationwide case-control study. Scand J Work Environ Health. 2024;50(1):39-48.

Table 6. Parkinson's disease and cumulative exposure (CE) to organic solvents (ppm-years) among residents of Finland born in 1930–1950. Adjusted incidence rate ratios (IRR) and 95% confidence intervals (CI).

Agent	Exposure, PPM-years	Cases; N (%)	IRR	95% CI
Chlorinated hydrocarbons				
Any	0	14 439 (32.6)	1	Ref.
	>0–4.9	1 252 (31.3)	0.96	0.89–1.03
	5–19	916 (31.4)	0.98	0.91–1.07
	20–300	580 (33.2)	1.09	0.98–1.21
PCE	0	16 845 (32.5)	1	Ref.
	0–4.9	219 (31.0)	0.96	0.82–1.13
	5–145	123 (32.0)	1.03	0.83–1.28
TCE	0	15 816 (32.6)	1	Ref.
	>0–4.9	617 (30.9)	0.95	0.86–1.05
	5–14.9	416 (31.2)	0.97	0.87–1.10
	15–225	338 (32.0)	1.03	0.90–1.18
Aromatic hydrocarbons				
Any	0	12 174 (32.9)	1	Ref.
	>0–2.9	3 753 (31.7)	0.99	0.95–1.05
	3–74.9	815 (30.5)	0.95	0.87–1.03
	75–1080	445 (32.1)	1.04	0.92–1.16
Benzene	0	15 762 (32.5)	1	Ref.
	>0–1.9	1094 (32.4)	1.02	0.95–1.11
	2–90	331 (31.8)	1.03	0.90–1.18

Goldman and collaborators studied solvent exposure in 99 twin pairs discordant for PD.[52] An industrial hygienist reviewed histories and solvent exposures from the age 10 years until the diagnosis of PD in the affected twin. A cumulative exposure index was calculated for each solvent as the product of exposure intensity, hours exposed per year, and years exposed, summing across all jobs and hobbies. As shown in *Table 7*, ever exposure to TCE was associated with significantly increased risk of PD (OR, 6.1; 95% CI, 1.2,33.0). Exposure to PCE was also associated with increased risk of PD but did not reach the level of statistical significance due to sample size constraints including a "zero" cell (OR, 10.5; 95% CI, 0.97,113).

[52] Goldman SM, et al. Solvent exposures and Parkinson disease risk in twins. Ann Neurol. 2012;71(6):776-84.

Table 7. Solvent Exposure Frequencies and Adjusted Pairwise Odds Ratios in PD-Discordant Twins.

Solvent	*Case – / control –*	*Case + / control –*	*Case – / control +*	*Case + / control +*	*OR (95%CI)*	*p-value*
Toluene	72	11	9	7	1.3 (0.5-3.3)	> 0.2
Xylene	88	6	2	3	2.2 (0.4-12)	> 0.2
n-hexane	85	6	7	1	1.3 (0.4-4.1)	> 0.2
CCl4	74	14	9	2	2.3 (0.9-6.1)	0.088
PCE	**93**	**5**	**1**	**0**	**10.5 (0.97-113)**	**0.053**
TCE	**87**	**9**	**2**	**1**	**6.1 (1.2-33)**	**0.034**
TCE or PCE	85	11	2	1	8.9 (1.7-47)	0.01
Any of 6 solvents	51	19	14	15	1.7 (0.8-3.7)	0.16
Any of 4 excluding TCE	53	18	15	13	1.5 (0.7-3.1)	> 0.2

The odds of PD increased significantly with the dose TCE received; single tertile increases in exposure duration and cumulative exposure index were associated with 3.2- and 5.2-fold increased PD risk, respectively (OR, 3.2; 95% CI, 1.1, 10; and OR, 5.2, 95% CI, 1.03, 26). Dosage effects of similar magnitude were from for PCE but did not reach statistical significance (OR, 3.4; 95% CI, 0.9, 12; and OR, 9.3, 95% CI, 0.8, 100). This study used rigorous methods to ensure diagnostic accuracy and to assess exposures. The twin design controled for potential confounders due to genetic and shared environmental factors. A study limitation was the small number of exposed cases which resulted in wide confidence intervals.

Animal studies and mechanistic information

Increasing evidence suggests mitochondrial dysfunction as a possible pathogenetic mechanism underlying the development and progression of PD.[53] Neurotoxic actions of TCE have been demonstrated in rat studies showing that oral administration of TCE for 6 weeks instigated selective complex 1 mitochondrial impairment in the midbrain with concomitant striatonigral fiber degeneration and loss of dopamine neurons.[47]

It has also been demonstrated that specific agents cause parkinsonism by their actions as mitochondrial toxins.[44] The most well-known and extensively studied agent of this class is 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP). After systemic uptake, MPTP is bio-converted to the metabolite MPP1 which concentrates in dopaminergic neurons where it inhibits mitochondrial complex 1 and causes cell death. Notably, MPTP generated parkinsonism in a group of drug abusers after self-administration.

[53] Zaheer F, Slevin JT. Trichloroethylene and Parkinson disease. Neurol Clin. 2011;29(3):657-65.

TCE is metabolized by cytochrome P450 to a trichloroethylene oxide intermediate that is converted to chloral. Chloral is considered one of the precursors of 1-trichloromethyl-1,2,3,4-tetrahydro-b-carboline, also known as TaClo, which is readily formed under physiologic conditions from the biogenic amine tryptamine and chloral. The structural similarity between TaClo and MPTP has prompted its consideration as a causative mechanism in PD. TaClo is cytotoxic when directly applied to primary cultures of dopaminergic neurons and significant declines in neuronal density. In addition, declines in neuronal number and dopamine turnover have been reported following stereotaxic administration of TaClo into rat substantia nigra pars compacta.[54]

Studies in rats have shown that TCE exposure causes selective loss of dopaminergic neurons in the substantia nigra pars compacta (SNpc), a pattern consistent with human pathological staging of PD.[55] Those findings demonstrate that selective dopaminergic neuron degeneration, one of the most important hallmarks of PD, is also a characteristic of TCE neurotoxicity. In a follow-up study, Liu and coworkers treated young adult mice with TCE in a daily oral gavage, 5 days a week over 8 months, which also resulted in the significant loss of dopaminergic neurons from the substantia nigra.[56]

Application of the Hill Criteria to the evidence to the cause of Parkinson's Disease among plaintiffs exposed to drinking water contaminated with volatile organic compounds at Camp Lejeune

1. *Strength of association*
   - The above-described analyses demonstrated abundant evidence that demonstrated substantial and significant associations between exposure to volatile organic compounds found in Camp Lejeune drinking water and PD, including the following:
     - Among 99 twin pairs discordant for PD, ever exposure to:[52]
       - ✓ **TCE** was associated with increased risk of PD (**OR, 6.1**; 95% CI, 1.2,33.0)
       - ✓ **PCE** was associated with increased risk of PD (**OR, 10.5**; 95% CI, 0.97,113)
     - A meta-analysis of 16 studies that evaluated the association between **solvent exposure** and PD resulted in a summary odds ratio of 1.35 that increased to 1.58 when the analysis was restricted to 6 higher quality studies (OR, 1.35; 95% CI, 1.09,1.67; and OR, 1.58; 95% CI, 1.23,2.04).[48]

[54] Keane PC, et al. Trichloroethylene and its metabolite TaClo lead to degeneration of substantia nigra dopaminergic neurones: Effects in wild type and human A30P mutant α-synuclein mice. Neurosci Lett. 2019;711:134437.
[55] Liu M, et al. Trichloroethylene induces dopaminergic neurodegeneration in Fisher 344 rats. J Neurochem. 2010;112(3):773-83.
[56] Liu M, et al. Trichloroethylene and Parkinson's Disease: Risk Assessment. Mol Neurobiol. 2018;55(7):6201-6214.

2. *Consistency*
   - A meta-analysis of 16 studies that evaluated the association between **solvent exposure** and PD resulted in a summary odds ratio of 1.35 that increased to 1.58 when the analysis was restricted to 6 higher quality studies (OR, 1.35; 95% CI, 1.09,1.67; and OR, 1.58; 95% CI, 1.23,2.04).[48]
3. *Specificity*
   - Not applicable for PD and environmental exposures. This is common, as for most environmental exposures a high degree of specificity is relatively uncommon, as many exposures can cause various diseases, and many diseases can result from multiple exposures.
4. *Temporality*
   - The temporal relationship described in the literature is appropriate in sequence in that the exposures preceded PD diagnosis. The 279 members of the Camp Lejeune cohort developed PD an average of 33.9 years after their start of residence at the camp (range 4.5 to 45 years).[43]
5. *Biological gradient* - The outcome increases monotonically with increasing dose of exposure (also known as "dose-response").
   - Among 99 twin pairs discordant for PD, the odds of PD increased significantly the level of exposure; single tertile increases in exposure duration and cumulative exposure index were associated with: [52]
     - 3.2- and 5.2-fold increased PD risk, respectively for **TCE**
     - 3.4- and 9.3-fold increased PD risk, respectively for **PCE**
6. *Plausibility*
   - The biologic plausibility of a link between exposure to **TCE** and PD has been established by mechanistic studies in laboratory animals. Studies in rats, for example, have shown that TCE exposure causes selective loss of dopaminergic neurons in the substantia nigra pars compacta, a pattern consistent with human pathological staging of PD.[55] In addition, the 2017 ATSDR review concluded "*On balance, the convergence of toxicological and epidemiological research suggests a plausible association between TCE exposure and PD.*"
7. *Coherence*
   - It certainly "makes sense" that exposure to VOCs that have been demonstrated to be toxic can cause neurologic damage, including dopamine depletion from the basal ganglia, the central defect in PD.
8. *Experiment*
   - Neurotoxic actions of TCE have been demonstrated in rat studies showing that oral administration of TCE for 6 weeks instigated selective complex 1 mitochondrial

impairment in the midbrain with concomitant striatonigral fiber degeneration and loss of dopamine neurons.[47]

9. *Analogy*
   - Analogy is exemplified by the mitochondrial toxin MPTP which, after systemic uptake, is bio-converted to the metabolite MPP1 which concentrates in dopaminergic neurons where it inhibits mitochondrial complex 1 and causes cell death.[53] Notably, MPTP generated parkinsonism in a group of drug abusers after self-administration. The TCE metabolite TaClo has structural similarity to MPTP and has prompted its consideration as a causative mechanism in PD.

Contaminant-specific causality opinions:

TCE. It is my opinion that there is that there is sufficient evidence for a causal relationship between TCE exposure associated with drinking water at Camp Lejeune and Parkinson's disease. Although there have not been any TCE-specific meta-analyses and the epidemiologic evidence is limited to the twin study by Goldman and colleagues and analyses of the Camp Lejeune cohort, the study designs are strong. The Camp Lejeune studies have recently provided additional epidemiologic support. In addition, findings from animal studies have provided strong supporting mechanistic evidence for TCE exposure and Parkinson disease.

PCE. It is my opinion that there is equipoise and above evidence for a causal relationship between PCE exposure associated with drinking water at Camp Lejeune and Parkinson's disease. The epidemiologic evidence is roughly equivalent to that of TCE, but unlike TCE, mechanistic evidence for Parkinson disease is lacking for PCE. However, since PCE can be metabolized to TCE by microbes in groundwater, and since TCE and PCE share some common metabolites there is indirect mechanistic evidence for PCE and PD.

Vinyl chloride. It is my opinion that there is below equipoise evidence for a causal relationship between vinyl chloride exposure associated with drinking water at Camp Lejeune and Parkinson's disease due to the paucity of epidemiologic and mechanistic studies.

Benzene. It is my opinion that there is below equipoise evidence for a causal relationship between benzene exposure associated with drinking water at Camp Lejeune and Parkinson's disease due to the paucity of epidemiologic and mechanistic studies.

Plausibility of Parkinson's disease related to the level and duration of exposures among military personnel and civilian workers at Camp Lejeune

The preceding sections provide the details of my analysis of evidence for a general causal relationship between exposure to the volatile organic compounds found contaminating the drinking water at Camp Lejeune and the subsequent risk of Parkinson's disease among the exposed. Based upon the results of these analyses I have opined that there is equipoise or better evidence for a causal relationship. My analysis thus far, however, has not considered whether the contaminant-associated exposures experienced by the military personnel and civilian workers at Camp Lejeune occurred at sufficient levels and duration to cause Parkinson's disease. In the following section I will review that evidence.

Timing and location of exposure:[31]
Bove and coworkers summarized the estimated mean monthly contaminant concentrations between January 1975 and February 1985 in the Tarawa Terrace and Hadnot Point systems (*Table 8* and *Table 9*, respectively). The level of a given contaminant in the drinking water varied by the water system (Tarawa Terrace vs. Hadnot Point) and by calendar year.

Estimated monthly mean concentrations of PCE in the Tarawa Terrace distribution system during this period ranged from 0 to 158 ppb with a median of approximately 85 ppb (*Table 8*). PCE was the primary contaminant in the Tarawa Terrace system. The levels of PCE and VC exceeded the MCL in 89% of the months between 1975 and 1985.

Estimated mean monthly concentrations of TCE in the Hadnot Point distribution system during this period ranged from 0 to 783 ppb, with a median level of approximately 366 ppb (*Table 9*). TCE was the main contaminant in the Hadnot Point system although estimated monthly levels of PCE and vinyl chloride were often considerably above their MCLs, with median estimates during this period of 15 ppb and 22 ppb, respectively. The levels of PCE, TCE, VC, and benzene exceeded the MCL in 84%, 92%, 92%, and 48% of the months between 1975 and 1985, respectively.

I have reviewed the ATSDR water modeling that is publicly available, as well as the exhibits to Plaintiff's expert Morris Maslia, which have the same data. This data is consistent with the data I have seen in the studies from ATSDR and Bove.

Table 8. Estimated monthly average contaminant concentrations in the Tarawa Terrace system, 1975 – 1985. Tetrachloroethylene (italicized) was the primary contaminant.

	contaminant concentrations (ppb)				
Contaminant	**Mean**	**Median**	**Range**	**# Months >MCL**	**# Months >100 ppb**
1975 – 1985 (132 months)					
Tetrachloroethylene	*75.7*	*84.9*	*0 - 158.1*	*117*	*16*
Trichloroethylene	3.1	3.5	0 - 6.6	11	0
Vinyl chloride	5.6	6.2	0 - 12.3	117	0
1975 – 1979 (60 months)					
Tetrachloroethylene	*68.3*	*68.2*	*43.8 - 94.8*	*60*	*0*
Trichloroethylene	2.8	2.9	1.7 - 3.9	0	0
Vinyl chloride	5.2	5.5	2.6 - 7.3	60	0
Jan 1980 – Jan 1985 (61 months)					
Tetrachloroethylene	*96.1*	*95.5*	*0 - 158.1*	*57*	*16*
Trichloroethylene	3.9	3.9	0 - 6.6	11	0
Vinyl chloride	7	7	0 - 12.3	57	0

Table 9. Estimated monthly average contaminant concentrations in the Hadnot Point system, 1975 – 1985. Trichloroethylene (italicized) was the primary contaminant.

	contaminant concentrations (ppb)				
Contaminant	**Mean**	**Median**	**Range**	**# Months >MCL**	**# Months >100 ppb**
1975 – 1985 (132 months)					
Tetrachloroethylene	15.7	15.4	0 - 38.7	111	0
Trichloroethylene	*358.7*	*365.9*	*0 - 783.3*	*122*	*113*
Vinyl chloride	24	22.2	0 - 67.3	122	0
Benzene	5.4	4.6	0 - 12.2	63	0
1975 – 1979 (60 months)					
Tetrachloroethylene	12.2	12	1.4 - 24.1	53	0
Trichloroethylene	*325.1*	*327.7*	*60.6 - 546.3*	*60*	*55*
Vinyl chloride	17.3	16.5	2.3 - 33.4	60	0
Benzene	3.5	3.4	0 - 5.8	4	0
Jan 1980 – Jan 1985 (61 months)					
Tetrachloroethylene	21.5	21.4	2.2 - 38.7	58	0
Trichloroethylene	*449.2*	*446.2*	*42.6 - 783.3*	*62*	*58*
Vinyl chloride	34.3	35.7	4.2 - 67.3	62	0
Benzene	7.6	7.6	1.6 - 12.2	59	0

Levels of contaminants that have been associated with hazards to humans and causal relationship to Parkinson's Disease

Bove and coworkers demonstrated that for military personnel, being stationed at Camp Lejeune for as few as 1 to 5 quarters was associated with a 2-fold elevation in the risk of PD mortality compared to personnel at Camp Pendelton (*Table 4*).[35]

In addition, differences in PD mortality among civilian workers in the Camp Lejeune cohort were associated with the worker's cumulative exposure to each of the 4 VOC contaminants.[32] Exposures at levels **at or above the median cumulative exposure** for a given contaminant within the cohort was associated with approximately a 2.5-fold higher risk of PD mortality than those exposed at levels below the median (*Table 5*). These exposure level differences in PD mortality risk provide evidence that the contaminant levels in Camp Lejeune drinking water were sufficient to elevate PD risk.

Notably, Goldman and associates found that among the 177 marines that were exposed to VOCs in residential water at Camp Lejeune, the **median cumulative exposure was 4970 µg/L-months, more than 50 times the permissible level**.[44]

An additional consideration for the Camp Lejeune population is the potential impact of exposure to a combination of chemical contaminants and a possible synergistic effect. Mauderly and Samet reviewed selected published literature to determine whether synergistic effects of combinations of pollutants on health outcomes has been demonstrated.[57] Fourteen of 36 studies demonstrated synergism, although synergistic, additive, and antagonistic effects were sometimes observed among different outcomes or at different times after exposure.

Conclusions

The results of my comprehensive and critical review of the relevant scientific and epidemiologic evidence support a general causal relationship between exposure to drinking water contaminated with volatile organic compounds at Camp Lejeune and Parkinson's Disease.

Furthermore, based upon the results of my analysis, it is my opinion that the military personnel and civilian workers at Camp Lejeune between 1953 and 1987 had the potential to be exposed to toxic volatile organic compounds in their drinking water at levels sufficient to cause Parkinson's Disease. Factors impacting the level of exposure for a given individual include the water system utilized at

[57] Mauderly JL, Samet JM. Is there evidence for synergy among air pollutants in causing health effects? Environ Health Perspect. 2009;117(1):1-6.

Camp Lejeune, the calendar years of exposure, the number of years on the base, and the amount of water consumed.

The following are my opinions regarding the specific contaminating volatile organic compounds:

- Sufficient evidence for a causal relationship between trichloroethylene exposure and Parkinson's Disease.
- Equipoise and above evidence for a causal relationship between tetrachloroethylene exposure and Parkinson's Disease.
- Below equipoise evidence for a causal relationship between vinyl chloride exposure and Parkinson's Disease.
- Below equipoise evidence for a causal relationship between benzene exposure and Parkinson's Disease.

The preceding opinions were given as reasonable medical and scientific probabilities.

Very truly yours,

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Appendix A

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Visiting Professorships
Visiting Professor of Medical Science – August 2020-April 2021
Faculty of Medicine, University of Indonesia
Jakarta, Indonesia

Adjunct Appointments
Adjunct Professor of Forensic Epidemiology and Traumatology – 2012-17
Department of Forensic Medicine, Faculty of Health Sciences, Aarhus University
Aarhus, Denmark

Adjunct/Honorary Associate Professor of Epidemiology and Traumatology – 2012-17
Department of Forensic Medicine, Faculty of Health Sciences, Aarhus University
Aarhus, Denmark

Adjunct Associate Professor of Forensic Medicine and Epidemiology – 2005-12
Institute of Forensic Medicine, Faculty of Health Sciences, Aarhus University
Aarhus, Denmark

Adjunct Professor – 2015-16
University of Western States
Portland, Oregon

EDITORIAL ACTIVITIES:

Editor in Chief: *Journal of Forensic and Legal Medicine,* 2025-present
Guest Editor: Special Issue on Caribbean medicolegal issues
Journal of Forensic and Legal Medicine, 2024
Guest Editor: Special Issue on death in custody
Journal of Forensic and Legal Medicine, 2023
Lead Guest Editor, Special Issue on Forensic Epidemiology:
International Journal of Environmental Research and Public Health, 2020
Co-Editor in Chief:
Journal of Whiplash-Related Disorders 1999-2006
Associate Editor:
Journal of Forensic and Legal Medicine, 2022 to present
BMC Musculoskeletal Disorders, 2019-present
The Spine Journal 2007-present
PM&R, official scientific journal of the American Academy of Physical Medicine and Rehabilitation, 2008 to 2023
Scandinavian Journal of Forensic Medicine, 2012 to present
J of Forensic Biomechanics, 2010-present
OA Epidemiology, 2014
Editorial Board Member:
Journal of Forensic and Legal Medicine, 2022 to present
International Journal of Environmental Research and Public Health, 2019-2023
Forensic Science International Reports, 2019 to present
Orthopedics, 2019 to present
Top 10 Reviewer 2019, *Orthopedics*
The Spine Journal, 2004 to present
International Research Journal of Medicine and Medical Sciences, 2015
Egyptian Journal of Forensic Sciences, 2010 to present
Journal of Case Reports in Practice 2014 to present
Austin Journal of Public Health & Epidemiology 2014-16
Edorium Journal of Public Health, 2014
Advisory Board Member:
Challenges 2020-present
Editorial Committee Member:
Spineline 2004-09
Peer reviewer:
Safety and Health at Work (Elsevier)
Journal of Vascular and Interventional Radiology
BMC Musculoskeletal Disorders
BMC Public Health
BMC Research Notes
Annals of Epidemiology (outstanding reviewer status 2015)
Orthopedics

Spine
The Spine Journal
Lancet
Mayo Clinic Proceedings
Annals of Biomechanical Engineering
Journal of the American Board of Family Medicine
Journal of Forensic and Legal Medicine
Acta Neurologica Scandanavica
Medical Science Monitor
Pain Research & Management
Journal of Back and Musculoskeletal Rehabilitation
American Society for Testing and Materials (ASTM)
Biosecurity & Bioterrorism
Annals of Medical and Health Sciences Research
Neurorehabilitation and Neural Repair
International Research Journal of Medicine and Medical Sciences
Jurimetrics
Law, Probability, and Risk
International Journal of Molecular Sciences
Journal of Rehabilitation Medicine
Arthritis
BMC Pediatrics
Journal of Back and Musculoskeletal Rehabilitation
Diagnostic and Interventional Radiology
Healthcare
Expert Review of Medical Devices
BMC Cancer

COURSES TAUGHT:

PHPM 574 Forensic & Trauma Epidemiology
Department of Public Health and Preventive Medicine
Oregon Health & Science University School of Medicine
Portland, Oregon 2006-2013

Principles of Forensic Medicine and Forensic Epidemiology
Forensic Psychiatry Fellowship
Department of Psychiatry
Oregon Health & Science University School of Medicine
Portland, Oregon – 2011 to present

PHPM 503 Thesis Advising
Department of Public Health and Preventive Medicine
Oregon Health & Science University School of Medicine
Portland, Oregon 2005-present

PHPM 507 Injury and Trauma Epidemiology
Department of Public Health and Preventive Medicine
Oregon Health & Science University School of Medicine
Portland, Oregon 1999 – 2005

Forensic Epidemiology and Bioterrorism
Charles County Department of Public Health
College of Southern Maryland, Waldorf, Maryland 2014

ACTIVITIES and HONORS:

David Jenkins Memorial Trust Professor and Chair of Forensic and Legal Medicine, Faculty of Forensic and Legal Medicine, Royal College of Physicians - 2024-5

Chair, Research subcommittee, Faculty of Forensic and Legal Medicine, London, UK, 2021-present

Vice Chair, American Academy of Forensic Sciences Standards Board Medicolegal Death Investigation Consensus Body – 2016-2023

Member, Academic committee, Faculty of Forensic and Legal Medicine, Royal College of Physicians, London, UK, 2021-present

Member, Academic advisory board, Academy of Forensic Medical Sciences, UK. 2021-present.

Member, Human factors subcommittee, Organization of Scientific Area Committees (OSAC) for Forensic Science, United States National Institute of Science and Technology (NIST), 2023-present

Appointed member, Office of Chief Medical Examiner death in custody audit design team, Maryland Attorney General, Baltimore, MD, 2021-present.

Affiliate Member, Faculty of Forensic and Legal Medicine, Royal College of Physicians, London, UK, 2016-2021

Chair, Maastricht Science in Court (MSiC) conference, Faculty of Law, Maastricht University, Maastricht, NL, September 29, 2023

Faculty, course designer and keynote speaker, "*When Science Meets Law: Forensic Epidemiology in Medicolegal Practice."* Summer school course, Radboud Medical Center, Nijmegen, Netherlands, August 13-17, 2018.

Fulbright fellowship, US Department of State, *Forensic Epidemiology in Forensic Medicine*, March 2018, Maastricht, Netherlands.

Senatorial letter of commendation, Louisiana Senate (Sen. Jon Milkovich), January 25, 2017.

Keynote speaker, Gran Sesión de Epidemiología Forense. November 18, 2016 Universidad Libre, Seccional Cali, Colombia.

Member, American Academy of Forensic Sciences Standards Board Medicolegal Death Investigation Consensus Body – 2016 to 2023

Affiliate Medical Examiner, Allegheny County, Pennsylvania, 2014 to 2024

Member, Scientific Advisory Board, International Conference on Forensic Inference and Statistics. August 2014, Leiden, The Netherlands

Reviewer, National Aeronautical Space Administration (NASA) 2011

Past president, International Cellular Medicine Society, 2009 to 2012

Founding member, International Cellular Medicine Society, 2009

Member, Research Planning Committee, North American Spine Society 2007-2009

Member, Complementary Medicine Committee, North American Spine Society 2007-2009

Special Deputy Sheriff (Forensics), Vehicular Homicide Investigator, Clackamas County, Oregon, 2007-2009

Member, Crash Reconstruction and Forensic Technology (CRAFT) multidisciplinary law enforcement fatal crash investigation team, Clackamas County, Oregon, 2002-2013

Consultant Forensic Trauma Epidemiologist to the Medical Examiner Division of the Oregon Department of State Police – Occupant Kinematics, 1999-2006

Deputy Medical Examiner, Marion County, Oregon. 2000-2005

Moderator, Engineering sciences section, American Academy of Forensic Sciences 62nd Annual Meeting, Seattle, WA 2010

Co-Chair, International Whiplash Trauma Congress V, Lund, Sweden. 2011

Co-Chair, International Whiplash Trauma Congress IV, Miami, FL. October 2007.

Co-Chair, International Whiplash Trauma Congress III, Portland, OR. June 2006.

Co-Chair, International Whiplash Trauma Congress II, Breckenridge, CO. February 2005.

Co-Chair, International Whiplash Trauma Congress I, Denver, CO. October, 2003

Co-Chair, Forensic Section, International Traffic Medicine Association. Budapest, Hungary. September, 2003

Member, Blue Ribbon Panel Congressional Task Force on roller coaster-induced brain injury. Funded by a grant from the National Institute of Child Health and Human Development 2002-2003

President, Spinal Injury Foundation. Denver, CO 2002-2009

Member, Marion-Polk County C.R.A.S.H. Team - Occupant Kinematics Consultant 1999-2004

Scientific Chair, North American Whiplash Trauma Congress. Victoria, British Columbia 1999

BOARD CERTIFICATION AND ORGANIZATIONS:

Royal College of Pathologists, London, (UK)
- Fellow 2023 - present

Faculty of Forensic & Legal Medicine, Royal College of Physicians, London, UK
- Fellow 2022 - present
- Member 2021 - 2022
- Affiliate Member 2018 - 2021

American Academy of Forensic Sciences, Pathology/ Biology section
- Fellow 2016 - present
- Member 2008 - 2016

Academy of Forensic Medical Sciences, UK
- Fellow 2021-present

American College of Epidemiology
- Fellow 2019 - present
- Member 2007 – 2019

Royal Society for Public Health, UK
- Fellow 2022 - present

Royal College of Physicians, London UK
- Associate member 2021 - present

British Association in Forensic Medicine
- Member 2022 - present

American Society of Biomechanics
- Member #6845 2023 - present

Accreditation Commission on Traffic Accident Reconstruction (ACTAR)
- Accredited #1581 2005 - 2024

Basic and Advanced Cardiac Life Support (BLS and ACLS) certified (exp. June 2026)
Crash Data Retrieval Technician I & II
Certification in basic and advanced crash reconstruction - Northwestern University
Diplomate, American Academy of Pain Management
Member, Fulbright Association
Member, American College of Epidemiology (2007-2019)
Member, Association for the Advancement of Automotive Medicine
Member, Sigma Xi Scientific Honor Society
Member, Society of Automotive Engineers
Past member, International Traffic Medicine Association
Fellow, International College of Chiropractic
Inactive member, North American Spine Society
Past member, Forensic Accident Reconstructionists of Oregon

GRANTS:

2020-present Unrestricted grant, private donor. Evaluation of upper cervical CSF flow alterations in retired NFL players with chronic head injury. $250,000.

2017-2020 Fulbright scholarship, Fulbright Specialist program, Bureau of Educational and Cultural Affairs and World Learning, United States Department of State.

2015 National Science Foundation Industry/University Cooperative Research Centers Program, NSF 13-594 Planning Grant: I/UCRC for Advanced Research in Forensic Science, National Center for Research on Forensic Epidemiology. Principal Investigator.

2011-2013 World Health Organization – research grant for Rwandan study of relationship between genocide and suicide and homicide victimization and offending. $50,000. Project No: AFRWA 1005685, Award No: 53975.

2010-2015 Centers for Disease Control (Administered by National University of Rwanda and OHSU) SPH/CDC $200,000 over 4 years.

2002-2003 National Institute of Child Health and Human Development – Blue Ribbon Task Force on Roller Coaster Associated Brain Injury. $75,000.

DISSERTATION SUPERVISION:

Joshua Goldenberg – PhD candidate, School for Public Health and Primary Care, Maastricht University Medical Center (2023 to present)

Rebecca Rodrigues MSc – PhD candidate, School for Public Health and Primary Care, Maastricht University Medical Center (2022 to present)

Ellen Strömmer MPH – PhD candidate, CAPHRI School for Public Health and Primary Care, Maastricht University Medical Center (2018 to present)

David Brunarski MSc - PhD candidate, CAPHRI School for Public Health and Primary Care, Maastricht University Medical Center (2019 to 2021)

Wendy Leith MS MPH – PhD candidate, CAPHRI School for Public Health and Primary Care, Maastricht University Medical Center (2018 to present)

Paul Nolet MPH, MSc – PhD candidate, CAPHRI School for Public Health and Primary Care, Maastricht University Medical Center (2017 to present)

Huijie Wang M.Med. – PhD candidate, CAPHRI School for Public Health and Primary Care, Maastricht University Medical Center (2017-2018)

Dritan Bijko MD MSc – PhD candidate, CAPHRI School for Public Health and Primary Care, Maastricht University Medical Center (2017)

Putri Dianita MD MSc – PhD candidate, CAPHRI School for Public Health and Primary Care, Maastricht University Medical Center (2015 to 2022)

Frank Franklin Ph.D., J.D. (2013), Earle Mack School of Law, Drexel University

Bonnie Colville-Ebeling MD – PhD candidate (2012-15) University of Copenhagen, Faculty of Health Sciences, Department of Forensic Medicine

Dimitrios Papadakis BSc, MRes, Dr.rer.nat. (2012-2015) independent mentoring

Wendy Leith MS – MPH (2015) Department of Public Health & Preventive Medicine, Oregon Health & Science University School of Medicine

Konrad Dobbertin – MPH (2011) Department of Public Health & Preventive Medicine, Oregon Health & Science University School of Medicine

Apostolo Alexandridis – MPH (2011) - Department of Public Health & Preventive Medicine, Oregon Health & Science University School of Medicine

Wilson Rubanzana MD – PhD (2016) National University of Rwanda, School of Public Health, Kigali, Rwanda

Catherine Maddux-Gonzalez – MPH (2009) – Department of Public Health & Preventive Medicine, Oregon Health & Science University School of Medicine

Laura Criddle MS, RN – PhD (2008) Oregon Health & Science University School of Medicine, School of Nursing

Peter Harmer PhD – MPH (2006) Department of Public Health & Preventive Medicine, Oregon Health & Science University School of Medicine

PUBLICATIONS:

Peer-reviewed journal articles

1. Rodrigues R, Wootten J, Anderson KK, Stranges S, Wilk P, **Freeman MD**, Zeegers MP. Forensic mental health service use in early psychosis: a scoping review. *Epidem Psych Sci* (in review)

2. Goldenberg J, Batson RD, Pugh MJ, Zwickey H, Beardsley J, Zeegers MP, **Freeman MD.** The cumulative incidence of post-traumatic epilepsy after mild traumatic brain injury: a systematic review and individual-participant data meta-analysis protocol. *J Neurotrauma Reports* 2024 (in press)

3. **Freeman MD**. On peer-review in the forensic medical literature: pitfalls and possibilities. *J For Leg Med* 2024 (in press)

4. **Freeman MD,** Strömmer EMF, Leith WM, Zeegers MP. Response to “More on the role of restraint in fatal excited delirium. *For Sci Med Path* 2024 https://doi.org/10.1007/s12024-023-00736-w.

5. Strömmer EMF, Leith WM, Zeegers MP, **Freeman MD.** Injuries due to police use of force in the United States, 2006-2015: Trends in severity and by race. *J Racial Ethn Health Disparities*. 2023 https://doi.org/10.1007/s40615-023-01733-z

6. **Freeman MD,** Strömmer EMF, Leith WM, Zeegers MP. Response to "Scrutinizing the causal link between excited delirium syndrome and restraint – A commentary on: 'The role of restraint in fatal excited delirium: a research synthesis and pooled analysis' by E.M.F. Strömmer, W. Leith, M.P. Zeegers and M.D. Freeman." *For Sci Med Path* 2023 https://doi.org/10.1007/s12024-023-00616-3.

7. Leith WM, Zeegers MP, **Freeman MD.** A predictive model for perinatal hypoxic ischemic encephalopathy using linked maternal and neonatal hospital data. *Annals Epidemiol* https://doi.org/10.1016/j.annepidem.2023.11.011

8. **Freeman MD,** Mittner BS. Prone Restraint and Excited Delirium; policy recommendations to reduce preventable deaths in police custody. *J Forensic Leg Med* (in press)

9. Kaale BR, McArthur TJ, Barbarosa MH, **Freeman MD.** Post-traumatic atlanto-axial instability: A combined clinical and radiological approach for the diagnosis of pathological rotational movement in the upper cervical spine. *J Clin Med* 2023, *12*, 1469. https://doi.org/10.3390/1469.

10. Katz E, Katz S, **Freeman MD.** Non-surgical management of upper cervical instability via improved cervical lordosis: a case series. *J Clin Med* 2023, 12, 1797.https://doi.org/10.3390/jcm12051797

11. **Freeman MD**, Strömmer EMF. re: Dror and Kukucka, Linear Sequential Unmasking–*Expanded* (LSU-*E*): A general approach for improving decision making as well as minimizing noise and bias. *For Sci Int Syn* 2021 https://doi.org/10.1016/j.fsisyn.2021.10 019.

12. **Freeman MD.** Principles and methods for evidence-based quantification of the effect of seatbelt non-use in crash-related litigation. *Int J Environ Res Public Health* 2021:18,9455. https://doi.org/10.3390/18189455.

13. Dianita Ika Melia P, Zeegers MP, Herkutanto H, **Freeman MD**. Medicolegal causation investigation of bacterial endocarditis associated with an oral surgery practice using the INFERENCE approach. *Int J Environ Res Public Health* 2021:18,7530. https://doi.org/10.3390/ijerph18147530.

14. Nolet PS, Nordhoff L Kristman KL, Croft AC, Zeegers MP, **Freeman MD.** Is acceleration a valid proxy for injury risk in minimal damage traffic crashes? A comparative review of volunteer, ADL and real-world studies. *Int J Environ Res Public Health* 2021;18:2901; https://doi.org/10.3390/ijerph18062901.

15. Dianita Ika Melia P, Zeegers MP, Herkutanto H, **Freeman MD**. Development of the INFERENCE (**IN**tegration of **F**orensic **E**pidemiology and the **R**igorous **E**valuatio**N** of **C**ausation **E**lements) approach to causal inference in forensic medicine. *Int J Environ Res Public Health* 2020;17:8353; doi:10.3390/ijerph17228353.

16. Strömmer EMF, Leith WM, Zeegers MP, **Freeman MD.** The role of restraint in fatal excited delirium: a research synthesis and analysis of the literature. *For Sci Med Path* 2020: doi.org/10.1007/s12024-020-00291-8.

17. **Freeman MD.** Forensic epidemiologic analysis of the cause of an unexpected teen suicide following ingestion of mis-dispensed isosorbide mononitrate. *For Sci Int Rep* 2020: doi.org/10.1016/j.fsir.2020.100093

18. Tønner G, **Freeman MD,** Rubenstein S. De waarde van chiropractie bij lagerugklachten. *Huisarts Wet* [Dutch Journal of General Practice Medicine] 2020:10.1007/s12445-020-0964-3.

19. Dianita Ika Melia P, Herkutanto H, Atmadja DS, Cordner S, Eriksson A, Kubat B, Kumar A, Payne-James J, Rubanzana W, Uhrenholt L, **Freeman MD**, Zeegers MP. The PERFORM-P (Principles of Evidence-based Reporting in FORensic Medicine-Pathology version) Guideline. *Forensic Sci Int Volume* 2021: 10.1016/j.forsciint.2021.110962.

20. Dianita Ika Melia P, **Freeman MD**, Herkutanto H, Zeegers MP. A review of causal inference in forensic medicine. *For Sci Med Path* 2020:doi.org/10.1007/s12024-020-00220-9.

21. **Freeman MD**, Katz EA, Rosa SL, Gatterman BD, Strömmer EMF, Leith WM. Diagnostic accuracy of videofluoroscopy for symptomatic cervical spine injury following whiplash trauma. *Int J Environ Res Public Health* 2020;17:1693 ; doi:10.3390/ijerph17051693

22. Centeno C, Cartier C, Stemper I, Dodson E, **Freeman MD**, Azuike U, Williams C, Hyzy M, Silva O, Steinmetz N. The treatment of bone marrow lesions associated with advanced knee osteoarthritis: comparing intra-osseous and intra-articular injections with bone marrow concentrate and platelet-rich plasma. *Pain Physician* 2021;24(3):E279-88

23. Nolet P, Emery P, Kristman E, Zeegers M, **Freeman MD**. Exposure to a motor vehicle collision and the risk of future back pain: a systematic review and meta-analysis. *Accid Analysis Prev* 2020:doi.org/10.1016/j.aap.2020.105546.

24. Uhrenholt L, Thomsen CK, Boel LWT, Hansen K, **Freeman MD**. The relationship between head and neck injuries and helmet use in fatal motorcycle and moped crashes. *Scand J For Sci* 2020;26(1):1-7.

25. **Freeman MD**, Leith WM. Estimating the number of traffic crash-related cervical spine injuries in the United States; an analysis and comparison of national crash and hospital data. *Accident Analysis and Prevention* 2020: doi:https://doi.org/10.1016/j. aap.2020.105571.

26. Nolet P, Emery P, Kristman E, Zeegers M. **Freeman MD**. Exposure to a motor vehicle collision and the risk of future neck pain: a systematic review and meta-analysis. *PM R* 2019 Apr 25. doi: 10.1002/pmrj.12173.

27. **Freeman MD.** Medicolegal investigation of *Vibrio parahaemolyticus*-related foodborne illness as the cause of Guillain-Barré Syndrome. *Forensic Science International: Reports* 2019:doi.org/10.1016/j.fsir.2019.100004.

28. **Freeman MD.** Concussion risk from helmeted sports; A reexamination of data and methods. *J Forensic Biomed* 2018;9:139. doi:10.4172/2090-2697.1000139.

29. Centeno C, Markle J, Dodson E, Stemper I, Hyzy M, Williams C, Ichim T, **Freeman MD** Symptomatic anterior cruciate ligament tears treated with percutaneous injection of autologous bone marrow concentrate: a non-controlled registry study *J Translational Med* 2018;16:246 https://doi.org/10.1186/s12967-018-1623-3.

30. Dianita Ika Melia P, **Freeman MD**, Herkutanto H, Zeegers MP. A review of the diversity in taxonomy, definitions, scope, and roles in forensic medicine: Implications for evidence-based practice. *For Sci Med Path* 2018;14(4):460-8.

31. Rubanzana W, Hedt-Gauthier BL, Ntaganira J, **Freeman MD**. Exposure to genocide as a risk factor for homicide perpetration in Rwanda: A population-based case-control study. *J Interpers Violence* 2018;33(12):1855-70.

32. Centeno C, Markle J, Dodson E, Stemper I, Hyzy M, Williams C, **Freeman MD**. A specific protocol of autologous bone marrow concentrate and platelet products versus exercise therapy for symptomatic knee osteoarthritis: a randomized controlled trial. *J Translational Med* 2018;16:355 https://doi.org/10.1186/s12967-018-1736-8.

33. **Freeman MD,** Leith WM. The epidemiology of tire failure-related traffic crashes. SAE Technical Paper 2018-01-5031, 2018, doi:10.4271/2018-01-5031.

34. **Freeman MD**. A practicable and systematic approach to medicolegal causation. *Orthopedics* 2018;41(2):70-2.

35. Centeno C, Markle J, Dodson E, Stemper I, Hyzy M, Williams C, **Freeman MD.** The safety and efficacy of using lumbar epidural injection of platelet lysate for treatment of radicular pain. *J Exp Orthopaedics* 2017;4:38.

36. Centeno C, Markle J, Dodson E, Stemper I, Williams C, Hyzy M, Ichim T, **Freeman MD.** Treatment of lumbar degenerative disc disease-associated radicular pain with culture-expanded autologous mesenchymal stem cells *J Translational Medicine* 2017;15:197.

37. Williams KE. **Freeman MD**. The role of the medical examiner/ coroner system in creating a public database for surveillance and information sharing on drug overdose deaths. *Academic Forensic Pathology*. 2017;7(1):60-72.

38. Leith W, Lambert W, Boehnlein J, **Freeman MD.** The association between gabapentin and suicidality in bipolar patients. *Int Clin Psychopharm* 2018 doi:10.1097/YIC.000000000242.

39. Centeno C, Markle J, Dodson E, Stemper I, Williams C, Hyzy M, **Freeman MD.** Symptomatic anterior cruciate ligament tears treated with percutaneous injection of autologous bone marrow concentrate: a non-controlled prospective registry study. *BMC Musculoskeletal Disorders* (in press).

40. **Freeman MD,** Goodyear S, Leith W. Risk factors for neonatal brachial plexus injury; a multistate epidemiologic study of matched maternal and newborn discharge records. *Int J Gynecology & Obstetrics* 2017;136(3):331-336.

41. **Freeman MD, Zeegers M.** Forensic Epidemiology: An evidence-based system for analyzing individual causation in a medicolegal setting. *Austin J Public Health Epidemiol* 3(3):2016. ISSN: 2381-9014.

42. Westergren H, Larson L, Carlsson A, Joud A, **Freeman MD,** Malmstrom E-M. Sex-based differences in chronic pain distribution in a cohort of patients with post-traumatic neck pain. *Disabil Rehabil* 2017 DOI: 10.1080/09638288.2017.1280543

43. Nyström A, **Freeman MD.** Central sensitization is modulated following trigger point anesthetization in patients with chronic pain following whiplash trauma. A double-blind, placebo-controlled, cross-over study. *Pain Med* 2017;0:1-6.

44. **Freeman MD**, Zeegers M. Principles and applications of forensic epidemiology in the medicolegal setting. *Law, Probability, & Risk* 2015; doi:10.1093/lpr/mgv010.

45. Centeno CJ, Al-Sayegh H, **Freeman MD** et al. A multi-center analysis of adverse events among 2,372 adult patients undergoing adult autologous stem cell therapy for orthopedic conditions. *International Orthopedics* DOI 10.1007/s00264-016-3162-y.

46. **Freeman MD**. Medicolegal causation analysis of a lumbar spine fracture following a low speed rear impact traffic crash. *J Case Rep Prac* 2015; 3(2): 23-29.

47. Uhrenholt L, **Freeman MD,** Webb A, Pedersen M, Thorup-Boel LW. Fatal subarachnoid hemorrhage associated with internal carotid artery dissection resulting from whiplash trauma. *Forens Sci Med Path* 2015;11(4):564-9.

48. Centeno CJ, Al-Sayegh H, Bashir J, **Freeman MD.** A prospective study of the safety and efficacy of autologous bone marrow concentrate for the treatment of rotator cuff tears and shoulder osteoarthritis *J Pain Res* 2015;8:1-8.

49. Centeno CJ, Al-Sayegh H, Bashir J, **Freeman MD.** A dose response analysis of bone marrow concentrate injections for knee osteoarthritis. *BMC Musculoskeletal Disorders (Section: Orthopedics and biomechanics)* 2015;16:258. doi: 10.1186/s12891-015-0714-z.

50. Rubanzana W, Ntanganira J, **Freeman MD,** Hedt-Gauthier B, Risk factors for homicide victimization in post-genocide Rwanda: a population -based case- control study. *BMC Public Health* 2015;15(1):809.

51. Rubanzana W, Hedt-Gauthier B, Ntanganira J, **Freeman MD**. Exposure to genocide as a risk factor for suicide in Rwanda. *J Epidemiol Community Health* 2015 Feb;69(2):117-22.

52. Westergren H, **Freeman MD,** Malmström E-M. The whiplash enigma: still searching for answers. *Scand J Pain* 2014; http://dx.doi.org/10.1016/ j.sjpain.2014.08.003.

53. Centeno CJ, Pitts J, Al-Sayegh H, **Freeman MD.** Efficacy and Safety of Bone Marrow Concentrate for Osteoarthritis of the Hip; Treatment Registry Results for 196 Patients. *J Stem Cell Res Ther* 2014;4:242. doi: 10.4172/2157-7633.1000242

54. Centeno CJ, Pitts J, Al-Sayegh H, **Freeman MD.** Efficacy of autologous bone marrow concentrate for knee osteoarthritis with and without adipose graft. *Biomed Res Int* 2014. doi:10.1155/2014/370621

55. Centeno CJ, Pitts J, Al-Sayegh H, **Freeman MD.** Anterior cruciate ligament tears treated with percutaneous injection of autologous bone marrow nucleated cells; a pilot study*. J Pain Res* 2015;8:1–11.

56. **Freeman MD**, Cahn PJ, Franklin FA. Applied forensic epidemiology. Part 1: medical negligence. *OA Epidemiology* 2014;2(1):2.

57. Koehler S, **Freeman MD**. Forensic epidemiology; a methodology for investigating and quantifying specific causation. *Forens Sci Med Path* 2014 Jun;10(2):217-22

58. Centeno CJ, **Freeman MD**. Percutaneous injection of autologous, culture-expanded mesenchymal stem cells into carpo-metacarpal hand joints: A case series with an untreated comparison group. *Wien Med Wochenschr* 2013:DOI 10.1007/s10354-013-0222-4

59. **Freeman MD**, Eriksson A, Leith W. Head and neck injury patterns in fatal falls: epidemiologic and biomechanical considerations. *J Forensic Legal Med* 2014;21:64-70.

60. Colville-Ebeling B, **Freeman MD**, Banner J, Lynnerup N. Autopsy practice in forensic pathology – evidence-based or experience-based? A review of autopsies performed in a case of multiple, simultaneous deaths. *J Forensic Legal Med* 2014;22:33-6

61. **Freeman MD**, Eriksson A, Leith W. Injury pattern as an indication of seat belt failure in ejected vehicle occupants *J Forensic Sci* 2014; 59(5):1271-4.

62. Dobbertin KM, **Freeman MD**, Lambert WE, Lasarev MR, Kohles SS. The relationship between vehicle roof crush and head, neck and spine injury in rollover crashes. *Accid Anal Prev* 2013;58:46-52.

63. Centeno CJ, Schultz JR, Cheever M, **Freeman M**, Faulkner S, Robinson S. A Case Series of Percutaneous Treatment of Non-Union Fractures with Autologous, Culture Expanded, Bone Marrow Derived, Mesenchymal Stem Cells and Platelet Lysate. *J Bioengineer & Biomedical Sci S2:007* doi:10.4172/2155- 9538.S2-007

64. Woodham M, Woodham A, Skeate JG, **Freeman MD**. Long-Term lumbar multifidus muscle atrophy changes documented with magnetic resonance imaging; a case series. *Radiology Case Reports* 2014;8(5):27-34

65. Wendlova J, **Freeman MD**. The Slovak Regression Model of Fall-Related Femoral Neck Fracture Risk. *Journal of Forensic Biomechanics* Vol. 4 2013), Article ID 235595, 5 pages doi:10.4303/jfb/235595

66. **Freeman MD**, Dobbertin K, Kohles SS, Uhrenholt L, Eriksson A. Serious head and neck injury as a predictor of occupant position in fatal rollover crashes. *Forensic Sci Int* 2012;222:228–33.

67. **Freeman MD,** Kohles SS. An examination of the threshold criteria for the evaluation of specific causation of mesothelioma following a history of significant exposure to chrysotile asbestos-containing brake dust, *Int J Occ Env Hlth* 2012;18(4):329-36.

68. **Freeman MD,** Fuerst M**.** Does the FDA have regulatory authority over adult autologous stem cell therapies? FDCA 21 CFR 1271 and the Emperor's New Clothes. *J Transl Med* 2012;10(1):60.

69. **Freeman MD,** Everson T, Kohles SS. Forensic epidemiologic and biomechanical analysis of a pelvic cavity blowout injury associated with ejection from a personal watercraft (jet-ski). *J Forens Sci* 2012 doi: 10.1111/j.1556-4029.2012.02250.x

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60. **Freeman MD**, Centeno C, Croft AC, Nicodemus C. Significant spinal injuries resulting from low-level accelerations: a case series of roller coaster injuries. *Proceedings of Cervical Spine Research Society 28th Annual Meeting,* November 30-December 2, 2000:110-1.

61. Croft AC, **Freeman MD**. An evaluation of the neck injury criterion; recommendations for future consideration. *Association for the Advancement of Automotive Medicine*, San Antonio, TX October, 2000.

62. **Freeman MD**, Croft AC, Rossignol AM. The prevalence of whiplash-associated chronic cervical pain among a random sample of patients with chronic spine pain. *Proceedings of 27th Annual Cervical Spine Research Society Annual Meeting.* Seattle, WA December 13-15, 1999.

63. **Freeman MD**, Croft AC, Rossignol AM. Late whiplash risk factor analysis of a random sample of patients with chronic spine pain. *World Whiplash Associated Disorders Congress*, February 8-10, 1999, Vancouver, British Columbia

Scientific Letters

1. Nystrom NA, **Freeman MD**. Authors' Response. *Pain Med* 2018;19(4):816-7.

2. Uhrenholt L, Webb A, **Freeman MD**. Letter to the Editor regarding "Do X-ray-occult fractures play a role in chronic pain following a whiplash injury?" *Eur Spine J* DOI 10.1007/s00586-014-3362-3.

3. **Freeman MD**, Centeno CJ, Katz E. MR imaging of whiplash injury in the upper cervical spine; controversy or confounding? *Spine J* 2009 Sep;9(9):789-90. Epub 2009 Jun 17

4. Centeno CJ, **Freeman M**. Re: Are smooth pursuit eye movements altered in chronic whiplash-associated disorders? A cross-sectional study. *Clin Rehabil* 2008 Apr;22(4):377-8.

5. Centeno CJ, **Freeman MD**. Editorial Submission on Kongsted, A., et al., Are smooth pursuit eye movements altered in chronic whiplash associated disorders? A cross-sectional study. *Clin Rehabil* 2007;21(11):1038-49.

6. **Freeman MD**. Crash Test Dummy? *New Scientist* June 23, 2007:22-3.

7. **Freeman MD**, Centeno CJ, Merskey H, Teasell R, Rossignol AM. Greater injury leads to more treatment for whiplash: no surprises here. *Arch Int Med* 2006;166(11):1238-9.

8. Centeno C, **Freeman MD**. Alberta rodeo riders do not develop late whiplash. *J Rheumatol* 2007 Feb;34(2):451-2.

9. **Freeman MD**, Centeno C. Alar, Transverse and Apical Ligament Strain due to Head-Turned Rear Impact. *Spine* 2006;31(17):2030.

10. **Freeman MD**. Cervical disc herniation following motor vehicle crash trauma. Invited commentary. *Spine J* 2005 Nov-Dec;5(6):644.

11. **Freeman MD**, Centeno C. Whiplash and Peer Review *JWRD* 2003;2(2):1-3.

12. **Freeman MD**, Centeno C. Whiplash and Secondary Gain *JWRD* 2003;2(1):1-4.

13. **Freeman MD**, Centeno C. "Placebo" Collisions and Whiplash *JWRD* 2002;1(2):1-8.

14. **Freeman MD**. Biomechanics of minor automobile accidents. *J South Orthop Assoc* 2001 Summer;10(2):95-6.

15. **Freeman MD**. Are demolition derby drivers a valid proxy for the population at risk for whiplash injury? *Arch Neurol* 2001 Apr;58(4):680-1.

16. **Freeman MD**, Rossignol AM. Effect of eliminating compensation for pain and suffering on the outcome of insurance claims. *NEJM* 2000 Oct 12;343 (15):1118-9.

17. **Freeman MD**. Letter to the editor. *Cranio* 1999;17(3):160-1.

18. Croft AC, **Freeman MD**. Commentary on "Pain after whiplash: a prospective controlled inception cohort study." *The Back Letter* 1999;14(4):43-5.

19. **Freeman MD**, Croft AC. Late Whiplash Syndrome, 3rd reply. *Lancet* 1996 Jul 13;348(9020):125.

NATIONAL PRACTICE STANDARDS:

American National Standards Institute (ANSI)/ American Standards Board (ASB) Standard 125-2021: Organizational and Foundational Standard for Medicolegal Death Investigation (Committee vice chair and co-author).

MEDIA:

June 10, 2023 – The secret death of Darryl Dean Mefferd. *Open Vallejo.* https://openvallejo.org/2024/06/10/the-secret-death-of-darryl-dean-mefferd/

June 3, 2023. – St. Denis J. https://thetyee.ca/News/2023/06/02/Despite-Inquest-Evidence-Police-Use-Force-VPD-Stands-Ground/

April 17, 2023 – Lindsay B. Canadian coroners starting to reject excited delirium as cause of police-related deaths. *Canadian Broadcast Corporation.*

May 14, 2022 - Hollingsworth H. From 'crisis to death': probing teen's last, desperate hours. *The Associated Press.*

February 12, 2022 - Mannix, A. Minneapolis Police Department still teaching controversial 'excited delirium' syndrome — despite claiming it had stopped**.** *Minneapolis Star Tribune*.

January 2, 2022 - Wiggins, O. Review of cases under former Maryland medical examiner expected to get underway this year. *Washington Post.*

October 2, 2021 - Dewan, S. Subduing suspects face down isn't fatal, research has said. Now the research is on trial. *The New York Times.*

September 20, 2021 - Sernoffsky, E. 'Excited delirium' denounced long before controversial Antioch in-custody death. *FOX 2 KTVU.*

July 13, 2021 - Porter, C and Lopez, O. Haitians hope president's funeral is a moment of unity. *The New York Times.*

July 12, 2021 - Porter, C and Lopez O. Haitian officials say U.S.-based suspect in president's killing was seeking power. *The New York Times*.

April 11, 2021. Laughland, O. 'Excited delirium': the controversial defense that could be used in the Chauvin trail. *The Guardian.*

April 19, 2021 - Karnowski, S. EXPLAINER: Why 'excited delirium' came up at Chauvin trail? *The Associated Press.*

November 15, 2020 - Lyden, T. Excited Delirium dilemma: Explanation or excuse for in-custody deaths? *FOX 9 KMSP.*

August 25, 2020 - Cushing, T. Law enforcement training: People saying 'I can't breathe' are just suffering from 'Excited Delirium.' *TechDirt.*

June 8, 2020 - Koerth M. The two autopsies of George Floyd aren't as different as they seem. *FiveThirtyEight.*

SCIENTIFIC PRESENTATIONS and INVITED LECTURES:

1. Principles and practice of forensic epidemiology in death investigation. Department of Epidemiology, Faculty of Medicine, Health, and Life Sciences, Maastricht University. June 19, 2024.

2. Research integrity in forensic medicine. 22nd Nordic Conference on Forensic Medicine, The Arctic University of Norway (UIT), Trømso, Norway. June 12-14, 2024

3. Principles and applications of Forensic Epidemiology in forensic death investigation: Keynote lecture. 22nd Nordic Conference on Forensic Medicine, The Arctic University of Norway (UIT), Trømso, Norway. June 12-14, 2024.

4. The role of *counterfactual causation* in the investigation of death in custody following prone restraint. Faculty of Forensic and Legal Medicine, Royal College of Physicians, 17th Annual Conference 2024. London, UK. May 10, 2024.

5. Challenges to improving research integrity in forensic medicine. 7th Annual Caribbean Medicolegal and Forensic Symposium, "*C.S.I.: Caribbean Solutions and Innovations for Regional Medicolegal and Forensic Issues.*" Bridgetown, Barbados. November 16-18, 2023.

6. Forensic epidemiology and causation in forensic medicine: methods for evidence-based practice in cause of death investigation. British Association in Forensic Medicine, Summer Meeting 2023, Harrogate, UK. June 23-24, 2023.

7. Domains of research integrity in forensic medicine. British Association in Forensic Medicine, Summer Meeting 2023, Harrogate, UK. June 23-24, 2023.

8. Research integrity in forensic medicine; do we have a problem? Faculty of Forensic and Legal Medicine, 16th Annual Conference 2023. York, UK. May 13, 2023

9. Forensic epidemiology and death investigation in Forensic Medicine: Methods for Evidence-Based Practice. Core course lecture, Diploma of Forensic Medical Sciences curriculum, Academy of Forensic Medical Sciences, London. November 12, 2022.

10. Forensic epidemiology and death investigation in Forensic Medicine: Methods for Evidence-Based Practice. "Dying to meet you," 40th Anniversary Conference of the Dutch Forensic Medical Society, September 15-16, 2022, Rotterdam, NL.

11. Forensic Epidemiology: Advances in Methods and Applications. Department of Epidemiology, Care and Primary Health Research Institute, Faculty of Health, Medicine, and Life Sciences, Maastricht University, Maastricht, NL, May 24, 2022.

12. Forensic Epidemiology and Causation in Forensic Medicine: Methods for Evidence-Based Practice. Faculty of Forensic and Legal Medicine, 15th Annual Conference 2022. Royal College of Pathologists, Aldgate, London UK. May 7, 2022

13. Introduction to Forensic Epidemiology. Core course lecture, Diploma of Forensic Medical Sciences curriculum, Academy of Forensic Medical Sciences, London. November 12, 2021.

14. Introduction to Forensic Epidemiology: An evidence-based approach to causal analysis in forensic medicine. Faculty of Forensic and Legal Medicine, Royal College of Physicians, London. October 13, 2021.

15. Forensic Epidemiology: The use of population-based data and methods in the evaluation of specific causation in a medicolegal setting. American College of Epidemiology, Plenary lecture. September 10, 2021.

16. The role of epidemiology in evidence-based investigation of injury and death. 1st International Forensic Science e-Conference. National Forensic Sciences University, India. July 10-11, 2021.

17. Medico-legal causation in auto litigation. International Orthopedic Foundation. January 30, 2021.

18. Medico-legal investigation of suicide. Lecture at Mental Illness Research Education Clinical, Centers of Excellence NW (MIRECC CoE), Veteran's Affairs Medical Center, Portland Oregon. December 16, 2020.

19. The role of epidemiology in evidence-based forensic medical investigation of death and injury. Faculty of Medicine, Universitas Indonesia. December 15, 2020.

20. Does Excited Delirium cause death, or does death cause Excited Delirium? A systematic review and statistical analysis of the world literature. Presented at *Deaths in Custody 3: Judicial Considerations.* Department of Pathology and Laboratory Medicine, of the Faculty of Medicine, in conjunction with the Office of the Chief Medical Examiner, Washington DC, September 27, 2020.

21. Medico-legal investigation of suicide. Grand Rounds in Psychiatry, Department of Psychiatry, Oregon Health & Science University School of Medicine. March 24, 2020.

22. Forensic investigation of unexplained death. University of Business, Technology, and Science (UBT), October 9, 2018: Pristina, Kosovo.

23. Causation analysis in medical negligence. Radboud Summer School. Radboud Medical Center, August 14, 2018: Nijmegen, Netherlands.

24. Injury causation analysis. Radboud Summer School. Radboud Medical Center, August 14, 2018: Nijmegen, Netherlands.

25. Criminal applications of Forensic Epidemiology. Radboud Summer School. Radboud Medical Center, August 14, 2018: Nijmegen, Netherlands.

26. Introduction to Forensic Epidemiology. Radboud Summer School. Radboud Medical Center, August 13, 2018: Nijmegen, Netherlands.

27. Ballistic analysis of an attempted murder using a porcine model. *Proceedings of 70th Annual Meeting of the American Academy of Forensic Sciences* 2018 Feb 19-23: Seattle, WA.

28. Evidence-based practice in Forensic Medicine; Principles of Forensic Epidemiology. Radboud Medical Center, October 9, 2017: Nijmegen, Netherlands.

29. Incidence and risk factors for neonatal falls US Hospitals, 2003-2012. *Health Science Research,* Doernbecher Childrens' Hospital, Oregon Health & Science University, March 13, 2017, Portland, Oregon.

30. Incidence and risk factors for neonatal falls US Hospitals, 2003-2012. *Research in Progress,* Department of Internal Medicine, Oregon Health & Science University School of Medicine, January 31, 2017, Portland, Oregon.

31. Evidence-based practice in Forensic Medicine. Invited presentation to the Dutch National Forensic Institute (NFI). December 6, 2016 Maastricht University, Maastricht, Netherlands.

32. Forensic Epidemiology: Principals & Practice Part 2: Investigation of specific causation. Gran Sesión de Epidemiología Forense. November 18, 2016 Universidad Libre, Cali, Colombia.

33. Forensic Epidemiology: Principals & Practice Part 1: Investigation of specific causation. Gran Sesión de Epidemiología Forense. November 18, 2016 Universidad Libre, Cali, Colombia.

34. Fatal crash investigation. World Reconstruction Exposition (WREX 2016). May 2-6, 2016. Orlando, Florida.

35. Trends in police use-of-force related hospitalizations; an analysis of Nationwide Inpatient Sample data for 1998-2012. *Research in Progress,* Department of Internal Medicine, Oregon Health & Science University School of Medicine, November 10, 2015, Portland, Oregon.

36. Concussion risk associated with head impact; an analysis of pooled data from helmeted sports. *12th Annual Conference of the North American Brain Injury Society*, April 29-May 1, 2015 San Antonio, Texas

37. The role of risk in assessing cause in forensic investigation of injury and death. *American Medical Response biennial EMS training*. April 17, 2015, Mt. Hood, Oregon.

38. Development of a pediatric fatal head trauma registry. *Research in Progress,* Department of Internal Medicine, Oregon Health & Science University School of Medicine, April 7, 2015, Portland, Oregon.

39. Fatal crash investigation: methods and case presentations. Washington County CART Team training lecture. Tualatin Police Department, Tualatin, Oregon. March 4, 2015.

40. An analysis of the causal relationship between maternal/ prenatal cocaine use and stillbirth: results of a national hospital database study. *67th Annual Meeting of the American Academy of Forensic Sciences* 2015 Feb 16-21: Orlando, FL

41. Biomechanical, Mechanical, and Epidemiologic Characteristics of Low Speed Rear Impact Collisions. *67th Annual Meeting of the American Academy of Forensic Sciences* 2015 Feb 16-21: Orlando, FL.

42. Sexual abuse in the Boy Scouts: a preliminary analysis of Boy Scout ineligible volunteer files from 1945 to 2004. *Research in Progress,* Department of Sociology, Portland State University. December 18, 2014.

43. Understanding chronic pain after whiplash trauma. *Lund University Hospital, Department of Rehabilitation Medicine.* December 11, 2014, Lund, Sweden.

44. Forensic Applications of Epidemiology in Criminal and Civil Settings. *Richard Doll Building, Nuffield College, Oxford University.* December 10, 2014, Oxford, UK.

45. The Efficacy of tPA in Preventing Long Term Poor Outcome After Ischemic Stroke: A Reanalysis of NINDS Data. *Research in Progress,* Department of Internal Medicine, Oregon Health & Science University School of Medicine, November 25, 2014, Portland, Oregon.

46. Forensic Epidemiology and Bioterrorism. Full day course for public health and law enforcement. A joint training for public health, law enforcement, and emergency services. Sponsored by Charles County Department of Public Health and funded through a grant from the Centers for Disease Control and Prevention, Public Health Preparedness Cooperative Agreement. College of Southern Maryland. June 10, 2014. Waldorf, Maryland.

47. Maternal cocaine exposure and still-birth risk. *Research in Progress,* Department of Internal Medicine, Oregon Health & Science University School of Medicine, May 20, 2014, Portland, Oregon.

48. Forensic Applications of Epidemiology in Civil and Criminal Litigation. *9th International Conference on Forensic Inference and Statistics* August 19-22, 2014

49. Investigation of a disputed mechanism of diffuse axonal injury following a low speed frontal crash. *65th Annual Meeting of the American Academy of Forensic Sciences,* Feb 21, 2014, Seattle, Washington.

50. Public defense of dissertation for Doctor of Medicine degree, "The role of forensic epidemiology in evidence based forensic medical practice." *Section of Forensic Medicine, Department of Community Medicine and Rehabilitation, Faculty of Medicine, Umeå University*. November 6, 2013, Umeå, Sweden.

51. Case studies in applied forensic epidemiology. Invited lecture, *University of Maastricht, Department of Complex Genetics and Epidemiology,* Maastricht, The Netherlands. October 31, 2013.

52. The relationship between Chiari malformation, trauma, and chronic pain. *Karolinska Institute,* September 27, 2012, Stockholm, Sweden.

53. Serious head and neck injury as a predictor of occupant position in fatal rollover crashes.

18th Nordic Conference on Forensic Medicine, June 13-16, 2012 Aarhus Denmark.

54. Self-defense or attempted murder? A combined ballistic and traffic crash reconstruction of a Texas shooting. *18th Nordic Conference on Forensic Medicine*, June 13-16, 2012 Aarhus Denmark.

55. Applied forensic epidemiology: the evaluation of individual causation in wrongful death cases using relative risk. *18th Nordic Conference on Forensic Medicine*, June 13-16, 2012 Aarhus Denmark.

56. Forensic Epidemiologic Investigation of Traffic Crash-Related Homicide. *Årsmøde i Dansk Selskab for Retsmedicin og Dansk Selskab for Ulykkes- og Skadeforebyggelse* [The Danish Traffic Medicine Society of the Danish Society for Forensic Medicine] November 3-5, 2011] Grenå, Denmark.

57. Traffic Crash Injuries 1960 to the present; how far we've come. Keynote address, *Årsmøde i Dansk Selskab for Retsmedicin og Dansk Selskab for Ulykkes- og Skadeforebyggelse* [The Danish Traffic Medicine Society of the Danish Society for Forensic Medicine] November 3-5, 2011] Grenå, Denmark.

58. Is there a place for forensic biomechanics in evaluation of Probability of Causation? *8th International Conference on Forensic Inference and Statistics (ICFIS),* July 19-21, 2011; University of Washington, Seattle, Washington.

59. Case studies in forensic epidemiology. *8th International Conference on Forensic Inference and Statistics (ICFIS)*, July 19-21, 2011; University of Washington, Seattle, Washington.

60. The Error Odds method of objectively assessing bioengineering based claims of causation; a Bayesian approach to test validity quantification. Invited lecture; joint session of Jurisprudence and Engineering Sciences. *62nd Annual Meeting of the American Academy of Forensic Sciences* Feb 25, 2010, Seattle, Washington.

61. The effect of restraint use on skull vault fractures in rollover crashes. Engineering Sciences section, *62nd Annual Meeting of the American Academy of Forensic Sciences* Feb 26, 2010 Seattle, Washington.

62. Head injuries in lower speed collinear collisions; an analysis of the National Automotive Sampling System database. Engineering Sciences section, *62nd Annual Meeting of the American Academy of Forensic Sciences* Feb 26, 2010 Seattle, Washington.

63. The Error Odds assessment of accuracy for tests in forensic medicine; a simple application of Bayes' Law. Invited presentation; *XXI Congress of the International Academy of Legal Medicine* May 2009, Lisbon, Portugal

64. Forensic Epidemiology and Traumatic Brain Injury. Invited presentation; *VII World Congress on Brain Injury, International Brain Injury Association* April 2008 Lisbon, Portugal.

65. Bayesian analysis of predictive characteristics in suicidal versus homicidal hanging deaths: A case study in forensic epidemiology. *59th Annual Meeting of the American Academy of Forensic Sciences* February 19-24, 2007, San Antonio, Texas.

66. Probability and pathologic findings in suicidal versus homicidal hanging deaths; a case study *16th Nordic Conference on Forensic Medicine* June 15, 2006, Turku, Finland.

67. Pattern Analysis as a means of driver determination in a vehicular homicide investigation *16th Nordic Conference on Forensic Medicine* June 16, 2006, Turku, Finland.

68. Probability and pathologic findings in suicidal versus homicidal hangings; a case study. Grand Rounds *Institute of Forensic Medicine, Aarhus University, Aarhus, Denmark*. October 27, 2005.

69. Road Traffic Crashes- mechanisms, injuries and analysis. Invited lecture (Keynote address) *Danish Society for Automotive Medicine* Aarhus, Denmark. October 27, 2005.

70. The Defense Medical Evaluation: Issues, Ethics and Pitfalls. *2nd Annual International Whiplash Trauma Congress* Breckenridge, Colorado. February 26, 2005.

71. Injury Pattern Analysis in Fatal Traffic Crash Investigation *American Academy of Forensic Sciences' 57th Annual Meeting* New Orleans, Louisiana. February 24, 2005.

72. Independent Medical Evaluations and secondary gain. Grand Rounds, *Department of Psychiatry, Oregon Health & Science University School of Medicine* November 2, 2004.

73. The epidemiology of crash-related trauma. Invited lecture. Grand Rounds *Peace Health Hospital* Longview, Washington. March 30, 2004.

74. Injury pattern analysis: the practical application to the investigation of crash related death. Grand Rounds Department of Pathology, *Oregon Health Sciences University* Portland, Oregon. January 21, 2004.

75. Literature critique, Whiplash Updates. Invited lecture. *British Columbia Chiropractic Association* Vancouver, British Columbia, Canada. October 23, 2003.

76. Catastrophic crash cases and probability. Invited lecture. *Paris American Legal Institute* Florence, Italy. September 22, 2003.

77. Injury pattern analysis as a means of driver identification in a vehicular homicide; a case study. *International Traffic Medicine Association Annual Meeting*. Budapest, Hungary. September 17, 2003.

78. Fatal head injury crashes in a rural Oregon county, 1990-1999. *International Traffic Medicine Association Annual Meeting*. Budapest, Hungary. September 16, 2003.

79. Crash reconstruction and forensic science. Invited lecture. *CRASH 2003* Spine Research Institute of San Diego. San Diego, California. August 22, 2003.

80. The uses and abuses of psychiatric IMEs: an ethical dilemma. *American Psychiatric Association Annual Meeting*. San Francisco, California. May 21, 2003.

81. Crash-related trauma. Invited lecture. THRI Neuroscience meeting. *Texas Back Institute* St. Mary's Hospital. Plano, Texas. February 28, 2003.

82. Whiplash injury and occult spinal fracture. *International Association for the Study of Pain* 10th World Congress on pain. San Diego, California. August 20, 2002.

83. Crash Reconstruction and forensic science. *CRASH 2002* Spine Research Institute of San Diego. San Diego, California. August 8, 2002.

84. Epidemiologic and medical aspects of whiplash injury. *Swedish Orthopedic Society* Stockholm, Sweden. May 17, 2002.

85. Epidemiologic considerations of whiplash injuries. Invited lecture. *European Chiropractic Union Annual Congress* Oslo, Norway. May 9, 2002.

86. The role of cervical manipulation in neck pain. Invited lecture. *Cervical Spine Research Society 29th Annual Meeting* Instructional Course, Monterey, CA, Nov 29-Dec 1, 2001

87. Whiplash injury and occult vertebral fracture: a case series of bone SPECT imaging of patients with persisting spine pain following a motor vehicle crash. *Cervical Spine Research Society 29th Annual Meeting* Monterey, CA, Nov 29-Dec 1, 2001

88. Interpreting the medical literature with a focus on bias and confounding/Minimal Damage Crash Reconstruction. Invited lecture. *CRASH 2001* Spine Research Institute of San Diego. San Diego, CA. August 2001.

89. Injury Pattern Analysis and Forensic Trauma Epidemiology in vehicular homicide investigation. *Washington State Patrol* Lacy, WA, June 20, 2001

90. Case studies in multidisciplinary spine care. *Chiropractic Association of Oregon* Portland OR, April 28, 2001

91. Injury Pattern Analysis and Forensic Trauma Epidemiology in vehicular homicide investigation. *Washington State Patrol* Vancouver, WA, February 13, 2001

92. The role of cervical manipulation in neck pain. Invited lecture. *Cervical Spine Research Society 28th Annual Meeting* Instructional Course. Charleston, South Carolina, December 1, 2000

93. Significant spinal injuries resulting from low-level accelerations: a case series of roller coaster injuries. *Cervical Spine Research Society 28th Annual Meeting* Charleston, South Carolina, December 1, 2000

94. Injury Pattern Analysis and Forensic Trauma Epidemiology in vehicular homicide investigation. *Medical Examiner Division, Oregon State Police*. Salem, OR. November 28, 2000

95. Minimal damage motor vehicle crash reconstruction. Invited lecture. Spine Research Institute of San Diego. *CRASH 2000* Spine Research Institute of San Diego. San Diego CA. August 11-13, 2000

96. Analysis of the whiplash literature with emphasis on research out of Quebec and Saskatchewan. *Saskatchewan Medical Group and Coalition Against No-Fault*. Saskatoon, Saskatchewan. September 2000.

97. Forensic applications of crash reconstruction. Invited lecture. *CRASH 2000* Spine Research Institute of San Diego. San Diego, CA. August 11, 2000.

98. Injury Pattern Analysis and Forensic Trauma Epidemiology; practical application in the forensic setting. Washington County CART Team training lecture, on behalf of *Medical Examiner Division, Oregon State Police*. Lake Oswego, Oregon. July 13, 2000.

99. The epidemiology of acute and chronic whiplash injury in the U.S. Invited lecture. *HWS-Distorsion (Schleudetrauma) & Leichte Traumatische, Hirnverletzung. Invaliditat und Berufliche Reintegration*. Basel, Switzerland. June 29-30, 2000.

100. Whiplash injury risk factors. Invited lecture. *Whiplash 2000*. Bath, England. May 18, 2000.

101. How many whiplash injuries could there be? Invited lecture. *Whiplash 2000* Bath, England. May 17, 2000.

102. Whiplash injury and occupant kinematics; the results of human volunteer crash testing. Invited lecture. *Society for Road Traffic Injuries (LFT)*. Oslo, Norway. April 3, 2000.

103. Epidemiology of Whiplash Injuries. Invited lecture. *Swedish Orthopedic Society* Stockholm, Sweden. March 31, 2000.

104. Methodologic pitfalls in epidemiological and clinical research, with examples from whiplash research. Invited lecture. *Arvetsinstitut (Institute for Musculoskeletal Medicine Research) Umeå University,* Umeå, Sweden. March 30, 2000.

105. The prevalence of whiplash-associated chronic cervical pain among a random sample of patients with chronic spine pain. *Cervical Spine Research Society 27th Annual Meeting* Seattle, WA December 13-15, 1999.

106. High speed videography of occupant movement during human volunteer crash testing; searching for an injury threshold. *North American Whiplash Trauma Congress* November 12, 1999.

107. Scientific Chair Address. *North American Whiplash Trauma Congress* November 12, 1999.

108. The science of whiplash injuries: common mistakes in the reconstruction of low speed crashes. Invited lecture. *Forensic Accident Reconstructionists of Oregon* Eugene, Oregon, April 1, 1999.

109. Late whiplash risk factor analysis of a random sample of patients with chronic spine pain. *Whiplash Associated Disorders World Congress* Vancouver, B.C. February 9, 1999.

110. The epidemiology of whiplash injuries; critiquing the literature. Grand rounds, *Department of Public Health and Preventive Medicine, Oregon Health Sciences University* Portland, Oregon. December 17, 1998.

111. The scientific appraisal of motor vehicle crash-related injuries. Invited lecture. *Managing the Cost of Auto Injuries*. Orlando, FL. December 8, 1998.

112. Risk factors for chronic pain following acute whiplash injury. Invited lecture. *Managing the Cost of Auto Injuries* Orlando, FL. December 7, 1998.

113. The epidemiology of whiplash injuries. Current Issues in Public Health, *Department of Public Health and Preventive Medicine, Oregon Health Sciences University* Portland, Oregon. October 7, 1998

114. The epidemiology of whiplash - is there a reliable threshold for whiplash injury? Invited lecture. *HWS-Distortion (Schleudetrauma) & Leichte Traumatische Medico-Legal Congress*. Basel, Switzerland, June 26, 1998.

115. The Epidemiology of Late Whiplash. Invited lecture. *HWS-Distortion (Schleudetrauma) & Leichte Traumatische Medico-Legal Congress.* Basel, Switzerland, June 25, 1998.

116. Methodologic error in the whiplash literature. Invited lecture. *Whiplash '96* Brussels, Belgium, November 15-16, 1996

117. Conservative therapy for spinal disorders *St. Francis Hospital*, San Francisco, CA. September 1994

118. The history of chiropractic. Invited lecture. *White Plains Hospital*, White Plains, NY. December 1993

Appendix B

2020-2024 RULE 26 DISCLOSURE
MICHAEL D. FREEMAN, MedDr PhD MScFMS MPH FRCPath FFFLM FACE DLM

November 2020-November 2024

2020

November 3, 2020: Deposition via video conference in Salem, Oregon. Attorney: Paderewski, Max. Case: Joseph, London v Giddens. Case # 2018CI10516. In the District Court of Bexar County, Texas.

December 7, 2020: Deposition via video conference in Salem, Oregon. Attorney: Kolodinsky, Rick. Case: Watkins, S v Livingston et al. Case # 2018-30269-CICI. In the Circuit Court of the Seventh Judicial Circuit in and for Volusia County, Florida.

December 14, 2020: Deposition via video conference in Salem, Oregon. Attorney: Steffen, John. Case: Spooner, L v Cinnappan. Case # 14 L 428. In the Circuit Court of Kane County, Illinois, Sixteenth Judicial Circuit.

December 15, 2020: Deposition via video conference in Salem, Oregon. Attorney: Warner, Thomas. Case: Nuessen, Patrick v Butler. Case # 18-CV-2078. In the Eighteenth Judicial District, District Court, Sedgwick County, Kansas Civil Department.

December 22, 2020: Continued Deposition via video conference in Salem, Oregon. Attorney: Joyce, Robert. Case: Thomas, Ashlyn v Mitchell. Case # 18-CA-001654. In the Circuit Court of the Sixth Judicial Circuit in and for Pasco County, State of Florida Civil Division.

2021

January 5, 2021: Testimony at hearing via video conference in Salem, Oregon. Attorney: Joyce, Robert. Case: Thomas, Ashlyn v Mitchell. Case # 18-CA-001654. In the Circuit Court of the Sixth Judicial Circuit, in and for Pasco County, State of Florida Civil Division.

January 5, 2021: Deposition via video conference in Salem, Oregon. Attorney: Tramuto, Robert. Case: Fraire, J v Basic Energy Services. Case # 18-11-22703-CVR. In the District Court 143rd Judicial District, Reeves County, Texas.

January 20, 2021: Deposition via video conference in Salem, Oregon. Attorney: Murphy, Jason. Case: Reynolds, A v CR Bard. Case # 3:19-cv-00762-WMC. In the United States District Court for the Western District of Wisconsin.

January 25, 2021: Deposition via video conference in Salem, Oregon. Attorney: Hermida, Andres. Case: Garrahan, M v Publix. Case # 19-CA-00106-M. In the Circuit Court of the Sixteenth Judicial Circuit, in and for Monroe County, Florida.

January 27, 2021: Deposition via video conference in Salem, Oregon. Attorney: Brazzeal, Chad. Case: Reyes v Coastal Living Electrical LLC. Case # 19-CA-0702. In the Circuit Court of the Twentieth Judicial Circuit, in and for Collier County, Florida.

February 11, 2021: Deposition via video conference in Salem, Oregon. Attorney: Winder, Donald. Case: Lands' End, Inc. Case # 3:19-cv-00823-jdp. In the United States District Court for the Western District of Wisconsin.

February 23, 2021: Trial testimony via video conference in Salem, Oregon. Attorney: Brown Lee, Deborah. Case: State of Washington v Haile. Case # 17-1-03939-6-KNT. In the Superior Court for the State of Washington, King County.

February 24, 2021: Trial testimony via video conference in Salem, Oregon. Attorney: McGregor, Shelagh. Case: Yost, K v Bahler. Case # 1103-14108. In the Court of Queen's Bench of Alberta.

March 2, 2021: Trial testimony via video conference in Salem, Oregon. Attorney: Harte, Paul. Case: Levac v James. Case # CV-14-511333-00CP. In the Ontario Superior Court of Justice.

March 4, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Machler, Susan. Case: Seymour v Children's Hospital. Case # 20-2-07733-0 SEA. In the Superior Court of the State of Washington In and for the county of King.

March 9, 2021: Deposition via Zoom in Salem, Oregon. Attorney: DiSilvio, Marilena. Case: Mann, A v Air Methods Corporation. Case #19 CV 911942. In the Court of Common Pleas Cuyahoga County, Ohio.

March 10, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Ladah, Ramzy. Case: Marin, N v Clark. Case # A-18-776332-C. In the District Court Clark County, Nevada.

March 16, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Steffan, John. Case: Spooner, L v Chinnappan. Case # 14 L 428. In the Circuit Court of the Sixteenth Judicial Circuit, Kane County, Illinois.

March 19, 2021: Deposition via video conference in Salem, Oregon. Attorney: Smith, Alicia. Case: Wilson v Home Depot. Case # 2018-CA-000243-0. In the Circuit Court of the Ninth Judicial Circuit, in and for Orange County, Florida.

March 22, 2021: Deposition via video conference in Salem, Oregon. Attorney: Williams, Don. Case: Esco, J v Mendoza. Case # 45382. In the 18th Judicial District Court, Parish of West Baton Rouge, State of Louisiana.

March 24, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Crosley, Tom. Case: Lambaria-Gonzalez v United Parcel Service, Inc. Case # 2018CI08525. In the District Court, 408th Judicial District Bexar County, Texas.

March 25, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Swope, Scott. Case: Weckerle, L v State Farm. Case # 20-000137-CI. In the Circuit Court of the Sixth Judicial Circuit, in and for Pinellas County, Florida.

March 26, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Stephens, Joe. Case: Beck, Amy v Hoelscher. Case # 308,657-B. In the District Court 146th Judicial District, Bell County, Texas.

March 29, 2021: Continued deposition via Zoom in Salem, Oregon. Attorney: Hermida, Andres. Case: Garrahan, M v Publix. Case # 19-CA-00106-M. In the Circuit Court of the Sixteenth Judicial Circuit, in and for Monroe County, Florida.

March 30, 2021: Deposition via video conference in Salem, Oregon. Attorney: Goldberg, Tyler. Case: Diaz, G v University of Washington Medical Center. Case # 16-2-11790-2 SEA. In the Superior Court of Washington for King County.

April 7, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Carter, David. Case: Hughes, T v Indian River Memorial Hospital, Inc. Case # 312018CA000344. In the Circuit Court of the Nineteenth Judicial Circuit, in and for Indian River County, Florida.

April 9, 2021: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Sallies v Portuguese Management Corporation. Case # 312019CA000421. In the Circuit Court of the 19th Judicial Circuit, in and for Indian River County, Florida.

April 13, 2021: Deposition via video conference in Salem, Oregon. Attorney: Wise, Jared. Case: Gonzalez, J v Behel. Case # 2019-CA-000983-08-K. In the Circuit Court of the Eighteenth Judicial Circuit, in and for Seminole County, Florida.

April 14, 2021: Deposition via video conference in Salem, Oregon. Attorney: Kohler, Alison. Case: Parker v Matz. Case # C03CV19004232. In the Circuit Court for Baltimore County.

April 15, 2021: Deposition via video conference in Salem, Oregon. Attorney: Velez, Harold. Case: Hernandez- Miyashiki v Beau Living. Case # 16-032706 CA 01. In the Circuit Court of the 11th Judicial Circuit, in and for Miami-Dade County, Florida, General Jurisdiction Division.

April 16, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Russo, Nick. Case: Watson v Ranger. Case # 2019 10352 CIDL. In the Circuit Court, of the Seventh Judicial Circuit, in and for Volusia County, Florida.

April 19, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Dunn, Joseph. Case: Marino, John v Nordfors. Case # 05-2020-CA-013498. In the Circuit Court, of the Eighteenth Judicial Circuit, in and for Brevard County, Florida.

April 21, 2021: Continued deposition via video conference in Salem, Oregon. Attorney: Goldberg, Tyler. Case: Diaz, G v University of Washington Medical Center. Case # 16-2-11790-2 SEA. In the Superior Court of Washington for King County.

April 29, 2021: Testimony at hearing via video conference in Salem, Oregon. Attorney: Perez, Karina. Case: Saffold, M v Spitznagel. Case # 17-CA-003497. In the Circuit Court of the 13th Judicial Circuit, in and for Hillsborough County, Florida, Civil Division.

April 30, 2021: Testimony at hearing via video conference in Salem, Oregon. Attorney: Kohler, Alison. Case: Parker v Matz. Case # C03CV19004232. In the Circuit Court for Baltimore County.

May 6, 2021: Deposition via video conference in Salem, Oregon. Attorney: Hevia, Anthony. Case: Wilson v Amspoker. Case # 42-2019-CA-000917-CAAXXX. In the Circuit Court of the Fifth Judicial Circuit, in and for Marion County, Florida.

May 12, 2021: Continued deposition via video conference in Salem, Oregon. Attorney: Velez, Harold. Case: Hernandez-Miyashiki v Beau Living. Case # 16-032706 CA 01. In the Circuit Court of the 11th Judicial Circuit, in and for Miami-Dade County, Florida, General Jurisdiction Division.

May 13, 2021: Continued deposition via video conference in Salem, Oregon. Attorney: Hevia, Anthony. Case: Wilson v Amspoker. Case # 42-2019-CA-000917-CAAXXX. In the Circuit Court of the Fifth Judicial Circuit, in and for Marion County, Florida.

May 14, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Roberts, James. Case: Parker v Smith County. Case # 6:19CV212. In the United States District Court, for the Eastern District of Texas, Tyler Division.

May 26, 2021: Deposition via video conference in Salem, Oregon. Attorney: Hamilton, Alexandra. Case: Farrell v Hongo. Case # CGC-17-560982. In the Superior Court of California, County of San Francisco.

June 3, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Williams, Don. Case: Esco, John. Case # 00001045382. In the 18th Judicial District Court for the Parish of West Baton Rouge.

June 10, 2021: Continued deposition via Zoom in Salem, Oregon. Attorney: Hamilton, Alexandra. Case: Farrell. V Hongo. Case # CGC-17-560982. Superior Court of the State of California, For the County of San Francisco.

June 11, 2021: Continued deposition via Zoom in Salem, Oregon. Attorney: Hamilton, Alexandra. Case: Farrell. V Hongo. Case # CGC-17-560982. Superior Court of the State of California, For the County of San Francisco.

June 14, 2021: Deposition via video conference in Salem, Oregon. Attorney: Roberts, James. Case: Parker, C v Smith County. Case # 6:19-CV-212. In the United States District Court, Eastern District of Texas, Tyler Division.

June 15, 2021: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Rosales-Gutierrez. Case # 2017-CA-9511-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

June 22, 2021: Deposition via video conference in Salem, Oregon. Attorney: Engelhardt, Chad. Case: Streeter, M. Case # 16-0557-NH. State of Michigan, In the Circuit Court for The County of Kalamazoo.

June 25, 2021: Deposition via video conference in Salem, Oregon. Attorney: Collins, Moseley. Case: McEntyre v University of Washington Medical Center. Case # 20-2-08342-9 SEA. In the Superior Court of the State of Washington, In and For the County of King.

July 12, 2021: Deposition via video conference in Salem, Oregon. Attorney: Fernandez, Jennifer. Case: Wilson v Scruggs. Case # 2019-CA-003543. In the Circuit Court of the Twelfth Judicial Circuit, In and For Manatee County, Florida.

July 13, 2021: Deposition via video conference in Salem, Oregon. Attorney: Scofield, Graham. Case: Tally, N v Old Republic Insurance Co. Case # 2021CV00050. In the State Court of Clayton County, State of Georgia.

July 16, 2021: Deposition in Salem, Oregon. Attorney: Williams, Burgess. Case: Gonzalez, H v Leroy's Excavating. Case # D-117-CV-2020-00284. In the State of New Mexico, County of Rio Arriba, First Judicial District Court.

July 28, 2021: Deposition via Zoom in Salem, Oregon. Attorney: Midlo, Bennett. Case: Hernandez v Miller. Case # 2019-60983. In the District Court of Harris County, Texas, 152nd Judicial District.

August 2, 2021: Continued deposition via video conference in Salem, Oregon. Attorney: Scofield, Graham. Case: Tally, N v Old Republic Insurance Co. Case # 2021CV00050. In the State Court of Clayton County, State of Georgia.

August 3, 2021: Deposition via video conference in Salem, Oregon. Attorney: Lopez, Fermin. Case: Lindblad, L v Adventist Health Systems. Case # 2020-CA-72-MP. In the Circuit Court of the Ninth Judicial Circuit, In and For Osceola County, Florida.

August 3, 2021: Deposition via video conference in Salem, Oregon. Attorney: Mills, Laura. Case: Carr v Cleveland Clinic Union Hospital. Case # 2020 CM 03 0206. In the Court of Common Pleas, Tuscarawas County, Ohio.

August 4, 2021: Deposition via video conference in Salem, Oregon. Attorney: Dingwall, Jeffrey. Case: Adkins v CSX. Case # 3:18-CV-00321. In the United States District Court, For the Southern District of West Virginia At Huntington.

August 11, 2021: Deposition via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Robitaille. Case # 15-CA-006639. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida, Civil District.

August 12, 2021: Deposition via video conference in Salem, Oregon. Attorney: Maucher, Michael. Case: Kodama v State Farm. Case # 2020-CP-08-00203. In the State of South Carolina, In the Court of Common Pleas, County of Charleston.

August 12, 2021: Deposition via video conference in Salem, Oregon. Attorney: Kaludi, Ike. Case: Aldaik v Larkins. Case # CGC-20-583539. In the Superior Court of California, City and County of San Francisco.

August 16, 2021: Deposition via video conference in Salem, Oregon. Attorney: Connick, Thomas. Case: Reichart v NVR, Inc. Case # CV 2019 10 2113. In the Common Pleas Court of Butler County, Ohio, General Division.

August 17, 2021: Deposition via video conference in Salem, Oregon. Attorney: Hendler, Scott. Case: Koen v Monsanto. Case # 3:20-cv-03074-VC. In the United States District Court, Northern District of California.

August 18, 2021: Deposition via video conference in Salem, Oregon. Attorney: Henderson, David. Case: Brooks, K. Case # 3AN-19-06624 CI. In the Superior Court for the State of Alaska, Third Judicial District at Anchorage.

August 20, 2021: Continued deposition via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Robitaille. Case # 15-CA-006639. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida, Civil District.

August 23, 2021: Preserved deposition for trial in Salem, Oregon. Attorney: Lyon, Robert. Case: Rivera. Case # 471-00026-2019. In the District Court, 471st Judicial District, Collin County, Texas.

August 24, 2021: Trial testimony via video conference in Salem, Oregon. Attorney: Hutchinson, Ryan. Case: Bovinett v Berman. Case # 2018-CA-004480-NC. In the Circuit Court of the Twelfth Judicial Circuit, In and For Sarasota County, Florida.

August 25, 2021: Continued deposition via video conference in Salem, Oregon. Attorney: Hendler, Scott. Case: Koen v Monsanto. Case # 3:20-cv-03074-VC. In the United States District Court, Northern District of California.

August 30, 2021: Preserved deposition for trial in Salem, Oregon. Attorney: Allen, Robert. Case: Ramirez, Shirley v USAA. Case # 2019C114670. In the District Court, 45th Judicial District, Bexar County, Texas.

August 31, 2021: Deposition via video conference in Salem, Oregon. Attorney: Trujillo, John. Case: Meinsen. Case # 19-CA-010782. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida.

September 1, 2021: Deposition via video conference in Salem, Oregon. Attorney: Morgan, Daniel. Case: Stenson. Case # 2018-31051-CICI. In the Circuit Court of the 7th Judicial Circuit, In and For Volusia County, Florida.

September 2, 2021: Deposition via video conference in Salem, Oregon. Attorney: Degenhart, William. Case: Soper-Chacon v Chipotle. Case # 4:20-cv-00324-RSB-CLR. In the United States District Court, For the Southern District of Georgia, Savannah Division.

September 7, 2021: Deposition via video conference in Salem, Oregon. Attorney: Fiol, Alejandro. Case: Torres, Emily. Case # 19-CA-11907. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida, Civil Division.

September 9, 2021: Deposition via video conference in Salem, Oregon. Attorney: Fernandez, Jennifer. Case: Wilson v Scruggs. Case # 2019-CA-003543. In the Circuit Court of the Twelfth Judicial Circuit, In and For Manatee County, Florida.

September 13, 2021: Deposition via video conference in Salem, Oregon. Attorney: Duncan, Brian. Case: West v Springhill. Case # CV-16-901045. In the Circuit Court of Mobile County, Alabama.

October 5, 2021: Preserved deposition via video conference in Salem, Oregon. Attorney: Henderson, David. Case: Brooks, K. Case # 3AN-19-06624 CI. In the Superior Court for the State of Alaska, Third Judicial District at Anchorage.

October 6, 2021: Deposition via video conference in Salem, Oregon. Attorney: Tucker, Robert. Case: Gamble. Case # LACL144149. In the Iowa District Court for Polk County.

October 6, 2021: Deposition via video conference in Salem, Oregon. Attorney: Malarkey, Emily. Case: Taylor, R. Case # C-12-CV-19-001075. In the Circuit Court for Harford County.

October 12, 2021: Deposition via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Brasseaux. Case # 20-CA-002932. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida.

October 19, 2021: Deposition via video conference in Salem, Oregon. Attorney: Luckey, Kent. Case: Zmrzel v Lyft. Case # 34-2018-00234895. In the Superior Court of the State of California, County of Sacramento.

October 22, 2021: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Rosales-Gutierrez. Case # 2017-CA-9511-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

October 26, 2021: Deposition preserved for trial in Salem, Oregon. Attorney: Brown, Paula. Case: Hobbs v KCSR. Case # 41CV-16-80. In the Circuit Court of Little River County, Arkansas.

October 27, 2021: Deposition via video conference in Salem, Oregon. Attorney: Roof, Colby. Case: Farmer, C. Case # 18-CA-00128. In the Circuit Court of the Fifth Judicial Circuit, In and For Sumter County, Florida.

October 27, 2021: Deposition via video conference in Salem, Oregon. Attorney: Amaro, James. Case: Ochoa v Master Construction. Case # 20-DCV-273123. In the District Court of Fort Bend County, Texas.

October 28, 2021: Deposition via video conference in Salem, Oregon. Attorney: Paderewski, Max. Case: Haynes, L. Case # DC-18-14848. In the District Court, 191st Judicial District, Dallas County, Texas.

October 29, 2021: Continued deposition via video conference in Salem, Oregon. Attorney: Paderewski, Max. Case: Haynes, L. Case # DC-18-14848. In the District Court, 191st Judicial District, Dallas County, Texas.

November 2, 2021: Deposition via video conference in Salem, Oregon. Attorney: Shapiro, Steven. Case: Mitchell v Rosenthal. Case # 20-CV-778. In the United States District Court, For the District of Colorado.

November 3, 2021: Deposition in Salem, Oregon. Attorney: Hoggard, Denise. Case: Edwards v Thomas. Case # 4:19-CV-4018-SOH. In the United States District Court, Western District of Arkansas, Texarkana Division.

November 8, 2021: Hearing via video conference in Salem, Oregon. Attorney: Hermida, Andres. Case: Garrahan v Publix. Case # 19-CA-000106-M. In the Circuit Court of the Sixteenth Judicial Circuit, In and For Monroe County, Florida.

November 9, 2021: Deposition via video conference in Salem, Oregon. Attorney: Reifschneider, Meranda. Case: Bonnin. Case # 2020-008237-CA-31. In the Circuit Court of the 11th Judicial Circuit, In and For Miami-Dade County, Florida.

November 10, 2021: Deposition via video conference in Salem, Oregon. Attorney: Gilbert, Ronald. Case: Southwell v Sherr. Case # 2018-CA-00452-J. In the Circuit Court of the Eighth Judicial Circuit, In and For Alachua County, Florida.

November 10, 2021: Preserved deposition via video conference in Salem, Oregon. Attorney: Malarkey, Emily. Case: Taylor v Harford Memorial Hospital, Inc. Case # C-12-CV-19-001075. In the Circuit Court for Harford County.

November 15, 2021: Deposition via video conference in Salem, Oregon. Attorney: Gibbons, Robert. Case: Anderson v Dang. Case # 180905610. In the District Court of the Third Judicial District, In and For Salt Lake County, State of Utah.

November 16, 2021: Deposition via video conference in Salem, Oregon. Attorney: Kemp, Adam. Case: Bennett, Patrick v Bob Evans. Case # 19-CA-002653. In the Circuit Court of the Tenth Judicial Circuit, In and For Polk County, Florida Civil Division.

November 22, 2021: Deposition via video conference in Salem, Oregon. Attorney: Dunn, Joseph. Case: Robison, A. Case # 2019-CA-000906-AN. In the Circuit Court of the Ninth Judicial Circuit, In and For Osceola County, Florida.

November 29, 2021: Trial testimony via video conference in Salem, Oregon. Attorney: Luckey, Kent. Case: Zmrzel v Lyft. Case # 34-2018-00234865. In the Superior Court of California, County of Sacramento.

December 14, 2021: Deposition via video conference in Salem, Oregon. Attorney: Bollier, Jack. Case: De Sousa. Case # CGC-19-577258. In the Superior Court of the State of California, County of San Francisco.

December 15, 2021: Deposition via video conference in Salem, Oregon. Attorney: Jacobus, Bruce. Case: Turner, Lynn v Hansen. Case # 05-2019-CA-051586-XXXX-XX. In the Circuit Court of the 18th Judicial Circuit, In and For Brevard County, Florida.

December 16, 2021: Trial testimony via video conference in Salem, Oregon. Attorney: Morgan, Daniel. Case: Stenson, L v Bogle. Case # 2018-31051-CICI. In the Circuit Court, Seventh Judicial Circuit, In and For Volusia County, Florida.

December 21, 2021: Deposition via video conference in Salem, Oregon. Attorney: Connick, Thomas. Case: Platz, S v Karpinecz. Case # 20P000218. In the Court of Common Pleas, Geauga County, Ohio.

December 27, 2021: Deposition via video conference in Salem, Oregon. Attorney: Dollar, Tim. Case: Guthrie v Powell. Case # 20LW-CC00045. In the Circuit Court of Lawrence County, Missouri.

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January 7, 2022: Deposition via video conference in Salem, Oregon. Attorney: Kopacz, Joseph. Case: Sikorske, Jeffrey. Case # 2020-CA-000994. In the Circuit Court of the Sixth Judicial Circuit, In and For Hillsborough County, Florida, Civil Division.

January 8, 2022: Deposition via video conference in Salem, Oregon. Attorney: St Phalle, Eustace. Case: Mota, R v Huey. Case # CGC-20-582482. In the Superior Court of the State of California, County of San Francisco/ Unlimited Jurisdiction.

January 9, 2022: Deposition via video conference in Salem, Oregon. Attorney: Bowen, Lisha. Case: Klinge, Daryl. Case # 18-4429-CI-7. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas County, State of Florida, Civil Division.

January 27, 2022: Preserved deposition via video conference in Salem, Oregon. Attorney: Porter, Laura. Case: Zuniga, Santa v Tri- National. Case # SA-20-CV-01417-ESC. In the United States District Court For the Western District of Texas, San Antonio Division.

January 31, 2022: Deposition via video conference in Salem, Oregon. Attorney: Pajcic, Seth. Case: Yapa, Dayana. Case # 2020-CA-000335. In the Circuit Court of the Fourth Judicial Circuit, In and For Clay County, Florida.

February 1, 2022: Preserved deposition via videoconference in Salem, Oregon. Attorney: Krebs, Ryan. Case: Hawkins, T v Banchs. Case # 20-0283-C26. In the District Court, 26th Judicial District, Williamson County, Texas.

February 2, 2022: Deposition via video conference in Salem, Oregon. Attorney: Machler, Susan. Case: Strauss v Premera Blue Cross. Case # 13-2-28143-1 SEA. In the Superior Court of the State of Washington, In and For the County of King.

February 4, 2022: Deposition via video conference in Salem, Oregon. Attorney: Warner, Thomas. Case: Gould, Richard. Case # 19-CV-000054. In the Fifth Judicial District, District Court of Lyon County, Kansas Civil Department.

February 7, 2022: Deposition via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Clemons, A v Mother Kombucha. Case # 21-CA-000255. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida.

February 8, 2022: Deposition via video conference in Salem, Oregon. Attorney: Downs, Craig. Case: Deepwater Horizon Belo Cases. Case # 3:19-cv-963. In the United States District Court, Northern District of Florida, Pensacola Division.

February 9, 2022: Continued deposition via video conference in Salem, Oregon. Attorney: Downs, Craig. Case: Deepwater Horizon Belo Cases. Case # 3:19-cv-963. In the United States District Court, Northern District of Florida, Pensacola Division.

February 10, 2022: Deposition via video conference in Salem, Oregon. Attorney: Crockett, Brian. Case: Lewis, N. Case # DC-20-10519. In the District Court of Dallas County, Texas, 116th Judicial District.

February 15, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: Kopacz, Joseph. Case: Sikorske, Jeffrey. Case # 2020-CA-000994. In the Circuit Court of the Sixth Judicial Circuit, In and For Hillsborough County, Florida, Civil Division.

February 18, 2022: Deposition via video conference in Salem, Oregon. Attorney: Thompson, Jim. Case: Griffey, C v True Home Value, Inc. Case # 20CY-CV07013. In the Circuit Court of Clay County, Missouri Associate Circuit Division Liberty, Missouri.

February 22, 2022: Preserved deposition via video conference in Salem, Oregon. Attorney: Jones, Henry. Case: Sky Valley ED v Monsanto. Case # 21-2-14302-1 SEA. In the Superior Country of the State of Washington, For the County of King.

February 28, 2022: Deposition via video conference in Salem, Oregon. Attorney: McLaughlin, Robert. Case: Bedel, P. Case # 20-CA-003453. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida.

March 3, 2022: Deposition in Salem, Oregon. Attorney: Gibbons, Roberts. Case: Gallegos, Jerry Brewski's on Historic 25th Street. Case # 200902686. In the Second Judicial District Court, In and For Weber County, State of Utah.

March 7, 2022: Deposition via video conference in Salem, Oregon. Attorney: Paulson, Jane. Case: Villagomez, K v PeaceHealth. Case # 18-2-01491-7. In the Superior Court of the State of Washington, In and For the County of Clark.

March 8, 2022: Preserved deposition via video conference in Salem, Oregon. Attorney: Gibbs, Christopher. Case: Peeples, Dana v Hernstein Auto Group. Case # 920-cv-04463-RMG. In the United States District Court for the District of South Carolina, Beaufort Division.

March 11, 2022: Hearing via video conference in Salem, Oregon. Attorney: Roof, Colby. Case: Farmer, C v Tredwell. Case # 18-CA-00128. In the Circuit Court of the Fifth Judicial Circuit, In and For Sumter County, Florida.

March 14, 2022: Deposition via video conference in Salem, Oregon. Attorney: Jaffe, Martin. Case: Brooks, Oralia v Buchanan. Case # 2019-31480 CICI. In the Circuit Court of the Seventh Judicial Circuit, In and For Volusia County, Florida.

March 15, 2022: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Valdez, M v Central Freight Lines. Case # 2020-CVA-000764-D3. In District Court, 341st Judicial District, Webb County, Texas.

March 23, 2022: Hearing via video conference in Salem, Oregon. Attorney: Trujillo, John. Case: Meinsen, Tara v Esurance Property and Casualty Insurance Company. Case # 19-CA-010782. In the Circuit Court of the 13th Judicial Circuit, In and For Hillsborough County, Florida.

March 25, 2022: Deposition via video conference in Salem, Oregon. Attorney: Biggart, James. Case: Blanchette, V v Florida Trails. Case # 2020-CA-0482. In the Circuit Court of the Eighth Judicial Circuit, In and For Alachua County, Florida.

April 5, 2022: Deposition via video conference in Salem, Oregon. Attorney: Coats, Elizabeth. Case: Simpson, C v Harris. Case # A-19-799090-C. In the District Court, Clark County, Nevada.

April 7, 2022: Deposition via video conference in Salem, Oregon. Attorney: Hornbuckle, Stephen. Case: Parker v PeaceHealth. Case # 19-2-02043-37. In the Superior Court of the State of Washington, In and For the County of Whatcom.

April 8, 2022: Continued deposition via video conference in Salem, Oregon. Attorney: Dunn, Joseph. Case: Robison, Angela. Case # 2019 CA 000906 AN. In the Circuit Court of the Ninth Judicial Circuit, In and For Osceola County, Florida.

April 12, 2022: Preserved deposition via video conference in Salem, Oregon. Attorney: Peacock, Malorie. Case: Vasquez, G v San Jose Fruit. Case # 7:20-cv-355. In the United States District Court, For Southern District of Texas, Mcallen Division.

April 14, 2022: Deposition via video conference in Salem, Oregon. Attorney: Pilon, Chad. Case: Roberts v Dodd. Case # 19-007430-CI. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas County, Florida Civil Division.

April 15, 2022: Deposition via video conference in Salem, Oregon. Attorney: Coletti, John. Case: Hart, Linda v Legacy Health. Case # 20-2-01672-06. In the Superior Court of the State of Washington, For Clark County.

April 20, 2022: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Barrera, Rene v Arch Transport. Case # 20-08-00143-CVL. In the District Court of La Salle County, Texas.

April 22, 2022: Deposition via video conference in Salem, Oregon. Attorney: Bell, Alfred. Case: Willis, D v Asplundh Tree Expert. Case # 562020CA000614. In the Circuit Court of the 19th Judicial Circuit, In and For St. Lucie County, Florida.

April 25, 2022: Preserved deposition via video conference in Salem, Oregon. Attorney: Dugas, Clay. Case: Layfield, Kylie v Richard. Case # A-203680. In the District Court, Jefferson County, Texas, 58th Judicial District.

April 26, 2022: Hearing via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Robitaille v State Farm Insurance. Case # 15-CA-006639. In the Circuit Court of the Thirtieth Judicial Circuit, In and For Hillsborough County, State of Florida., Civil Division.

April 28, 2022: Deposition via video conference in Salem, Oregon. Attorney: Johnson, Jordan. Case: Daigle v Cook. Case # 20CV369832. In the Superior Court of California, County of Santa Clara.

April 28, 2022: Preserved deposition via video conference in Salem, Oregon. Attorney: Machler, Susan. Case: Hamilton, Z. Case # 20-2-00543-21. In the Superior Court of the State of Washington, In and For the County of Lewis.

April 29, 2022: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Elbert, J v Henocque. Case # 2018-CA-017312. In the Circuit Court of the Eighteenth Judicial Circuit, In and For Brevard County, Florida, Civil Division.

May 12, 2022: Deposition via video conference in Salem, Oregon. Attorney: LaCien, Brian. Case: Fornek v Sterigenics. Case # 2018-L-010475. In the Circuit Court of Cook County, County Department, Law Division.

June 3, 2022: Continued deposition via video conference in Salem, Oregon. Attorney: Russo, Nick. Case: Esaine, A v Conquering Lion Trucking, LLC. Case # 2020-CA-003208-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, State of Florida, Civil Division.

June 6, 2022: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Fernandez, Ramiro. Case # 5:21-cv-123. In the United States District Court, For the Southern District of Texas, Laredo Division.

June 8, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: Warner, Thomas. Case: Nuessen, P v Butler. Case # 18-CV-2078. In the Eighteenth Judicial District, District Court, Sedgwick County, Kansas, Civil Department.

June 8, 2022: Deposition via video conference in Salem, Oregon. Attorney: Perkins, Paul. Case: Hart, R v Miley. Case # 2017-CA-008612-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

June 9, 2022: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Tenery, D. Case # 2018-CA-013196-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

June 17, 2022: Deposition via video conference in Salem, Oregon. Attorney: Hirshman, Tobias. Case: Vanecek, C v REM Ohio, Inc. Case # CV 20 930687. In the Court of Common Pleas, Cuyahoga County, Ohio.

June 27, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: Machler, Susan. Case: Hamilton, S. Case # 20-2-00543-21. In the Superior Court of the State of Washington, In and For the County of Lewis.

June 28, 2022: Deposition in Salem, Oregon. Attorney: Levin, Mick. Case: Rodriguez-Gamez v Lytle. Case # CV2019-010440. Superior Court of the State of Arizona, County of Maricopa.

June 30, 2022: Deposition via video conference in Salem, Oregon. Attorney: Aversano, Donna. Case: Sain, R v Texas Health Resources. Case # 048-318205-20. In the District Court, Tarrant County, Texas, 48th Judicial District.

July 1, 2022: Deposition via video conference in Salem, Oregon. Attorney: Maxwell, Mike. Case: Hunter, C v City of Tukwila. Case # 20-2-02397-3 KNT. IN the Superior Court of Washington, King County.

July 14, 2022: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Barrera, R v Arch Transport, LLC. Case # 20-08-00143-CVL. In the District Court of La Salle County, Texas, 81st Judicial District.

July 18, 2022: Deposition via video conference in Salem, Oregon. Attorney: Panagakis, Nick. Case: Moore, P v Papa John's USA, Inc. Case # 2018-CA-002908-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

July 19, 2022: Deposition via video conference in Salem, Oregon. Attorney: Crockett, Brian. Case: Terry, J. Case # B-20-01-0072-CV. In the District Court of Ector County, Texas, 161st Judicial District.

July 20, 2022: Hearing via video conference in Salem, Oregon. Attorney: Bell, Alfred. Case: Willis, D v Asplundh Tree Expert, LLC. Case # 562020-CA-000614. In the Circuit Court of the 19th Judicial Circuit, In and For Port St. Lucie, Florida.

July 20, 2022: Deposition via video conference in Salem, Oregon. Attorney: Felice, Timothy. Case: Martinez-Echeverri v Wal-Mart Stores East, LP. Case # 502017CA000259XXXXMB AK. In the Circuit Court of the Fifteenth Judicial Circuit, In and For, Palm Beach County, Florida.

July 21, 2022: Deposition in Salem, Oregon. Attorney: Albright, Paul. Case: Ortal, N v Mazur. Case # A-19-794214-C. in the District Court, Clark County, Nevada.

July 25, 2022: Deposition via video conference in Salem, Oregon. Attorney: Amaro, James. Case: Ruiz, G v Wal-Mart Stores Texas. Case # 2019-79822-7. In the District Court of Harris County, Texas, 234th Judicial District.

July 26, 2022: Deposition via video conference in Salem, Oregon. Attorney: Carr, Patrick. Case: Gregg, J v Gimenez. Case # 2020-CP-07-00479. In the Circuit Court of Common Pleas, The Fourteenth Judicial Circuit.

July 28, 2022: Deposition via video conference in Salem, Oregon. Attorney: LaCien, Brian. Case: Schumacher v Sterigenics. Case # 2018-L-010475. In the Circuit Court of Cook County, Illinois, County Department, Law Division.

July 29, 2022: Deposition via video conference in Salem, Oregon. Attorney: Finn, Larry. Case: Edwards, L v BJ's Oil Field Construction, Inc. Case # CJ-2018-1425. In the District Court of Cleveland County, State of Oklahoma.

August 1, 2022: Deposition via video conference in Salem, Oregon. Attorney: Goss, Ady. Case: Bernstein, Emily. Case # 2019-CA-003808-08-W. In the Circuit Court of the Eighteenth Judicial Circuit, In and For Seminole County, Florida.

August 2, 2022: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Hughley, B v Lachance. Case # 2020-CA-388-O. In the Circuit Court, Ninth Judicial Circuit, In and For Orange County, Florida.

August 3, 2022: Deposition via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Thompson, Y v Sullins. Case # 2020-CA-000400. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas County, Florida, Civil Division.

August 8, 2022: Deposition via video conference in Salem, Oregon. Attorney: Adams, Will. Case: Varnadore, K. Case # MO:20-CV-00271-DC. United States District Court, Western District of Texas, Midland Division.

August 9, 2022: Deposition via video conference in Salem, Oregon. Attorney: Moran, Mary. Case: Simmonds, Gary. Case # 2020-CA-000703. In the Circuit Court of the Eighteenth Judicial Circuit, In and For Seminole County, Florida Civil Division.

August 12, 2022: Hearing via video conference in Salem, Oregon. Attorney: Salter, Brad. Case: Carpenter, J v 21st Century Centennial Insurance Company. Case # 16-000008-CI. In the Circuit Court of the 6th Judicial Circuit, In and For Pinellas County, Florida.

August 16, 2022: Deposition via video conference in Salem, Oregon. Attorney: Vasquez, James. Case: Lembert, V. Case # BER-L120-21. Superior Court of New Jersey, Law Division, Bergen County.

August 17, 2022: Deposition via video conference in Salem, Oregon. Attorney: McKenna, Kenneth. Case: Rocher, Darline. Case # 2016-CA-4209. In the Circuit Court of the Seventeenth Judicial Circuit, In and For Broward County, Florida.

August 18, 2022: Deposition via video conference in Salem, Oregon. Attorney: Dugas, Clay. Case: Layfield, Kylie v Richard. Case # A-203680. In the District Court, Jefferson County, Texas, 58th Judicial District.

August 19, 2022: Deposition via video conference in Salem, Oregon. Attorney: Hevia, Anthony. Case: Hernandez, Y v Castro. Case # 2020-022573-CA-O1. In the Circuit Court of the 11th Judicial Circuit, In and For Miami-Dade County, Florida.

August 19, 2022: Deposition via video conference in Salem, Oregon. Attorney: Holland, James. Case: Hancock, E v Cantillo. Case #11-2020-CA-002477-00001. In the Circuit Court of the Twentieth Judicial Circuit, In and For Collier County, Florida, Civil Division.

August 24, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: Holland, James. Case: Hancock, E v Cantillo. Case #11-2020-CA-002477-00001. In the Circuit Court of the Twentieth Judicial Circuit, In and For Collier County, Florida, Civil Division.

August 29, 2022: Deposition via video conference in Salem, Oregon. Attorney: Dingwall, Jeffrey. Case: Carey, D v CSX Transportation, Inc. Case # 18-CI-00348. Commonwealth of Kentucky, Greenup Circuit Court.

September 1, 2022: Deposition via video conference in Salem, Oregon. Attorney: Trask, Thomas. Case: Palmer, D v Simmons. Case # 18A69623. In the State Court of Dekalb County, State of Georgia.

September 7, 2022: Deposition via video conference in Salem, Oregon. Attorney: Slater, Thomas. Case: Kenyon, N v Travelers. Case # 16-2021-CA-003332. In the Circuit Court, Fourth Judicial Circuit, In and For Duval County, Florida.

September 8, 2022: Deposition via video conference in Salem, Oregon. Attorney: LaCien, Brian. Case: Fornek v Sterigenics. Case # 2018-L-010475. In the Circuit Court of Cook County, Illinois County Department, Law Division.

September 9, 2022: Hearing via video conference in Salem, Oregon. Attorney: McKenna, Kenneth. Case: Rocher, D v Memorial West. Case # 16-004209. In the Circuit Court of the 17th Judicial Circuit, In and For Broward County, Florida.

September 13, 2022: Preserved deposition via video conference in Salem, Oregon. Attorney: Machler, Susan. Case: Strauss v Premera Blue Cross. Case # 13-2-28143-1 SEA. In the Superior Court of the State of Washington, King County.

September 14, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: Hermida, Andres. Case: Garrahan v Publix. Case # 2019-CA-000106-M. In the Circuit Court of the 16th Judicial Circuit, In and For Monroe County, Florida.

October 10, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: McDougal, Mark. Case: Prentice, K & Rader, E v Loy Clark Pipeline Co. Case #18cv40481 & # 18cv44865. In the Circuit Court of the State of Oregon, In and for the county of Multnomah.

October 11, 2022: Deposition via video conference in Salem, Oregon. Attorney: Case: Deep Water Horizon Belo Cases. Case # 3:19cv963. In the United States District Court, Northern District of Florida, Pensacola Division.

October 13, 2022: Deposition via video conference in Salem, Oregon. Attorney: Drew, Noah. Case: Bauer, L v Living Alternatives. Case # 21-1501-NO- W. In the Circuit Court for the County of Berrien, State of Michigan.

October 13, 2022: Deposition via video conference in Salem, Oregon. Attorney: Fine, Julie. Case: Walters, M v Willis. Case # 2020-CA-2966. In the Circuit Court of the Eighth Judicial Circuit, In and For Alachua County, Florida.

October 14, 2022: Deposition via video conference in Salem, Oregon. Attorney: Bates, Will. Case: Fuguet, S. Case # 2018 11863 CIDL. In the Circuit Court of the 17th Judicial Circuit, In and For Volusia County, Florida.

October 17, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: Wise, Jared. Case: Ward, C v Morris. Case # 2019-CA-003242. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

October 19, 2022: Testimony via video conference in Salem, Oregon. Attorney: LeBoeuf, Dean. Case: Johnson, Dillion v Pensacola Care Inc.

October 20, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: Bates, Will. Case: Fuguet, S. Case # 2018 11863 CIDL. In the Circuit Court of the 17th Judicial Circuit, In and For Volusia County, Florida.

October 20, 2022: Deposition via video conference in Salem, Oregon. Attorney: Henderson, David. Case: Martinez, M v Providence Health & Services. Case # 3AN-20-4308CI. IN the Superior Court for the State of Alaska, Third Judicial District at Anchorage.

October 24, 2022: Preserved deposition via video conference in Salem, Oregon. Attorney: Rosenberg, Case: Hill, J v Frew. Case # 20EV002660. In the State Court of Fulton County, State of Georgia.

October 25, 2022: Deposition via video conference in Salem, Oregon. Attorney: Moran, Jack. Case: Valladares-Narvaez, G v Mystic Waters & Pool Services, LLC. Case # 2017-CA-5655. In the Circuit Court, Fourth Judicial Circuit, in and For Duval County, Florida.

October 25, 2022: Deposition via video conference in Salem, Oregon. Attorney: Peterson, Justin. Case: Trebus, M v State Farm. Case # 2020-CA-000737-CAAXWS. In the Circuit Court for Pasco County, Florida.

October 27, 2022: Deposition via video conference in Salem, Oregon. Attorney: Toomey, Ryan. Case: Nunez, G v FedEx. Case # 2021DCV0768. In the District Court, 34th Judicial District, El Paso County, Texas.

October 31, 2022: Deposition via video conference in Salem, Oregon. Attorney: Flynn, Ned. Case: McKinnon, J v Byrd. Case # 19-C-09168-S2. In the State Court of Gwinnett County, State of Georgia.

October 31, 2022: Deposition via video conference in Salem, Oregon. Attorney: Matthews, Marc. Case: Dennis, T v State Farm. Case # 2020-CA-003039. In the Circuit Court of the Twelfth Judicial Circuit, In and For Manatee County, State of Florida, Civil Division.

November 01, 2022: Deposition in Salem, Oregon. Attorney: Bauermeister, Don. Case: Galligan, Johnny. Case # 2020 CV 090. In the State of Wisconsin, Circuit Court, Bayfield County.

November 04, 2022: Deposition in Salem, Oregon. Attorney: Coletti, John. Case: Thomsen, T v Naphcare. Case # 3:19-cv-00969-AR. In the United States District Court, District of Oregon, Portland Division.

November 07, 2022: Deposition via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Della Rosa, D v Tarpon Springs Assisted Living. Case # 20-004839-CI. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas County, State of Florida, Civil Division.

November 08, 2022: Trial testimony via video conference in Salem, Oregon. Attorney: Ladah, Ramzy. Case: Marin, N v Clark. Case # A-18-776332-C. In the District Court, Clark County, Nevada.

November 14, 2022: Deposition via video conference in Salem, Oregon. Attorney: Spagnolia, Case: Mercado, J v Penske. Case # 2020-CA-009610. In the Circuit Court of the 13th Judicial Circuit, In and For Hillsborough County, Florida.

November 15, 2022: Deposition via video conference in Salem, Oregon. Attorney: Crockett, Brian. Case: Vinklarek, W v Harper. Case # 110869-CV. In the District Court of Brazoria County, Texas, 412th Judicial District.

November 16, 2022: Deposition preserved for trial in Salem, Oregon. Attorney: Hirshman, Tobias. Case: Vanecek, C v Rem Ohio Inc. Case # CV-20-930687. In the Court of Common Pleas of Cuyahoga County, Ohio.

November 21, 2022: Deposition via video conference in Salem, Oregon. Attorney: Dunn, Joseph. Case: Francois, R v Amanda Auto Transport, LLC. Case # 2021-CA-003288-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

November 29, 2022: Deposition via video conference in Salem, Oregon. Attorney: Wade, Jodi. Case: Belcher, A v Aramark Uniform. Case # 3:21-CV-00375-MMH-JRK. In the United States District Court, Middle District of Florida, Jacksonville Division.

December 06, 2022: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: White, W v Amezquita. Case # 2018-CA-006372-0. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

December 08, 2022: Deposition via video conference in Salem, Oregon. Attorney: Sahadeo, Ravin. Case: Sweezea, A v Drotar. Case # 35-2020-CA-001733-AX. In the Circuit Court of the Fifth Judicial Circuit, In and For Lake County, Florida.

December 09, 2022: Deposition via video conference in Salem, Oregon. Attorney: Panagakis, Nick. Case: Kleizo, M v Booth's Cobblestones, Inc. Case # 2020-CA-010977-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida Civil Division.

December 13, 2022: Deposition via video conference in Salem, Oregon. Attorney: Roof, Colby. Case: Montoya, K v Skanska Granite. Case # 2021-CA-000502-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

December 14, 2022: Deposition in Salem, Oregon. Attorney: Hevia, Anthony. Case: Mays, J v City of Jacksonville. Case # 3:21-cv-474-TJC-PDB. In the United States District Court, Middle District of Florida, Jacksonville Division.

December 15, 2022: Continued deposition in Salem, Oregon. Attorney: Hevia, Anthony. Case: Mays, J v City of Jacksonville. Case # 3:21-cv-474-TJC-PDB. In the United States District Court, Middle District of Florida, Jacksonville Division.

December 15, 2022: Deposition in Salem, Oregon. Attorney: Vasquez, James. Case: Floramin-Paulino, W v Hodges. Case # ESX-L-8597-20. In the Superior Court of New Jersey, Law Division, Essex County.

December 21, 2022: Deposition via video conference in Salem, Oregon. Attorney: Moran, John. Case: Valladares-Narvaez, G v Mystic Waters. Case # 2017-CA-5655. In the Circuit Court, Fourth Judicial Circuit, In and For Duval County, Florida.

January 03, 2023: Deposition via video conference in Salem, Oregon. Attorney: Hosseinzadeh, Kristin. Case: Bean, S v Meritus Medical Center, Inc. Case # C-21-CV-21-000050. In the Circuit Court for Washington County, Maryland.

January 04, 2023: Deposition via video conference in Salem, Oregon. Attorney: Badagliacca, John. Case: Del Guercio, E v Mendham. Case # MRS-L-2316-19. In the Superior Court of New Jersey, Law Division: Morris County.

January 05, 2023: Deposition via video conference in Salem, Oregon. Attorney: Stern, Kevin. Case: Triplett, B v Frederick Health Hospital, Inc. Case # C-10-CV-21-000056. In the Circuit Court of Maryland for Frederick County.

January 06, 2023: Deposition via video conference in Salem, Oregon. Attorney: Roof, Colby. Case: Morgan, M v Metropolitan Casualty Insurance Company. Case # 2019-CA-015329-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

January 06, 2023: Deposition via video conference in Salem, Oregon. Attorney: Maxwell, Mike. Case: Hunter, C v City of Tukwila. Case # 20-2-02397-3 KNT. In the Superior Court of The State of Washington, In and For the County of King.

January 09, 2023: Deposition via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Heredia, A v Cuffee. Case # 21-CA-005974 (D). In the Circuit Court of the 13th Judicial Circuit, In and For Hillsborough County, Florida.

January 10, 2023: Deposition via video conference in Salem, Oregon. Attorney: Grant, Javan. Case: Brantley, L v Welch. Case # 21-CA-004505. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida.

January 12, 2023: Deposition via video conference in Salem, Oregon. Attorney: Kaludi, Ike. Case: Gil, J v Alvarado. Case # RG20070873. In the Superior Court of The State of California, County of Alameda, Unlimited Jurisdiction.

January 24, 2023: Trial testimony in Beaumont, Texas. Attorney: Dugas, Clay. Case: Layfield, K v Richard. Case # A-203680. In the District Court, Jefferson County, Texas, 58th Judicial District.

January 26, 2023: Trial testimony in Salt Lake City, Utah. Attorney: Bertch, Caleb. Case: Mague, A v Kupu. Case # 200903669. In the Third Judicial District Court, Salt Lake County, State of Utah.

January 30, 2023: Deposition via video conference in Salem, Oregon. Attorney: Robbins, Joel. Case: Rodrigues v Wellpath. Case # CV-2020-006273. In the Superior Court of The State of Arizona, In and For the County of Maricopa.

January 31, 2023: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Gomez, D v Tradex. Case # 2021CVA001412D2. In the District Court, 11th Judicial District, Webb County, Texas.

February 02. 2023: Hearing via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Thompson, Y v Sullins. Case # 2020-CA-000400. In the Circuit Court of the Sixth Judicial Circuit, In and for Pinellas County, Florida, Civil Division.

February 09, 2023: Trial testimony via video conference in Salem, Oregon. Attorney: Midlo, Bennett. Case: Hernandez, M v Miller. Case # 2019-60983. In the District Court of Harris County, Texas, 152nd Judicial District.

February 16, 2023: Deposition preserved for trial in Salem, Oregon. Attorney: Peacock, Malorie. Case: Garcia, V v S&F Logistics. Case # 5:21- cv- 04062-JMG. In the United States District Court for the Eastern District of Pennsylvania.

February 20, 2023: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Escobedo, J v Suarez. Case # 2021CVA000013-D3. In the District Court, Webb County, Texas, 341st Judicial District.

February 23, 2023: Deposition via video conference in Salem, Oregon. Attorney: Bush, Charles. Case: Lewter, N v Lewis. Case # DC-20-11120. In the District Court, 193rd Judicial District, Dallas County, Texas.

February 27, 2023: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Alvarez, T v Rodriguez Express. Case # 2021CVA000445D3. In the District Court, 341st Judicial District, Webb County, Texas.

March 02, 2023: Deposition via video conference in Salem, Oregon. Attorney: Ronstadt, Erin. Case: Finkelstein, S. Case # CV-21-00657-MTL. In the United States District Court, For the District of Arizona.

March 03, 2023: Deposition via video conference in Salem, Oregon. Attorney: Jaffe, Martin. Case: Jones v Tilley. Case # 2021CA000046. In the Circuit Court of the Eighteenth Judicial Circuit, in and for Seminole County, Florida.

March 13, 2023: Deposition via video conference in Salem, Oregon. Attorney: Tavares, Cesar. Case: Pena, M v Cutler Repaving Inc. Case # 2021-17554. In the District Court of Harris County, Texas, 270th District Court.

March 14, 2023: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Aguilar, F v Regal Cinemas, Inc. Case # 5:20-cv-1029-JKP-HJB. In the United States District Court for the Western District of Texas, San Antonio Division.

March 15, 2023: Deposition via video conference in Salem, Oregon. Attorney: Roof, Colby. Case: Holt, M v Nelson. Case # 2020-CA-005088-O. In the Circuit Court of the Ninth Judicial Circuit, in and for Orange County, Florida.

March 15, 2023: Deposition via video conference in Salem, Oregon. Attorney: D'Aguanno, Joseph. Case: Strozier, K v City of Phoenix. Case # CV2020-013102. In the Superior Court of the State of Florida, in and for the County of Maricopa.

March 20, 2023: Deposition via video conference in Salem, Oregon. Attorney: Dugas, Clay. Case: Moran, F v Genesis Energy, LP. Case # 2021-47416. In the District Court of Harris County, Texas, 269th Judicial District.

March 28, 2023: Deposition via video conference in Salem, Oregon. Attorney: Villaruel, Karen. Case: Fisher, K v Johnson Controls, Inc. Case # 2019-CI-15764. In the District Court, 408th Judicial District, Bexar County, Texas.

April 03, 2023: Deposition in Salem, Oregon. Attorney: Henderson, David. Case: Lehe, M v USA. Case # 3:21-cv-00265-TMB. In the United States District Court, for the District of Alaska.

April 04, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Villaruel, Karen. Case: Fisher, K v Johnson Controls, Inc. Case # 2019-CI-15764. In the District Court, 408th Judicial District, Bexar County, Texas.

April 05, 2023: Deposition via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Grooms, T. Case # 22-CA-002185. In the Circuit Court of the Thirteenth Judicial Circuit, in and for Hillsborough County, Florida Civil Division.

April 06, 2023: Deposition preserved for trial via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Salas. N v Energy Lease Services, Inc. Case # 21-07-00063-CVL. In the District Court, 81st Judicial District, La Salle County, Texas.

April 07, 2023: Deposition via video conference in Salem, Oregon. Attorney: Kaiser, Lorne. Case: Demarco, A v Gaspari. Case # 0568491. In the Circuit Court of the Seventeenth Judicial Circuit, in and for Broward County, Florida.

April 07, 2023: Deposition via video conference in Salem, Oregon. Attorney: Kaludi, Ike. Case: Davila, J v Munoz. Case # MSC19-00612. In the Superior Court of the State of California, for the county of Contra Costa.

April 10, 2023: Deposition via video conference in Salem, Oregon. Attorney: Stern, Jesse. Case: Kennon, L. Case # 2018-CA-013445-O. In the Circuit Court of the Ninth Judicial Circuit, in and for Orange County, Florida.

April 13, 2023: Hearing via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Grooms, T. Case # 22-CA-002185. In the Circuit Court of the Thirteenth Judicial Circuit, in and for Hillsborough County, Florida Civil Division.

April 17, 2023: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Bush-Radomski, N v Krisan. Case # 2019-CA-117. In the Circuit Court 5th Judicial Circuit, in and for Lake County, Florida.

April 17, 2023: Deposition via video conference in Salem, Oregon. Attorney: Ladah, Ramzy. Case: King, L v Discount Tire. Case # A-21-838896-C. In the District Court, Clark County, Nevada.

April 18, 2023: Trial testimony via video conference in Salem, Oregon. Attorney: Kaludi, Ike. Case: Davila, J v Munoz. Case # MSC19-00612. In the Superior Court of the State of California, for the county of Contra Costa.

April 19, 2023: Hearing via video conference in Salem, Oregon. Attorney: Barnes, Stephen. Case: Allen, J v Palmer. Case # 29-2021-CA-003412. In the Circuit Court of the 13th Judicial Circuit, in and for Hillsborough County, Florida, Civil Law Division.

April 19, 2023: Deposition via video conference in Salem, Oregon. Attorney: O'Donohoe, Judith. Case: State of Iowa v Tagge. Case # AGCR019873. In the Iowa District Court for Howard County.

April 20, 2023: Deposition preserved for trial via video conference in Salem, Oregon. Attorney: Panagakis, Nick. Case: Roldan, S v Katzen. Case # 2019-CA-003289-O. In the Circuit Court of the Ninth Judicial Circuit, in and for Orange County, Florida.

April 24, 2023: Deposition via video conference in Salem, Oregon. Attorney: Leatham, Steve. Case: Coyne, S. Case # 20-2-00874-08. In the Superior Court of the State of Washington, in and for the county of Cowlitz.

April 25, 2023: Deposition in Salem, Oregon. Attorney: Morgan-White, Annette. Case: Wells v Memorial Hospital. Case # 15-CI-00076. Commonwealth of Kentucky, Clay Circuit Court.

April 26, 2023: Deposition via video conference in Salem, Oregon. Attorney: Jones, Daniel. Case: Wiedemeier, J v White. Case # 37-2021-00047058. In the Superior Court of the State of California, for the County of San Diego.

April 27. 2023: Deposition via video conference in Salem, Oregon. Attorney: Wise, Jared. Case: Weyer, D v State Farm. Case # 2020 10839 CIDL. In the Circuit Court of the Seventh Judicial Circuit, in and for Volusia County, Florida.

April 27, 2023: Deposition via video conference in Salem, Oregon. Attorney: Bates, William. Case: Cruzado, A v Keystone. Case # 2019-CA-012188-O. In the Circuit Court of the Ninth Judicial Circuit, in and for Orange County, Florida.

May 01, 2023: Deposition via video conference in Salem, Oregon. Attorney: Ginsberg, Marc. Case: Richardson, MJHS. Case # 2022-005573-CA-01. In the Circuit Court of the 11th Judicial Circuit, in and for Miami-Dade County, Florida.

May 01, 2023: Preserved deposition for trial via video conference in Salem, Oregon. Attorney: Deem, Michael. Case: Fischer, R v Morgan Properties. Case # OCN-L-1109-20. Superior Court of New Jersey, Law Division, Ocean County.

May 02, 2023: Deposition via video conference in Salem, Oregon. Attorney: Ingram, Todd. Case: Covelli, C v Toyota. Case # 2021CV78. Weld County District Court, State of Colorado.

May 03, 2023: Deposition via video conference in Salem, Oregon. Attorney: Maida, Sam. Case: Santos, A v Estes Express Lines. Case # 2021-53505. In the District Court of Harris County, Texas, 129th Judicial District.

May 04, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Sahadeo, Ravin. Case: Sweezea, A v Drotar. Case # 2020-CA-001733-AX. In the Circuit Court of the Fifth Judicial Circuit, in and for Lake County, Florida.

May 04, 2023: Deposition via video conference in Salem, Oregon. Attorney: Paolino, Eric, Case: Duque, G v Buchner. Case # 2021-CA-000790. In the Circuit Court of the Sixth Judicial Circuit, in and for Pinellas County, Florida, Civil Division.

May 08, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Leatham, Steve. Case: Coyne, S. Case # 20-2-00874-08. In the Superior Court of the State of Washington, in and for the county of Cowlitz.

May 08, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Jones, Daniel. Case: Wiedemeier, J v White. Case # 37-2021-00047058. In the Superior Court of the State of California, for the County of San Diego.

May 09, 2023: Hearing via video conference in Salem, Oregon. Attorney: Matthews, Marc. Case: Dennis, T v State Farm Insurance. Case # 2020CA003039AX. In the Circuit Court of the Twelfth Judicial Circuit, in and for Manatee County, Florida, Civil Division.

May 09, 2023: Deposition via video conference in Salem, Oregon. Attorney: Ladah, Ramzy. Case: Maldonado- Camacho, E v Bangayan. Case # A-21-839256-C. In the District Court, Clark County, Nevada.

May 23, 2023: Deposition via video conference in Salem, Oregon. Attorney: Cox, Allyson. Case: Davis, R v Milton. Case # 2022 L 000406. In the Circuit Court of Cook County, Illinois County Department, Law Division.

May 23, 2023: Deposition via video conference in Salem, Oregon. Attorney: Singha, Chafica Case: Warren v PPEC. Case # 21-CA-6018. In the 13th Judicial Circuit, in and for Hillsborough County, Florida.

May 25, 2023: Deposition via video conference in Salem, Oregon. Attorney: Pepperman, Eric. Case: Gallagher, O v Real Water. Case # A-21-834485-B. District Court, Clark County, Nevada.

May 26, 2023: Deposition via video conference in Salem, Oregon. Attorney: Hermida, Andres. Case: Teran, H v Piloto. Case # 2019-013322-CA-01. In the Circuit Court of the 11th Judicial District Circuit, in and for Miami- Dade County, Florida.

May 30, 2023: Deposition via video conference in Salem, Oregon. Attorney: Velez, Harold. Case: Payne, L v Pandolfi. Case # 2020 10772 CIDL. In the Circuit Court of the Seventh Judicial Circuit, in and for Volusia County, Florida, Civil Division.

June 01, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Ginsberg, Marc. Case: Richardson, MJHS. Case # 2022-005573-CA-01. In the Circuit Court of the 11th Judicial Circuit, in and for Miami-Dade County, Florida.

June 01, 2023: Deposition via video conference in Salem, Oregon. Attorney: Dunn, Joseph. Case: George, A v Aspire Health Partners. Case # 2020-CA-1818-O. In the Circuit Court of the Ninth Judicial Circuit, in and for Orange County, Florida.

June 02, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: King, Ryan Case: Aguilar, F v Regal Cinemas. Case # 5:20-cv-1029-JKP-HJB. In the United States District Court for the Western District of Texas, San Antonio Division.

June 26, 2023: Trial testimony in Troy, Missouri. Attorney: Wood, Branson. Case: Morgan, M v Gosney Pharmacy. Case # 19L6-CC00070. In the Circuit Court of Lincoln County, State of Missouri.

June 28, 2023: Deposition via video conference in Salem, Oregon. Attorney: Izquierdo, Ivan. Case: Millar, C v Exxel Medical Transportation, Inc. Case # 2021-021855-CA-01. In the Circuit Court of the 11th Judicial Circuit, in and for Miami-Dade County, Florida.

July 03, 2023: Deposition via video conference in Salem, Oregon. Attorney: McKenna, Kenneth. Case: Figueroa, C v Adventist Health. Case # 2020-CA-5016-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

July 06, 2023: Deposition preserved for trial via video conference in Salem, Oregon. Attorney: Mireles, Ruy. Case: Pagan, R v Cannon. Case # 2018-CCL-00224. In the County Court, At Law Number 1, Camron County, Texas.

July 06, 2023: Deposition via video conference in Salem, Oregon: Attorney: Galliher, Keith. Case: Stallworth, V. Case # A-21-841908-C. In the District Court, Clark County, Nevada.

July 11, 2023: Deposition via video conference in Salem, Oregon. Attorney: Collins, Robert. Case: Martinez, J v CenterPoint Energy. Case # 2019-58870. In the District Court of Harris County, Texas, 125th Judicial District.

July 12, 2023: Trial testimony in Las Vegas, NV. Attorney: Do, Elizabeth. Case: Wilson v USA. Case # 2:18-cv-01241-JMC-NJK. In the United States District Court, District of Nevada.

July 14, 2023: Trial testimony via video conference. Attorney: Stern, Bruce. Case: Rinaldo, R v TKV Union Station. Case # MID-L-3288-18. Superior Court of New Jersey, Law Division, Middlesex County.

July 18, 2023: Deposition via video conference in Salem, Oregon. Attorney: Garcia, Megan. Case: Dennis, D v McLary. Case # 22EV000179. In the State Court of Fulton County, State of Georgia.

July 20, 2023: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Guerra, N v EMV Transportation. Case # 2021-CVA-001687-D1. In the District Court, 49th Judicial District, Webb County, Texas.

July 21, 2023: Deposition via video conference in Salem, Oregon. Attorney: Dunn, Joseph. Case: Grzegorzweski, J. Case # 2020-CA-002508. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

July 25, 2023: Deposition via video conference in Salem, Oregon. Attorney: Morris, Anissa. Case: Lavery, M v Auto Club South. Case # 22-CA-001212. In the Circuit Court of the Sixth Judicial Circuit, In and For Pasco County, Florida.

July 25, 2023: Deposition via video conference in in Salem, Oregon. Attorney: Chavez, Ruben. Case: Garcia, A v Cabrera. Case # 2022-005720-CA-01. In the Circuit Court in the Eleventh Judicial Circuit, In and For Miami- Dade County, Florida.

July 26, 2023: Deposition via video conference in Salem, Oregon. Attorney: Sanchez, Bryan. Case: McGee, J v Morris. Case # 2021-CP-46-03615. In the Court of Common Pleas, For the Sixteenth Judicial Circuit.

August 01, 2023: Trial testimony in Brownsville, Texas. Attorney: Leibowitz, Jacob. Case: Ruiz, J v Space Exploration Tech. Case # 2020-DCL-03939. In the District Court of Cameron County, Texas, 197th District Court.

August 04, 2023: Deposition via video conference in Salem, Oregon. Attorney: Cullen, Kim. Case: Bass, L v Saint Lucie County. Case # 562017CA1108. In the Circuit Court of the Nineteenth Judicial Circuit, In and For St. Lucie County, Florida.

August 07, 2023: Deposition via video conference in Salem, Oregon. Attorney: Murrill, Rashon. Case: Thompson v Walmart. Case # 21-03982. In the United States District Court, Southern District of Texas, Houston Division.

August 08, 2023: Deposition via video conference in Salem, Oregon. Attorney: Chiapperini, Matthew. Case: Castro v Urdininea. Case # 2022-CA-001299-O. in the Circuit Court of the 9th Judicial Circuit, In and For Orange County, Florida.

August 15, 2023: Deposition via video conference in Salem, Oregon. Attorney: Henness, Mark. Case: Sabido, J v Hampton. Case # A-21-844197-C. In the District Court of Clark County, Nevada.

August 16, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Panagakis, Nicholas. Case: Roldan, S v Katzen. Case # 2019-CA-003289-O. In the Circuit Court, of the Ninth Judicial Circuit, In and For Orange County, Florida.

August 17, 2023: Deposition via video conference in Salem, Oregon. Attorney: Russo, Nicholas. Case: Quijano, G v Haase. Case # 2021-CA-008557-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

August 22, 2023: Deposition via video conference in Salem, Oregon. Attorney: White, Marlon. Case: Grant, J v Mariana. Case # 2020-CA-006994-O. In the Circuit Court of the 9th Judicial Circuit, In and For Orange County, Florida.

August 22, 2023: Deposition via video conference in Salem, Oregon. Attorney: McBride, Paul. Case: Tavarez-Rodriguez v Cool Team. Case # 502021CA012484XXXMBAI. In the Circuit Court of the 15th Judicial Circuit, In and For Palm Beach County, Florida.

August 25, 2023: Deposition via video conference in Salem, Oregon. Attorney: Maida, Sam. Case: Flores, R, v DS Services of America. Case # 2021-54429. In the District Court of Harris County, Texas, 270th Judicial District.

August 28, 2023: Deposition via video conference in Salem, Oregon. Attorney: Ladah, Ramzy. Case: Carpenter, J v Denny. Case # 2:23-cv-00208-RFB-NJK. United States District Court, District of Nevada.

August 29, 2023: Deposition via video conference in Salem, Oregon. Attorney: Boigris, Dylan. Case: Williams v BP. Case # 1:22-cv-00278-LG-BWR. United States District Court, Southern District of Mississippi, Southern Division.

August 30, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Boigris, Dylan. Case: Williams v BP. Case # 1:22-cv-00278-LG-BWR. United States District Court, Southern District of Mississippi, Southern Division.

September 06, 2023: Deposition via video conference in Salem, Oregon. Attorney: Benson, Joshua. Case: Alter, B v Klagues. Case # A-21-843401-C. District Court, Clark County, Nevada.

September 07, 2023: Deposition via video conference in Salem, Oregon. Attorney: Johnson, Jordan. Case: Daigle, S v Cook. Case # 20CV369832. Superior Court of California, County of Santa Clara.

September 08, 2023: Deposition via video conference in Salem, Oregon. Attorney: Lopez, Fermin. Case: Lindblad, L v Adventist Health Systems. Case # 2020-CA-72-MP. In the Circuit Court of the Ninth Judicial Circuit, In and For Osceola County, Florida.

September 12, 2023: Deposition via video conference in Salem, Oregon. Attorney: Leeder, Thomas. Case: Wiles, L v Tallahassee Memorial Healthcare. Case # 2019-CA-53. In the Circuit Court of the Second Judicial Circuit, In and For Leon County, Florida.

September 19, 2023: Deposition via video conference in Salem, Oregon. Attorney: Chavez, Ruben. Case: Garcia, A v Cabrera. Case # 2022-005720-CA-01. In the Circuit Court in the Eleventh Judicial Circuit, In and For Miami- Dade County, Florida.

September 20, 2023: Deposition via video conference in Salem, Oregon. Attorney: Sherwin, Julia. Case: Gonzalez v City of Alameda. Case # 4:21-cv-09733-DMR. United States District Court, Northern District of California.

September 25, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Johnson, Jordan. Case: Daigle, S. Case # 20CV369832. Superior Court of California, County of Santa Clara.

September 25, 2023: Deposition preserved for trial via video conference in Salem, Oregon. Attorney: Williams, Burgess. Case: Morales, J. Case # 2021-54717. In the District Court, 55th Judicial District, Harris County, Texas.

October 13, 2023: Deposition via video conference in Salem, Oregon. Attorney: Rousso, Darren. Case: Rodriguez, N v Publix. Case # 2021-019569. In the Circuit Court of the 11th Judicial Circuit, In and For Miami-Dade County, Florida.

October 16, 2023: Deposition via video conference in Salem, Oregon. Attorney: Patterson, Mark. Case: Harlowe, M v FCA. Case # 2017-CA-011231-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

October 18, 2023: Deposition via video conference in Salem, Oregon. Attorney: King, Ryan. Case: Diaz, T v CR England. Case # 2021CVA001304D2. In the Judicial District, 111th District Court, Webb County, Texas.

October 18, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: White, Case: Grant, J v Mariana. Case # 2020-CA-006994-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

October 20, 2023: Deposition in Salem, Oregon. Attorney: Kobylinski, Tyler. Case: Dooley, J v Adventist Health System. Case # 2019-CA-12405-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

October 23, 2023: Deposition via video conference in Salem, Oregon. Attorney: Shapiro, Richard. Case: Sabugo, M v Florida Health Sciences Center. Case # 19-CA-000231. In the Circuit Court of the Thirteenth Judicial Circuit of the State of Florida, In and For Hillsborough, Florida.

October 24, 2023: Deposition via video conference in Salem, Oregon. Attorney: Paolino, Eric. Case: Duque, Gerado v Buchner. Case # 2021-CA-000790. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas County, Florida Civil Division.

November 01, 2023: Trial testimony via video conference in Salem, Oregon. Attorney: Paolino, Eric. Case: Duque, Gerado v Buchner. Case # 2021-CA-000790. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas County, Florida Civil Division.

November 06, 2023: Deposition via video conference in Salem, Oregon. Attorney: Boigris, Dylan. Case: Deepwater Horizon Belo Cases. Case # 3:19-cv-00963. In the United States District Court for the Northern District of Florida, Pensacola Division.

November 07, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Boigris, Dylan. Case: Deepwater Horizon Belo Cases. Case # 3:19-cv-00963. In the United States District Court for the Northern District of Florida, Pensacola Division.

November 14, 2023: Deposition via video conference in Salem, Oregon. Attorney: Collins, Robert. Case: Scott v Evans Delivery. Case # 22EV005672. In the State Court of Fulton County, State of Georgia.

November 14, 2023: Deposition via video conference in Salem, Oregon. Attorney: Vasquez, James. Case: Lembert, V v Kang. Case # BER-L-120-21. In the Superior Court of New Jersey Law Division, Bergen Co.

November 21, 2023: Deposition via video conference in Salem, Oregon. Attorney: Sullivan, Don. Case: Hiser, S v Jones. Case # CV-35620. In the District Court of Albany County, Wyoming, Second Judicial District.

November 28, 2023: Deposition via video conference in Salem, Oregon. Attorney: Soong, Danny. Case: DR v Mizel. Case # C19-07152 NMC. In the United States District Court, Northern District of California.

November 30, 2023: Deposition via video conference in Salem, Oregon. Attorney: Maxwell, Mike. Case: Kamaka, M v Coram Specialty Infusion. Case # 21-2-11760-7 SEA. Superior Court of Washington, King County.

December 04, 2023: Deposition via video conference in Salem, Oregon. Attorney: Mathena, Chris. Case: Krhalic, E v Tebbe. Case # 21-CA-5329 DIV D. In the Circuit Court of the 13th Judicial Circuit, In and For Hillsborough County, Florida.

December 11, 2023: Deposition via video conference in Salem, Oregon. Attorney: Karimi, Adrian. Case: Sanchez, R v Dominguez. Case # A-22-858902-C. In the District Court, Clark County, Nevada.

December 13, 2023: Deposition via video conference in Salem, Oregon. Attorney: Rariden, Andy. Case: Price, C v Coles. Case # 2020 CA 010331. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

December 14, 2023: Deposition via video conference in Salem, Oregon. Attorney: O'Brien, John. Case: Arteaga v Pentair. Case # 30-2021-01227987-CU-PO-CJC. In the Superior Court of the State of California, In and For the County of Orange.

December 18, 2023: Deposition via video conference in Salem, Oregon. Attorney: Panagakis, Nick. Case: Hammer, L v Travelers. Case # 21CA5999 DIV T. In the Circuit Court of the Thirteenth Judicial Circuit, in and For Hillsborough County, Florida, Civil Division.

December 19, 2023: Deposition via video conference in Salem, Oregon. Attorney: Lee, Edward. Case: Hernandez, Z McClaskey. Case # 19STCV36192. In the Superior Court of the State of California, County of Los Angeles, Central District.

December 20, 2023: Deposition via video conference in Salem, Oregon. Attorney: Crockett, Brian. Case: Vinklarek, W v Harper. Case # 110869-CV. In the District court of Brazoria County, Texas, 412th Judicial District.

December 21, 2023: Deposition via video conference in Salem, Oregon. Attorney: Low, Joseph. Case: Molina v FedEx. Case # 34-2022-00315405. In the Superior Court of the State of California, County of Sacramento.

December 22, 2023: Continued deposition via video conference in Salem, Oregon. Attorney: Maxwell, Mike. Case: Kamaka, M v Coram Specialty Infusion. Case # 21-2-11760-7 SEA. Superior Court of Washington, King County.

December 27, 2023: Deposition via video conference in Salem, Oregon. Attorney: Pajcic, Seth. Case: Cellino/ Kuntz v Best Tech. Case # 16-2021-CA-006467-XXXX-MA. In the Circuit Court of the Fourth Judicial Circuit, In and For Duval County, Florida.

December 28, 2023: Deposition preserved for trial via video conference in Salem, Oregon. Attorney: Hosseinzadeh, Kristin. Case: Bean, S v Meritus Medical Center. Case # C-21-CV-21-000050. In the Circuit Court for Washington County.

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January 04, 2024: Deposition via video conference in Salem, Oregon. Attorney: Carr, Patrick. Case: Catterton, R v Ramos. Case #2020-CP-27-00538. In the Court of Common Pleas, Fourteenth Judicial Circuit, State of South Carolina, County of Jasper.

January 04, 2024: Deposition via video conference in Salem, Oregon. Attorney: Mathena, Christopher. Case: Krhalic v Tebbe. Case #21-CA-005329. In the Circuit Court of the Thirteenth Judicial Circuit of the State of Florida, In and For Hillsborough County, Civil Division.

January 05, 2024: Deposition via video conference in Salem, Oregon. Attorney: Sahadeo, Ravin. Case: Alderman, M v Progressive American Insurance Company. Case # 2022-CA-000069-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

January 08, 2024: Deposition via video conference in Salem, Oregon. Attorney: Hermida, Andres. Case: Teran, H v Piloto. Case # 2019-01322-CA-01. In the Circuit Court of the 11th Judicial Circuit, In and For Miami-Dade County, Florida Circuit Civil Division.

January 08, 2024: Deposition via video conference in Salem, Oregon. Attorney: Hendler, Scott. Case: Koen, S v Monsanto. Case # 1:22-cv-00209-RP. In the United States District Court for the Western District of Texas, Austin Division.

January 24, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Hermida, Andres. Case: Teran, H v Piloto. Case # 2019-01322-CA-01. In the Circuit Court of the 11th Judicial Circuit, In and For Miami-Dade County, Florida Circuit Civil Division.

January 25, 2024: Preserved deposition via video conference in Salem, Oregon. Attorney: Boigris, Dylan. Case: Deepwater Horizon Belo Cases. Case #3:19-cv-00963. In the United States District Court for the Northern District of Florida, Pensacola Division.

January 26, 2024: Deposition via video conference in Salem, Oregon. Attorney: LaCien, Brian. Case: Durr, C v Dolton Medical Associates, LTD. Case # 20 L 011510. In the Circuit Court of Cook County, Illinois, County Department, Law Division.

January 29, 2024: Deposition via video conference in Salem, Oregon. Attorney: Bocott, James. Case: Teets, G v Beveridge Wel Drilling, Inc. Case # CI 22-463. In the District Court of Lincoln County, Nebraska.

January 30, 2024: Deposition via video conference in Salem, Oregon. Attorney: Joyce, Robert. Case: Alsufi, H v Jackson. Case # 22-CA-006985. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida.

January 31, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: McNamara, Michael. Case: Novalis-Marine, C v Monash. Case # C20202716. In the Superior Court of the State of Arizona, In and For the County of Pima.

February 01, 2024: Continued deposition via video conference in Salem, Oregon. Attorney: LaCien, Brian. Case: Durr, C v Dolton Medical Associates, LTD. Case # 20 L 011510. In the Circuit Court of Cook County, Illinois, County Department, Law

February 05, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Deem, Michael. Case: Fischer, R v Morgan Properties. Case # OCN-L-1109-20. Superior Court of New Jersey Law Division- Ocean County.

February 13, 2024: Preserved deposition via video conference in Salem, Oregon. Attorney: LaRue, David. Case: Martinez, D v C.M. Joslin Co Inc. Case # 22-04-05053. In the District Court 281st Judicial District, Montgomery County, Texas.

February 15, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Lewis, Andrea. Case: Bryan v Vargas. Case # 50-2022-CA-010943-xxxx-MB AD. In the Circuit Court of the Fifteenth Judicial Circuit, In and For Palm Beach County, Florida.

February 19, 2024: Deposition via video conference in Salem, Oregon. Attorney: Spingarn, Jared. Case: May, S v Air Compressor & Motor Company. Case # CACE-22-013939.In the Circuit Court of the 17th Judicial Circuit, In and For Broward County, Florida.

February 20, 2024: Deposition preserved for trial via video conference in Salem, Oregon. Attorney: Jones, Travis. Case: Jackson, B v Lewis. Case # CC2020-0098. In the Court of Common Pleas, Muskingum County, Ohio.

February 26, 2024: Deposition via video conference in Salem, Oregon. Attorney: Booze, Raissa. Case: Helton, W v Aderholt. Case # 2020-CA-398. In the Circuit Court of the Fifth Judicial Circuit, In and For Marion County, Florida.

February 28, 2024: Deposition via video conference in Salem, Oregon. Attorney: Kelley, Devry. Case: Romano, V v Progressive American Insurance Company. Case # 2022-CA-000559. In the Circuit Court of the Eighteenth Judicial Circuit, In and For Seminole County, Florida.

March 01, 2024: Trial testimony in Austin, Texas. Attorney: Smalley, Josh. Case: ST of TX v Camden. Case # D1-DC-20-900070. In the District Court for the 299th Judicial District, Sitting in Travis County, Texas.

March 11, 2024: Deposition via video conference in Salem, Oregon. Attorney: Anderson, Nancy. Case: Chestnut, J. Case # 17SV00052. In the State Court of Decatur County, State of Georgia.

March 13, 2024: Preserved deposition for trial via video conference in Salem, Oregon. Attorney: Denmon, Christian, Case: Hale, T v Ware. Case # 22-000592-CI. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas County, Florida.

March 13, 2024: Continued deposition via video conference in Salem, Oregon. Attorney: Booze, Raisa. Case: Helton v Aderholt. Case # 20-CA-000398. In the Circuit court of Fifth Judicial Circuit, In and For Marion County, Florida, General Civil Division.

March 15, 2024: Deposition via video conference in Salem, Oregon. Attorney: Denmon, Christian. Case: Ecklund, R v Ferron. Case # 22-002911-CI. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas Countyu, State of Florida, Civil Division.

March 19. 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Bocott, James. Case: Teets, G v Beverage Well Drilling. Case # CI 22-463. In the District Court of Lincoln County, Nebraska.

March 26. 2024: Deposition via video conference in Salem, Oregon. Attorney: Kopacz, Joe. Case: Lauzon, T v Golden Corral. Case # 2020CA001614000000. In the Tenth Judicial Circuit, In and For Polk County, Florida, Civil Division.

March 27, 2024: Deposition via video conference in Salem, Oregon. Attorney: Rariden, Andy. Case: Gustavsen, M v Harris. Case # 2020-CA-011362-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

March 28, 2024: Deposition via video conference in Salem, Oregon. Attorney: Kim, Ethan. Case: Roller, R v Bogle. Case # 2022-CA-019365. In the Circuit Court of the Eighteenth Judicial Circuit, In and For Brevard County, Florida.

April 02, 2024: Deposition via video conference in Salem, Oregon. Attorney: Stephens, Joe. Case: Martin, S v O'Reilly. Case # 110548-CV. In the District Court of Brazoria County, Texas, 412th Judicial District.

April 03, 2024: Deposition via video conference in Salem, Oregon. Attorney: Smith, Alicia. Case: Jorza v Home Depot. Case # 2021-CA-002383. In the Circuit Court of the Eighteenth Circuit Judicial Circuit, In and For Seminole County, Florida.

April 11, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Collins, Robert. Case: Martinez, J v CenterPoint Energy Resources. Case # 2019-58870. In the District Court of Harris County, Texas, 125th Judicial District.

April 16, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Kopacz, Joe. Case: Lauzon, T v Golden Corral. Case # 2020CA001614000000. In the Tenth Judicial Circuit, In and For Polk County, Florida, Civil Division.

April 18, 2024: Deposition via video conference in Salem, Oregon. Attorney: Mitchell, Ryan. Case: Buckelew, D. Case # 22-CA-001427. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, State of Florida.

April 23, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Denmon, Christian. Case: Ecklund, R v Ferron. Case # 22-002911-CI. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas Countyu, State of Florida,

April 24, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: McBride, Paul. Case: Rodriguez, J v Cool Team Services. Case # 502021CA012484. In the Circuit Court of the Fifteenth Judicial Circuit, In and For Palm Beach County, Florida.

April 25, 2024: Deposition via video conference in Salem, Oregon. Attorney: Jones, Steven. Case: Scott v Kelter. Case # CV2021-015672. In the Superior Court of the State of Arizona, In and For the County of Maricopa.

April 29, 2024: Deposition via video conference in Salem, Oregon. Attorney: Kaludi, Ike. Case: Garcia L v Gregg. Case # MSC20-00825. In the Superior Court of the State of California, For the County of Contra Costa.

April 30, 2024: Deposition via video conference in Salem, Oregon. Attorney: Thrower, Jason. Case: Carr v IF&P Holding. Case # 2:22-CV00480. In the United States District Court, Eastern District of Louisiana.

April 30, 2024: Deposition via video conference in Salem, Oregon. Attorney: Karimi, Adrian. Case: Pena v Chocolate Magic Las Vegas. Case # A-22-855163-C. In the District Court Clark County, Nevada.

May 01, 2024: Deposition via video conference in Salem, Oregon. Attorney: Boigris, Dylan. Case: Deepwater Horizon Belo Cases. Case # 3:19-cv-00963. In the United States District Court for the Northern District of Florida, Pensacola Division.

May 02, 2024: Deposition via video conference in Salem, Oregon. Attorney: Toth, Adrienn. Case: Keighler, A v East Coast Metals. Case # 2022-CA-053750. In the Circuit Court of the Eighteenth Judicial Circuit, In and For Brevard County, Florida.

May 08, 2024: Deposition via video conference in Salem, Oregon. Attorney: Borrego, Nick. Case: Phan, V. Case # 22-CA-000892. In the Circuit Court of the Twentieth Judicial Circuit, In and For Lee County, Florida, Civil Action.

May 28, 2024: Continued deposition via video conference in Salem, Oregon. Attorney: Borrego, Nick. Case: Phan, V. Case # 22-CA-000892. In the Circuit Court of the Twentieth Judicial Circuit, In and For Lee County, Florida, Civil Action.

May 30, 2024: Deposition via video conference in Salem, Oregon. Attorney: Avera, Lance. Case: Muncaster v Lansing. Case # 2022-CA-003255. In the Circuit Court of the Eighth Judicial Circuit, In and For Alachua County, Florida.

May 31, 2024: Deposition via video conference in Salem, Oregon. Attorney: Sahadeo, Ravin. Case: Cancel, H v Friedmann. Case # 2020-CA-006479-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

June 03, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Borrego, Nick. Case: Phan, V. Case # 22-CA-000892. In the Circuit Court of the Twentieth Judicial Circuit, In and For Lee County, Florida, Civil Action.

June 03, 2024: Deposition via video conference in Salem, Oregon. Attorney: LaCien, Brian. Case: Carlton v Advocate Condell Medical Center. Case # 2024 L 2170. In the Circuit Court of Cook County, Illinois County Department, Law Division.

June 05, 2024: Deposition in Salem, Oregon. Attorney: Shragal, Otto. Case: Pochron v Metra. Case # 2022 L 005325. In the Circuit Court of Cook County, Illinois County Department, Law Division.

June 06, 2024: Deposition via video conference in Salem, Oregon. Attorney: Kopacz, Joe. Case: Hinkle v National Vision, Inc. Case # 3:22-cv-00930-BKS-ML. United States District Court, Northern District of New York.

June 07, 2024: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Bush-Radomski, N v Krisan. Case # 2019-CA-117. In the Circuit Court 5th Judicial Circuit, In and For Lake County, Florida.

June 10, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Toth, Adrienn. Case: Keighler, A v East Coast Metals. Case # 2022-CA-053750. In the Circuit Court of the Eighteenth Judicial Circuit, In and For Brevard County, Florida.

June 10, 2024: Deposition via video conference in Salem, Oregon. Attorney: Fine, Cherie. Case: Suber v Rine. Case # 2023-CA-001544. In the Circuit Court, Eighth Judicial Circuit, In and For Alachua County, Florida.

July 09,2024: Continued deposition via video conference in Salem, Oregon. Attorney: Johnson, Jordan. Case: Daigle, S v Cook. Case # 20CV369832. Superior Court of California, County of Santa Clara.

July 23, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Galluzzi, Tim. Case: Bond, R v Davis. Case # 2023CV31074. In the District Court, Jefferson County, Colorado.

July 23, 2024: Deposition via video conference in Salem, Oregon. Attorney: Shaw, Megan. Case: Brown, C v Geico. Case # 23-CA-734. In the Circuit Court of the Twentieth Judicial Circuit, In and For Lee County, Florida, Civil Circuit Division.

July 24, 2024: Deposition via video conference in Salem, Oregon. Attorney: Sparkman, Kevin. Case: Payne v Looney. Case # 19-CA-009150. In the Circuit Court of the Thirteenth Judicial Circuit, In and For Hillsborough County, Florida.

July 26, 2024: Deposition via video conference in Salem, Oregon. Attorney: Kopacz, Joe. Case: Booker v WAWA. Case # 19-CA-002239-ES. In the Circuit Court of the Sixth Judicial Court, In and For Pasco County, Florida.

July 30, 2024: Hearing via video conference in Salem, Oregon. Attorney: Vasquez, James. Case: Lembert, V. Case # BER-L-120-21. In the Superior Court of New Jersey Law Division, Bergen County.

July 30, 2024: Deposition via video conference in Salem, Oregon. Attorney: Russo, Nick. Case: Johnson, C v Geico. Case # 2020-CA-003426-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida, Civil Division.

July 31, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Vasquez, James. Case: Lembert, V. Case # BER-L-120-21. In the Superior Court of New Jersey Law Division, Bergen County.

July 31, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Johnson, Jordan. Case: Daigle, S v Cook. Case # 20CV369832. Superior Court of California, County of Santa Clara.

July 31, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Kmetic, Shannon. Case: State of Oregon v Martinez. Case # 21CR13729. In the Circuit Court of the State of Oregon, For the County of Multnomah.

August 01, 2024: Deposition via video conference in Salem, Oregon. Attorney: LaCien, Brian. Case: Lindberg, M v Northwestern Medicine. Case # 2020 L 004115. In the Circuit Court of Cook County, Illinois County Department, Law Division.

August 06, 2024: Deposition via video conference in Salem, Oregon. Attorney: Sparkman, Kevin. Case: Lewis, C v Nelson. Case # 23-CA-000005. In the Circuit Court of the Sixth Judicial Circuit, In and For Pasco County, Florida Civil Division.

August 07, 2024: Deposition via video conference in Salem, Oregon. Attorney: Coats, Elizabeth. Case: Morris, K. Case # A-22-860747-C. Eighth Judicial District Court, Clark County, Nevada.

August 08, 2024: Continued deposition via video conference in Salem, Oregon. Attorney: Kopacz, Joe. Case: Hinkle, J, v National Vision. Case # 3:22-cv-00930-BKS-ML. In the United States District Court, Northern District of New York.

August 13, 2024: Deposition via video conference in Salem, Oregon. Attorney: Rudd, Ryan. Case: Vravis, T v Deer. Case # 2020-CA-006465-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

August 23, 2024: Deposition via video conference in Salem, Oregon. Attorney: Azizi, David. Case: Sanchez, C v Santos. Case # 21STCV39793. In the Superior Court of the State of California, County of Los Angeles, Central District.

August 23, 2024: Deposition via video conference in Salem, Oregon. Attorney: Bates, Will. Case: Green, N v Mid Florida Metal Roofing. Case # 35-2022-CA-000361-AXXX. In the Circuit Court of the Fifth Judicial Circuit, In and For Lake County, Florida.

August 26, 2024: Deposition in Salem, Oregon. Attorney: Henderson, David. Case: Kiyuklook, H v USA. Case # 3:23-cv-00089-JMK. In the United States District Court for the District of Alaska.

August 27, 2024: Continued deposition in Salem, Oregon. Attorney: Henderson, David. Case: Kiyuklook, H v USA. Case # 3:23-cv-00089-JMK. In the United States District Court for the District of Alaska.

August 28, 2024: Deposition via video conference in Salem, Oregon. Attorney: Garcia, Jorge. Case: Canada, M v Mesa. Case #2023-002317-CA-01. In the Circuit Court of the 11th Judicial Circuit, In and For Miami-Dade County, Florida.

September 05, 2024: Deposition via video conference in Salem, Oregon. Attorney: Sahadeo, Ravin. Case: Cancel, H v Torres-Fiedman. Case # 2020-CA-006479-O. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

September 10, 2024: Deposition via video conference in Salem, Oregon. Attorney: Borrego, Nick. Case: Pindel, R v Amaury Sotolongo. Case # 22-24464-CA-01. In the Circuit Court In and For The Eleventh Judicial Circuit, In and For Miami-Dade County, Florida.

September 10, 2024: Deposition via video conference in Salem, Oregon. Attorney: Wise, Jared. Case: Green, S v Mendoza. Case # 2022-CA-8739. In the Circuit Court of The Ninth Judicial Circuit, In and For Orange County, Florida.

September 12, 2024: Deposition via video conference in Salem, Oregon. Attorney: Smith, Alicia. Jorza, R v Home Depot. Case # 2021-CA-002383. In the Circuit Court of the Eighteenth Judicial Circuit. In and For Seminole County, Florida.

September 16, 2024: Deposition via video conference in Salem, Oregon. Attorney: Felice, Timothy. Case: Villanueva, J v Besafe Transportation. Case # 2021-CA-2024-AN. In the Circuit Court of the Ninth Judicial Circuit, In and For Osceola County, Florida.

September 16, 2024: Deposition via video conference in Salem, Oregon. Attorney: Wasson, Karen. Case: Johnson, B v Grange. Case # 20-001935-CI. In the Circuit Court of the Sixth Judicial Circuit, In and For Pinellas County, Florida.

September 17, 2024: Deposition in Salem, Oregon. Attorney: Slater, Tom. Case: Rocha, Z v H2ECO. Case # 2019-CA-008418-0. In the Circuit Court of the Ninth Judicial Circuit, In and For Orange County, Florida.

September 18, 2024: Deposition in Salem, Oregon. Attorney: Harrell, Renee. Case: Doe, J v Durham School Services. Case # 2022-CA-94. In the Circuit Court, Fourth Judicial Circuit, In and For Duval County, Florida.

September 19, 2024: Deposition via video conference in Salem, Oregon. Attorney: Hermida, Andres. Case: Masters, P v Publix. Case # 20-CA-000172-M. In the Circuit Court of the 16th Judicial Circuit, In and For Monroe County, Florida.

September 24, 2024: Deposition via video conference in Salem, Oregon. Attorney: Phillips, Adam. Case: Perez v Moxie. Case # 22STCV28583. In the Superior Court of the State of California, County of Los Angeles.

September 30, 2024: Deposition via video conference in Salem, Oregon. Attorney: Finn, Larry. Case: O'Neill, M v Campbell. Case # CJ-2020-6162. In the District Court of Oklahoma County, State of Oklahoma.

October 01, 2024: Deposition via video conference in Salem, Oregon. Attorney: Collins, Robert. Case: Scott v Evan Delivery. Case # 22EV005672. In the State Court of Fulton County, State of Georgia.

October 02, 2024: Deposition via video conference in Salem, Oregon. Attorney: Vance, Blake. Case: Littlefield v Ford. Case # 2019 L 19. In the Circuit Court for the Twenty-Third Judicial Circuit, Dekalb County, Illinois.

October 03, 2024: Deposition in Salem, Oregon. Attorney: Barker, Brown. Case: Brown v Metra. Case # 2021 L 012685. In the Circuit Court of Cook County, Illinois County Department, Law Division.

October 03, 204: Trial testimony via video conference in Salem, Oregon. Attorney: Jones, Steven. Case: Finkbeiner, C. Case # CV2019-090186. In the Superior Court of The State of Arizona, In and For the County of Maricopa.

October 10, 2024: Deposition via video conference in Salem, Oregon. Attorney: Williams, Don. Case: Johnson, K v Perrillioux. Case # 721559 SECTION 32. In the 19th Judicial District Court, Parish of East Baton Rouge, State of Louisiana.

October 10, 2024: Deposition via video conference in Salem, Oregon. Attorney: Romand, Genevieve. Case: Vanderhule v The Freemont Experience. Case # A-22-856968-C. In the District Court, Clark County, Nevada.

October 30, 2024: Deposition via video conference in Salem, Oregon. Attorney: Hasty, Thomas. Case: Barboza, J v El Santo Taqueria. Case # 2023-005490-CA-01. In the Circuit Court of the Eleventh Judicial Circuit, In and For Miami-Dade County, Florida.

October 31, 2024: Trial testimony via video conference in Salem, Oregon. Attorney: Fong, Eric. Case: Chipps v State of Alaska Corrections. Case #3AN-22-04989CI. In the Superior Court for the State of Alaska, Third Judicial District at Anchorage.

Appendix C

FORENSIC RESEARCH + ANALYSIS

Michael D. Freeman MedDr PhD MScFMS MPH FRCPath FFFLM FACE DLM

Mailing address:
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2017 NW Vaughn ST. #96309
Portland, Oregon 97209

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2024 Fee Schedule

Fees:

Services: **$700.00/hr.** All non-testimony services rendered by Dr. Freeman (reports, responses, research, analysis, etc.) are billed at a rate of $700 per hour, prorated in quarter-hour increments.

Ancillary Services: **$250.00-400.00/hr.** Work such as medical record review, report assistance, statistical analysis, and other associate scientist services will be billed at a rate of $250.00-400.00 per hour. MADYMO simulations are billed at a minimum of $2000, depending on complexity.

Retainer: **$7000.00** retainer covering the first 10 hours of work is due before work begins. Half of the retainer ($3500.00 for the first 5 hours) is non-refundable. In circumstances in which analysis is needed in a short timeframe, the retainer may be changed to include the estimated work to complete the requested analysis. Please note that analyses requiring a report will typically require a *minimum* of 15 hours to complete. Our office can provide an estimate of charges prior to retention.

Testimony: **$950.00/hr.** Pertains to deposition, trial, hearings, or other video or telephonic testimony with no travel requirement. Testimony requiring travel is billed door-to-door; **$10,000.00** for full-day travel and testimony, and **$15,000.00** when overnight stay is required. Travel expenses including lodging, airfare, and ground transportation will be invoiced separately.

Payment for services and calendar reservation:

Testimony and other events held on the calendar for 3 or more months in advance require a single hour ($950) non-refundable deposit. Less than 3 months but more than 1 month requires half of the total fee, with the remaining balance due 1 month to 5 business days in advance. Please note that unless other arrangements have been made, events that are not paid in according to the above schedule will be removed from the calendar.

A minimum of one hour at $950.00 is required to hold a time on the calendar for a deposition or other testimony. Events are scheduled for the time reserved and prepaid in all cases, unless there is a prior agreement for extenuating circumstances. Any additional charges incurred for deposition overages will be billed in half-hour increments, triggered after 10 minutes into the half-hour. **Retaining counsel is responsible for ensuring timely payment of calendar requests, including by opposing counsel.**

One-half of the total testimony fee is due as a non-refundable deposit. The entire fee becomes the cancellation fee if cancellation is within 5 business days. Half of the paid fee will be carried over for postponements with more than 5 days notification.

To be placed on Dr. Freeman's calendar for any meeting, phone conference, deposition, inspection, or testimony requests, **retaining counsel must communicate directly with FR+A** (contact is Katie Smith, Executive Assistant) to determine availability and deposit requirements and to schedule their time slot. Depositions and testimony appearances cannot be calendared until deposits are received. The office staff does not typically communicate directly with opposing counsel to avoid *ex parte* issues.

If the undersigned fails to pay the full amount of the charges within 30 days of receipt of the invoice, the unpaid amounts shall accrue interest at a rate of 1.5% per month. Returned checks and chargeback payments will incur a $75 bank and administrative fee. By signing below, the undersigned agrees to pay all FR+A costs of collection, including reasonable attorney fees.

Please make checks payable to: Forensic Research + Analysis, Inc. Tax id # 68-0551731

My signature is an acknowledgment that I have read the above two-page fee schedule and agree to abide by same. I understand that work does not commence until this signed agreement is returned to FR+A.

_____

Signature Date

_____

Retaining Attorney/ Firm (printed)

_____

Case name/ style