



Carla J. Kinslow, Ph.D.

she/her/hers

Director, Toxicology and Food Safety Practice

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Background

Dr. Carla Kinslow holds a doctorate in Biomedical Sciences, Cell Biology/Molecular Toxicology with over 35 years of biomedical, regulatory, and environmental experience.

She has expertise in inhalation and oral toxicology; derivation of regulatory screening values for oral and inhalation exposure, toxicogenomics; toxicological risk assessment and communication of such risk to diverse stakeholders; human health impacts analysis from emission events; air, soil, and water monitoring data; modeling data related to ambient air and drinking water quality; water contamination from oil and gas operations; and stakeholder communication.

She specializes in risk-based evaluation of air, soil, and groundwater toxicology under the USEPA, as well as state and federal guidelines. She has served as manager for various regulatory projects where she helped design and implement air monitoring networks, groundwater monitoring projects, and remediation scopes, with subsequent assessment and communication of such human health impacts based on collected data. She has extensive experience in the evaluation of drug and alcohol impairment and “DRAM” shop cases.

Dr. Kinslow also has extensive experience in the evaluation of pesticide/herbicide overspray cases as well as health risks based on genetic predisposition to disease from environmental, occupational, and pharmaceutical exposures. Notably, Dr. Kinslow is also an environmental microbiologist and regularly conducts indoor air quality mold investigations and beer contamination evaluations.

Professional Engagements

• Water

- Remediation Support – Drafted several Affected Property Assessment Reports (APARs) for submission to the Texas Commission on Environmental Quality (TCEQ), conducted fieldwork for soil and groundwater sampling, and water well surveys.

- Drinking Water – Evaluation of monitoring data with regard to human impacts from chromium in public drinking water systems.
- **Risk Communication**
 - MTBE Ground Water Contamination – Texas, Community engagement about groundwater contamination as well as accidental releases from chemical plants.
 - Hazard Assessments – Texas, Served as a regulatory and community liaison, which included a presentation to the La Porte, TX community regarding odor toxicology after a fatal release of methyl mercaptan.
 - Hazard evaluation and toxicological impacts assessment of data gathered around oil and natural gas drilling facilities.
 - Water/Air/Odors Education – Houston, Beaumont, TX, Conducted over 20 presentations for Community Advisory Panels (CAPs) across the Houston ship channel and Beaumont areas. Topics covered – accidental release of benzene in water and air, odors, and long-term air monitoring data.
- **Inhalation**
 - Indoor Air Contaminants – Alternative causation evaluation for workers compensation cases involving respiratory issues attributed to indoor air contaminants.
 - Ambient air and pollution exposure risk assessment based on modeling data and known regulatory guidelines.
 - Fabric Guard Spray – Evaluation of human impacts from accidental inhalation exposure of hydrocarbons and fluorocarbons from fabric guard spray.
 - Workers Compensation – Alternative causation evaluation for workers compensation cases involving respiratory issues attributed to indoor air contaminants.
 - Asphyxiation from gasoline fumes.
 - Due Diligence/M&A Vapor Intrusion – Completed vapor intrusion assessments of a multi-use property and evaluated potential impacts of contamination of groundwater for future development. Human and ecological risk associated with reclaimed water.
 - Evaluation of human health impacts based on ambient air data as well as modeled data.
 - Designed ambient air monitor placement criteria for the TCEQ.
- **Alcohol and Drug**
 - Drug impairment evaluations in driving and workers compensation - marijuana, cocaine, alcohol, and prescription drugs.
 - Evaluation of blood alcohol concentration (BAC) as it relates to impairment, both in the presence of and absent of other drugs, including cocaine and marijuana.
 - Determination of possible impairment from alcohol before entry, at the point of sale, and after leaving an establishment (i.e., “DRAM shop” projects).
 - Evaluation of possible contribution of marijuana and THC to driving impairment.
 - Contribution of prescription opiates in causing death to an individual.
- **Beer Contamination - Microbiology**
 - Brewery contamination and trace-back investigation for initial insurance as well as subrogation claims.
- **Environmental Microbiology**
 - Human and Animal Food Investigation - Source trace-back in salmonella and E.coli contamination cases – identifying the environmental source of contaminated food.

- Mold investigations and alternative causations relative to health complaints.
- **Other**
 - Herbicide/Pesticide Overspray – Evaluation of possible pesticide and herbicidal overspray for wheat and potato fields.
 - Benzene/Asbestos – Evaluation of molecular mechanisms responsible for predisposition to cancer from low-level exposure to benzene and asbestos.
 - Evaluation of human toxicity related to caustic injury.
- **Oil, Gas, and Manufacturing**
 - Toxicological Risk and Human Impacts Assessment – Evaluation of modeling impacts from air emissions, review of accidental, industrial emissions data, and evaluation of possible human health impacts from the ingestion of groundwater contaminants.
 - Barnett Shale – Dallas/Ft. Worth, TX, Developed and implemented air monitor location criteria for the TCEQ Barnett Shale air monitoring program.
 - Manufacturing Facilities – Toxicological assessment of impacts from odorous manufacturing facilities including refineries, oil and animal rendering facilities, and landfills.
- **Regulatory**
 - Derivation of state-approved, human-health regulatory screening values using TCEQ and US Environmental Protection Agency (EPA)-specific guidance. These included a new cobalt screening value for soil and groundwater, which resulted in the TCEQ changing its regulatory guidance for cobalt.
 - Tox21 Guidance – Drafted state of science reports for benzene and asbestos-based on new Tox21 guidance for the weight of evidence approach to literature search and documentation.
 - Texas Refinery QRA – Conducted reviews of quantitative risk assessment (QRA) from a refinery and completed state-specific QRAs under the Texas remediation program.
 - Toxicological review of literature related to antibacterial chemicals used in hand soap focused on enhancing a clients' document submittal to the FDA.
 - Regulatory Compliance – Texas, Conducted reviews of current toxicological screening values (air, water, soil) and reviewed literature; prepared summaries of current benzene, toluene, ethylbenzene, and xylene (BTEX) and carbon monoxide (CO) National Ambient Air Quality Standards (NAAQS) data.
- **Tobacco**
 - Tobacco Products – Developed mode of action summaries for ten tobacco products.
 - Industrial Hygiene – Conducted due diligence auditing for biomedical laboratories for mergers and acquisitions.

Professional Experience

• Rimkus

2016 – Present

• Director, Toxicology and Food Safety Practice

Responsible for division oversight and technical support to the staff. Duties include the evaluation of human health impacts from drugs, chemical exposure in the environment or workplace, and brewery/beer contamination, as well as providing litigation, scientific liaison, or environmental regulatory toxicological support. Areas of expertise include inhalation toxicology, marijuana, remediation, pesticide/herbicide overspray, environmental microbiology, human health-based risk assessment, toxic mold, lung cancer, vapor intrusion, and odor issues.

- Ramboll Environ, Inc. 2013 – 2015**
 - Manager/Toxicologist – Health Science Division
Responsible for providing senior toxicological support to the division. Duties included the evaluation of human health impacts from environmental chemical and pharmaceutical exposure, as well as litigation, scientific liaison, environmental regulatory toxicological support. Areas of expertise included inhalation toxicology, soil and water remediation assessment, risk assessment, toxic mold, lung cancer, vapor intrusion, and odor issues. Served as scientific liaison during public stakeholder meetings as well as conducted risk communication presentations to communities in the Houston area.
- Brown and Caldwell 2012 – 2013**
 - Senior Scientist/Toxicologist
Responsible for providing senior technical and regulatory support for the company. Duties included the evaluation of human health impacts from environmental and pharmaceutical exposure, as well as litigation, scientific liaison, environmental regulatory toxicological support. Provided hazard and human health risk assessment, remediation, and compliance assistance for the company. Regulatory compliance included air permit impacts evaluation, evaluation of groundwater and soil data for human and ecological risk, document preparation according to TRRP (Texas) and NJDEP (New Jersey) regulatory requirements. Project management included managing unit closure and RCRA permitting projects.
- TCEQ 2008 – 2012**
 - Senior Toxicologist
Responsible for providing senior toxicological support and guidance to other staff, specific to the TCEQ. Served as primary toxicologist for the Houston region and conducted numerous stakeholder presentations regarding environmental issues and activities of the TCEQ. Development of human health-protective inhalation values for use in regulatory compliance and permitting. Duties included deriving state-approved, human-health regulatory screening values using TCEQ and EPA-specific guidance, evaluating and designing toxicological studies that were implemented by the TCEQ. Additional responsibilities included acting as a liaison between the TCEQ and chemical trade groups, providing hazard evaluation and toxicological impacts assessment of data gathered around oil and natural gas drilling facilities, developing annual impacts assessment reports, reviewing air permits, and evaluating Qualitative Structure-Activity Relationships (QSAR) for toxicological endpoints. Served as mercury TMDL expert for the toxicology division during Texas government 2009 session.
- Proctor and Gamble 2006**
 - Intern
Developed molecular assays to detect endocrine-disrupting chemicals in human prostate cells.
- University of Texas Medical Branch 2003 – 2008**
 - National Institute of Environmental Health Sciences (NIEHS) Pre-doctoral Fellow
Doctoral studies related to molecular (inheritable) toxicological factors contributing to a predisposition for lung cancer in tobacco smokers. This included utilizing microbial cultures to manipulate genomes.
- The Pronet Group, Inc. 2001 – 2002**
 - Indoor Air Quality Consultant
Performed IAQ investigations in residential and commercial buildings, the majority of which were related to water intrusion and microbial contamination. Drafted the remediation scope(s) and completed follow-up clearance evaluations for these properties. Provided litigation support.

- MD Anderson Cancer Center** **1999 – 2000**
 - Research Assistant II
Performed molecular biology assays related to maintaining the viral vector core facility. This included using virus particles to infect bacterial cultures in order to package recombinant genomes.
- Valentis, Inc.** **1998 – 1999**
 - Research Assistant/Scientist
Performed molecular biology assays and plasmid construct designed for cancer gene therapy research. This included utilizing microbial cultures to manipulate human genes and genomes.
- Michigan Technological University** **1993 – 1998**
 - Naval Research Fellow and Research Assistant – Phycology (Algae)
Molecular biology of marine diatoms. Studied various marine and freshwater algae and bacteria, including their development and persistence in biofilms located on man-made objects. Developed novel culture methods as well as specific methods to study the genomes of algae in biofilms. Taught 100 and 200 level college laboratory classes in microbiology, botany, and phycology (algae).
- Indiana University Southeast** **1989 – 1993**
 - Research and Laboratory Assistant/Full-Time Researcher
Designed and taught several microbiology, molecular biology, and botany labs to college and graduate students. Supervised and taught several microbiology, molecular biology, and botany labs to college students.
 - Research Assistant
Designed and taught several microbiology, molecular biology, and botany labs to college and graduate students. Supervised and taught several microbiology, molecular biology, and botany labs to college students.

Education and Certifications

- **Biomedical Sciences, Cell Biology/Molecular Toxicology, Ph.D.:** Biomedical Sciences, Cell Biology/Molecular Toxicology, Ph.D.: University of Texas Medical Branch (2008)
- **Molecular Phycology/Marine Ecology, M.S.:** Michigan Technological University (1997)
- **Biology, B.A.:** Indiana University Southeast (1992)
- **Society of Toxicology:** Full Member
- **American Society of Microbiology:** Premium Member
- **Society of Toxicology of Canada:** Regular Member
- **University of Texas Medical Branch Alumni Committee:** Member

Continuing Education

- **OSHA and related Training:** HSA refresher, TWIC card, 8 hrs. (2012, 2013, 2014, 2015); 40 hr. OSHA Training (2011)
- **TCEQ:** Expert witness training (2011); EPA Vapor Intrusion Training (2010)
- **Other Courses:** Quantitative Structure Activity Relationships (QSAR) (2008-2012); Communications (2011); Management training (2011); TERA training – Child susceptibility in risk assessment seminar (2009); International REACH training (2009); Advanced Air Permitting (2008)

Publications

- **“Beyond Science and Decisions: From Problem Formulation to Dose-Response Report from Workshop IV”**, Toxicology Excellence for Risk Assessment (TERA), published 2022.
- **“Regulatory regions responsive to oxidative stress in the promoter of the human DNA glycosylase gene NEIL2,”** Mutagenesis, 2010, Mar; 25(2):171-7.
- **“Genetic determinant of NEIL2 transcription,”** Ph.D. Dissertation.
- **“Single nucleotide polymorphisms 5’ upstream the coding region of the NEIL2 gene influence gene transcription levels and alter levels of genetic damage,”** Genes Chromosomes Cancer, 2008 Nov;47(11):923-32.
- **“The L84F polymorphism in the O6-Methylguanine-DNA-Methyltransferase (MGMT) gene is associated with increased hypoxanthine phosphoribosyltransferase (HPRT) mutant frequency in lymphocytes of tobacco smokers,”** Pharmacogenet. Genomics, 2007 Sep;17(9):743-53.
- **“The L84F and the I143V polymorphisms in the O6-methylguanine-DNA-methyltransferase (MGMT) gene increase human sensitivity to the genotoxic effects of the tobacco-specific nitrosamine carcinogen NNK,”** Pharmacogenet Genomics, 2005 Aug. 15(8):571-8.
- **“Molecular Biology of the marine diatom Achnanthes longipes,”** Master’s thesis, 1997.

Presentations

- **“Marijuana Use and How it Can Alter Judgement, Perception and Behavior,”** North Carolina Bar Association, February, 2023.
- **“What’s Brewing in Your insurance claim,”** (in production) National Webinar, Beer contamination investigations, 2019.
- **“Toxicology for Drug and Alcohol Cases and Issues of Impairment,”** National Webinar, Broadcast to 700 attendees representing the insurance and legal industries, Jan. 23, 2019.
- **“What the Hex is Cr6,”** National Webinar, Broadcast to 700 attendees representing the insurance and legal industries, Jan. 23, 2019.
- **“What the Hex is Cr6,”** Evaluation of the toxicity screening values for hexavalent chromium (Cr6) across the U.S., EECHMA, Orlando, FL, 2018.
- **“PFAS: Evolution from Emerging Contaminant to Frequent Headliner,”** Environmental Risk & Litigation Conference New York, NY 2018.
- **“Forensic Toxicology for Drug and Alcohol Cases and Issues of Impairment,”** Continuing Education (CE) presentation for various clients. February 8, 2018, Houston, TX.
- **“Cerium oxide nanoparticle (nCe) use as a diesel fuel additive and the possible health impacts from its wide application in diesel fuel,”** AEHS Foundation: 27th Annual International Conference on Soil, Water, Energy, and Air, March 20-23, 2017, San Diego, CA.
- **“Cerium oxide nanoparticle (nCe) use as a diesel fuel additive,”** The Air and Water Management Association, Austin Chapter, Austin, TX, 2017.
- **“Evaluating the Broadening Use of Prescription Marijuana Related to Workers’ Compensation Claims,”** 2017 CLM Conference on Retail, Restaurant & Hospitality Conference (whitepaper), Gaylord, TX.
- **“Evaluating the Broadening Use of Prescription Marijuana Related to Workers’ Compensation Claims,”** CLM Conference on Retail, Restaurant & Hospitality Conference (white paper) 2017.
- **“Marijuana: determining impairment and its impact in the insurance industry,”** Webinar broadcast to ~500 listeners, 2017.
- **“Marijuana and driving with medical marijuana,”** Willis Watson, Addison, TX, 2016.

- **“Marijuana and Driving; Can a blood test really determine impairment,”** GEICO Insurance Company, Katy, TX, 2016.
- **“Marijuana and Driving; Can a blood test really determine impairment,”** DRI For the Defense (whitepaper), 2016.
- **“Evaluation of Benzene Fence line Monitoring Program in USEPA’s Proposed Refinery Sector Rule,”** AWMA Hot Air Topics Annual Conference, Houston, TX, 2015.
- **“Tools for successful stakeholder communications around hydraulic fracturing facilities,”** Gulf Coast AWMA conference, New Orleans, LA, 2015.
- **“Health-based screening values for methyl mercaptan,”** La Porte, Texas Community Advisory Panel (presentation), La Porte, TX, 2015.
- **“Toxicogenomics in Toxic Tort - Environmental and Occupational Exposure,”** HarrisMartin Law Symposium, Charleston, SC, 2014.
- **“Hydraulic Fracturing – Tools for successful stakeholder engagement,”** Society of Petroleum Engineers Annual Meeting on Health and the Environment, Long Beach, CA, 2014.
- **“Tools for successful stakeholder communications around hydraulic fracturing facilities,”** International Conference for the Society of Petroleum Engineers (whitepaper), 2014.
- **“Hydraulic Fracturing – Tools for successful stakeholder engagement,”** Texas Association of Environmental Professionals Annual Meeting, Houston, TX, 2013.
- **“2013 Panelist,”** 2013 Annual Presidential Career Symposium, Houston, TX.
- **“Consulting as a Toxicologist,”** University of Texas Medical Branch, Panelist and presentation, Galveston, TX, 2013.
- **“Regulatory Toxicology,”** University of Texas Medical Branch, Galveston, TX, 2012.
- **“Toxicology at TECQ,”** A series of presentations to various community groups in Houston/Galveston, TX area, 2012.
- **“Acrylonitrile Development Support Document,”** TCEQ, 2012.
- **“Developing Effects Screening Levels and Air Monitoring Comparison Values at the TCEQ and Trends in Texas Air Quality,”** Texas Association of Environmental Professionals annual meeting, Houston, TX, 2011.
- **“Trends in Texas Air Quality: Atmospheric Chemistry and Air Quality in Texas: Challenges and Opportunities,”** Texas A&M University, College Station, TX, 2010.
- **“Challenges in personalized medicine: Warfarin,”** Preventive medicine and community health seminar series, Galveston, TX, 2008.
- **“Genetic determinants of NEIL2 transcription,”** The NIEHS Center in Environmental Toxicology Environmental Health Sciences Seminar Series, Galveston, TX, 2007.
- **“Newly discovered promoter SNPs in the DNA repair gene, NEIL2, modulate gene expression,”** Preventive medicine and community health seminar series, Galveston, TX, 2007.
- **“Advancing Toward In Vitro Toxicity Models - Evaluation of gene expression changes induced by androgen exposure in the human-derived CW22Rv1 cell line,”** Gulf Coast Society of Toxicology, Waco, TX, 2006.
- **“A pharmacogenetic approach to anticoagulation treatment: the role of microsomal epoxide hydrolase,”** The Society of Toxicology annual meeting, San Diego, CA, 2006.
- **“A pharmacogenomic approach to anticoagulation treatment,”** Gulf Coast Society of Toxicology, Austin, TX, 2005.