



Ewens Toxicology Consulting, LLC

150 Wrenn Dr. #662

Cary, NC 27512

(919) 609-0773

Andy.Ewens@Toxicologist.Expert

www.Toxicologist.Expert

Andrew D. Ewens, PhD, DABT
Owner/Toxicologist

RELEVANT QUALIFICATIONS

- Doctorate in pharmacology and board certification in toxicology with 25 years of experience in the biomedical sciences and a minimum of 20 hours of continuing education in toxicology a year
- Area of expertise – antemortem and postmortem toxicological interpretation
- 9 years - independent toxicology consulting
- 8 years working on legal cases
- 5 years working with attorneys
- Types of legal cases include: DUI, parole/probation violation, assault/murder, cause of death, personal injury, employment, child custody, postconviction and medical malpractice
- 3 years – conducting independent research of human and non-human experiments in alcohol breath detection as well as human experiments to test several aspects of performing field sobriety tests and drug recognition and classification tests
- Order additional drug tests from a contracted toxicology lab
- Qualified to testify in North Carolina, Maryland, Michigan and Texas – antemortem toxicological interpretation; in North Carolina – postmortem toxicological interpretation
- Testified 5 times in court, deposed 1 time, and wrote 24 letters of opinion, 58 for legal cases
- 15 years - toxicologist on contracts with 5 federal government agencies
- 10 years - academic research (pharmacology, diagnostics, molecular biology)
- Trained HazMat Technician, including use of field chemical detection instruments
- Assist police officers during DUI checkpoints, help test bomb sniffing dogs for the TSA, and patrol parks
- First responder, deployed twice on missing person searches and an influenza vaccination drive

EDUCATION

- 2018-2018 Completion – **Citizens Police Academy**, Cary Police Department, Cary, NC
- 2013-2013 Continuing education - **Forensic Toxicology**, RTI International, RTP, NC.
- 2011-Present Self-study - **Forensic Toxicology**, Ewens Toxicology Consulting, Cary, NC.
- 2009 Completion – **MidAmerican Toxicology Course**, Kansas City, MO.
- 1997-2004 Ph.D. - **Molecular Pharmacology**, State University of New York at Buffalo, Buffalo NY.
- 1992-1997 B.S. - **Biochemistry**, Virginia Tech, Blacksburg, VA.

WORK EXPERIENCE

- 2018-Present **Member**, Citizens Assisting Police, Cary Police Department, Cary, NC. Support the Cary police department at DUI checkpoints. This includes helping to set up the



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- evidentiary breathalyzers by providing blank breath specimens. I parked cars of DUI suspects and perform whatever task I am asked to do, which has included telling the police if I noticed smelling marijuana in a suspect's car that I parked. I must be careful not to disrupt any evidence that may be present inside the suspect's car. Helped the U.S. Transportation Security Administration (TSA) by posing as a decoy, carrying a concealed live explosive, to see if the dogs could detect me in an airport. Patrolled parks for evidence of vandalism, robbery, and to show a presence to residents.
- 2017-2019 **Associate Editor**, MedCrave Online Journal of Toxicology, Edmond, OK. Provide peer-review of submitted articles for publication. This includes evaluations of experimental design, the scientific data, study rationale, completeness or the article, proper citations, and checks for plagiarism
- 2017-Present **Primary investigator**, Ewens Toxicology Consulting, LLC, Cary, NC. Plan, fund, and conduct original research on alcohol detection and drug-induced impairment. For alcohol detection, I am working on developing a raman spectroscopy-based breath alcohol evidentiary analyzer and I am investigating factors involved in false positive alcohol breath tests. I am also conducting test on the reliability of the Intoximeter EC/IR II evidentiary breathalyzer, used by police agencies in North Carolina. For drug-induced impairment, I am investigating the SFST and DRE evaluation techniques to determine their strengths, weaknesses and to develop improvements to the techniques to increase accuracy. Studying the effects of consuming CBD oil on urine drug testing and the mechanism of false positives.
- 2013-2013 **Task Force Member**, Wake County Public School System, Cary, NC. Recommended improvements in school and police responses to active shooting incidences in public schools. The task force was chaired by Wake County Sheriff Donnie Harris and the task force voted to include my recommendation in the final proposal sent to the school board.
- 2012-Present **Institute Animal Care and Use Committee Member**, Integrated Laboratory Systems, RTP, NC. Review and vote on the acceptance of research animal use protocols and inspect animal facilities.
- 2011-Present **Owner/Toxicologist/Expert witness**, Ewens Toxicology Consulting, LLC, Cary, NC. Provide consulting and expert witness services for clients with legal and non-legal toxicological needs. Most of my initial clients were not involved in legal issues, but in 2015 I switched my focus to clients involved in legal issues. My clients include people who had been accused of drug use or drug-induced impairment. Cases have included DUI arrests, causes of death determination, probation violations due to alleged drug use, cause of vehicle accident and injury, employment drug testing, other drug testing situations. Provide pre-trial consultation, letters of opinion, and expert witness testimony for both clients who want me to verify or to disprove drug use or drug-induced impairment. Can also order additional drug testing if needed and incorporate that into my expert opinions.
- 2010-Present **Toxicologist**, Integrated Laboratory Systems, Research Triangle Park, NC. Evaluate laboratory animal carcinogenicity studies and write the carcinogenicity section of
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- 2010-2010 **monographs of the 13th and 14th Report on Carcinogens** for a contract with the National Toxicology Program/National Institute of Environmental Health Sciences.
- 2010-2010 **Training Material Reviewer**, Dartmouth Medical School, Lebanon, NH. Reviewed the instructor's features of the expanded edition of the Virtual Terrorism Response Academy training program for firefighters.
- 2009-2009 **Toxicologist**, SRA International, Durham, NC. Identified drugs with pharmacokinetic behaviors similar to a Physiologically Based Pharmacokinetic computer simulation model.
- 2008-2008 **Data Submitter**, World Health Organization – Expert Meeting to Review Toxicological Aspects of Melamine and Cyanuric Acid, Switzerland. Updated the Food and Drug Administration's risk assessment of melamine and cyanuric acid in farm animal feed as a risk to humans consuming those animals.
- 2008-2013 **Community Emergency Response Team member/trainer**, Cary Community Emergency Response Team, Cary, NC. Responded to emergencies as activated by the Cary Fire Department, taught the terrorism response section of the basic training course, and taught continuing education in hazardous substance response. Developed a novel technique for removing a contaminated pull-over shirt while minimizing exposure to the contaminant. Deployed on two missing person searches and to help the Wake County Department of Health with an influenza vaccination drive.
- 2006-2008 **Toxicologist/Task Manager**, SRA International, Durham, NC. Managed the collection and evaluation of toxicological data needed to train a quantitative structure activity relationship computer program that predicts toxicity. This work was for a contract with the Environmental Protection Agency's National Homeland Security Research Center.
- 2006-2008 **Toxicologist/Task Manager**, SRA International, Durham, NC. Managed the toxicological support staff for the physicians working at the top tier of the call center (1-800-CDC-INFO) for a contract with the Centers for Disease Control and Prevention.
- 2005-2010 **Toxicologist**, SRA International, Durham, NC. Evaluated research animal carcinogenicity studies and human epidemiology studies of cancer and wrote the updated carcinogenicity sections of the profiles for the 12th Report on Carcinogens for a contract with the National Toxicology Program/ National Institute of Environmental Health Sciences.
- 2005-2005 **Toxicologist**, Technical Resources International, Bethesda, MD. Recommended chemicals for carcinogenicity testing by the National Toxicology Program that are used in semiconductor manufacturing and that have a high potential for causing cancer.
- 2005-2005 **Toxicologist**, Technical Resources International, Bethesda, MD. Provided quality assurance of updated drug records to the Hazardous Substance Data Bank for a contract with the National Library of Medicine.
- 2004-2004 **Researcher**, Pharmacology, Roswell Park Cancer Institute, Buffalo, NY. Investigated the specificity of the anti-cancer immune memory induced by the treatment of breast cancer in mice with a combination of doxorubicin and interleukin-2.
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RESEARCH EXPERIENCE

- 2017-Present **Impairment detection studies**, Ewens Toxicology Consulting, LLC, Cary, NC. Conducting human and non-human studies on alcohol breath detection, including the development of a raman spectroscopy-based evidentiary breathalyzer. Planning a series of human studies and conducting pilot studies to look at several aspects of impairment detection methods. Impairment detection methods will include standard field sobriety tests, drug evaluation and classification tests, and additional tests that are more quantitative.
- 1998-2004 **Thesis Project**, Pharmacology Department, Roswell Park Cancer Institute, Buffalo, NY. Developed a curative treatment for breast cancer in mice that imparted immune memory toward the cancer. The treatment was a combination of doxorubicin and interleukin-2.
- 1997-1998 **Laboratory Rotations**, Pharmacology Department, Roswell Park Cancer Institute, Buffalo, NY. Worked to clone the gene for the NAD(P)H:quinone oxoreductase enzyme. In another rotation used structure activity relationship analysis of taxane based Pgp multidrug efflux pump inhibitors to determine chemical attributes that increase potency.
- 1996-1996 **Summer Internship**, Pharmacology Department, Roswell Park Cancer Institute, Buffalo, NY. Developed a method to measure the activation state of the Ran protein using high performance liquid chromatography.
- 1995-1995 **Summer Internship**, Cancer Genetics Department/Amniotic Fluid Department, Genetics and IVF Institute, Fairfax, VA. Mentored a student and developed a research project to develop a novel technique to detect chromosomal aberrations. Karyotyped patient's amniotic fluid and bone marrow samples.
- 1995-1997 **Undergraduate Research Project**, Biochemistry Department, Virginia Tech, Blacksburg, VA. Characterized the tetramerization site of the GlpR protein in E. Coli bacteria.
- 1994-1994 **Summer Internship**, Cancer Genetics Department/Amniotic Fluid Department, Genetics and IVF Institute, Fairfax, VA. Conducted the studies for a graduate student's master's thesis project, which tested the ability of sex mismatching between donor and recipient to predict the prognosis of bone marrow transplantations. I karyotyped patient's amniotic fluid and bone marrow samples.
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MEMBERSHIP

- **Diplomate**, American Board of Toxicology, Raleigh, NC.
- **Full Member**, Society of Toxicology, Reston, VA.
- **Associate Member**, Society of Forensic Toxicology, Mesa, AZ.
- **Associate Member**, National Association of Criminal Defense Lawyers, Washington D.C.
- **Associate Member/DRE Section member**, International Association of Chiefs of Police, Alexandria, VA

WRITTEN COMMUNICATIONS

Publicly Released Government Documents:

1. Report on Carcinogens Nomination Document for PFAS, Research Triangle Park, NC, National Toxicology Program, (draft in progress).
 2. Report on Carcinogens Nomination Document for wood smoke, Research Triangle Park, NC, National Toxicology Program, (draft in progress).
 3. Report on Carcinogens Fifteenth edition, Research Triangle Park, NC, National Toxicology Program, (draft in progress).
 4. Report on Carcinogens Nomination Document for Cell phone radiation, Research Triangle Park, NC, National Toxicology Program, (draft in progress).
 5. Report on Carcinogens Nomination Document for PAHs, Research Triangle Park, NC, National Toxicology Program, (draft in progress).
 6. Report on Carcinogens Nomination Document for NitroPAHs, Research Triangle Park, NC, National Toxicology Program, (draft in progress).
 7. NTP, Report on Carcinogens Monograph for Shiftwork involving light at night, Research Triangle Park, NC, National Toxicology Program, 2019.
<https://ntp.niehs.nih.gov/pubhealth/roc/listings/shiftwork/index.html>
 8. Report on Carcinogens Monograph for Helicobacter pylori, Research Triangle Park, NC, National Toxicology Program, 2018.
<https://ntp.niehs.nih.gov/pubhealth/roc/listings/hpylori/index.html>
 9. Report on Carcinogens Monograph for Antimony trioxide, Research Triangle Park, NC, National Toxicology Program, 2018.
<https://ntp.niehs.nih.gov/pubhealth/roc/candidates/antimonyt.html>
 10. Report on Carcinogens Monograph for Haloacetic acids, Research Triangle Park, NC, National Toxicology Program, 2018.
https://ntp.niehs.nih.gov/ntp/about_ntp/monopeerrvw/2017/july/haafinalmonograph_508.pdf
 11. Report on Carcinogens Fourteenth edition, Research Triangle Park, NC, National Toxicology Program, 2016.
<https://ntp.niehs.nih.gov/pubhealth/roc/index-1.html#toc1>
 12. NTP, Report on Carcinogens Monograph on Epstein-Barr virus, Research Triangle Park, NC, National Toxicology Program, 2016.
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13. https://ntp.niehs.nih.gov/ntp/roc/monographs/ebv_final201608_508.pdf
NTP, Report on Carcinogens Monograph on Kaposi sarcoma-associated herpesvirus, Research Triangle Park, NC, National Toxicology Program, 2016.
14. https://ntp.niehs.nih.gov/ntp/roc/monographs/kshv_final201608_508.pdf
NTP, Report on Carcinogens Monograph on Human immunodeficiency virus type 1 (HIV), Research Triangle Park, NC, National Toxicology Program, 2016.
15. https://ntp.niehs.nih.gov/ntp/roc/monographs/hiv_final201608_508.pdf
NTP, Report on Carcinogens Monograph on Human T-cell lymphotropic virus type 1 (HTLV-1), Research Triangle Park, NC, National Toxicology Program, 2016.
16. https://ntp.niehs.nih.gov/ntp/roc/monographs/htlv_final201608_508.pdf
NTP, Report on Carcinogens Monograph on Merkel-cell polyomavirus (MCV), Research Triangle Park, NC, National Toxicology Program, 2016.
17. https://ntp.niehs.nih.gov/ntp/roc/monographs/mcv_final201608_508.pdf
Report on Carcinogens Monograph for Cobalt and cobalt compounds, Research Triangle Park, NC, National Toxicology Program, 2016.
18. http://ntp.niehs.nih.gov/ntp/about_ntp/monopeerrvw/2015/july/cobalt_finalmonograph_508.pdf
Report on Carcinogens Monograph for Trichloroethylene, Research Triangle Park, NC, National Toxicology Program, 2015.
19. http://ntp.niehs.nih.gov/ntp/roc/monographs/finaltce_508.pdf
Report on Carcinogens Thirteenth edition, Research Triangle Park, NC, National Toxicology Program, 2014.
20. <http://ntp.niehs.nih.gov/pubhealth/roc/roc13/index.html>
Report on Carcinogens Monograph for Pentachlorophenol and synthesis by-products, Research Triangle Park, NC, National Toxicology Program, 2014.
21. http://ntp.niehs.nih.gov/ntp/roc/thirteenth/monographs_final/pentachlorophenol_508.pdf
Report on Carcinogens Monograph for o-Toluidine, Research Triangle Park, NC, National Toxicology Program, 2014.
22. http://ntp.niehs.nih.gov/ntp/roc/thirteenth/monographs_final/otoluidine_508.pdf
Report on Carcinogens Monograph for Cumene, Research Triangle Park, NC, National Toxicology Program, 2013.
23. http://ntp.niehs.nih.gov/NTP/roc/thirteenth/Monographs_Final/Cumene_508.pdf
Report on Carcinogens Monograph for 1-Bromopropane, Research Triangle Park, NC, National Toxicology Program, 2013.
24. http://ntp.niehs.nih.gov/NTP/roc/thirteenth/Monographs_Final/1Bromopropane_508.pdf
Report on Carcinogens, Twelfth edition. Research Triangle Park, NC, National Toxicology Program, 2011.
25. <http://ntp.niehs.nih.gov/ntp/roc/twelfth/roc12.pdf>
Report on Carcinogens Background Document for Formaldehyde, Research Triangle Park, NC, National Toxicology Program, 2010.
26. http://ntp.niehs.nih.gov/ntp/roc/twelfth/2009/November/Formaldehyde_BD_Final_508.pdf



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26. Report on Carcinogens Background Document for Glass Wool Fibers, Research Triangle Park, NC, National Toxicology Program, 2009.
http://ntp.niehs.nih.gov/NTP/roc/twelfth/2010/FinalBDs/GlassWoolBD20100408_508.pdf
27. Report on Carcinogens Draft Background Document for Cobalt–Tungsten Carbide Powders and Hard Metals, Research Triangle Park, NC, National Toxicology Program, 2009.
http://ntp.niehs.nih.gov/NTP/roc/twelfth/2010/FinalBDs/HardMetalsBD20100408_508.pdf
28. Report on Carcinogens Background Document for Styrene, Research Triangle Park, NC, National Toxicology Program, 2008.
http://ntp.niehs.nih.gov/NTP/roc/twelfth/2010/FinalBDs/Styrene_Final_508.pdf

Research Articles:

1. Ewens A., Case report of THC positive urine test from CBD exposure, (Draft in progress)
2. Ewens A., Strengths and weaknesses of the Drug Recognition Expert evaluation, (Draft in progress)
3. Ewens A., Mouth alcohol detection from tobacco products and foods, (Draft in progress).
4. Boyd W., Lunn R. M., Blask D. E., Coogan A. N., Figueiro M. G., Gorman M. R., Hall J. E., Hansen J., Nelson R. J., Panda S., Smolensky M. H., Stevens R. G., Turek F. W., Vermeulen R., Carreon T., Caruso C. C., Lawson C. C., Thayer K. A., Twery M. J., Ewens A. D., Garner S. C., Schwingl P. J.. Health Consequences of Electric Lighting Practices in the Modern World: A Report on the National Toxicology Program's Workshop on Shift Work at Night, Artificial Light at Night, and Circadian Disruption, *Sci Total Environ.* 607-608: 1073-1084, 2017.
5. Ewens A., Mihich E., Kanter, P., Alderfer J., Wollman R. and Ehrke J., Efficacy, toxicity and mechanism of interleukin-2 plus doxorubicin chemoimmunotherapy against breast cancer in mice. *Cancer Res.*, 66:5419-26, 2006.
<http://cancerres.aacrjournals.org/content/66/10/5419.full.pdf+html>
6. Ewens A., Mihich E. & Ehrke J., Distant Metastasis from Subcutaneously Grown E0771 Medullary Breast Adenocarcinoma. *Anticancer Research* 25:3905-3916, 2005.
<http://ar.iijournals.org/content/25/6B/3905.full.pdf+html>
7. Ewens A., Mihich E. & Ehrke J., Fluorouracil plus leucovorin induced submandibular salivary gland enlargement in rats. *Toxicologic Pathology*, 33:507-515, 2005.
<http://tpx.sagepub.com/content/33/4/507.full.pdf+html>
8. Ewens A., Custodio C. and Stanley W., Superimposition of routine G-banded and FISH chromosome images. *Cell Vision*, 4(1):81-83, 1997.

Abstracts:

1. Wang A., Trgovcich J., Witt K., Ewens A., Geter J., Garner S., Jahnke G., Smith-Roe S., Lunn R., Mechanistic evidence integration case study: using ten key characteristics of carcinogens and a systematic review approach for antimony trioxide (Sb₂O₃) cancer



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- hazard identification, Annual meeting poster session, Society of Toxicology, Baltimore, MD, 2019.
2. Ewens A., Mihich E., Alderfer J., Wollman R. and Ehrke J., Mechanism of doxorubicin plus interleukin-2 chemoimmunotherapy in a syngeneic mouse breast tumor model, Roswell Park Graduate Student Poster Competition, Buffalo, NY, 2003.
 3. Ewens A., Mihich E., Alderfer J., Wollman R. and Ehrke J., Mechanism of doxorubicin plus interleukin-2 chemoimmunotherapy in a syngeneic mouse breast tumor model, Proceedings of the American Society of Clinical Oncology, 22:181, 2003.
 4. Luo, L., Ewens, A., Ehrke, M.J. and Mihich, E., Immunomodulation –dependent therapeutic effects of doxorubicin plus interleukin 2, Proceedings of the American Association for Cancer Research, 43: 972, 2003.
 5. Ewens A., Eppolito C., Cao S. and Ehrke J., Immune involvement in the enhancement of 5-fluorouracil plus leucovorin induced anti-cancer response by the addition of IL-15, Proceedings of the American Association for Cancer Research, 42:4693, 2001.
 6. Ewens A., Eppolito C., Mihich E. and Ehrke J., Roles of interleukin-15, fluorouracil and leucovorin in combination treatment of rat Ward colon cancer, American Association for Cancer Research's Pathobiology of Cancer Workshop poster session, Keystone, CO, 2000.
 7. Ehrke J., Eppolito C., Ewens A., Cao S. and Mihich E., Investigation of the role of the host defenses in the efficacy of the FURA + LV + IL-15 combination treatment of rats bearing the Ward colon tumor. Regional Cancer Center Consortium for Biological Therapy of Cancer, (Symposium Proceedings) 2:25-27, 1999.

Videos:

1. Ewens Toxicology Consulting, LLC, Forensic Toxicology.
http://prezi.com/j65-wydfhzxk/?utm_campaign=share&utm_medium=copy
2. DrEwensDABT. Surviving School Shootings Evacuation.
<https://youtu.be/jS4PNcv5JtI?list=PLjnLInf7wzxfkK7skYLTpYrhyBGKNyT7W>
3. DrEwensDABT. Decon – Removal of a Contaminated Pull-Over Shirt.
<https://youtu.be/2QYcYaEWWqI>
4. Doc Andy. Removal of powder from surfaces.
http://www.youtube.com/watch?feature=player_detailpage&v=XKfEq1XpkfU

ORAL COMMUNICATIONS

Speaker presentation:

1. **Carcinogenic studies of haloacetic acids**, National Toxicology Program Informational Workshop on haloacetic acids, Research Triangle Park, NC, 2016.
2. **Immunotoxicity of trichloroethylene**, National Toxicology Program Peer Review meeting of Draft RoC Monograph on Trichloroethylene, Research Triangle Park, NC, 2014.



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3. **Human quantitative risk assessment of synergistic melamine and cyanuric acid consumption from animals that ate adulterated pet food from China**, Epidemiology Branch, North Carolina Department of Health and Human Services, Raleigh, NC, 2008.
4. **Curative treatment for breast cancer in mice**, Monthly seminar series, SRA International, Durham, NC, 2008.
5. **Immunotherapy for cancer in rodents**, Annual student seminar series, Pharmacology Department, RPCI, Buffalo, NY, 1997-2004.
6. **Summer Research Seminar**, Roswell Park Summer Research Participation Program, RPCI, Buffalo, NY, 1996.
7. **Monthly Seminar Series**, Cancer Genetics Department/Amniotic Fluid Department, Genetics and IVF Institute, Fairfax, VA, 1994.

Poster presentations:

1. **Mechanism of chemoimmunotherapy**, Graduate student poster competition, Buffalo, NY, 2003.
2. **Mechanism of chemoimmunotherapy**, Annual meeting poster session, American Society of Clinical Oncology, Chicago, IL, 2003.
3. **Immunomodulation dependent therapeutic effects**, Annual meeting poster session, American Association for Cancer Research, New Orleans, LA, 2003.
4. **Immune involvement in the enhancement of anti-cancer response**, Annual meeting poster session, American Association for Cancer Research, Philadelphia, PA, 2001.
5. **Role of IL-15 in colon cancer treatment**, Pathobiology of Cancer Workshop poster session, American Association for Cancer Research, Keystone, CO, 2000.
6. **Role of immune defense in colon cancer treatment**, Poster session, Regional Cancer Center Consortium for Biological Therapy of Cancer, Pittsburg, PA, 1999.

Teaching:

1. **Advanced Forensic Toxicology**, 12th grade Forensics Elective, Apex Friendship High School, Apex, NC, 2018.
2. **Forensic Toxicology**, Lab Busters Elective, Moore Square Middle School, Raleigh, NC 2018.
3. **Forensic Toxicology**, Youth and the Law Elective Mock Trial Competition team, Moore Square Middle School, Raleigh, NC 2018.
4. **Forensic Toxicology**, 8th grade Forensics Elective, Moore Square Middle School, Raleigh, NC, 2016.
5. **Chemical weapons of WWI**, 7th grade social studies classes, Moore Square Middle School, Raleigh, NC, 2015.
6. **Terrorism and CERT**, Community Emergency Response Team/Cary Fire Department – Station 7, Cary NC, 2009-2011.
7. **Hazardous Materials Emergency Response Guide**, Community Emergency Response Team/Cary Fire Department – Station 1, Cary NC, 2009.
8. **Elements of Toxicology**, CDC-INFO staff, SRA International, Rockville, MD, 2006.



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9. **Biology of cancer**, Roswell Park Summer Research Participation Program, RPCI, Buffalo, NY, 2001.

Mentor:

1. **Research Intern**, Roswell Park Summer Research Participation Program, RPCI, Buffalo, NY, 2000.
2. **Research Intern**, Cancer Genetics Department, Genetics and IVF Institute, Fairfax, VA, 1995.

POST DOCTORAL EDUCATION

Continuing education classes:

International Association of Chiefs of Police, Drugs, Alcohol, and Impaired Driving conference, 2017

1. New drug recognition expert orientation
2. Spit it out!, Implementation and validity of roadside oral fluid testing
3. A look at marijuana studies and their practical use in impaired driving cases
4. Inhaled vs. edible cannabis: Effects on interpreting cannabinoid concentrations and impairment
5. Prescription drugs and driving
6. Designer drugs and their impact on driving

International Association of Chiefs of Police, Drugs, Alcohol, and Impaired Driving conference, 2019

1. DEC program road to progress
2. High in plain sight
3. Defending the use of field sobriety test evidence in drug-impaired driving cases
4. Training your prosecutors: Ensuring prosecutors get the most out of DREs and cross examination of the expert witness
5. The big three: the Colorado, Florida, and San Diego SFST field evaluation studies
6. Officer survival during a marijuana jury trial
7. Marijuana impacts: A toxicology perspective
8. Mellanby effects, impairment, & homeostasis: Why impaired drivers are never safe behind the wheel
9. CopTox: What's new on the street
10. Mining for Gold: A deeper look into the manual
11. Development of SFSTs and their detection of drug impairment

Society of Forensic Toxicology, 2015 Annual Meeting

1. Postmortem toxicology
2. Analysis and interpretation of GHB
3. Expert witness testimony

RTI /National Institute of Justice



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1. Agilent Event: DART-TOF for Analysis of Bulk Drugs
2. Emerging Topics and Research in Sexual Assault Investigation
3. Human Identification in Mass Fatality Incidents
4. Introduction to Uncertainty in Forensic Chemistry and Toxicology
5. Map It Out: Models in Forensic DNA & Pathology - Part II
6. Novel Techniques and Tools for Forensic Analysis - Part II
7. One pot methamphetamine production and bath salt stability, Just science Podcast
8. Fundamentals of Chromatography used in Toxicology, 2013
9. Fundamentals of Immunoassay Testing Used in Toxicology, 2013
10. Fundamentals of Mass Spectrometry used in Toxicology, 2013
11. Fundamentals of Sample Preparation used in Toxicology, 2013
12. Fundamentals of Non-Mass Selective Detectors, 2013
13. Postmortem Interval and Molecular Autopsy - Part I, NIJ Grantees Meeting, 2013

MidAmerican Toxicology Course, 2009

1. General principles of toxicology
2. Chemical disposition and risk assessment
3. Forensic toxicology
4. Clinical toxicology
5. Developmental toxicology
6. Carcinogenicity
7. Mutagenesis
8. Inhalation toxicology
9. Blood and immunologic toxicology
10. Endocrine toxicology
11. Ocular toxicology
12. Toxic response of the nervous system
13. Toxic response of skin
14. Toxic response of the liver
15. Toxic response of the kidney
16. Pesticides
17. Toxic metals
18. Naturally occurring toxins

Miscellaneous

1. Regional chapter meeting, chemical mixtures, North Carolina Society of Toxicology, 2019
 2. National Institutes of Health Podcast shines light on prescription drug abuse in women, National Institute on Drug Abuse, 2019
 3. National Institute on Drug Abuse teleconference discussion of results from cocaine vaccine study, 2019
 4. What science can teach us about prevention/diagnosis/treatment of alcohol use disorder, National Institute on Alcohol Abuse and Alcoholism, 2019
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5. Hyperkatifeiaoptimizea, National Institute on Alcohol Abuse and Alcoholism, 2019
6. Fourth generation chemical agents Part I/II (Novichok), The HazMat Guys podcast, 2019
7. Sensitive forensic screening for drugs of abuse in human urine using single quadrupole GC/MS and a single solid phase extraction, ThermoFisher webinar, 2018
8. The power of high-resolution mass spectroscopy to detect fentanyl analogs, Agilent webinar, 2017
9. Identify synthetic opiates using ambient ionization TOF-MS, Forensic Technology Center for Excellence, 2017
10. Journal of medical toxicology podcast – September 2014 and October 2014 episodes, 2016
11. “Crazy Monkey” and a man and his dog (synthetic cannabinoids), The Poison Review podcast, 2016
12. Chemical suicide, The HazMat Guys podcast, 2016
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24. Breath testing for prosecutors by American Prosecutors Research Institute
25. Horizontal gaze nystagmus, American Prosecutors Research Institute
26. Drug recognition expert for prosecutors, American Prosecutors Research Institute
27. Alcohol toxicology for prosecutors, American Prosecutors Research Institute
28. Drug toxicology for prosecutors, American Prosecutors Research Institute



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LEGAL CASE WORK

Case list (cumulative count)

Evaluatee	Attorney/client	Year	Type	Antemortem (A) / Postmortem (P)	Hearing	Jurisdiction	Consultation	Case review	Letter of Opinion	Deposition Testimony	Courtroom Testimony
	Client										
John ?	?	2011	Cause of death	P	?	?	1	1			
Chris Williams	Lauren Williams	2012	Cause of death	P	Inquest	United Kingdom	2	2	1		
?	NA	2012	Cause of death	P	Life Insurance	?	3	3			
Sam ?	?	2012	Retrograde extrapolation	A	?	Australia	4	4			
?	?	2014	Child custody	A	Criminal	VA	5	5			
Nancy Dibisceglie	Nicolette Gallows	2014	Cause of death	P	?	FL	6	6			
Dustin	?	2014	Cause of death	P	?	Canada	7	7			
Kristin August	Elizabeth Quesnel	2014	Cause of death	P	?	UT	8	8			
Richard Marinos	?	2014	DUI	A	Criminal	OH	9	9			
James Sanders	Jackie Teal	2014	DUI	A	Criminal	TX	10	10	2		
Denton Boswell	Kay Finley	2015	Probation	A	Criminal	TN	11	11	3		
Christina Scioli	Robert Currie	2015	Probation	A	Criminal	MI	12	12	4,5		1
?	Shane C.	2015	Probation	A	Criminal	?	13	13			
Christopher Gustave	Sarah Clayton	2015	Cause of death	P	Author	NA	14	14	6		
Jeri Harrison	?	2015	Medication compliance	A	Civil	NY	15	15	7		
Timothy Smarth	?	2016	Life Insurance application	A	Life Insurance	?	16	16			
Matthew Lambert	?	2017	Employment drug test	A	Civil	Federal	17				
Rebecca Wilson	?	2017	DUI	A	Criminal	NC	18				
Renee Lee	?	2018	DUI	A	Criminal	NC	19	17			
	Attorney										



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Darren Chaker	Kimberly Trimble & Vania Chaker	2015	Parole	A	Criminal	Federal	20	18	8		
Christopher Leggett	Kenneth Tisdale	2016	DUI	A	Criminal	NC	21	19			
James Sanders	Dan Simmons	2016	DUI	A	Criminal	TX	22	20	9		2
James Sanders	Jackie Teal	2016	Parole	A	Criminal	TX	23	21	10		
Patrick Kummerer	Paul Toland	2017	Personal injury	A	Civil	NC	24	22	11		
?	Jill Clancy	2017	Child custody	A	Criminal	?	25				
Avinash Gandhi	Kenneth Tisdale	2017	DUI	A	Criminal	NC	26	23	12		
Boyce Lee	Kenneth Tisdale	2017	DUI	A	Criminal	NC	27	24	13		
Jeremy Doub	Kenneth Tisdale	2017	DUI	A	Criminal	NC	28	25	14		
Jerry Watson	Dawn Gray	2017	Cause of death	P	Life Insurance	TX	29	26	15		
Emanuele Avaro	Anthony Ison	2018	Employment drug test	A	Civil	Federal	30	27	16		
Maria Robey	Tyler Benson	2018	DUI	A	Criminal	NC	31	28			
Darius Johnson	Caroline Johnson	2018	Sports doping	A	Civil	Italy	32	29			
Peter Kyriakides	Anthony Ison	2018	Employment drug test	A	Civil	Federal	33	30	17		
?	Don Ennis	2018	Cause of death	P	Civil	NC	34	31			
?	Dean Morgan	2018	DUI	A	Criminal	PA	35				
?	Nick Clifford	2018	DUI	A	Criminal	NC	36				
Latyr Ndaiye	Sara Klemm	2019	Post-conviction	A	Criminal	MD	37	32			3
Nathan Fernham	Locke Milholland	2019	Child custody	A	Criminal	NC	38	33	18		
Anne Fail	Danny Glover Jr.	2019	DUI	A	Criminal	Federal	39	34	19		
Jon Harkins	Todd Conormon	2019	DUI	A	Criminal	Federal	40	35			
Audrey Locklear	Jim Doermann	2019	DUI	A	Criminal	NC	41	36			
Densel Dancy	Joseph Arbour	2019	Murder	A	Criminal	NC	42	37	20		4
Anthony Arnett	Brad Ferguson	2019	Assault	A	Criminal	NC	43	38	21		5
?	Shira Hedgepeth	2019	Child custody	A	Civil	Tribal (Cherokee)	44				
Sherrie Merritt	Mandy Vivelto	2019	Medical malpractice	P	Civil	NC	45	39			
Seth Tracy	Sharon Suh	2019	Personal injury	A	Civil	NC	46	40			
Tamarcus Lofton	Selen Vining	2019	Personal injury	A	Civil	NC	47	41	22		
Morgan Carson	Jack Bayliss	2019	Personal injury	A	Civil	NC	48	42	23		
?	Steven Wright	2019	Drug possession	NA	Criminal	NC	49				
Christina Berkoben	Michael Greer	2019	Personal injury	A	Civil	NC	50	43			
Ronald Nash	Michael Levine	2019	Personal injury	P	Civil	NC	51	44			1
Kevin Jernigan	Craig Myers	2019	Personal injury	A	Civil	TX	52	45	24		1
Richard Ray	Michael Greer	2019	Personal injury	A	Civil	NC	53	46			
Eric Taylor	Jeremy Smith	2019	DUI	A	Criminal	NC	54	47	25		



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Stephen Duriseau	Craig Myers	2020	DUI	P	Civil	TX	55	48			
Mariah Woods	Brooke Mangum	2020	Cause of death	P	Criminal	NC	56	49			
James Williamson	Mark Davis	2020	Personal injury	A	Civil	NC	57	50	26		
?	Rachel Smith	2020	DUI	A	Criminal	NC	58				
Daniel Harris	Alton Reeder	2020	Assault	A	Criminal	NC	59	51	27		
Michelle Ketchens	Keith Metz	2020	DUI	A	Criminal	NC	60	52			
Totals							60	52	27	2	5



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Types of cases and level of work (count)

Type	Jurisdiction	Antemortem	Postmortem	Consultation	Case review	Letter of Opinion	Deposition	Testimony
DUI	North Carolina	12		12	10	5		
	Federal	2		2	2	1		
	Texas	2	1	3	3	2		1
	Ohio	1		1	1			
	Pennsylvania	1		1				
Probation/Parole	Federal	1		1	1	1		
	Michigan	1		1	1	2		1
	Tennessee	1		1	1	1		
	Texas	1		1	1	1		
	?	1		1	1			
Murder/Assault	North Carolina	3		3	3	3		2
Cause of death	North Carolina		2	2	2			
	United Kingdom		1	1	1	1		
	Canada		1	1	1			
	Texas		1	1	1	1		
	Florida		1	1	1			
	Utah		1	1	1			
	NA – Author		1	1	1	1		
?		2	2	2				
Personal injury	North Carolina	8	1	8	8	4	1	
	Texas	1		1	1	1	1	
Child custody	North Carolina	1		1	1	1		
	Tribal (Cherokee)	1		1				
	?	2		2	1	1		
Post-conviction	Maryland	1		1	1			1



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Employment	Federal	3		3	2	2		
Retrograde extrapolation only	Australia	1		1	1			
Medical compliance	New York	1		1	1	1		
Life insurance application	?	1		1	1			
Medical malpractice	North Carolina		1	1	1			
Sports testing	International	1		1	1			
Drug possession	North Carolina			1				
Totals		47	13	60	52	27	2	5