

Education

Ph.D., Toxicology, University of Washington, Seattle WA, 2008

B.S., Chemistry, Pacific Lutheran University, Tacoma, WA, 1992

Certifications

Diplomate of the American Board of Toxicology, 2012-present

Registered Toxicologist (United Kingdom and EUROTOX registries), 2015-present

NIOSH Spirometry Testing Certification, 2015-present

Project Management Professional, 2011-2014

Professional Affiliations and Associated Appointments

American Board of Toxicology

Society of Toxicology (SOT), Full member

Inhalation and Respiratory Specialty Section member

Nanotoxicology Specialty Section member

Women in Toxicology Interest Group member

WIT Councilor (2016-2018 term)

Pacific Northwest Association of Toxicologists (PANWAT) member

PANWAT Councilor (2014-2016 term)

PANWAT Vice President Elect (2016-2017 term)

PANWAT Vice President (2017-2018 term)

American College of Toxicology (ACT), Full member

British Toxicology Society (BTS), Member

American College of Occupational and Environmental Medicine (ACOEM), Associate member

American Association for the Advancement of Science (AAAS), Member

American Conference of Governmental Industrial Hygienists (ACGIH), Voting member

American Chemical Society (ACS), Member

American Industrial Hygiene Association (AIHA), Full member

Society for Experimental Biology and Medicine (SEBM), Associate member



Other Professional Activities

Practicing Scientist Member, Institutional Animal Care and Use Committee (IACUC) Pacific Northwest National Laboratory, Sequim Laboratory, and the Columbus-based Toxicology Laboratory (ToxNW), 2011 - 2013

Invited lecturer, Fundamentals of Toxicology Graduate Course ENVH514, University of Washington (Lung: Structure, Function, Absorption, & Inhalation)

Invited reviewer, Food and Chemical Toxicology (Elsevier Sciences), Human and Experimental Toxicology (Sage Journals), NeuroToxicology (Elsevier Sciences), Toxicology Letters (Elsevier Sciences), and Toxicological Sciences (Oxford Journals)

Experience

2013 - Present	Veritox®, Inc. Senior Toxicologist	Redmond, Washington
2008-2013	Battelle Toxicology Northwest Pharmacologist / Safety Toxicologist	Richland, Washington
2003-2008	University of Washington Toxicology Doctoral Student / Teaching Assistant / Research	Seattle, Washington arch Assistant
2001-2003	Battelle Pacific NW National Laboratory Senior Research Scientist	Richland, Washington
2000-2001	Battelle Toxicology Northwest Principal Research Scientist	Richland, Washington
1992-2000	Battelle Toxicology Northwest Research Scientist / Technical Specialist / Technician	Richland, Washington

Professional Honors

National Toxicology Program Toxicology Discipline Leader Battelle Toxicology Northwest, Richland, WA (2011-2013)

Outstanding Performance Award in recognition of Outstanding Efforts as Study Director. Battelle Toxicology Northwest, Richland, WA (2009)

Pre-Doctoral Fellow National Institute of Environmental Health Sciences Environmental Pathology and Toxicology Training Grant.
University of Washington, Seattle, WA (2005-2008)

Outstanding Student Poster Award Recipient from the PANWAT (Pacific Northwest Association of Toxicologists, Regional Chapter of the Society of Toxicology) Annual Meeting (2007)



Student Merit Meeting Award Recipient from the Research Society on Alcoholism, 30th Annual Meeting of the Research Society on Alcoholism, Chicago, IL (2007)

Selected Publications

TJ Mast, F Adeshina, N Moore, H Choudhury, A Protzel, and A Mahfouz. 2002. Identification of common toxic effects with common mechanisms of toxicity for pesticides selected from the drinking water contaminant list (CCL). *The Toxicologist*, Supplement to Toxicological Sciences, 66(1):494.

F Adeshina, T Mast, N Moore, A Mahouz, A Protzel, and H Choudhury. 2003. Identifying triazine herbicides on EPA drinking water contaminant candidate list (CCL) for common mechanism of toxicity and cumulative risk assessment. *The Toxicologist*, Supplement to Toxicological Sciences, 72(1):436.

N Moore, M Guizzetti, B Gallis, S Shaffer, DR Goodlett, and LG Costa. 2006. Use of proteomic approaches for the identification of changes in astrocyte secretion following ethanol exposure. *The Toxicologist*, Supplement to Toxicological Sciences, 90(1):1437.

M Guizzetti, G Giordano, N Moore, and LG Costa. 2008. Ethanol inhibits hippocampal neuron differentiation induced by carbachol-treated astrocytes. *The Toxicologist*, Supplement to Toxicological Sciences, 102(1):1963.

M Guizzetti, NH Moore, G Giordano, and LG Costa. 2008. Modulation of neuritogenesis by astrocyte muscarinic receptors. *J. Biol. Chem.* 283(46): 31884-31897.

N Moore, M Guizzetti, G Giordano, and LG Costa. 2008. Ethanol inhibits muscarinic receptor-induced release by astrocytes of extracellular proteins involved in neuronal development. *The Toxicologist*, Supplement to Toxicological Sciences, 102(1):1964.

NH Moore, LG Costa, SA Shaffer, DR Goodlett, and M Guizzetti. 2009. Shotgun proteomics implicates extracellular matrix proteins and protease systems in neuronal development induced by astrocyte cholinergic stimulation. *J. Neurochem.* 108(4):891-908.

M Guizzetti, NH Moore, G Giordano, KL VanDeMark, and LG Costa. 2010. Ethanol inhibits neuritogenesis induced by astrocyte muscarinic receptors. *Glia.* 58(12):1395-406.

M Guizzetti, NH Moore, KL VanDeMark, G Giordano, and LG Costa. 2011. Muscarinic receptor-activated signal transduction pathways involved in the neuritogenic effect of astrocytes in hippocampal neurons. *Eur. J. Pharmacol.* 659(2-3):102-7.

CY Chan, LJ Swenson, J Hobden, N Moore, and BJ Kelman. 2014. Risk from exposure to triorthocresyl phosphate (TOCP) in aircraft cabins and flight decks. *The Toxicologist*, Supplement to Toxicological Sciences, 138(1):2247.

BC Sayers, MD Stout, MF Cesta, N Moore, GL Baker, KM Patton, BK Hayden, JA Dill, and NJ Walker. 2014. Thirty-day whole-body inhalation toxicity and tissue burden study of multiwalled carbon nanotubes in Harlan Sprague-Dawley rats and B6C3F1 mice. *The Toxicologist*, Supplement to Toxicological Sciences, 138(1):2004A.



N Moore, CY Chan, M Krause, and BJ Kelman. 2015. Risk from traffic-related air pollution in schools: beyond distance to roadway. 2015. *The Toxicologist*, Supplement to Toxicological Sciences, 149(1):577.

CY Chan, M Krause, B Kelman, and N Moore. 2016. Risk from breaches in portable, consumer sized lithium batteries. *The Toxicologist*, Supplement to Toxicological Sciences, 150(1):2671.

B Kelman, R Evoy, C Chan and N Moore. 2016. Fluoride: friend or foe. *The Toxicologist*, Supplement to Toxicological Sciences, 150(1):2277.

N Moore, B Hardin, C Robbins, and B Kelman. 2016. Smoker's Risk of Lung Cancer from Asbestos Exposure. *The Toxicologist*, Supplement to Toxicological Sciences, 150(1):2696.

BA Magnuson, MC Carakostas, NH Moore, SP Poulos, and AG Renwick. 2016. Biological fate of low calorie sweeteners. *Nutr Rev.* 74(11):670-689.

JA Deyo, KA Tucker, CY Chan, NH Moore, and BJ Kelman. 2017. Marijuana: the smoke hasn't cleared. *The Toxicologist*, Supplement to Toxicological Sciences, 151(1):1282.

BJ Kelman, CY Chan, NH Moore, and LC Diener. 2017. Weight-of-evidence assessment for polyhexamethylene guanidine and interstitial lung disease. *The Toxicologist*, Supplement to Toxicological Sciences, 151(1):1287.

Selected Continuing Education

Analytical Validation for the Pharmaceutical Industry, American Association of Pharmaceutical Scientists (AAPS). AAPS Workshop on Current Issues, Arlington, VA, 1998.

Bioanalytical Methods Validation – A Revisit with a Decade of Progress. Co-sponsored by AAPS and FDA, Arlington, VA, 2000.

GLP Essentials for Technical Staff. Debi Garvin, Instructor, West Coast Quality Training Institute, Richland, WA, 2001.

A Practical Approach to Blood and Lymphoid Tissue (BLT) in Toxicology Assessments. JCL Schuh and L Lanning, Chairpersons. Society of Toxicology Continuing Education Course, Nashville, TN, 2002.

Good Laboratory Practices for Study Directors and Monitors. D Garvin, Instructor and Director, West Coast Quality Training Institute, Hood River, OR, 2008.

Introduction to Good Laboratory Practice Regulations. D Garvin, Instructor and Director, West Coast Quality Training Institute, Hood River, OR, 2008.

Primer in Pathology: Interpreting and Integrating Nonclinical Study Results. Continuing Education Course. Pacific Northwest Chapter of the Society of Toxicology, Pacific Northwest Association of Toxicologists Annual Meeting, Seattle, WA, 2009.



Stress as a Confounding Factor in Toxicology Studies. K Sprugel and N Everds, Chairpersons. Society of Toxicology Continuing Education Course, Baltimore, MD, 2009.

Immunology for Toxicologists. R Pieters and I Kimber, Chairpersons. Society of Toxicology Continuing Education Course, Baltimore, MD, 2009.

Integrative Toxicity Test Methods to Improve Hazard Identification. Society of Toxicology Pacific Northwest Chapter, Pacific Northwest Association of Toxicologists Annual Meeting, Corvallis, OR, 2010.

Segment-Specific Renal Pathology for the Non-Pathologist. D Hoivik and SG Emeigh Hart, Chairpersons. Society of Toxicology Continuing Education Course, Salt Lake City, UT, 2010.

Evaluating Toxicity of Engineered Nanomaterials: Issues with Conventional Toxicology Approaches. SS Nadadur and FA Witzmann, Chairpersons. Society of Toxicology Continuing Education Course, Washington DC, 2011.

Current Nonclinical Strategies and Methods for Evaluating Drug-Induced Cardiovascular Toxicity. H Wang and DJ. Murphy, Chairpersons. Society of Toxicology Continuing Education Course, Washington DC, 2011.

Northwest Association for Biomedical Research IACUC Education Conference, Seattle, WA, 2011.

Art and Science of Research Translation in Toxicology. Society of Toxicology Pacific Northwest Chapter, Pacific Northwest Association of Toxicologists Annual Meeting. North Bonneville, WA, 2011.

Mid America Toxicology Course, CD Klaassen, Course Director, Kansas City, Missouri, April 2012.

The What, When, and How of Nonclinical Support for an IND Submission. P Nugent and D Colagiovanni, Chairpersons. Society of Toxicology Continuing Education Course, San Antonio, TX, 2013.

Understanding Toxic Neuropathy in Drug Development: Both Clinical and Nonclinical Perspectives. MJ Kallman and J Benitez, Chairpersons. Society of Toxicology Continuing Education Course, San Antonio, TX, 2013.

Innovations in Methodologies for Inhalation Exposures and Interpretations of In Vivo Toxicity, Urmila Kodavanti and Juergen Pauluhn, Chairpersons. Society of Toxicology Continuing Education Course, Phoenix, AZ, 2014.

Methodologies in Human Health Risk Assessment, Qiyu (Jay) Zhao and M.E. (Bette) Meek, Chairpersons. Society of Toxicology Continuing Education Course, Phoenix, AZ, 2014.

Advances in Safety Assessment of Medical Devices, Niranjan S Goud and Ron Brown, Chairpersons. Society of Toxicology Continuing Education Course, San Diego, CA, 2015.



New Horizons in Chemical Carcinogenesis: Advances in Mode of Action and Mechanism of Cancer Pathogenesis, James E Klaunig and Udayan M Apte, Chairpersons. Society of Toxicology Continuing Education Course, San Diego, CA, 2015.

The New World of Cancer Immunotherapy: Challenges in Bench to Bedside Translation, Rodney Prell and Rafael A Ponce, Chairpersons. Society of Toxicology Continuing Education Course, San Diego, CA, 2015.

OECD GLP and Documentation Training Course, Robin Guy and Dave Hobson, Instructors. Robin Guy Consulting, Morristown, NJ, Aug. 31 – Sept. 1, 2015.

Nanomaterials, Chemical Exposures and Control Banding: What Does It Mean for Workplace Safety? University of Washington Continuing Education Programs, hosted by the Pacific Northwest Section – American Industrial Hygiene Association. Oct. 14, 2015

NIOSH-Approved 2-Day Initial Spirometry Training Course, Martha Horike-Pyne, Instructor. University of Washington Continuing Education Programs, Seattle WA. Nov. 7-8, 2015.

Advancing the Detection, Imaging, and Pitfalls in Monitoring Oxidative Stress in Health and Disease. Maria B. Kadiiska and Ronald P. Mason, Chairpersons. Society of Toxicology Continuing Education Course, New Orleans, LA, 2016.

Basic Principles and Practices for Applying Epigenetics in Mechanistic Toxicology. Shaun D. McCullough and Ronald N. Hines, Chairpersons. Society of Toxicology Continuing Education Course, New Orleans, LA, 2016.

Human Health Risk Assessment: A Case Study Application of Principles. John C. Lipscomb and M.E. (Bette) Meek, Chairpersons. Society of Toxicology Continuing Education Course, New Orleans, LA, 2016.

Adding Up Chemicals: Component-Based Risk Assessment of Chemical Mixtures. Jane Ellen Simmons and Richard C. Hertzberg, Chairpersons. Society of Toxicology Continuing Education Course, Baltimore, MD, 2017.

Extrapolation in the Airways: Strategies to Incorporate *In Vivo* and *In Vitro* Data to Better Protect Human Health. Marie C. Fortin and Madhuri Singal, Chairpersons. Society of Toxicology Continuing Education Course, Baltimore, MD, 2017.