

## Curriculum Vitae

NAME: Bruce Alexander Merrick

ADDRESS: National Institute of Environmental Health Sciences  
Division National Toxicology Program  
Mechanistic Toxicology Branch  
Mail Drop: E1-05  
P. O. Box 12233  
Research Triangle Park, NC 27709

phone: 984-287-3161  
eFax: 301-480-3182  
email: merrick@niehs.nih.gov

PLACE OF BIRTH: USA, U.S. Citizen

EDUCATION: Ph.D. Toxicology, 1984  
University of Nebraska Medical Center, Omaha, NE  
M.S. Pharmacology, 1980  
University of Nebraska Medical Center, Omaha, NE  
B.S. Pharmacy, 1978  
College of Pharmacy, University of New Mexico,  
Albuquerque, NM  
B.S. Biology, 1974  
University of California, Davis, CA

### EXPERIENCE:

National Institute of Environmental Health Sciences  
Division of Translational Toxicology (formerly DNTP)  
P.O. Box 12233, Mail Drop: E1-05  
Research Triangle Park, NC 27709

2023 – present: Special Volunteer, Mechanistic Toxicology Branch, DTT, NIEHS

2019 – 2023: Acting Branch Chief, Mechanistic Toxicology Branch (formerly NTP Laboratory)

2015 – 2019: Deputy Branch Chief, Biomolecular Screening Branch and Group Leader, Molecular Toxicology and Genomics Group, Division, National Toxicology Program, NIEHS.

2010 – 2014: Group Leader; Molecular Toxicology and Informatics Group, National Toxicology Program, NIEHS

Division of Intramural Research  
P.O. Box 12233  
Research Triangle Park, NC 27709

2007 – 2010: Staff Scientist, Laboratory of Respiratory Biology, NIEHS

2000 – 2006: Proteomics Group Leader, National Center for Toxicogenomics program, NTP/NIEHS

1992 – 1999: Staff Scientist in Regulatory Proteins Group, NIEHS;

1989 – 1992: Staff Scientist, Carcinogenesis Mechanisms Group, NTP/NIEHS

United States Environmental Protection Agency  
Health Effects Research Laboratory  
26 W. Martin Luther King Drive  
Cincinnati, OH 45268

1987 – 1988: Section Chief, Hepatotoxicology Section, Supervisory Pharmacologist  
1985 – 1987: Group Leader, In Vitro Toxicology Group  
Oak Ridge National Laboratory  
Biology Division  
P.O. Box 2008  
Oak Ridge, TN 37831  
1984 – 1985: NCI Postdoctoral Training Grant Fellow at the Biology Division, Oak Ridge National Laboratory (ORNL), Oak Ridge, TN. “Chemical carcinogenesis of PAHs”. James K. Selkirk, PhD, Principal Investigator

**PATENTS:**

U.S. Patent No. 5534121 Awarded July 9, 1996  
Title: Preparative Two-Dimensional Gel Electrophoresis System  
Inventor: B. Alex Merrick, Ph.D.

**PRODUCT LICENSE:**

Anti-Grp75 antibodies and standards; licensed to Oxford Biomedical Research, Inc., PO Box 522, Oxford, MI 48371, Catalog 6, 36.

Baculovirus Expression System, rH-p53 to Orbigen, Inc. San Diego, CA.

**PROFESSIONAL LICENSE:**

Registered Pharmacist, State of Nebraska and State of North Carolina, 2002 - 2021

**COR and PROJECT OFFICER:**

NIEHS, Division of the National Toxicology Program; 2017-2022  
COR: Contract No. HHSN273201700001C  
Bioinformatics Support for NIEHS in the DNTP and DIR  
Sciome, LLC Research Triangle Park, NC

NIEHS, Division of the National Toxicology Program; 2021-2026  
Alternate COR: Contract No. 75N96021P00205  
NextGen Sequencing Contract for DNTP  
Azenta, South Plainfield, NJ

NIEHS, Division of the National Toxicology Program; 2015-2020  
COR: Contract No. HHSN273201500005I  
NextGen Sequencing and Omics Services - Station Support Contract for NTP with LabCorp, Inc., Seattle, WA

NIEHS, Division of the National Toxicology Program; 2011-2015  
COR: Contract No. HHSN27310  
NextGen Sequencing Station Support Contract for NTP with David H. Murdock Research Institute (DHMRI), Kannapolis, NC.

NIEHS, National Center for Toxicogenomics; 2002-2005  
Project Officer: Contract No. NIEHS N01-ES25494  
“Proteomics Resource for the National Center for Toxicogenomics” with Large Scale Biology, Germantown, MD

U.S. Environmental Protection Agency, 1985-1988  
Project Officer: "Chemical Interactions in Toxicology"; Two Cooperative Agreements with University of Arizona and University of Mississippi

#### TEACHING EXPERIENCE:

2001 to 2022: NC State University Toxicology Program; Biochemical Toxicology lecture series.  
1978 to 1980: Teaching Assistant: Pharmaceutics I, II; Pharmacy and Dispensing and Compounding. UNMC College of Pharmacy

#### ADJUNCT FACULTY POSITION:

Rank: Associate Professor at North Carolina State University  
Adjunct Faculty Appointment: 2001 to 2022  
Department of Environmental and Molecular Toxicology  
Lectures on Proteomics; Lectures on Transcriptomics in Tox710 Course

#### MENTORING:

##### Post-doctoral Fellows:

Jui-Hua Hsieh, Ph.D. University North Carolina, Chapel Hill, Chemical Biology and Medicinal Chemistry; 2011-2015

Charlesene McNeil-Blue, Ph.D., Clark Atlanta University, Atlanta, GA, Dept. of Biology  
2003-2006; Project Title: Role of p53 in apoptosis in Parkinson's disease and neurodegenerative disorders

Barbara A. Wetmore, Ph.D.

2000-2005; NC State University, Raleigh, NC Dept of Environmental and Molecular Toxicology  
Project Title: P53 phosphorylation in Growth Arrest and Apoptosis  
Employed as Senior Scientist at Hamner Research Institute, RTP, NC

##### PhD:

Christopher Brynczka, NC State University, Raleigh, NC Dept. of Environmental and Molecular Toxicology; 2003-2007; PhD Awarded, April 2007

Project Title: p53 transcriptional regulation in apoptosis of neurodegenerative disease  
Employed as Senior Toxicologist at Merck & Co.

##### STEP Undergraduate Student Trainees:

Kevin Gao, 2014

Justin S. Chang, 2013-2014

Lora Long Witcher, 1990-1993

Miki Pence-Pawlowski 1993-1995

Vicky R. Walker 1995-1996

Jennifer Hartis Madenspacher 1999-2001

##### Ph.D. Committee Member:

NC State University; Department of Environmental and Molecular Toxicology  
Minsub Shim; 2003, Ph.D. Degree

Elizabeth McKenzie, Ph.D. Committee; 2002 to 2005

Sherry Grissom, M.S. Committee; 2004

Jennifer H. Madenspacher, M.S. Committee; 2005

#### PROFESSIONAL SOCIETIES:

Society of Toxicology, Full Member, 1984 to present  
Stem Cell Specialty Section, 2011 to present

NC Society of Toxicology, Member 2018 to present  
American Association of Cancer Research, Full Member 1990 to 2007  
Society for Neuroscience, 2002 to 2007

**EDITORIAL BOARD:**

Journal of Applied Toxicology 2012 to present  
Mutation Research/Reviews in Mutation Research 2004 to present  
BMC Genomics 2021 to present  
Environmental Health Perspectives 2004 to 2015  
Briefings in Functional Genomics and Proteomics 2003 to 2009  
BioMolecular Engineering 2004 to 2006  
Fundamental and Applied Toxicology 1990 to 1996

**AD HOC JOURNAL REVIEWER:**

Biochemical Pharmacology  
Biochimie  
Cancer Research  
Electrophoresis  
FASEB Journal  
In Vitro Toxicology  
Journal of Pharmacology and Experimental Therapeutics  
Journal of Proteomics Research  
Molecular Pharmacology  
Oncogene  
Proteomics  
Toxicology In Vitro  
Toxicological Sciences  
Toxicology and Applied Pharmacology

**INVITED SPEAKER:**

Insights into Kidney Injury with Two New RPTEC Cell Lines Using RNA-Seq. BA Merrick, NCSU Graduate Toxicology Seminar Series. Sept 5, 2023; Centennial Campus, Raleigh, NC

Chronic Kidney Disease of Unknown Origin (CKDu): Environmental factors influencing the disease using in vitro models, proteomics and metagenomics. BA Merrick and JF Foley, MTB Branch Seminar Series in DTT; Jan 10, 2023 RTP, NC

NIEHS Workshop on Extracellular Vesicles, Exosomes and Cell-Cell Signaling in Response to Environmental Stress, Sept 27-28, 2021; Panel Discussion Moderator: Experimental Systems for Studying EVs in Toxicology with panelists, Drs Kenneth S. Ramos – Texas A&M, Gordona Vunjac-Novakovic – Columbia Univ, Ramkumar Menon - Univ Texas Medical Branch, and Merrie Mosedale - UNC.

EPA-RTP Epigenetics Workgroup Meeting  
Speaker Title: “Arsenic-induced cancer in a dish: Role of epigenetics in In Vitro transformation of human cells”  
Organizing Chair: Brian Chorley, PhD, USEPA  
April 13, 2020; Virtual Zoom Meeting

UNMC Graduate Studies Convocation Ceremony: Keynote Speaker  
Speaker Title: ‘Using the 3 ‘P’s in a Career Path – Project a Philosophy to your People’  
Organizing Chair: H. Dele Davies, MD, PhD; Senior Vice Chancellor for Academic Affairs

May 4, 2018; Omaha, NE

SOT 2018 CE Course: NGS Technologies Enable Biomarker Development and Discovery in Toxicology;

Seminar Title: NGS Platforms and Biomarker Development in Toxicology

Organizing Chair: BA Merrick and A Nixon

March 11, 2018, San Antonio, TX

Teratology Society: Epigenetics CE Course:

Seminar Title: 'Beneficial and Adverse Effects of Epigenetic Changes', June 24, 2017

Organizing Chair: Kimberly Brannen, Merck

June 24, 2017; Denver, CO

Sixth Multidisciplinary Science Forum (MSF) at UC Davis Medical Center

Seminar Title: "Tox21: A Strategy for Toxicology in the 21<sup>st</sup> Century"

Organizing Chair: Melissa C. Chan, PhD

November 6, 2015; Sacramento, CA

American Public Health Association Annual Meeting; Session 4122: Why Neighborhood Matters in Assessing Environmental Health Risks.

Seminar Title: "NIEHS Mouse Methylome Project: What We Can Learn from the Epigenomic Landscape".

Organizing Chair: Kenneth Olden, Ph.D.

November 18, 2014; New Orleans, LA

Toxicogenomics Workshop: the emergence of a new research and regulatory paradigm.

Seminar Title: "Intersection of Toxicogenomics and High Throughput Screening in the Tox21 Program: An NIEHS Perspective"

Organizing Chair: Victor Pelaez, Ph.D.

September 15-16, 2014; Curitiba, Brazil

NC Biotechnology Center Seminar Series

Seminar Title: Mapping the Rat Liver Transcriptome by RNASeq: Chemical Exposure Reveals Novel Transcripts and Exons"

Sponsor: Xinguo Wang, Ph.D., Genomic Sciences, David H. Murdock Research Institute

February 6, 2014; Kannapolis, NC

Ohio Valley Regional SOT Chapter Meeting, Invited Keynote Speaker

Seminar Title: "High throughput screening for chemical toxicity assessment"

Organizing Chair: Christopher States, PhD

September 23, 2013; Louisville, KY

Experimental Biology 2008 Meeting, ASPET/FASEB sponsor; Invited Speaker to Symposium on Inflammation: Early Disease Marker, Drug Response Modifier, Therapeutic Target

*Chair(s):* Donald Miller/Daniel Sitar

Seminar Title: "Omics-based discovery of inflammation markers as diagnostic tools in drug discovery and disease"

April 5-9, 2008; San Diego CA

HUPO 2007, 6<sup>th</sup> International Congress; Invited Speaker and Session Chair of Symposium 19: Nutri- and Toxicoproteomics

Seminar Title: "Toxicoproteomics and target discovery tools in tissue injury and inflammation"

Seoul, South Korea; October 6-10, 2007

Collegium Ramazzini: 3<sup>rd</sup> International Scientific Conference: Framing the Future in Light of the Past: Living in a Chemical World

Seminar Title: "Gene and Protein Protein Profiling in Experimental Liver Injury and Inflammation"  
September 18-21, 2005, Bologna, Italy

9th ICEM –International Conference on Environmental Mutagens - Satellite Meeting on Toxicogenomics

Seminar Title: "Toxicoproteomic Biomarkers and Signatures of Hepatic Injury"  
August 30-September 2, 2005, Kauai, Hawaii

West Virginia University Systems Biology Initiative and CIIT Centers for Health Research:  
"2005 Conference on: The Application of Systems Biology Methodologies to Environmental Research"

Seminar Title: "Effect of TCDD on the rat microsomal proteome"

Seminar Title: "Building toxicogenomics knowledge with the chemical effect in biological systems (CEBS) knowledgebase"  
August 1-3, 2005; West Virginia University

American Association for the Study of Liver Diseases (AASLD) 2005 Basic Research Single Topic Conference: "Exploring the Functional Genomics and Proteomics of Liver in Health and Diseases"

Seminar Title: "Proteomic Profiling of Serum and Liver in Experimental Animals and Humans After Acetaminophen Exposure"  
June 3-5, 2005; Airlie Center, Warrenton, VA

SOT 2005 Annual Meeting

Minisymposium: "Proteomics and Antibody Microarrays: Applications in Toxicology". Seminar Title: "Proteomic analysis of serum proteins during acute acetaminophen toxicity in rats reveals acute phase and antioxidant response"  
March 6-10, 2005; New Orleans, LA

University of Florida, Gainesville

Invited Seminar sponsored by the Genetics Institute and Interdisciplinary Toxicology Program. Host: Nancy Denslow

Seminar Title: "Toxicoproteomic profiling of serum proteins in animals and humans after acetaminophen exposure"  
February 1, 2005

Society for Risk Analysis 2004 Annual Meeting

Symposium: Recent Developments in Risk Assessment Science and Technology, Chaired by Susan Poulter, Risk Science and Law Specialty Group

Seminar Title: "The impact of toxicogenomics on public policy, risk assessment and regulation"  
December 5-8, 2004; Palm Springs, CA

Merck Distinguished Research Seminar

Merck Research Center,

Host: George N. Nikov, Ph.D.

Seminar Title: p53 in growth regulation and apoptosis.  
October 12-13, 2004; San Diego, CA

"Toxicogenomics International Forum 2004" sponsored by Center for Biological Safety and Research National Institute of Health Science, Japan

Seminar Title: "Toxicoproteomics of Liver Injury and Inflammation"  
October 11-13, 2004; Kyoto, Japan

SELDI User's Group Meeting at Duke University

Seminar Title: "Use of SELDI Analysis in Classifying Acute Inflammation in Experimental Animals as a Prelude to Clinical Studies"

October 7, 2004, Duke University, Durham, NC

ISSX 2004 Symposium, Organizer and Speaker

Symposium Title: "High Throughput Proteomics in Xenobiotic Toxicity"

Seminar Title: "Toxicoproteomic analysis of hepatotoxicants in necrosis and inflammation"

August 28-Sept 2, 2004; Vancouver, BC, Canada

10<sup>th</sup> International Congress of Toxicology – ICTX 2004

Session S15: "Toxicogenomics and Proteomics of the Liver" Session Co-Chairman and Speaker. Co-Chair: Jos Kleinjans, The Netherlands National Toxicogenomics Centre (NTC)

Seminar Title: "Gene and protein expression profiling of rat liver and subcellular fractions after subacute exposure to metabolic inducers, phenobarbital, oxazepam and Wyeth 14,643"

July 11-15, 2004; Tampere, Finland

University of Arizona, Department of Pharmacology and Toxicology and Chemical/Chromatin Interactions Research Core. Hosts: TJ Monks and D Romagnolo

Seminar Title: "Toxicoproteomic Studies in Hepatic Injury and Inflammation"

April 27, 2004; Tucson, AZ

U.S. – Japan Cooperative Medical Science Program:

Environmental Genomics and Carcinogenesis Panel

Session I. Gene Expression, Proteins, Chemicals and Cancer

Seminar Title: "Toxicoproteomic Analysis of Liver and Serum during Hepatotoxicity"

January 22 – January 24, 2004; Oahu, Hawaii

American Industrial Hygiene Association, Annual Meeting

Roundtable: "New Venues for industrial hygienists: Using Biological Monitoring to Uncover the Health Impact of Environmental Toxicants"

Seminar Title: "Toxicoproteomic Analysis of Liver Toxicity after Chemical Exposure"

May 11, 2004; Atlanta, GA

Pacific Northwest National Laboratory (PNNL)

Seminar Title: "Toxicoproteomics of liver and serum in hepatotoxicity"

February 19-21, 2004; Richland, WA

"IPCS Workshop on Toxicogenomics and the Risk Assessment of Chemicals For the Protection of Human Health" sponsored by WHO-IPCS (World Health Organization - International Programme on Chemical Safety)

University of Berlin School of Public Health

Seminar Title: "The National Center for Toxicogenomics: Program Update and Development of the CEBS Database for Toxicogenomics Research"

November 17-19, 2003; Berlin, Germany

Federazione Italiana Scienze della Vita Meeting, Invited speaker to Minisymposium "Gene-environment interactions"

Seminar Title: "Toxicogenomics of Hepatotoxicity: Gene and Protein Expression Studies"

October 10-13, 2003, Rimini, Italy

Toxicology of Natural Products Symposium, sponsored by US FDA

Seminar Title: "Toxicoproteomics of Hepatotoxicants"

September, 8-9, 2003; NIH Bethesda, MD

Gordon Conference: "Toxicogenomics" Bates College, ME,

Seminar Title: "Proteomic Analysis of Hepatotoxic Agents: Investigation of Subcellular and Serum Proteomes"

June 22-27, 2003; Lewiston, ME

Human Proteome Organization (HUPO) Workshop on the Human Liver Proteome

Seminar Title: "Standards and Technologies in Proteomics"

July 17-18, 2003; NIH Bethesda, MD

Society of Toxicology Symposium: Invited speaker

Seminar Title: "Conducting Parallel Genomics and Proteomics Studies: Comparative Responses in Gene Expression." at the 42nd Annual Meeting of the

March 9-13, 2003; SOT, Nashville, TN

Society of Toxicology Workshop: Organizer

Course Title: "Toxicity Profiling of Genes and Proteins by Toxicologists: Advanced Topic in Toxicogenomics" PM12 Advanced.

March 17-21, 2002 Nashville, TN at SOT Annual meeting

Human Proteome Organization (HUPO) Workshop on the Human Liver Proteome

Seminar Title: "Liver Response to Environmental Toxicants Analyzed by Proteomics at NIEHS"

October 21-24, 2002, Beijing, China

UNC Chapel Hill Department of Biochemistry Seminar Series:

Seminar Title: "Proteomics as a Tool for Discovery: Metabolic Enzyme Inducers and Subcellular Localization"

Host: C Borchers

October 9, 2001, UNC Chapel Hill, NC

American Association Advancement of Science, 2001 Meeting

Symposium: Approaches in Functional Genomics: Rewards and Challenges. Organizer: Francoise Seillier-Moiseiwitsch, UNC, Chapel Hill, NC

Seminar Title: Proteomic Analysis as a Tool for Pathway Discovery.

March 15-20, 2001; San Francisco, CA

International Society for Study of Xenobiotics Annual Meeting, ISSX 2000; Symposium:

Pharmacodynamics and Biomarkers. Organizer: JM Collins, FDA; Rockville, MD

Seminar Title: "National Center for Toxicogenomics: A New NIEHS Initiative for Toxicology and Biomarker Research"

October 24-28, 2000; Indianapolis, IN

U.S. EPA, NHEERL, Research Triangle Park, NC

Seminar Title: "Proteomics at NIEHS: Hepatic Effects of TCDD as a Pilot Study"

Host: K. Dreher, Experimental Toxicology Division

September 28, 2000; Research Triangle Park, NC

U.S. EPA, NHEERL, Research Triangle Park, NC

Seminar Title: "Proteomics in a Gene Expression Center: Applications to Environmental Toxicology"

Host: D. Dix, Reproductive Toxicology Division

February 24, 2000, Research Triangle Park, NC

## Professional Program Activities:

MTB MiniRetreats: The Future of Mechanistic Research, Bioassays and Screening in MTB Branch for the DTT. BA Merrick, October 24, 31 2022

NIEHS Workshop on Extracellular Vesicles, Exosomes and Cell-Cell Signaling in Response to Environmental Stress, Sept 27-28, 2021; Exosomes in Toxicology



NIEHS Workshop on Circulating Cell Free DNA – Applications in the Clinical and Toxicology Setting; Sept 24-25, 2018 <https://ntp.niehs.nih.gov/update/2018/8/cell-free-dna/index.html> ; participation as speaker and discussion moderator.

NTP, Board of Scientific Councilors: Contract Concept Review – Bioinformatics Contract for DNTP and DIR,  
April 19, 2022  
December 2, 2015

Reviewer: NC Biotechnology Center, Biotechnology Research Grant Review Panel.  
November 12, 2014

SBIR – NTP Liaison to DERT – SBIR on Archived Tissues,  
2013 to present

Reviewer: NC Biotechnology Center, Biotechnology Research Grant Review Panel.  
November 13, 2012

Reviewer: NIH Microphysiological Systems Grant Review Panel ZRG1 BST-N (50),  
April 19-20, 2012; Bethesda, Maryland

Reviewer: NC Biotechnology Center, Biotechnology Research Grant Review Panel.  
November 2, 2011

Reviewer: NC Biotechnology Center, Biotechnology Research Grant Review Panel.  
November 3, 2010

Reviewer: Proteomics Program in Molecular Profiling; Pfizer Pharmaceutical Company, Ann Arbor, MI;  
September 24-25, 2006.

Reviewer for: NIH National Cancer Institute Grant Study Section: NCI RFA-CA-07-012 "Clinical Proteomic Technology Assessment for Cancer." Silver Springs, MD;  
July 19-20, 2006

Reviewer for: Pacific Northwest National Laboratories Proposals  
PNNL LDRD Proposal Title: "Signatures of Oxidative Stress Associated with Inhaled Particulate Matter" Contact: Flor Cuevas, PNNL, Richmond, OR; September 2005.

Reviewer for: Genome Canada Competition III; External Reviewer of Large Scale Project  
Project Title: "Proteomics of Hepatitis C Models" by J Bergeron and M Tremblay; JoAnn J. Crichlow  
April 15, 2005

Reviewer for: The Dutch Technology STW Foundation; the Netherlands Organisation for Scientific Research, NWO, and the Dutch Ministry of Economic Affairs  
Project Title: "WPB.6718: Cell-type specific proteomics; a general strategy for high throughput protein discovery" by Dr. A.R. van der Krol; Wageningen, Netherlands;  
November 2004

Reviewer for: Pennsylvania Department of Health Performance Reviews of Genomics and Proteomics Initiatives  
April 23, 2004

"The Human Proteome Roadmap" HUPO Workshop; participant  
Sponsored by NIH, FDA and HUPO  
April 22, 2004; Bethesda, MD

USEPA Science Advisory Board

“Consultation on Computational Toxicology Framework (CTF)”

US EPA; Wash DC; Consultant  
Washington, DC;  
September 5, 2003

Reviewer for: European Science Foundation: Exploratory Workshop

Workshop Title: “Microarray and Proteomic application to the Ecotoxicology” Contact: Jane Swift;  
Life and Environmental Sciences Unit, ESF 1 quai Lezoy-Marnesia 67080 Strasbourg cedex France;  
September 2003

Reviewer for: Pacific Northwest National Laboratories Proposals

PNNL LDRD Proposal Title: "Array Technologies for Quantification of Proteins" by R Zangar,  
Contact: Marla J. Sequin, PNNL, Richmond, OR;  
August 2003

HUPO, Human Proteome Organization

Human Liver Proteome Project (HLPP) Workshop; Plan and participate in international Liver  
Proteomics studies and initiatives  
Workshop Meeting at NIH, Bethesda, MD;  
July 17-18, 2003

ILSI-HESI (International Life Sciences Institute – Health Environmental Science Institute)

Member of Biomarkers and Proteomics Leadership Subcommittee; Participate in planning for  
national cooperative studies on Biomarkers and Proteomics in Toxicology Washington, DC;  
2001 to 2003

HUPO, Human Proteome Organization

Cell Models Subcommittee: Human Liver Proteome Leadership Group. Plan and participate in  
international Liver Proteomics studies and initiatives  
Seminar: “Toxicogenomic studies if liver toxicants”  
Workshop Meeting in Beijing, China;  
November 21-24, 2002

HUPO, Human Proteome Organization

Plasma Proteome Group; Plan and participate in international studies and initiatives on the Plasma  
Proteome.  
Workshop Meeting, Ann Arbor, MI;  
September 5-6, 2002

SOT 2002, Annual Meeting Course Organizer for SOT Continuing Education Series: CE Course

Title: PM#12: "Toxicity Profiling of Genes and Proteins by Toxicologists: Advanced Topics in  
Toxicogenomics"  
Nashville, TN;  
March 17-21, 2002

**TECHNICAL REPORT:**

TR 589: Toxicology Studies of a Pentabromodiphenyl Oxide Mixture (DE-71) in F344/N Rats and  
B6C3F1/N Mice and Toxicology and Carcinogenesis Studies of a Pentabromodipheynyl Oxide  
Mixture (DE-71) in Wistar Han [CrI:WI(Han)] Rats and B6C3F1/N Mice. Appendix M. Study on the  
relationship of the AhR to DE-71 liver tumor formation in Wistar Han Rats. BA Merrick, JK Dunnick,  
T Maynor, AE Brix, GE Kissling and MJ Devito. ppM1-M6, 2015.

**NIEHS COMMITTEES:**

NIEHS Epigenomics and NextGen Review Committee, 2013 - present  
NIEHS Opportunity Innovation Award Committee, 2020  
Science Day Organizing Committee, 2011-2015; 2017-present  
EIR Invention Review Panel: 2010 - present  
NTP Toxicogenomics Faculty Chair 2011 - 2019  
Digital Assets Inventory (DAI) Committee – 2015 to 2016  
Information Technology Management Committee (ITMC), 2013-2016  
DNTP Information Technology Resources Advisory Committee (ITRAC), 2013-2018  
NIEHS Commercial Software Evaluation Committee, 2016  
NIEHS Computer Life Cycle Committee, 2016-2017  
Committee on Promotion Board II, 2012-2015  
Pulse Survey Point of Contact for BSB Branch and NTP, 2011-2012  
BSB Branch Journal Club Chair 2011-2015  
Assembly of Scientists: Elected Board Member, 2003-2005; 2015 - 2018  
Animal Care and Use Committee Member; 1999-2005  
MOATS: Media and Glassware Advisory Committee, Head 1996-2000, Led committee to develop MOATS automated ordering system for media and glassware  
NIEHS Property Committee; 1999-2000; develop PMIS automated property management system  
Chairman, Property Disposal Committee, 2004 - 2006  
NIEHS Focus Group for Health and Radiation Safety; 1995

#### NIEHS AWARDS:

DNTP Special Act Award 2021, #10799022021, Divisional Service  
DNTP Special Act Award 2021 – HEI, PMT Members

NIEHS Merit Group Award, January 31, 2018 – NTP Website Redesign Team  
NIEHS Intramural Paper of the Month: March, 2018  
[https://factor.niehs.nih.gov/2018/3/papers/dir/index.htm?WT.mc\\_id=efactoremail\\_redesign#a1](https://factor.niehs.nih.gov/2018/3/papers/dir/index.htm?WT.mc_id=efactoremail_redesign#a1)

NIEHS Top 25 Papers of 2018 selected by NIEHS Leadership from 2,900 researchers and grantees;  
paper by Foley et al 2018, BMC Genomics Rat exome-seq platform; Mav et al 2018, PlosOne  
S1500+ HTT platform  
[https://factor.niehs.nih.gov/2019/1/feature/2-feature-papers-of-the-year/index.htm?utm\\_source=efactor-newsletter&utm\\_medium=email&utm\\_campaign=efactor-newsletter-2019-January](https://factor.niehs.nih.gov/2019/1/feature/2-feature-papers-of-the-year/index.htm?utm_source=efactor-newsletter&utm_medium=email&utm_campaign=efactor-newsletter-2019-January)

NIEHS Intramural Paper of the Month – June 2019  
Merrick BA, Phadke DP, Bostrom MA, Shah RR, Wright GM, Wang X, Gordon O, Pelch KE, Auerbach SS, Paules RS, DeVito MJ, Waalkes MP, Tokar EJ. 2019. Arsenite malignantly transforms human prostate epithelial cells in vitro by gene amplification of mutated KRAS. PLoS One 14(4):e0215504.  
<https://factor.niehs.nih.gov/2019/6/papers/dir/index.htm#a1>

NIH Merit Cross-Divisional Group Award, December 6, 2011 – Pulse Survey

#### PUBLICATIONS:

136. **Merrick BA**, Brooks AM, Foley JF, Martin NP, Gladwell W, Fannin RD and Gerrish KE (2023). Transcriptome and genomic karyotyping of immortalized mouse proximal tubule cells. (In Preparation, 2024: *Plos One*).

135. Motsinger-Reif AA, Reif DM, Akhtari FS, House JS, Campbell CR, Messier KP, Fargo DC, Bowen TA, Nadadur SS, Schmitt CP, Pettibone KG, Balshaw DM, Lawler CP, Newton SA, Collman GW, Miller AK, **Merrick BA**, Cui Y, Anchang B, Harmon QE, McAllister KA, Woychik R. (2024). Gene-environment interactions within a precision environmental health framework. *Cell Genom*:100591. doi: 10.1016/j.xgen.2024.100591.
134. **Merrick BA**, Martin NP, Brooks AM, Foley JF, Fannin RD, , Dunlap PE and Ramaiahgari S, and Gerrish KE (2023). Insights into repeated renal injury using RNA-seq with two new RPTEC cell lines. *Int J Mol Sci* 24:14228 Special Issue: Nephrotoxicity; doi.org/10.3390/ijms241814228
133. Kalia K, Baccarelli AA, Happel C, Hollander JA, Jukic AM, McAllister KA, Menon R, Merrick BA, Milosavljevic A, Ravichandran LV, Roth ME, Subramanian A, Tyson FL, Worth L and Shaughnessy DT (2023). Seminar: Extracellular vesicles as mediators of environmental exposures in health and disease. *Environ Health Perspectives* 131 (10):104201-1 to 104201-9. <https://doi.org/10.1289/EHP12980>
132. Foley JF, Elgart B, Phadke D, Mav D, Tripodi I, Clausen N, Weick M, Gladwell W, Gerrish K, Shah R, **Merrick BA**. Whole exome and transcript profiling of liver following AFB1 exposure in rats. (2023). *J Appl Toxicol* 43:1293-1305. doi: 10.1002/jat.4463.
131. Qu W, Yan Y, Gerrish K, Scappini E, Tucker CJ, Dixon D, **Merrick BA**. Chronic PFOA exposure in vitro causes acquisition of multiple tumor cell characteristics in rat liver cells. (2023) *Toxicol In Vitro* 89:105577 doi: 10.1016/j.tiv.2023.105577
130. Dunnick JK, Pandiri AR, Herbert R, Shockley KR, Mav D, Shah RR, **Merrick BA**. Single nucleotide polymorphism patterns associated with a cancer resistant phenotype. (2022) *Exptl Molec Pathol* 128:104812. doi: 10.1016/j.yexmp.2022.104812
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