John M. Rogers, Ph.D.

SENIOR CONSULTANT

CONTACT INFORMATION

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PROFESSIONAL PROFILE

Dr. John Rogers is a Senior Consultant in ToxStrategies' Health Sciences Practice. He is a widely recognized authority on developmental and reproductive toxicology, including toxicity assessment and both *in vitro* and *in vivo* toxicology research. With over 35 years of experience, his work has included hazard and dose-response assessment for chemically induced developmental toxicity, elucidating mechanisms of abnormal development, building biologically based dose-response models and adverse outcome pathways, and assessing the role of maternal toxicity and maternal nutrition in adverse developmental outcomes. He has researched and written reviews of the Developmental Origins of Health and Disease theory and the potential role of epigenetics. He has studied the developmental toxicity of pesticides, fungicides, industrial chemicals, and pharmaceuticals. He has published several reviews on the developmental effects of parental smoking. Recently, he has organized symposia on the development of new alternative (animal-free) methods for toxicity assessment.

Dr. Rogers enters the consulting arena following a long and distinguished career with the US EPA and in academia. In EPA's Office of Research and Development, he has held numerous positions including Associate Director of the Public Health and Integrated Toxicology Division in the Center for Public Health and Environmental Assessment, Director of the Toxicity Assessment Division, Chief of the Developmental Toxicology Branch, and Acting Chief of the Gamete and Early Embryo Branch in the National Health and Environmental Effects Research Laboratory.

Dr. Rogers has been named to multiple adjunct faculty appointments (past and present) and has received nine professional society and academic awards, as well as fourteen scientific and technical achievement awards from EPA. He is a long-time member of the Society of Toxicology (SOT) and the Teratology Society (now the Society for Birth Defects Research and Prevention), and has fulfilled numerous leadership roles, including service as President of the Teratology Society and the Reproductive and Developmental Toxicology Specialty Section of SOT.

In the peer-reviewed literature field, Dr. Rogers has been an Associate Editor for two leading journals, served on the Editorial Boards of six more, and is a co-editor for Birth Defects Research. He is also a co-editor on three books, including the well-respected Toxicology of Metals. He wrote the chapter on Developmental Toxicology in *Casarett and Doull's Toxicology: The Science of Poisons*, which has gone through four editions spanning 20 years.

EDUCATION AND DEGREES EARNED

1982–1984	NIH Postdoctoral Fellow, Department of Nutrition, University of California, Davis
1982	Ph.D., Biology, University of Miami, Coral Gables, Florida
1979	M.S., Biology, University of Miami
1976	B.S., Biology, University of Miami

PROFESSIONAL EXPERIENCE

2019–2020	Associate Director, Public Health and Integrated Toxicology Division, Center for Public Health and Environmental Assessment (CPHEA), Office of Research and Development, U.S. EPA. Served as Senior Science Advisor for Toxicity Assessment, evaluating and advising on *in vivo* and *in vitro* toxicology research to support Agency decision-making. Advising member of toxicity research teams in the division and serve as liaison with CPHEA Program Operations Staff.
2011–2019	Director, Toxicity Assessment Division (Title 42), National Health and Environmental Effects Research Laboratory, ORD, EPA. Directed all aspects of divisional research, including prioritization, staffing, funding, and evaluation. Oversaw performance appraisals for division staff. Served as Deputy Ethics Official for NHEERL and member of the NHEERL Senior Management Team, advising on direction of the National Laboratory as well as administrative issues. Also served as Chair of the NHEERL Technical Qualifications Board (TQB) for three years.
2009–2011	Acting Director, Toxicity Assessment Division, NHEERL, ORD, EPA. Duties same as above.
2008–2009	Acting Chief, Gamete and Early Embryo Biology Branch, National Health and Environmental Effects Research Laboratory, U.S. Environmental Protection Agency. Acting Chief for a second Branch during vacancy in the position.
1991–2009	Chief, Developmental Biology Branch, Reproductive Toxicology Division, NHEERL, EPA. Responsible for directing Branch research program, funding and staffing decisions, performance appraisals, administrative efficiencies.
1989–1991	Chief, Experimental Teratology Section, Perinatal Toxicology Branch, Developmental Toxicology Division, Health Effects Research Laboratory, EPA.
1987, 1990	Visiting Assistant Professor, Dept. of Zoology, North Carolina State University, Raleigh, NC. Taught Embryology course and Introductory Biology course.
1984–1988	Research Biologist, Perinatal Toxicology Branch, Developmental Biology Division, Health Effects Research Laboratory, EPA.
1982–1984	NIH Postdoctoral Fellow, Dept. of Nutrition, University of California, Davis.
1982	Lecturer in Biology, Dept. of Biology, University of Miami, Coral Gables, FL.
1976–1982	Graduate Teaching Assistant, Dept. of Biology, University of Miami, Coral Gables, FL

ADJUNCT FACULTY APPOINTMENTS

2013–Present	Affiliated Graduate Faculty, Curriculum in Toxicology, School of Medicine, University of North Carolina, Chapel Hill. Teach in Advance Toxicology graduate course.
2002–Present	Professor, Department of Molecular Biomedical Sciences, North Carolina State University College of Veterinary Medicine, Raleigh. Lectured in Toxicology, served on faculty committees.
2008–2012	Professor, Curriculum in Toxicology, School of Medicine, University of North Carolina, Chapel Hill. Taught Advanced Toxicology graduate course.
1993–2008	Associate Professor, Curriculum in Toxicology, School of Medicine, University of North Carolina, Chapel Hill, NC.

PROFESSIONAL ASSOCIATIONS

1982–Present	Society of Toxicology (SOT) SOT Reproductive and Developmental Toxicology Specialty Section: Nominations Committee Chair, Secretary/Treasurer, Vice-President, President, Past President
1982–Present	Teratology Society (now the Society for Birth Defects Research and Prevention) Student Affairs Committee Chair, Nominations and Election Committee Chair, Strategic Planning Committee member, Treasurer, Finance Committee, Education Committee, Public Affairs Committee, FASEB representative (federal funding), Program Committee, Vice-President and Program Committee Chair, President, Past President
2007–Present	International Society of Developmental Origins of Health and Disease (DOHaD) and U.S. DOHaD

PROFESSIONAL HONORS/AWARDS

2020	EPA Bronze Medal for Commendable Service: Scientific Team for Bringing Epigenetics into the Agencies Research Program
2011	EPA Bronze Medal for Commendable Service: Interdisciplinary Scientific Team for Perfluorinated Chemicals Research and Assessment
2006	First Robert L. Brent Lecturer, 46th Annual Teratology Society Meeting: “Of Mice, Men, and Metabolism: An Update on the Teratogenicity of Methanol,” Tucson, AZ
2006	EPA Bronze Medal for Commendable Service: Research on Perfluorinated Chemicals
2005	Sixteenth Lucille S. Hurley Distinguished Seminar Speaker, Department of Nutrition and Western Human Nutrition Research Center, University of California, Davis, CA: "Maternal Dietary Folate Intake and Response to Diverse Developmental Toxicants in Rodents"
2005	National Health and Environmental Effects Research Laboratory Diversity Award, for training of minority graduate students
2002	Distinguished Scientist Lecture Series, Department of Molecular Biomedical Sciences, College of Veterinary Medicine, North Carolina State University: “Approaches to the Elucidation of Mechanisms of Chemically-Induced Birth Defects: Model and Environmental Chemicals,” Raleigh, NC
1984	NRSA Competitive renewal, National Eye Institute 9/84–11/84

1982 NIH Individual National Research Service Award (NRSA), National Eye Institute, 9/82–9/84

Received 14 EPA Scientific and Technological Achievement Awards for research articles on various topics, spanning 1991–2015.

PROFESSIONAL SERVICE

2021	Chair, SOT Symposium, “Developmental Toxicity Hazard Assessment without Animals: Pathways and Prospects” (accepted as Innovative Application for Toxicology session for SOT Annual Meeting)
2020–Present	Organizing Committee NASEM/ILAR Workshop on Microphysiological Systems for Animals and Humans
2019–Present	Member, Intergovernmental OECD Retinoid Pathway Expert Group
2019, 2020	Organizing Committee, 3rd and 4th American College of Toxicology/Teratology Society Course, “Practical Reproductive and Developmental Toxicology”
2017–Present	Member, Tobacco-Related Disease Research Program Exposure Toxicology Grant Review Panel
2017	Co-Chair, Public Affairs Symposium, The Toxicology of Tobacco Smoke and E-Cigarette Use During Pregnancy, Annual Meeting of the Teratology Society
2016–Present	Member, Science Advisory Panel, Third-Hand Tobacco Smoke Research Consortium, Lawrence Berkeley National Laboratory
2015	Discussant, Institute of Medicine Roundtable on Environmental Health Sciences, Research and Medicine Workshop, "The Interplay Between Environmental Exposures and Obesity," NIEHS
2014–Present	ORD representative, EPA Endocrine Disruptor Screening Program Science and Policy Committee
2014–Present	EPA representative, Steering Committee, Interagency Workgroup on Pharmaceuticals in Water
2012–Present	Co-Chair, National Health and Environmental Effects Laboratory, ORD Technical Qualifications Board
2010–Present	Member, Government Liaison Committee, National Academy of Sciences Committee on Emerging Science for Environmental Health Decisions
2010–2013	Chair, grant application review panel, California Tobacco-Related Disease Research Program, General Biomedical Sciences and Program Projects on Third-Hand Tobacco Smoke and Tobacco Waste
2010	Member, Organizing Committee, Use of In Utero and Postnatal Indicators to Predict Health Outcome Later in Life. National Academy of Sciences Committee on Emerging Science for Environmental Health Decisions
2010	Member, NIH Special Emphasis Panel to review proposals for Support of the Preparation of the Report on Carcinogens (by conference call)
2009–Present	Steering Committee member, HESI-DART project, “Consensus List of Developmental Toxicants”
2009	Member, grant application review panel, Flight Attendant’s Medical Research Institute
2009	Chair, Symposium, “Environmental Chemicals and Toxins and DOHaD,” 6th World Congress for DOHaD
2009	Chair, Society of Toxicology Symposium, “Developmental Basis of Adult Disease,” SOT Annual Meeting

2008–2012	Member, HESI Developmental and Reproductive Toxicology Technical Committee — Maternal Toxicity Working Group
2008–2011	Member, HESI Developmental and Reproductive Toxicology Technical Committee — Epigenetics Working Group
2008	Co-Chair, Society of Toxicology Continuing Education Course, “Basic Embryology and Teratology,” Teratology Society Annual Meeting
2007–Present	Member, grant application review panel, California Tobacco-Related Disease Research Program, General Biomedical Sciences
2007–Present	Member, NIEHS/NTP Center for the Evaluation of Risks to Human Reproduction, Panel on Hydroxyurea
2007–2014	Member, NCEA/NHEERL IRIS working group on methanol
2007–2014	Chair, Teratology Society March of Dimes 10th Anniversary Symposium, ”Epigenetics and Developmental Programming of Metabolic Disorders,” Teratology Society Annual Meeting
2006–2007	Member, Organizing Committee, Society of Toxicology Contemporary Concepts in Toxicology Meeting on Perfluoroalkyl Acids
2005–2009	Member, FASEB NIH Federal Funding Committee (representing the Teratology Society)
2005–2008	Member, EPA Pregnancy and Environmental Health Campaign
2005	Co-Chair, SOT Symposium, “Developmental Toxicology of the Lung,” Society of Toxicology
2004	Member, NIEHS/NTP Center for the Evaluation of Risks to Human Reproduction, Panel on Methanol
2004	Co-Chair, SOT Workshop: “Zebrafish – A Model Organism for Assessing Developmental Toxicity in Drug Discovery/Environmental Risk Assessment,” Society of Toxicology
2000	Member, Expert Panel, Review of FETAX (Frog Embryo Teratogenesis Assay—Xenopus), National Institute of Environmental Health Sciences
2000	Invited Participant, Chemical Manufacturer’s Association Workshop on Reproductive and Developmental Toxicology Research Needs
1999–2002	Member, ILSI Health and Environmental Sciences Institute Working Group on Interpretation of Skeletal Variations for Human Health Risk Assessment
1999	Organizer, Workshop and Symposium on Current Knowledge of Folate in Human Development
1999	Organizer, SOT Symposium: “The Developmental Toxicity of Tobacco Smoke,” Society of Toxicology
1999	Invited Participant, CDC/ATSDR Workshop on Children’s Health Issues
1998–2006	Member, Expert Registry, NTP Center for Evaluation of Risks to Human Reproduction
1998	Organizer, North Carolina Alliance for Developmental Biology and Birth Defects Meeting
1998	External Peer Reviewer, FDA Office of Women’s Health, Intramural Funding Program
1998	External Peer Reviewer (Final Reports), Health Effects Institute, Methanol Initiative Grants Program
1998	Chair, SOT Continuing Education Course, “Current Developmental Biology: Relevance and Application for Developmental Toxicology,” Society of Toxicology
1997–2000	Member, NHEERL Technical Qualifications Board

1997	Co-chair, platform session, “Evaluation of Teratogenic Hazard/Risks,” Thirty-Seventh Annual Meeting of the Teratology Society
1995–1996	Organizing Committee, and Session Co-Chair 3rd Annual HERL Symposium: Susceptibility and Risk, U.S. Environmental Protection Agency
1995	Participant, ILSI Risk Science Institute Workshop on Human Variability
1995	FDA/NCTR Scientist Peer Review Panel
1994	Co-chair, Society of Toxicology Symposium, "Health Risks Associated with Prenatal Metal Exposure," 1994 Annual Meeting
1994	Chair, platform session, "Mechanisms of Developmental Toxicity," Thirty-Fourth Annual Meeting of the Teratology Society
1992	Participant, Methanol Working Group, Health Effects Institute Air Toxics Workshop
1992	Member, Organizing Committee, NIEHS Workshops on Developmental Biology and Developmental Toxicology
1992	Designated Developmental Toxicologist, NIEHS Workshop on Genetic Imprinting
1990	Chair, Platform session, "Maternal Effects," Thirtieth Annual Meeting of the Teratology Society
1989–1994	Chair, EPA HERL/NHEERL Capital Equipment Committee
1988–1998	Center for Indoor Air Research Grant Review Panel
1988	Member, Organizing Committee, Twenty-Eighth Annual Meeting of the Teratology Society
1988	Co-Chair, "Teratology in the 1990's" Symposium, Twenty-Eighth Annual Meeting of the Teratology Society
1987–Present	National Research Council Postdoctoral Advisor
1985–1993	EPA Health Effects Research Grant Review Panel

PEER REVIEWER

2018–Present	Co-Editor, *Birth Defects Research*
2015–2020	Associate Editor, *Environmental Health Perspectives*
2014–2017	Associate Editor, *Birth Defects Research*, Part B: Reproductive and Developmental Toxicology

Journal Editorial Boards

2019–Present	*Toxicology*
2017–Present	*Mutation Research – Reviews*
2008–2015	*Journal of the Developmental Origins of Health and Disease*
2003–2014	*Birth Defects Research*, Part B: Reproductive and Developmental Toxicology
1997–2000	*Toxicology and Ecotoxicology News/Reviews*
1992–1999	*Journal of Toxicological and Environmental Health*

Books Edited

Co-Editor (with Dr. Edward Massaro): *The Skeleton: Biochemical and Molecular Interactions in Development and Homeostasis*, Humana Press, 2005

Co-Editor (with Dr. Edward Massaro): *Current Status of Knowledge of Folate in Human Development*, Humana Press, 2002

Section Editor: Developmental and reproductive toxicology of metals. In: Chang LW (ed), *Toxicology of Metals*, CRC Press, Boca Raton, FL, 1996

MANUSCRIPTS

Kirman CR, Lipscomb JC, **Rogers J**, Schoeny RS, Seed JG, Sonawane BR, Hays SM. 2026. Evaluation of the modes of action for key noncancer effects of 1,3-Butadiene: Input from an independent expert panel to support derivation of data-derived extrapolation factors. Crit Rev Toxicol; doi: 10.1080/10408444.2026.2661191. Online ahead of print June 9.

Heintz MM, Thompson CM, Wolf JC, **Rogers JM**, Haws LC. 2026. Hepatic transcriptomic responses in gravid and non-gravid rats exposed to HFPO-DA: Analyses to inform the role of maternal effects in neonatal toxicity. PLoS One 21(4):e0345643; doi: 10.1371/journal.pone.0345643.

Mahony C, Bartlett A, Fitzpatrick S, Galli C, Hunt P, Inselman A, Jimenez J,..., **Rogers J**, et al. 2026. A screening strategy for identifying the developmental and reproductive toxicity potential of botanicals. 64(1):639-557; doi: 10.1080/13880209.2026.2659421.

Fitch S, **Rogers J**, Marty S, Norman J, Schneider S, Rushton E, Wikoff D, Ellis-Hutchings R. 2025. Systematic review of potential developmental and reproductive toxicity of microplastics. Toxicol Sci 207(2):289-305; doi: 10.1093/toxsci/kfaf108.

Rogers JM, Buerger AN, Heintz MM, Palermo CM, Haws LC, Lea IA. 2025. Evaluation of a hypothesized Sertoli cell-based adverse outcome pathway for effects of diisononyl phthalate on the developing testis. Curr Res Toxicol 8(Feb 1):100219; doi: 10.1016/j.crtox.2025.100219.

Rogers JM, Heintz MM, Haws LC. 2025. Reproductive and developmental toxicity screen (OECD TG 421) and extended one generation reproductive toxicity study (OECD TG 443) of decahydronaphthalene in Sprague Dawley rats. Regul Toxicol Pharmacol 160(Aug):105829; doi: 10.1016/j.yrtph.2025.105829.

Henderson RG, Welsh BT, **Rogers JM**, Borghoff SJ, Trexler KR, Bonn-Miller MO, Lefever TW. 2023. Reproductive and developmental toxicity evaluation of cannabidiol. Food Chem Toxicol 176(Jun):113786; doi: 10.1016/j.fct.2023.113786.

Watanabe M, **Rogers JM**. 2020. Introduction to “The Trouble with Plastics” special issue. Birth Defects Res 112:1297–1299.

Rogers JM. 2019. Smoking and pregnancy: Epigenetics and the developmental origins of the metabolic syndrome. Special Issue on Smoking, Vaping and Cannabis. Birth Defects Res 111:1259–1269.

Rogers JM, Watanabe M. 2019. Special issue on "Developmental effects of smoking, vaping, and cannabis use" (Introduction). Birth Defects Res 111:1245–1247.

Beasley TE, Evansky PA, Martin SA, McDaniel KL, Moser VC, Luebke RW, Norwood J Jr, **Rogers JM**, et al. 2014. Toxicological outcomes in rats exposed to inhaled ethanol during gestation. Neurotoxicol Teratol 45:59–69.

Daston GP, Beyer BK, Carney EW, Chapin RE, Friedman JM, Piersma AH, **Rogers JM**, Scialli AR. 2014. Exposure-based validation list for developmental toxicity screening assays. Birth Defects Res B 101:423–428.

Rogers JM, RE Ellis-Hutchings, BE Grey, RM Zucker, J Norwood, Jr., CE Grace, C Gordon, C Lau. 2014. Elevated blood pressure in offspring of rats exposed to diverse chemicals during pregnancy. Toxicol Sci 137:436–446.

Boekelheide K, Blumberg B, Chapin RE, Cote I, Graziano JH, Janesick A, Lane R, Lilycrop K,…, **Rogers JM**. 2012. Predicting later-life outcomes of early-life exposures. Environ Health Perspect 120:1353–1361.

Schugg TT, Erlebacher A, Leibowitz S, Ma L, Muglio LJ, Rando OJ, **Rogers JM**, Romero R, et al. 2012. Fetal programming and environmental exposures: Implications for prenatal care and preterm birth. Ann NY Acad Sci 1276:37–46.

Beyer BK, Chernoff N, Danielsson BR, Davis-Bruno K, Harrouk W, Hood RD, Janer G,…, **Rogers JM**, Scialli AR. 2011. Maternal toxicity and its impact on study design and data interpretation. Birth Defects Res B 92:36–51.

Grace CE, Kim SJ, **Rogers JM**. 2011. Maternal influences on epigenetic programming of the developing hypothalamic-pituitary-adrenal axis. Birth Defects Res A 91:797–805.

Lau C, **Rogers JM**, Desai M, Ross MG. 2011. Fetal programming of adult disease: Implications for prenatal care. Obstet Gynecol 117:978–985.

Chernoff N, **Rogers JM**. 2010. Hypoxia and the edema syndrome: Elucidation of a mechanism of teratogenesis. Birth Defects Res B 89:300–303.

Daston GP, Chapin R, Scialli AR, Piersma AH, Carney EW, **Rogers JM**, Friedman JM. 2010. A different approach to validating screening assays for developmental toxicity. Birth Defects Res B 89:526–530.

Ellis-Hutchings RE, Norwood J Jr., Grey BE, Zucker RM, Lau C **Rogers JM**. 2010. Critical period and strain comparisons of the effects of gestational undernutrition on adult health in rats. Birth Defects Res B 89:396–407.

Shepard TH, Barr M Jr, Brent RL, Hendrickx A, Kochhar D, Oakley G, Scott WJ Jr, **Rogers JM**. 2010. An updated history of the Teratology Society. Birth Defects Res A 88:263–285.

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Rogers JM. 2006. Toxicological highlight. Casting a broad network: Fishing for mechanisms of retinoid teratogenicity. Toxicol Sci 94:1–2.

Grasty RC, Bjork JA, Wallace KB, Lau CS, **Rogers JM**. 2005. Effects of prenatal perfluorooctane sulfonate (PFOS) exposure on lung maturation in the perinatal rat. Birth Defects Res B 74:405–416.

Degitz SJ, **Rogers JM**, Zucker RM, Hunter ES III. 2004. Developmental toxicity of methanol: pathogenesis in CD-1 and C57BL/6J mice exposed in whole embryo culture. Birth Defects Res A 70:179–184.

Degitz SJ, Zucker RM, Kawanishi CY, Massenburg GS, **Rogers JM.** 2004. Pathogenesis of methanol-induced craniofacial defects in C57BL/6J mice. Birth Defects Res A 70:172–178.

Rogers JM, Brannen KC, Barbee BD, Zucker RM, Degitz SJ. 2004. Maternal methanol exposure during gastrulation causes holoprosencephaly, facial dysgenesis and cervical vertebral malformations in C57BL/6J mice. Birth Defects Res B 71:17–25.

Slikker W Jr., Andersen ME, Bogdanffy MS, Bus JS, Cohen SD, Conolly RB, David RM,..., **Rogers JM**, et al. 2004. Dose-dependent transitions in mechanisms of toxicity: Case studies. Toxicol Appl Pharmacol 201:226–294.

Slikker W Jr., Andersen ME, Bogdanffy MS, Bus JS, Cohen SD, Conolly RB, David RM,..., **Rogers JM**, et al. 2004. Dose-dependent transitions in mechanisms of toxicity. Toxicol Appl Pharmacol 201:203–225.

Grasty RC, Grey BE, Lau CS, **Rogers JM**, 2003. Prenatal window of susceptibility to perfluorooctane sulfonate-induced neonatal mortality in the Sprague-Dawley rat. Birth Defects Res B 68:465–471.

Hanna LA, Clegg MS, Momma T, **Rogers JM**, Daston GP, Keen CL. 2003. Zinc influences the in vitro development of peri-implantation mouse embryos. Birth Defects Res A 67:414–420.

Lau C, Thibodeaux JR, Hanson RG, **Rogers JM**, Grey BE, Stanton ME, Butenhoff JL, Stevenson LA. 2003. Exposure to perfluorooctane sulfonate during pregnancy in rat and mouse. II: postnatal evaluation. Toxicol Sci 74:382–292.

Leazer TM, Daston GP, Keen CL, **Rogers JM.** 2003. The embryolethality of lipopolysaccharide in CD-1 and metallothionein I-II null mice: Lack of a role for induced zinc deficiency or metallothionein induction. Toxicol Sci 73:442–447.

Rogers JM, Abbott BD. 2003. Screening for developmental toxicity of tobacco smoke constituents. Toxicol Sci 75:227–228.

Rogers EH, Hunter ES, Rosen MB, **Rogers JM**, Lau C, Hartig PC, Francis BM, Chernoff N. 2003. Lack of evidence for intergenerational reproductive effects due to prenatal and postnatal undernutrition in the female CD-1 mouse. Reprod Toxicol 17:519–525.

Rogers JM, Setzer RW, Branch S, Chernoff N. 2003. Chemically-induced supernumerary ribs in CD-1 mice: Size distribution and dose-response. Birth Defects Res B 71:17–25.

Tarka-Leeds DK, Herr DW, Klinefelter GR, **Rogers JM.** 2003. Effects of gestational exposure to ethane dimethanesulfonate in CD-1 mice: Microtia and preliminary hearing tests. Birth Defects Res B 68:383–390.

Tarka-Leeds DK, Suarez JD, Roberts NL, **Rogers JM**, Hardy MP, Klinefelter GR. 2003. Gestational exposure to ethane dimethanesulfonate permanently alters reproductive competence in the CD-1 mouse. Biol Reprod 69:959–967.

Thibodeaux JR, Hanson RG, **Rogers JM**, Grey BE, Barbee BD, Richards JH, Butenhoff JL, et al. 2003. Exposure to perfluorooctane sulfonate during pregnancy in rat and mouse. I: Maternal and prenatal evaluations. Toxicol Sci 74:369–381.

Huang Y-S, Held G, Andrews JE, **Rogers JM.** 2001. 14C-Methanol incorporation into DNA and specific proteins of organogenesis-stage mouse embryos in vitro. Reprod Toxicol 15:429–435.

Lau C, Mole ML, Copeland FM, **Rogers JM**, Kavlock RJ, Shuey DL, Cameron AM, Ellis DH, et al. 2001. Toward a biologically-based dose-response model for the developmental toxicity of 5-fluorouracil in the rat: Acquisition of experimental data. Toxicol Sci 59:37–48.

Leazer TM, **Rogers JM.** 2001. Role of the acute phase response and tissue necrosis factor alpha in the developmental toxicity of lipopolysaccharide in the CD-1 mouse. Reprod Toxicol 16:173–179.

Rogers JM, Hunter ES III. 2001. Toxicological highlight. Redox redux: A closer look at conceptual low molecular weight thiols. Toxicol Sci 62:1–3.

Setzer RW, Lau C, Mole ML, Copeland FM, **Rogers JM**, Kavlock RJ. 2001. Toward a biologically-based dose-response model for the developmental toxicity of 5-fluorouracil in the rat: A mathematical construct. Toxicol Sci 59:49–58.

Jankowski-Hennig MA, Clegg MS, Daston GP, **Rogers JM**, Keen CL. 2000. Zinc-deficient rat embryos have increased caspase 3-like activity and apoptosis. Biochem Biophys Res Commun 271:250–256.

Lau C, Anderson ME, Crawford-Brown DJ, Kavlock RJ, Kimmel CA, Knudsen TB, Muneoka K, **Rogers JM**, et al. 2000. Evaluation of biologically based dose-response modeling for developmental toxicity: A workshop report. Regul Toxicol Pharmacol 31:190–199.

Zucker RM, Hunter ES III, **Rogers JM.** 1999. Apoptosis and morphology in mouse embryos by confocal laser scanning microscopy. Methods 18: 473–480.

Keen CL Taubeneck, MW Zidenberg, Cherr S, Daston GP, **Rogers JM.** 1998. Toxicant exposure and trace element metabolism in pregnancy. Environ Toxicol Pharmacol 4:301–308.

Rogers JM. 1998. Life stage and its impact on risk of environmentally-induced adverse effects: Introduction. Environ Toxicol Pharmacol 4:299–300.

Zucker RM, Hunter S, **Rogers JM.** 1998. Confocal laser scanning microscopy of apoptosis in organogenesis-stage mouse embryos. Cytometry 33:348–354.

Connelly LE, **Rogers JM**. 1997. Methanol causes posteriorization of cervical vertebrae in mice. Teratology 55:138–144.

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Rogers JM, Mole ML. 1997.Critical periods of sensitivity to the developmental toxicity of inhaled methanol in the CD-1 mouse. Teratology 55:364–372.

Branch S, **Rogers JM**, Brownie CF, Chernoff N. 1996. Supernumerary lumbar rib: manifestation of basic alteration in embryonic development of ribs. J Appl Toxicol 16:115–119.

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Sakanashi TM, **Rogers JM**, Fu SS, Connelly LE, Keen CL. 1996. Influence of maternal folate status on the developmental toxicity of methanol in the CD-1 mouse. Teratology 54:198–206.

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Jankowski MA, Uriu-Hare JY, Rucker RB, **Rogers JM**, Keen CL. 1995. Maternal zinc deficiency, but not copper deficiency or diabetes, results in increased embryonic cell death in the rat: Implications for mechanisms underlying abnormal development. Teratology 5:85–93.

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Sulik KK, Dehart DB, **Rogers JM**, Chernoff N. 1995. Teratogenicity of low doses of all-trans retinoic acid in presomite mouse embryos. Teratology 51:398–403.

Taubeneck MW, Daston GP, **Rogers JM**, Gershwin ME, Ansari A, Keen CL. 1995. Tumor necrosis factor-α alters maternal and embryonic zinc metabolism and is developmentally toxic in mice. J Nutr 125:908–919.

Zucker RM, Elstein KH, Shuey DL, Ebron-McCoy M, **Rogers JM**. 1995. Utility of fluorescence microscopy in embryonic/fetal topographical analysis. Teratology 51:430–434.

Zucker RM, Elstein KH, Shuey DL, **Rogers JM.** 1995. Flow cytometric detection of abnormal fetal erythropoiesis: Application to 5-fluorouracil-induced anemia. Teratology 51:37–44.

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INVITED PRESENTATIONS

Placental biology, toxicology, and *in vitro* modeling for predictive developmental toxicology. Session presented at Society of Toxicology Annual Meeting, Nashville, TN, March 21, 2023.

Direct and indirect developmental toxicity: Maternal, placental and fetal considerations. Continuing Education Course, Teratology Society Annual Meeting, San Diego, CA, June 22, 2019.

Normal and abnormal development of the musculoskeletal system and limbs. American College of Toxicology/Teratology Society Course, "Practical Reproductive and Developmental Toxicology," Gaithersburg, MD, May 14, 2019.

Regulatory perspective on evaluation and interpretation of effects on skeletal development, and outlook for the future. Continuing Education Course, "Developmental Toxicity of the Skeletal System: Interpretation of Findings in DART Studies and Implications for Risk Assessment," Society of Toxicology Annual Meeting, Baltimore, MD, March 10, 2019.

Fifty years of predictive testing for human developmental toxicity: From thalidomide to virtual embryos. International Conference on Toxicity Testing Alternatives and Translational Toxicology, Nanjing, China, July 10, 2017.

Tobacco as a reproductive and developmental toxicant. Public Affairs Committee Symposium, "The Toxicology of Tobacco Smoke and E-Cigarette Use During Pregnancy," Annual Meeting of the Teratology Society, Denver, CO, June 27, 2017.

Normal and abnormal development of the musculoskeletal system and limbs. American College of Toxicology/Teratology Society Course, "Practical Reproductive and Developmental Toxicology," Philadelphia, PA, May 9, 2017.

Targeted approaches for DART adverse outcome hypothesis testing. Course entitled "Developmental and Reproductive Toxicology (DART) and Risk Assessment of Environmental Chemicals: Applications, Complexities, and Novel Approaches." Society of Toxicology Annual Meeting, New Orleans, LA, March 13, 2017.

Parental tobacco smoke exposure: Epigenetics and the developmental origins of health and disease. 5th Prenatal Programming and Toxicity Meeting (PPTOX V), Kitakyushu, Fukouka, Japan, November 14, 2016.

Details of skeletal development and how this matters when interpreting results. Continuing Education Course, "Embryology and Developmental Toxicity Testing." Society of Toxicology Annual Meeting, New Orleans, LA, March 13, 2016.

What a difference a day makes: Critical exposure windows for adverse birth outcomes. EPA Workshop on Temporal Exposure Issues for Environmental Pollutants: Health Effects and Methodologies for Estimating Risk, Research Triangle Park, NC, January 29, 2016.

Environmental epigenetics and the developmental origins of health and disease. Symposium on Environmental Epigenomics and Disease Susceptibility. Environmental Mutagenesis and Genomics Society 46th Annual Meeting, New Orleans, LA, September 30, 2015.

Transgenerational epigenetic inheritance. Epigenetic Special Interest Group meeting, Environmental Mutagenesis and Genomics Society 46th Annual Meeting, New Orleans, LA, September 27, 2015.

Moderator, EPA's Office of Children's Health Protection Environmental Health Webinar Series, "Epigenetics," Washington, DC, April 8, 2015.

Direct and indirect developmental toxicity: Maternal, placental, and fetal considerations. Continuing Education Course, Teratology Society Annual Meeting, Tucson, AZ, June 22, 2013.

Reproductive health outcomes: Hazard assessment. Webinar presented to REACH (Tribal coalition representing environmental interests) and staff of OSWER, OCSPP, OSP, March 20, 2013.

Developmental Origins of Health and Disease (DOHaD): How the environment in which we develop affects our health for a lifetime. Federal Executive Institute, Charlottesville, VA, May 8, 2012.

Intrauterine programming of adult disease by maternal undernutrition or chemical exposure. Duke University, Integrated Toxicology and Environmental Health Program, Durham, NC, March 18, 2011.

Developmental Origins of Health and Disease (DOHaD): How the environment in which we develop affects our health for a lifetime. Toxicity Assessment Division DOHaD Seminar Series, U.S. EPA, Research Triangle Park, NC, February 10, 2011.

Normal and abnormal development of the musculoskeletal system and limbs. In: Reproductive and Developmental Toxicology for Industrial and Regulatory Scientists. Teratology Society Course, Falls Church, VA, October 26, 2010.

Principles of abnormal development. In: Reproductive and Developmental Toxicology for Industrial and Regulatory Scientists. Teratology Society Course, Falls Church, VA, October 25, 2010.

Developmental Origins of Health and Disease (DOHaD): Brief overview of human findings and animal models. EPA/NIEHS Children's Centers 2010 Meeting. Washington, DC, October 18, 2010.

Traditional testing strategies for detecting later life effects following early life stressors: Animal models. Workshop on: "Use of In Utero and Postnatal Indicators to Predict Health Outcome Later in Life." National Academy of Sciences Committee on Emerging Science for Environmental Health Decisions, Washington, DC, October 14-15, 2010.

Animal models for testing the DOHaD hypothesis. PPTOX II Meeting (Prenatal Programming and Toxicity), South Miami Beach, FL, Dec 7, 2009.

Epigenetic evaluation and reproductive/developmental toxicity testing. HESI Workshop on the State of the Science of Epigenetics, Research Triangle Park, NC, October 29, 2009.

Long-term effects of maternal undernutrition or toxicant exposure on adult health of offspring in rodents. Society for the Study of Reproduction Annual Meeting, Pittsburgh, PA, July 21, 2009.

Long-term effects of maternal undernutrition or toxicant exposure on adult health of offspring in rodents. Triangle Consortium on Reproductive Biology, NIEHS, Research Triangle Park, NC, January 31, 2009.

Developmental origins of health and disease: Effects of gestational undernutrition and chemical exposure in rodents. Department of Toxicology, North Carolina State University, Raleigh, NC, October 21, 2008.

Chemically-induced skeletal alterations in rodents. Gordon Conference on Musculoskeletal Biology, Proctor Academy, New Hampshire, July 31, 2008.

Embryology of the skeletal and urogenital systems. Society of Toxicology Continuing Education Course, Seattle, WA, March 16, 2008.

Developmental toxicity of perfluorinated alkyl acids in rodents. Society of Toxicology, Contemporary Concepts in Toxicology Meeting on Perfluorinated Alkyl Acids, Arlington, VA, Feb 14, 2007.

Methanol-induced teratogenesis in mice. Toxicology Forum Winter Meeting, Washington, DC, January 31, 2007.

Long term effects of the developmental environment: Implications for developmental toxicity risk assessment. University of Louisville, Louisville, KY, November 21, 2006.

Of mice, men and metabolism: An update on the teratogenicity of methanol. First Robert L. Brent Lecture, 46th Annual Teratology Society Meeting, Tucson, AZ, June 26, 2006.

Everything I needed to know I learned in the womb: Developmental origins of health and disease. Neurotoxicology Division, NHEERL, ORD, USEPA, Research Triangle Park, NC, November 30, 2005.

Case example: Zinc. ILSI Health and Environmental Sciences Institute (HESI) sponsored Continuing Education Course: "Dose-Dependent Transitions in Mechanisms of Toxicity: What Are They? How Are They Applied in Risk Assessment?" Annual Meeting of the American College of Toxicology (ACT), Williamsburg, VA, November 6, 2005.

Fetal skeletal examinations. Continuing Education Course on Basics of Developmental Toxicology, Society of Toxicology Annual Meeting, New Orleans, LA, March 2005.

Evaluation and interpretation of maternal toxicity in Segment II studies: Issues, some answers and data needs. International Union of Toxicologists Meeting, Tampere, Finland, July 14, 2004.

The Barker hypothesis: Implications for human health and well-being. Mars/MDRU Conference on Epigenetics: Fetal Origins of Health, McLean, VA, June 9, 2004.

Regulatory issues and overview of an ILSI workshop. Mini-symposium on significance of fetal variations in developmental toxicity studies and relevance for human risk assessment. Middle Atlantic Reproduction and Teratology Association Fall Meeting, Philadelphia, PA, November 15, 2002.

Development of biologically-based dose response models for developmental toxicology. Symposium on The Potential for Modeling to Improve Children's Risk Assessment. Society of Toxicology Annual Meeting, Nashville, TN. March 18, 2002.

Spatiotemporal patterns of gene expression: Developmental stage-related susceptibility. Continuing Education course, "Principles of Teratology: Application of New Technologies Towards Understanding Abnormal Development." Teratology Society Annual Meeting, Montreal, Quebec, Canada, June 24, 2001.

Reproductive hazards of the workplace. Physician's Assistant Certificate Program in Occupational and Environmental Medicine. Duke University Medical Center. July 20, 2000.

Development of biologically based dose-response models for developmental toxicity. Human Biology Models for Environmental Health Effects. Virtual Body Workshop, National Institute of Environmental Health Sciences, Research Triangle Park, NC, June 22, 2000.

Mechanisms of development and thresholds of response. University Integrated Toxicology Program Fall 1999 Symposium, Duke University, Durham, NC, November 8, 1999.

Chemically-induced fetal skeletal phenocopies and alterations in developmental gene expression. NIH Research Festival, Minisymposium on Craniofacial and Skeletal Biology and Disorders, Bethesda, MD, October 6th, 1999.

Toxicant-induced fetal skeletal phenocopies and associated alterations in gene expression. Midwest Teratology Association Meeting, Lima, OH, May 13-14, 1999.

Developmental toxicology: Overview and relevance to children's health issues. CDC/ATSDR Workshop on Children's Health Issues, Green Bay, WI, August 3-4, 1999.

Developmental control genes: Cross-species homology and effects of maternal toxicant exposure. Office of Research and Development, U.S. EPA, Washington, DC, August 12, 1998.

Epigenetics in developmental toxicology: Toxicant-induced phenocopies and developmental gene expression. Genotoxicity and Environmental Mutagenesis Society, Research Triangle Park, NC, May 1, 1998.

Elucidating mechanisms of developmental toxicity for model and environmental toxicants: 5-Fluorouracil and methanol. Department of Biological Sciences, Florida Institute of Technology, Melbourne, FL, April 23, 1998.

The developmental toxicity of methanol: Basic and applied research. Toxicology and Molecular Biology Branch, National Institute of Occupational Safety and Health, Morgantown, WV, March 9, 1998.

Disruption of embryonal pattern formation by methanol. Department of Toxicology, North Carolina State University, Raleigh, NC, January 27, 1998.

Enzymes. In: Experimental Approaches for Studying Mechanisms of Abnormal Development. Continuing Education Course, Teratology Society, Palm Beach, FL, June 21, 1997.

Introduction and overview, life stage and its impact on risk of environmentally-induced adverse effects. Third Annual HERL Symposium: Susceptibility and Risk, Durham, NC, September 4, 1996.

Interindividual variability in reproductive/developmental toxicity. ILSI Risk Science Institute Workshop on Human Variability, Washington, DC, October 16, 1995 (with Drs. G. Daston and C. Kimmel).

Developmental toxicity of the alternative fuel, methanol. Department of Toxicology, North Carolina State University, Raleigh, NC, February 14, 1995.

Teratogenicity of methanol in mice: Characterization and human extrapolation issues. Health Effects Research Laboratory Third Annual Open House, U.S. Environmental Protection Agency, Research Triangle Park, NC, June 8, 1994.

Biologically-based dose-response modeling of developmental toxicity. School of Veterinary Medicine, University of Illinois, Urbana, IL, March 25, 1994.

Developmental toxicity of methanol: Dose-response, critical periods and mechanistic studies in the mouse. Health Effects Institute Annual Conference, Reston, VA, May 3, 1994.

Biologically-based dose response models for developmental toxicity. Symposium: New Approaches to Developmental Toxicology. The 1993 Annual Meeting of the American College of Toxicology, New Orleans, LA, October 1993.

Developmental effects of methanol. Symposium: Emerging Perspectives on New Transportation Fuels: Methanol. The 1993 Annual Meeting of the Society of Toxicology, New Orleans, LA, February 1993.

Developmental toxicity of inhaled methanol in the mouse. Office of Mobile Sources, U.S. EPA, Ann Arbor, MI, September 29, 1992.

Homeobox genes and transcriptional regulation in development. Genotoxicity and Environmental Mutagenesis Society Meeting, Raleigh, NC, April 24, 1992.

Cellular techniques in developmental toxicology. Society of Toxicology Continuing Education Course, "Cell and Molecular Techniques in Developmental Toxicology," Seattle, WA, February 23, 1992.

Developmental hazard assessment and the relationship of maternal and developmental toxicity. Institute for Environmental Studies, University of Illinois, Urbana, IL. September 27, 1991.

Normal human development and safety assessment to prevent birth defects. Fourth Annual Bioscience Seminar Series. Duke University, Durham, NC, November 10, 1990.

The developmental toxicity of inhaled methanol in the mouse. Lovelace Inhalation Toxicology Research Institute, Albuquerque, NM, September 4, 1990.

Cataracts in offspring of rats exposed to Mirex: Absorption, pharmacokinetics and mechanistic studies. Human and Environmental Safety Division, Procter and Gamble Company, Cincinnati, OH, December 9, 1987.

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CONFERENCE ABSTRACTS AND PRESENTATIONS

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