# CURRICULUM VITAE

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Present Address: Reproductive Medicine Group
Reproductive & Developmental Biology Laboratory
National Institute of Environmental Health Sciences
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Email: williamsc5@niehs.nih.gov

Education:

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| 1981 | B.S.E. (Electrical Engineering), Duke University, Durham, NC |
| 1982-1986 | M.D., Duke University School of Medicine, Durham, NC |
| 1986-1990 | Residency in Obstetrics & Gynecology, Pennsylvania Hospital, Philadelphia, PA |
| 1990-1992 | Fellowship in Reproductive Endocrinology & Infertility, University of Pennsylvania, Philadelphia, PA |
| 1992-1997 | Ph.D. (Molecular and Cell Biology), University of Pennsylvania, Philadelphia, PA |
| 1997-2000 | Postdoctoral Fellowship, Department of Biology, University of Pennsylvania, Philadelphia, PA |

Employment Chronology:

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| 2017-present | Deputy Chief, Reproductive & Developmental Biology Laboratory, National Institute of Environmental Health Sciences, Research Triangle Park, NC |
| 2016-present | Senior Investigator, Reproductive Medicine Group, Reproductive & Developmental Biology Laboratory, National Institute of Environmental Health Sciences, Research Triangle Park, NC |
| 2007-2016 | Clinical Investigator, Tenure-track, Reproductive Medicine Group, Reproductive & Developmental Biology Laboratory, National Institute of Environmental Health Sciences, Research Triangle Park, NC |
| 2000-2007 | Assistant Professor, Division of Reproductive Endocrinology & Infertility, Department of Obstetrics & Gynecology, University of Pennsylvania, Philadelphia, PA |
| 1992-2000 | Research Associate, Department of Obstetrics & Gynecology, University of Pennsylvania Health System, Philadelphia, PA |
| 1990-1992 | Clinical Fellow, Division of Reproductive Endocrinology & Infertility, Department of Obstetrics & Gynecology, University of Pennsylvania, Philadelphia, PA |
| 1986-1990 | Resident in Obstetrics & Gynecology, Pennsylvania Hospital, Philadelphia, PA |
| 1981-1982 | Engineer, Computer Graphics Design Division, International Business Machines, Inc., Poughkeepsie, NY |

Specialty Certification:

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| 1994-2012 | American Board of Obstetrics & Gynecology |

Medical Licensure:

2008-2017 North Carolina (inactive status)
1993-2007 New Jersey (inactive status)
1986-2008 Pennsylvania (inactive status)

Societies:

Society for the Study of Reproduction: Clinical Outreach Committee (2002-2003); Program Committee (2006-2007, 2013-2014); Board of Reviewing Editors (2008-2009); Translational Research Committee (2013-2016); Nominating Committee (Member 2014-2015, Member 2016-2017, Chair 2017-2018)

Endocrine Society

European Calcium Society

Society for Reproductive Investigation

Triangle Consortium for Reproductive Biology: Steering Committee member (2012-present), Vice-Chair (2015-2016, 2018), Chair (2016-2017, 2019)

Genetics & Mutagenesis Society

Honors and Other Special Scientific Recognition:

1981 Magna Cum Laude, Duke University, Durham, NC

1982-1986 Charles B. Strickland Memorial Scholarship, Duke University School of Medicine, Durham, NC

1987 Outstanding Obstetric Resident in the Intensive Care Nursery, Pennsylvania Hospital, Philadelphia, PA

1989 Obstetrics & Gynecology Resident Teaching Award, University of Pennsylvania School of Medicine, Philadelphia, PA

1992 Physician Scientist Award, National Institutes of Health, NICHD

1997 Burroughs Wellcome Fund Career Award in the Biomedical Sciences

2002 Society for Reproductive Endocrinology and Infertility Fellowship Research Prize Paper Award, Society for Gynecological Investigation Annual Meeting

2005 Guest editor, Seminars in Reproductive Medicine 23(3), special issue entitled "Frontiers in Gamete Biology"

2008-2017 Editor, Molecular Reproduction and Development

2007-2008 Board of Reviewing Editors, Biology of Reproduction

2010 Member, Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel

2010 Member, Environmental and Occupational Exposures Working Group, Infertility National Action Plan, Chair of Translation Subcommittee

2012 One-NIEHS Award (for work on the Laboratory Corridor Team)

2012 NIEHS Paper of the Year (Environmental Factor, Jan 2013) Miao Y-L, Stein P, Jefferson WN, Padilla-Banks E, Williams CJ. Calcium influx-mediated signaling is required for complete mouse egg activation. Proc. Natl. Acad. Sci. USA 2012; 109(11):4169-4174.

2014 Roy Hertz Memorial Lecture, “Epigenetic Reprogramming of Female Reproductive Tract Function by Neonatal Estrogen Exposure,” at the C. Everett Koop Memorial NIH Symposium on Women’s Health Research: A Celebration of

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| | Patient-Centered Basic Research, National Institutes of Health Clinical Center, Bethesda, MD |
| 2014 | One NIEHS Award (for work in organizing the Annual NIEHS Science Day) |
| 2014 | NIEHS Paper of the Year (Environmental Factor, Jan 2015) Wang L, Du Y, Ward JM, Shimbo T, Lackford B, Zheng X, Miao YL, Zhou B, Han L, Fargo DC, Jothi R, Williams CJ, Wade PA, Hu G. INO80 facilitates pluripotency gene activation in embryonic stem cell self-renewal, reprogramming, and blastocyst development. Cell Stem Cell 2014; 14(5):575-591. |
| 2015 | NIEHS Mentor of the Year Award |
| 2019 | NIEHS Paper of the Year (Environmental Factor, Jan 2019) Jefferson WN, Kinyamu HK, Wang T, Miranda AX, Padilla-Banks E, Suen AA, Williams CJ. Widespread enhancer activation via ERα mediates estrogen response in vivo during uterine development. Nucleic Acids Res. 2018 June; 46(11): 5487–5503. PMID: 29648668. |
| 2019- | Academic Editor, PLOS Biology |
| 2019 | 3rd Annual Dr. Yves Clermont Lecture in Reproduction, 11th Annual Research Day, McGill Centre for Research in Reproduction and Development, Montreal, Canada |
| 2019 | Kathleen Osborn Lecture, Department of Molecular and Integrative Physiology, University of Kansas Medical Center, Kansas City, KS |

<u>Conference Organization/Participation: (since 2007)</u>

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| 2007 | Session Moderator, "Gynecology", 54th Annual Meeting of the Society for Gynecological Investigation, Reno, Nevada |
| 2007 | Plenary Session Moderator, “Egg and embryo polarity”, Gordon Conference on Fertilization and Activation of Development, Holderness, NH |
| 2008-2009 | Organizing Committee, Molecular Reproduction & Development Conference, Brown University, Providence, RI |
| 2009 | Session Moderator, Molecular Reproduction & Development Conference, Brown University, Providence, RI |
| 2009-2011 | Organizer, Endometrium Interest Group, NIEHS and UNC Chapel Hill |
| 2010 | Session Moderator, Mechanisms of Egg Maturation and Fertilization: From Sea to Land, Friday Harbor Laboratories, San Juan Island, WA |
| 2011 | Discussion Leader, “Reproductive insults affecting the gametes - beyond ‘fetal origins of health and disease’ to ‘peri-conception’ as well”, Gordon Conference on Fertilization and Activation of Development, Holderness, NH |
| 2012-present | Organizing Committee, Annual Meeting of the Triangle Consortium for Reproductive Biology |
| 2013-2019 | Steering Committee, NIEHS Science Days |
| 2015 | Discussion Leader, “Transgenerational Considerations in Reproduction”, Gordon Conference on Fertilization and Activation of Development, Holderness, NH |
| 2017 | Panel Member, “Out in the Lab: Visibility Matters”. Biological and Biomedical Sciences Program, UNC School of Medicine, Chapel Hill, NC |
| 2018 | Invited Discussion Leader, “Picking a mentor and how to make the most out of PhD training”, Advocates for Inclusion in Medicine and Science, UNC School of Medicine, Chapel Hill, NC |

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| 2018 | Invited Discussion Leader, “Choosing a residency and post-doc, setting up your lab, and becoming a PI”, Advocates for Inclusion in Medicine and Science, UNC School of Medicine, Chapel Hill, NC |
| 2018-2019 | Program Co-Chair, 52nd Annual Meeting of the Society for the Study of Reproduction, July 18-21, 2019, San Jose, CA, USA |

NIH/NIEHS Activities:

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| 2008-2010 | Poster Judge, Science Day, NIEHS |
| 2008-2009 | Search Committee Member, Tenure Track Reproductive Epidemiologist, Epidemiology Branch, NIEHS |
| 2008-2010 | Search Committee Member, Tenure Track Developmental Biologist, Laboratory of Reproductive & Developmental Toxicology, NIEHS |
| 2008-2012 | Institutional Review Board Member, NIEHS |
| 2008-2019 | Clinical Advisory Council Member, NIEHS |
| 2009-2012 | Panelist, Summer of Discovery lecture series, NIEHS |
| 2010 | Panelist, Postdoctoral Fellows Grantsmanship Course, NIEHS |
| 2010-2011 | Assembly of Scientists Councilor, NIEHS |
| 2011-2014 | Search Committee Member, Clinical Program Director, NIEHS |
| 2011-present | DIR Committee for Distinguished Lectures & Scientific Conferences |
| 2012-present | Steering Committee, Triangle Consortium for Reproductive Biology, NIEHS representative; Vice-Chair, 2015; Chair, 2016-2017 |
| 2012-present | NIH Fellows Award for Research Excellence (FARE) judge |
| 2012-present | Poster Judge, Science Day, NIEHS |
| 2012 | NIEHS Staff Clinician Advisory Committee |
| 2012 | NIEHS Inflammation Trans-Divisional Committee; Head of Reproduction Subcommittee |
| 2013-2019 | NIEHS Science Days Steering Committee |
| 2014 | Organizer, Laboratory for Reproductive & Developmental Toxicology Retreat |
| 2015-2016 | NIEHS 50th Anniversary EDC Meeting Planning Group |
| 2015-present | NIH Developmental Biology Scientific Interest Group, Steering Committee member (2017-present) |
| 2015-2018 | NIH Sexual and Gender Minority Research Coordinating Committee |
| 2016-present | NIH Human Embryo Research Steering Committee |
| 2016 | Division of Intramural Research Innovative Research Award (DIRA) Development Committee |
| 2016 | NIH Research Festival Concurrent Symposium Organizer and Chair, “Lasting Legacies: Long-term effects of early developmental exposure” |
| 2016 | Stadtman Search Committee, Developmental Biology Co-Chair |
| 2017-2019 | Member, Committees on Promotion IV |
| 2017 | Stadtman Search Committee, Cell & Developmental Biology Subcommittee |
| 2017-2018 | Search Committee Member, Senior Clinician, NICHD |
| 2017-2018 | Search Committee Member, RDBL Tenure Track Investigator |
| 2018 | Search Committee Member, Staff Scientist for Systems Biology Group |

2018-2019 Search Committee Member, Staff Scientist for Stem Cell Biology Group

2018-present Member, Long Term Architectural and Utility Study Group

2019-present Pathology Core Review Committee

2019 Search Committee Member, Staff Scientist for Reproductive Developmental Biology Group (RDBL)

2019 Search Committee Member, Clinical Research Branch Tenure Track Investigator

2019 Search Committee Member, Staff Scientist for Inositol Signaling Group (STL)

2019 NIH Senior Leadership Program completion

Academic Activities: (since 2007)

2007-present Adjunct Associate Professor, Division of Reproductive Endocrinology & Infertility, Department of Obstetrics & Gynecology, University of North Carolina, Chapel Hill, NC

2008-2012 Mentor, Summers of Discovery Program, NIEHS

2008-present Adjunct Assistant Professor, Division of Reproductive Endocrinology & Infertility, Department of Obstetrics & Gynecology, Duke University School of Medicine, Durham, NC

2013-present Affiliate, Curriculum in Toxicology, Biological & Biomedical Sciences Program, UNC School of Medicine, Chapel Hill, NC; Executive Committee member, 2016-2019.

2016-2020 Section 2 Director, “Gametogenesis, Fertilization, and Stem Cells”, Frontiers in Reproduction: Molecular & Cellular Concepts, Woods Hole, MA

Invited Presentations and Lectures: (since 2007)

2007 "Epithelial membrane protein-2 (EMP2) in endometrial function and dysfunction", NIEHS, Research Triangle Park, NC

2007 “Polarity (or asymmetry) of the mammalian egg and early embryo”, Gordon Conference on Fertilization and Activation of Development, Holderness, NH

2008 “Calcium signaling at egg activation: an elaborate male-female conversation”, Annual Meeting of the Triangle Consortium for Reproductive Biology, NIEHS, Research Triangle Park, NC

2008 “Paternal Influence on Calcium Signaling and Embryo Development”, NICHD-sponsored workshop: Preconception Care Research: Improving Birth Outcomes and Reproductive Health, Potomac, MD

2008 “Long term effects of embryo culture on gene expression and behavior”, 6th Annual Assembly of the New England Fertility Society, Woodstock, VT

2008 “Calcium Signaling During Egg Activation”, Summers of Discovery seminar series, NIEHS, Research Triangle Park, NC

2008 “Calcium oscillations during egg activation: a sensitive period of development”, Endocrine Disrupting Compounds Forum, U.S. E.P.A., Research Triangle Park, NC

2008 “Calcium Signaling and Egg Activation”, Receptor Mechanisms Discussion Group, NIEHS, Research Triangle Park, NC

2009 “Neonatal Genistein Exposure Disrupts Adult Female Reproductive Tract Support of Preimplantation Embryo Development and Implantation”, Keystone

Symposium: Frontiers in Reproductive Biology and Regulation of Fertility, Santa Fe, NM

2009 "Long term impact of phytoestrogens on female reproductive tract function", Grand Rounds, Dept. of Ob/Gyn, University of North Carolina, Chapel Hill, NC

2009 "Long term effects of genistein on female mouse reproduction", Molecular Reproduction & Development Conference, Providence, RI

2009 "Modulation of Endometrial Adhesion Molecules and Clinical Implications", 5th International Conference on the Female Reproductive Tract, Frauenchiemsee, Germany

2009 "Long-Term Impact of Neonatal Genistein Exposure on Adult Oviductal Function in the Mouse", Annual Meeting of the Society for the Study of Reproduction, Pittsburgh, PA

2009 "Neonatal Endocrine Disruption and Adult Female Fertility – Long Term Impact of Phytoestrogen Exposure", Dept. of Environmental & Molecular Toxicology, North Carolina State University, Raleigh, NC

2009 "Neonatal Endocrine Disruption and Adult Female Fertility: Long Term Impact of Phytoestrogen Exposure", Center for Research on Reproduction & Women's Health, University of Pennsylvania, Philadelphia, PA

2009 "Effects of Environmental Estrogens on the Female Reproductive Tract: Epigenetic Mechanisms", Conversations in Environmental Toxicology, Center of Excellence in Environmental Toxicology, University of Pennsylvania, Philadelphia, PA

2010 "Outside-in signaling via SOCE is required for mouse egg activation", Receptor Mechanisms Discussion Group, NIEHS, Research Triangle Park, NC

2010 "Epigenetic consequences of neonatal phytoestrogen exposure", Mechanisms of Egg Maturation and Fertilization: From Sea to Land, Friday Harbor Laboratories, San Juan Island, WA

2010 "Neonatal Genistein Exposure Permanently Disrupts Oviduct Gene Expression and Tissue Architecture During Pregnancy", UCSF Program on Reproductive Health and the Environment, University of California, San Francisco, CA

2011 "Outside-in calcium signaling is required for egg activation", Annual Meeting of the Triangle Consortium for Reproductive Biology, NIEHS, Research Triangle Park, NC

2011 "Neonatal phytoestrogen exposure causes posterior patterning and impaired function of the adult oviduct", Dept. of Anatomy and Cell Biology, Brody School of Medicine, East Carolina University, Greenville, NC

2011 "Outside-in calcium signaling is required for mouse egg activation", Reproductive Physiology/Endocrinology seminar, Cornell University, Ithaca, NY

2011 "Permanent reprogramming of gene expression in response to neonatal phytoestrogen exposure: Implications for female reproductive tract function and pathology", Laboratory of Toxicology and Pharmacology, NIEHS, Research Triangle Park, NC

2011 "Permanent reprogramming of gene expression in response to neonatal phytoestrogen exposure: Implications for female reproductive tract function and pathology", National Advisory Environmental Health Sciences Council meeting, NIEHS, Research Triangle Park, NC

2011 “Environmental exposures and female reproductive tract development”, Frontiers in Reproduction course, Woods Hole, MA

2011 “Female reproductive tract environment and fertility”, Frontiers in Reproduction course, Woods Hole, MA

2011 “Careers in Government”, Endocrine Trainee Day Basic Science Career Breakout Session, Annual Meeting of the Endocrine Society, Boston, MA

2011 “Outside-in calcium signaling and mouse egg activation”, Conference on Reproduction & Regeneration, University of Pennsylvania, Philadelphia, PA

2011 “Outside-in calcium signaling is required for mouse egg activation”, Gordon Conference on Fertilization and Activation of Development, Holderness, NH

2011 “Environmental Exposures and Female Reproductive Tract Function”, NIH Research Festival, Bethesda, MD

2011 “Estrogenic endocrine disruption of female reproductive tract development: Initial mechanistic insights”, Laboratory of Molecular Carcinogenesis, NIEHS, Research Triangle Park, NC

2012 “Reproductive Medicine Group overview: Environmental Exposures and Female Reproductive Tract Development”, Women’s Reproductive Health Consortium, NIEHS, Research Triangle Park, NC

2012 “Environmental exposures and female reproductive tract development”, Frontiers in Reproduction course, Woods Hole, MA

2012 “Female reproductive tract environment and fertility”, Frontiers in Reproduction course, Woods Hole, MA

2013 “Outside-in calcium signaling is required for egg activation”, Dept. of Cell Biology, University of Connecticut Health Center, Farmington, CT

2013 "Neonatal estrogens reprogram female reproductive tract function: Genome-wide approaches to determine underlying mechanisms", Curriculum in Toxicology, Biological & Biomedical Sciences Program, UNC School of Medicine, Chapel Hill, NC

2013 "Neonatal phytoestrogens reprogram female reproductive tract function: Genome-wide approaches to determine underlying mechanisms", Annual Meeting of the Triangle Consortium for Reproductive Biology, Duke University, Durham, NC

2013 “Environmental exposures and female reproductive tract development”, Frontiers in Reproduction course, Woods Hole, MA

2013 “Female reproductive tract environment and fertility”, Frontiers in Reproduction course, Woods Hole, MA

2013 “Epigenetic reprogramming of female reproductive tract function by neonatal estrogen exposure”, Program in Reproductive and Adult Endocrinology Research Conference, National Institute of Child Health and Human Development, NIH, Bethesda, MD

2014 “Estrogenic chemical exposure and female reproductive tract dysfunction”, Department of Cell and Developmental Biology, University of Massachusetts Medical School, Worcester, MA

2014 “MED13 and Regulation of Mouse Embryonic Genome Activation”, Laboratory of Toxicology and Pharmacology, NIEHS, Research Triangle Park, NC

2014 “Estrogenic chemical exposure and female reproductive tract dysfunction”, Department of Molecular and Integrative Physiology, Kansas University Medical Center, Kansas City, KS

2014 “MED13 and Regulation of Mouse Embryonic Genome Activation”, Stowers Institute, Kansas City, KS

2014 “Epigenetic reprogramming of female reproductive tract function by Neonatal Estrogen Exposure”, C. Everett Koop Memorial NIH Symposium on Women’s Health Research: A Celebration of Patient-Centered Basic Research, National Institutes of Health Clinical Center, Bethesda, MD

2014 “Environmental exposures and female reproductive tract development”, Frontiers in Reproduction course, Woods Hole, MA

2014 “Female reproductive tract environment and fertility”, Frontiers in Reproduction course, Woods Hole, MA

2014 “Neonatal estrogen exposure alters global epigenetic marks in the female reproductive tract”, 95th Annual Meeting, American Association for the Advancement of Science - Pacific Division, University of California Riverside, Riverside, CA

2014 “Estrogenic chemical exposure and female reproductive tract dysfunction”, Receptor Mechanisms Discussion Group, NIEHS, Research Triangle Park, NC

2014 “Neonatal estrogens reprogram female reproductive tract function: Genome-wide approaches to determine underlying mechanisms”, Mammalian Reproduction Gordon Conference, New London, NH

2015 “Estrogens and female reproductive tract function: The good, the bad, and the ugly”, Plenary Lecture, Department of Biomedical and Molecular Sciences, Queen’s University, Kingston, Ontario, Canada

2015 “Developmental estrogenic chemical exposure and female reproductive tract function”, Nicholas School of the Environment, Duke University, Durham, NC

2015 “Developmental estrogen exposure alters the epigenetic landscape of the female reproductive tract”, Annual Meeting of the Endocrine Society, San Diego, CA

2015 “Environmental exposures and female reproductive tract development”, Frontiers in Reproduction course, Woods Hole, MA

2015 “Female reproductive tract environment and fertility”, Frontiers in Reproduction course, Woods Hole, MA

2015 “Calcium influx: A window into egg activation”, Annual Meeting of the Society for the Study of Reproduction, San Juan, PR

2015 “Neonatal endocrine disruption and reproductive tract function: resetting the developmental program”, Interdisciplinary Environmental Toxicology Program, University of Illinois, Urbana-Champaign, IL

2015 “Clinical implications related to regulation of calcium signaling in oocytes”, Ovarian Club VI Meeting, Barcelona, Spain

2016 “Impacts of the environment on the female reproductive tract and embryos”, Frontiers in Reproduction course, Woods Hole, MA

2016 “Epigenetic reprogramming of female reproductive tract function by developmental exposure to estrogenic chemicals”, Minisymposium: Reproductive Health and the Environment, UCSF Center for Reproductive Sciences, San Francisco, CA

2016 “Regulation of embryo development by the oviductal environment”, National Advisory Environmental Health Science Council, NIEHS, Research Triangle Park, NC

2016 “Developmental estrogen exposure alters adult reproductive tract function: epigenetic mechanisms”, NIH Research Festival Concurrent Symposium I, Bethesda, MD

2016 "Epigenetic reprogramming of female reproductive tract function by developmental exposure to estrogenic chemicals", NC State Toxicology Program Seminar Series, Raleigh, NC

2017 “Gametogenesis, Fertilization and Activation of Development”, UNC Fertility, Raleigh, NC

2017 “Developmental estrogenic chemical exposure and female reproductive tract function”, Nicholas School of the Environment, Duke University, Durham, NC

2017 “Epigenetic reprogramming of female reproductive tract function by developmental exposure to estrogenic chemicals”, Center of Excellence in Environmental Toxicology Seminar Series, University of Pennsylvania, Philadelphia, PA

2017 “Regulation of calcium influx during mouse egg activation”, Department of Biological Sciences Seminar Series, University of Pittsburgh, Pittsburgh, PA

2017 “Impacts of the environment on the female reproductive tract and embryos”, Frontiers in Reproduction course, Woods Hole, MA

2018 “Fertilization and Activation of Development”, UNC Fertility, Raleigh, NC

2018 “Regulation of calcium influx during mouse egg activation”, Fuwai Hospital Chinese Academy of Medical Sciences, Beijing, China

2018 “Regulation of calcium influx during mouse egg activation”, Huazhong Agricultural University, Wuhan, China

2018 “Scientific Writing”, Huazhong Agricultural University, Wuhan, China

2018 “Epigenetic reprogramming by developmental exposure to estrogenic chemicals”, Molecular and Cellular Biology and Biochemistry Seminar Series, Brown University, Providence, RI

2018 “Impacts of the environment on the female reproductive tract and embryos”, Frontiers in Reproduction course, Woods Hole, MA

2018 “Getting from there to here - a personal and scientific journey”, Advocates for Inclusion in Medicine and Science, UNC School of Medicine, Chapel Hill, NC

2019 “Regulation of calcium signals at fertilization: Implications for human health”, Reproductive Lunch Series, Epidemiology Branch, NIEHS, Research Triangle Park, NC

2019 “Epigenetic reprogramming by developmental exposure to estrogenic chemicals”, Department of Medicine Grand Rounds, University of Rochester Medical Center, Rochester, NY

2019 “Scientific Writing”, Frontiers in Reproduction course, Woods Hole, MA

2019 “Impacts of the environment on the female reproductive tract and embryos”, Frontiers in Reproduction course, Woods Hole, MA

2019 “Modulating the calcium signals supporting egg activation: Implications for assisted reproduction”, 3rd Annual Dr. Yves Clermont Lecture in Reproduction,

11th Annual Research Day, McGill Centre for Research in Reproduction and Development, Montreal, Canada

2019 "Developmentally programmed tankyrase activity licenses progression of embryonic genome activation activation", Gordon Conference on Fertilization and Activation of Development, Holderness, NH

2019 "Developmentally programmed tankyrase activity licenses progression of embryonic genome activation", 2019 Kathleen Osborn Lecture, Department of Molecular and Integrative Physiology, University of Kansas Medical Center, Kansas City, KS

2020 *invited speaker*, "Regulation of calcium signals at fertilization: Implications for human health", Reproductive Physiology/Endocrinology Seminar series, Cornell University, Ithaca, NY

2020 *invited speaker*, Laboratory of Cellular and Developmental Biology, NIDDK, NIH, Bethesda, MD

Consultant Reviewer (Journals):

Aging
Biochemical Journal
Biochemical Society Transactions
Biology of the Cell
Biology of Reproduction
BMC Developmental Biology
Cell and Tissue Research
Cell Calcium
Cell Reports
Cellular and Molecular Life Sciences
Clinical Science
Development
Developmental Biology
Developmental Cell
Developmental Dynamics
Environmental Health Perspectives
EMBO Molecular Medicine
European Journal of Obstetrics and Gynecology and Reproductive Biology
FASEB Journal
Fertility and Sterility
Frontiers in Cell & Molecular Biology
Human Reproduction
Human Reproduction Update
International Journal of Developmental Biology
Journal of Biological Chemistry
Journal of Cell Physiology
The Journal of Steroid Biochemistry and Molecular Biology
Journal of Visualized Experiments
Medical Epigenetics
Molecular Human Reproduction
Molecular Reproduction and Development
Nature Chemical Biology
Nature Communications
Nutrients
PLoS Biology

PLoS Genetics (Guest Associate Editor)
PLoS One
Proceedings of the National Academy of Science
Reproduction
Reproductive Biomedicine Online
Reproductive Sciences
Reproductive Toxicology
Science
Scientific Reports
Toxicology and Applied Pharmacology
Toxicological Sciences
Trends in Biochemical Sciences
Zygote

Consultant Reviewer (Grants): (since 2007)

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| 2007 | Member, Developmental Systems Advisory Panel, National Science Foundation, Animal Development and Evolution of Development |
| 2008 | Special Grants Review Committee, National Institutes of Health, "Female Health and Egg Quality" (PAR-07-350) |
| 2008 | Ad hoc Member, National Institutes of Health, Cellular, Molecular and Integrative Reproduction Study Section |
| 2009 | Member, National Institutes of Health Special Emphasis Panel (ZRG1 EMNR-E 02), Reproductive and Developmental Sciences |
| 2009 | Ad hoc referee, Medical Research Council, United Kingdom |
| 2009 | Stage 1 reviewer, NIH Challenge Grants in Health and Science Research (RFA-09-003) |
| 2010 | Member, National Institutes of Health Special Emphasis Panel (ZRG1 EMNR-E 02), Reproductive Sciences and Perinatology |
| 2011 | Ad hoc Member, National Institutes of Health, Cellular, Molecular and Integrative Reproduction Study Section |
| 2011 | Member, Program Project Grant Application Review Panel [ZHD1 DSR-L (LD) 1] |
| 2011 | Member, NICHD study section ZHD1-DSR-L (U54 RFA HD12-169: Specialized Cooperative Centers Program in Reproduction and Infertility Research) |
| 2012 | Ad hoc Member, National Institutes of Health, Cellular, Molecular and Integrative Reproduction Study Section |
| 2012 | Ad hoc referee, Biotechnology and Biological Sciences Research Council, UK |
| 2012 | Member, Program Project Grant Application Review Panel [ZHD1 DSR-L (LD) 1] |
| 2012 | Member, NICHD study section ZHD1-DSR-L (U54 RFA HD12-169: Specialized Cooperative Centers Program in Reproduction and Infertility Research) |
| 2012 | Ad hoc referee, Medical Research Council, UK |
| 2013 | Member, National Institutes of Health Special Emphasis Panel, Reproductive Sciences and Perinatology |
| 2014 | Ad hoc referee, Life Sciences 1, Deutsche Forschungsgemeinschaft German Research Foundation, Bonn, Germany |
| 2014 | Member, National Institutes of Health Special Emphasis Panel, Reproductive Sciences and Perinatology |
| 2015 | Ad hoc referee, Wellbeing of Women, London, UK |
| 2016 | Ad hoc referee, Center for Environmental Health & Susceptibility standard pilot projects program, UNC School of Medicine, Chapel Hill, NC |
| 2015-2020 | Ad hoc referee, Lalor Foundation |
| 2018 | Ad hoc referee, Wellcome Trust, London, UK |

2019 Ad hoc referee, Medical Research Council, UK Research and Innovation, UK

Bibliography:

**Complete List of Published Work in MyBibliography:**
http://www.ncbi.nlm.nih.gov/sites/myncbi/carmen.williams.1/bibliograpahy/47925248/public/?sort=date&direction=ascending

**Peer-Reviewed Primary Publications**

1. Lakoski K, **Williams C**, Saling P. Proteins of the acrosomal region in mouse sperm: Immunological probes reveal post-testicular modifications. Gamete Res. 1989 May; 23(1): 21-37. PMID: 2545583.
2. **Williams CJ**, Schultz RM, Kopf GS. Role of G proteins in mouse egg activation: Stimulatory effects of acetylcholine on the ZP2 to ZP2f conversion and pronuclear formation in eggs expressing a functional m1 muscarinic receptor. Dev Biol. 1992 May; 151(1): 288-96. PMID: 1577193.
3. **Williams CJ**, Schultz RM, Kopf GS. G protein gene expression during mouse oocyte growth and maturation, and preimplantation development. Mol Reprod Dev. 1996 Jul; 44(3): 315-23. PMID: 8858601.
4. **Williams CJ**, Mehlmann LM, Jaffe LA, Kopf GS, Schultz RM. Evidence that Gq family G proteins do not function in mouse egg activation at fertilization. Dev Biol. 1998 Jun 1; 198(1): 116-27. PMID: 9640335.
5. McAvey BA, Wortzman GB, **Williams CJ**, Evans, JP. Involvement of calcium signaling and the actin cytoskeleton in the membrane block to polyspermy in mouse eggs. Biol Reprod. 2002 Oct; 67(4): 1342-52. PMID: 12297554.
6. Brown RL, Ord T, Moss SB, **Williams CJ**. A-kinase anchor proteins as potential regulators of protein kinase A function in oocytes. Biol Reprod. 2002 Sep; 67(3): 981-7. PMID: 12193411.
7. Xu Z, **Williams CJ**, Kopf GS, Schultz RM. Maturation-associated increase in IP3 receptor type 1: Role in conferring increased IP3 sensitivity and Ca2+ oscillatory behavior in mouse eggs. Dev Biol. 2003 Feb 15; 254(2): 163-71. PMID: 12591238.
8. Deng M, Kishikawa H, Yanagimachi R, Kopf GS, Schultz RM, **Williams CJ**. Chromatin-mediated cortical granule redistribution is responsible for the formation of the cortical granule-free domain in mouse eggs. Dev Biol. 2003 May; 257(1): 166-76. PMID: 12710965.
9. Brown RL, August SL, **Williams CJ***, Moss SB*. AKAP7 gamma is a nuclear RI-binding AKAP. Biochem Biophys Res Commun. 2003 Jun; 306(2): 394-401. PMID: 12804576. *equal contribution
10. Dayal MD, Wheeler J, **Williams CJ**, Barnhart KT. Disruption of the upper female reproductive tract epithelium by nonoxynol-9 (N-9). Contraception. 2003 Oct; 68(4): 273-9. PMID: 14572891.
11. Ecker DJ, Stein P, Xu Z, **Williams CJ**, Kopf GS, Bilker WB, Abel T, Schultz RM. Long-term effects of culture of preimplantation mouse embryos on behavior. Proc Natl Acad Sci U S A. 2004 Feb 10; 101(6): 1595-600. PMID: 14747652.

12. Tutuncu L, Stein P, Ord TS, Jorgez CJ, **Williams CJ**. Calreticulin on the mouse egg surface mediates transmembrane signaling linked to cell cycle resumption. Dev Biol. 2004 Jun 1; 270(1): 246-60. PMID: 15136153.
13. Travis AJ, Tutuncu L, Jorgez CJ, Ord T, Jones BH, Kopf GS, **Williams CJ**. Requirements for glucose beyond sperm capacitation during in vitro fertilization in the mouse. Biol Reprod. 2004 Jul; 71(1): 139-45. PMID: 14985248.
14. Deng M, **Williams CJ***, Schultz RM*. Role of MAP kinase and myosin light chain kinase in chromosome-induced development of mouse egg polarity. Dev Biol. 2005 Feb; 278(2): 358-66. PMID: 15680356. *equal contribution
15. Duncan FE, Moss SB, Schultz RM*, **Williams CJ***. PAR-3 defines a central subdomain of the cortical actin cap in mouse eggs. Dev Biol. 2005 Apr; 280(1): 38-47. PMID: 15766746. *equal contribution
16. Michaut MA, **Williams CJ***, Schultz RM*. Phosphorylated MARCKS: A novel centrosome component that also defines a peripheral subdomain of the cortical actin cap in mouse eggs. Dev Biol. 2005 Apr 1; 280(1): 26-37. PMID: 15766745. *equal contribution
17. Knott JG, Kurokawa M, Fissore RA, Schultz RM*, **Williams CJ***. Transgenic RNAi reveals role for mouse sperm phospholipase C zeta in triggering Ca2+ oscillations during fertilization. Biol Reprod. 2005 Apr; 72(4): 992-6. PMID: 15601914. *equal contribution
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