

# C U R R I C U L U M V I T A E

**John A. McLachlan**

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## V I T A L S T A T I S T I C S

### E D U C A T I O N

- 1965 **B.A.** The Johns Hopkins University
- 1971 **Ph.D.** (Pharmacology), George Washington University  
 Dissertation: The Transfer of Drugs into the Uterine Secretion  
 Advisor: Sergio Fabro, M.D., Ph.D.

### E M P L O Y M E N T

#### Bethesda, Maryland . . .

- 1966 - 1968 **Research Assistant**, Laboratory of Roy Hertz, M.D., Ph.D., National Institute of Child Health and Human Development, NIH
- 1971 - 1973 **Postdoctoral Research Fellow**, Pharmacology Research Associate Training Program, National Cancer Institute, NIH, Preceptor: David P. Rall, M.D., Ph.D.

#### Research Triangle Park, North Carolina . . .

- 1973 - 1976 **Research Associate**, Laboratory of Reproductive and Developmental Toxicology, National Institute of Environmental Health Sciences, NIH
- 1976 - 1994 **Head**, Developmental Endocrinology and Pharmacology Section, Laboratory of Reproductive and Developmental Toxicology, National Institute of Environmental Health Sciences, NIH
- 1983 - 1994 **Chief**, Laboratory of Reproductive and Developmental Toxicology, National Institute of Environmental Health Sciences, NIH
- 1988 - 1994 **Scientific Director**, National Institute of Environmental Health Sciences, NIH

#### New Orleans, Louisiana . . .

- 1995 - date **Professor**, Department of Pharmacology, Tulane University School of Medicine  
**Adjunct Professor**, Department of Pharmacology, School of Pharmacy, Xavier University
- 1995 - 2006 **Adjunct Professor**, Department of Environmental Health Sciences, School of Public Health and Tropical Medicine, Tulane University
- 1995 - 2012 **Director**, Center for Bioenvironmental Research at Tulane and Xavier Universities
- 1999 - date **Celia Scott Weatherhead and Albert J. Weatherhead III Distinguished Professor of Environmental Studies**, Tulane University
- 2008 - 2012 **Professor**, Department of Ecology and Evolutionary Biology, School of Science and Engineering, Tulane University
- 2012 - date **Adjunct Professor**, Department of Ecology and Evolutionary Biology, School of Science and Engineering, Tulane University

## M I L I T A R Y   S E R V I C E

1971 - 1994    **USPHS Commissioned Corps**, Retired with rank equivalent to Navy Captain

## S E L E C T E D   H O N O R S

1980    **Commendation Medal**, U. S. Public Health Service

1986    **Outstanding Service Medal**, U. S. Public Health Service

1994    **Director's Award**, National Institutes of Health

1997    **Selected member**, "Century Club: One of the One Hundred People to Watch as America Moves into the Next Millenium," Newsweek Magazine (April 21)

2000    **Hero of the Year Award**, Breast Cancer Fund (May 12)

2010    **Designated a Highly Cited Scientist** by the Thomson Reuters Institute of Science Information (one of only three faculty members at Tulane University to be so named.)

2013    **Distinguished Service**, Jackson State University, RCMI-Center for Environmental Health (June 12)

2014    **Homer N. Calver Award Lecturer**, chosen by the Environment Section of the American Public Health Association. The annual Calver Lecture is the flagship event of the APHA Environment Section, honoring a recognized national leader from the field of Environmental Health. (November 12)

## B O A R D S   A N D   C O M M I T T E E S

1986 - 1990    **Member**, Executive Committee, Section on Developmental Pharmacology, American Society for Pharmacology and Experimental Therapeutics

1990 - 2005    **Member**, Editorial Board, *Environmental Health Perspectives*

1995 - 1997    **Member**, Scientific Advisory Committee, Center for Environmental and Human Toxicology Superfund Basic Research Project, University of Florida, Gainesville, FL

1995 - 1999    **Member**, Board of Directors, W. Alton Jones Cell Science Center, Lake Placid, NY

**Member**, Scientific Advisory Board, Environmental Health Foundation, Tucson, AZ

1995 - 2007    **Member**, Board of Directors, Children's Environmental Health Network, Washington, D.C.

1996    **Chair**, Grant Review Committee for Veterans Administration Center on Reproductive and Developmental Toxicology, Washington, DC (October 30)

1996 - 1998    **Member**, Mayor's Environmental Advisory Committee, City of New Orleans, New Orleans, LA

1997 - 2007    **Member**, Science Advisory Committee, Registry for Research on Hormonal Transplacental Carcinogenesis, University of Chicago, Chicago, IL and National Cancer Institute

1998 - 2008    **Member**, Environment Green Planning Committee, Greater New Orleans Foundation, New Orleans, LA

1999 - 2002    **Member**, Senior Scientific Advisory Board, Environmental Health Initiative, Pacific Northwest National Laboratory, Department of Energy

**B O A R D S   A N D   C O M M I T T E E S                      (continued)**

- 1999 - 2006    Member**, Advisory Council, Louisiana Universities Marine Consortium, Cocodrie, LA
- 2000    Member**, International Review Panel, Center for Nutrition and Toxicology, Karolinska Institute, Stockholm SWEDEN (September 11 - 13)
- 2001 - 2013    Member**, Advisory Board, Center for Research on Minority Health, M.D. Anderson Cancer Center, Houston, TX
- 2002 - 2006    Member**, Riverfront Development Advisory Committee, City of New Orleans, New Orleans, LA
- 2002 - 2008    Member**, Advisory Board, Trust for Public Land, New Orleans Region, New Orleans, LA
- 2002 - 2009    Chair**, RiverSphere Planning Committee, New Orleans, LA
- 2007 - date    Member**, Advisory Committee, RCMI - Center for Environmental Health, Jackson State University, Jackson, MS
- 2012 - date    Associate Editor**, *Endocrine Disruptors*
- 2015    Invited External Reviewer** for the Department of Molecular and Environmental Endocrinology, National Institute of Basic Biology, Okazaki, JAPAN (December)
- 2015 - date    Member**, External Advisory Council, Program in Health Disparities Research: Environmental Health, Simulation Technology Pedagogy, and Health Policy, College of Nursing, Prairie View A&M University, Prairie View, TX

**P R O F E S S I O N A L   S O C I E T I E S**

- American Society for the Advancement of Science  
American Association for Cancer Research  
American Society of Pharmacology and Experimental Therapeutics  
Endocrine Society

## L E A D E R S H I P   E X P E R I E N C E

### Administration, Project Development and Fund Raising (Selected highlights)

#### N I E H S   (   1 9 7 2   -   1 9 9 5   )

- 1979**   Organized the first meeting ever held on environmental chemicals mimicking estrogens, **Estrogens in the Environment**, and co-organized subsequent meetings on this topic in 1985 and 1994, gathering scientists from a wide range of disciplines. These meetings helped define the interdisciplinary field of Endocrine Disruption. Research in this field is currently funded at close to \$250 million worldwide. I was a conceptual leader for intramural research at NIEHS in the area of estrogen biology and action, leading to breakthroughs in understanding mechanisms of estrogen induced neoplastic transformation and epigenetic change in development. NIEHS became a leader in estrogen-associated science.
- 1989**   Was appointed NIEHS Scientific Director, assuming responsibility for scientific and programmatic leadership of the Intramural Research Program as well as management of space, budget and human resources for 250 employees.
- 1992**   Organized and initiated the **Summers of Discovery Program** to bring students and faculty from local high schools and minority-serving colleges to NIEHS for summer research experiences (program is still active at NIEHS in 2016.) This began my long-term commitment to collaboration with minority-serving institutions.
- 1992 - 1993**   Led the team that conducted a major strategic reorganization of in-house research activities to refocus on translational research in environmental health and medicine. Three separate research divisions were reorganized into one Division of Intramural Research with almost 500 employees and a budget approaching \$100 million. The administrative structure has been retained and is functional to the present time (2016).

#### T U L A N E   U N I V E R S I T Y   (   1 9 9 5   -   D A T E   )

- 1995**   Was recruited to be Director of the Center for Bioenvironmental Research (CBR), an established partnership between Tulane University (a Carnegie I Research University) and Xavier University of Louisiana (an Historically Black University).
- From 1995 to 2011, the CBR membership grew to include faculty from the Tulane Schools of Architecture, Business, Law, Liberal Arts, Medicine, Public Health, and Science and Engineering as well as the Xavier University Schools of Liberal Arts and Sciences, and Pharmacy. Departments as disciplinarily diverse as Philosophy, English, Dance and Theater to Sociology, Psychology, Economics, Anthropology to Civil and Environmental, Biomedical and Chemical Engineering to Earth and Environmental Sciences, Ecology and Evolutionary Sciences, Cell and Molecular Biology, Chemistry and Mathematics to Urban Build and Green Build to Environmental Law and Policy to Medicine, Pathology, Pharmacology and Obstetrics and Gynecology to Environmental Health Sciences, Community Health and International Health, made up the rich intellectual resources of the Center.
- 1995 - 2011**   Helped organize and provide start-up funds for a variety of major interdisciplinary translational research programs including Environmental Lung Biology, Environmental Signals and Sensors, River/Coastal Studies, Arts and the Environment, and, most recently, Sustainable Urban Ecosystems. The process of creating each program included discussions with relevant faculty as well as meetings with the Deans of the Schools of Architecture, Business, Law, Liberal Arts, Medicine, Public Health, and Science and Engineering. Consultation with a Faculty Steering committee was also part of the process.

**1995 - 2011** Regularly met with donors and congressional delegation members, New Orleans City Council members and federal and state agency heads and staff on behalf of Tulane.  
**(continued)**

Regularly met with the President, Provost, Senior VP for Health Sciences, and six Deans at Tulane as well as the President and senior staff at Xavier to discuss strategies for CBR.

Worked with the CBR management team (Deputy Director, Administrative Officer, Information Officer, IT Head, Informatics Director, Associate Director for Research) to set priorities for fundraising, program development and oversight for the CBR (annual budget in the range of \$3-5 million; staff of eleven; 40 faculty members; approximately 100,000 square feet of space.)

**1996** Helped raise funds from the Shell Oil Foundation to design, construct and start up a 3800 square foot laboratory suite dedicated to technology development in the basic environmental sciences on the first floor of the JBJ Research Building. NIH, NASA and the VA funded the **Laboratory for Environmental Biotechnology**, which was a technology incubator for the Center.

**1997** Initiated the **Environment and Hormones website (e.hormone.tulane.edu)**, winning kudos from Science magazine and numerous other print and web sources. It continues today (2016) and is still a referenced site for research and communication related to endocrine disruption, a lab without walls in effect. The site is committed to communicating complex environmental issues to a wide audience of researchers, educators, students, policy makers and the public.

In addition to the e.hormone website the CBR maintained additional web sites ranging from RiverSphere ([www.riversphere.org](http://www.riversphere.org)) and the Katrina Environmental Research and Restoration Network ([www.kernn.org](http://www.kernn.org)) to Green Tulane ([green.tulane.edu](http://green.tulane.edu)), the portal to all environmental programs, studies, centers and activities at Tulane. (These last three are no longer active.)

Initiated a CBR supported **Distinguished Visiting Scholars Program**, providing office space and some administrative help to a variety of writers, artists and scientists, including John Barry, Robert Tannen, Lindsey Berkson and Paul Galand.

**1997 - 2011** Led the effort to plan, design and fund a major project, **The Mississippi River Center**, that became known as **RiverSphere**, to provide Tulane with a competitive advantage in visibility and funding as well as to create interdisciplinary space (essentially a Mississippi riverside campus for Tulane) in the following ways:

Met with faculty to discern how research on the Mississippi River would be a distinguishing and differentiating factor for Tulane; in addition, consulted outside experts.

Invested CBR funds into river research projects and faculty hires in Earth and Environmental Sciences and Ecology and Evolutionary Biology.

Raised funds from a private donor to purchase and rehabilitate a 60-foot research vessel renamed the RV Eugenie. The vessel was operated by the CBR for 7 years and provided an exceptional benefit to Tulane investigators and the 4 University Gulf States Consortium we led.

Developed the concept, with author John Barry (*Rising Tide: The Great Mississippi Flood of 1927 and How it Changed America*), that RiverSphere could be a research and learning center dedicated to the Mississippi River and the world's rivers, a place where art, science and technology met. It was envisioned as an international destination for research and policy about water.

**1997 - 2011** Identified and worked with a private donor to acquire 5 acres of land along the Mississippi River in New Orleans in a prime location (worth approximately \$10 million) and collaborated with a team of world-class architects, designers and engineers to plan RiverSphere as a LEEDS-certified Research and Learning Center.

(continued)

Was in the process of raising public and private funds totaling \$30 million to build the first phase of RiverSphere when the project was interrupted by hurricane Katrina.

Update (2016) on RiverSphere: Under the leadership of Dr. Michael Blum, current CBR Director, the Tulane River and Coastal Center will be dedicated on the site of the originally planned center on September 14, 2016. It will be a multidisciplinary research and learning center focusing on rivers, coasts and deltaic communities.

**1998** Initiated the **Tulane/Xavier Pipeline Project** to increase diversity in biological research. Promising students at Xavier and other minority-serving institutions were identified in their first two years of undergraduate study and recruited to this program. Through lab work experience, mentoring, and graduate preparation classes, students were directed towards the Molecular and Cell Biology PhD program at Tulane. In five years of the Pipeline program, PhD participants increased from 2% African-American to 22%. The first four graduates of the Pipeline program did postdoctoral fellowships at the National Institutes of Health.

**1999** Organized the first **Environmental Hormones Meeting (e.hormone)**, held at the CBR on the 20th anniversary of the first (1979) Estrogens in the Environment meeting. These annual meetings, funded by multiple federal sources, continued until 2010 (with a 2-year interruption following hurricane Katrina), and attracted the best researchers in endocrine and environmental signaling, endocrine disruption, ecology, population studies and policy. The meeting was attended each year by over 150 investigators from North America, Asia and Europe. For a decade, e.hormone was the defining meeting for considering future issues in endocrine disruption research and introduced new concepts and investigators to the field. Notes, proceedings, or concepts resulting from the meeting were often carried on the website, e.hormone. The programs and some presentations are still available in the historical section.

Helped raise funds to design and renovate, using green principles, an historically significant building (Alcee Fortier Hall) on the Tulane uptown campus to become the environmental hub of the university. The building provided state of the art classrooms for environmentally relevant classes, housed the undergraduate Environmental Club and the interdisciplinary major in Environmental Studies, the campus Environmental Coordination office, the Environmental Informatics lab as well as offices for some Center for Bioenvironmental Research staff. It became part of what was formally designated the Bioenvironmental Quadrangle comprising three buildings and a garden of native plants with a walkway patterned after the Mississippi River. The building was later repurposed for American Routes and Center for Public Service.

**2001** Helped organize the **Arts and Environment Project** to explore the interface between the arts and sciences as they relate to environmental issues. Collaborated with the Tulane Department of Dance and Theatre on Environmental Performances (e.g., a foundation-funded 7-site performance from the headwater of the Mississippi River to its mouth with a local presentation at the RiverSphere site, a nationally recognized event, covered by NPR.)

**2004** Facilitated the gift to Tulane of a seven-acre artist residency, called **A Studio in the Woods**, in a forest near New Orleans (valued at approximately \$1 million). Established in the 1980s by Lucianne and Joe Carmichael, this facility provides artists with a place to explore the interface between arts and the environment. The property's hardwood forest is also the site of an NSF-funded project on post storm recovery. Helped organize the funding and coordination between the Studio, the CBR and Tulane.

- 2004 continued** Now Tulane faculty and students as well as artists-in-residence can take advantage of this resource, unique in the US South. In 2015-2016, the Studio sponsored residencies with artists and science faculty called Flint and Steel to explicitly explore that interface. Current CBR leaders and the Studio's executive director recently published a paper investigating the role of art in communicating science (Trends in Ecology and Evolution 31: 657, 2016)
- 2005 - 2011** Wrote NSF grant, immediately post-Katrina (September 2005, funded in November 2005) to create the **Katrina Environmental Research and Restoration Network (KERRN.org)** to help coordinate research efforts in the region and place Tulane in a central position even though evacuated. KERRN.org was funded for two years and had over 300 members, including investigators from the US, Asia and Europe. It was an important factor in the environmental recovery after Katrina.
- A month after the storm, in October 2005, the CBR formed a relationship with the Holy Cross Neighborhood, located on the high ground portion of the Lower Ninth Ward of New Orleans where much of the flooding after hurricane Katrina occurred. Later, the lower ground of the Lower Ninth, where the worst of the flooding happened, was incorporated into the project. Working with the Neighborhood Associations, our team had to draw on its previous community experience, develop new skill sets and teach other researchers who became involved. These community based research skills and strategies were essential for our leadership role in developing and actually implementing sustainable community rebuilding. The neighborhood associations of the Lower Ninth Ward have voted to create a carbon neutral community (one of the first in the country.) With Mercy Corps we founded the **Lower Nine Center for Sustainable Engagement and Development (www.sustainthenine.org)** that is still active in recovery efforts in the Lower Ninth Ward of New Orleans. We also worked to coordinate national environmental groups and academic environmental centers to restore the urban coastline of New Orleans – Bayou Bienvenue. Much of the work in the Lower Ninth Ward was funded by foundations.
- 2009 - 2012** Developed an interdisciplinary approach, with social sciences, law and natural sciences to study the impact of natural disasters like hurricanes on urban ecosystems (the **Urban Ecosystem Project**). Was co-principal investigator with a Tulane Sociology faculty member on an NSF-funded grant, Reconsidering the New Normal: The Impact of Trauma on Urban Ecological and Social Diversity. This was a center planning grant that led to two additional major NSF grants on Urban Ecosystems under the leadership of Dr. Michael Blum, current Director of CBR. Tulane has developed the interdisciplinary construct of urban ecosystems, including social systems, as an important research niche.
- 2009 - 2015** In a continued commitment to diversity in research and collaboration with minority-serving institutions, obtained an NSF funded grant as co-principal investigator with a faculty member at Xavier University, entitled, **Enhancing Diversity in Environmental Biology** to use research based lab experiences and well trained mentors to provide the experience and training for carefully selected minority students from Tulane or Xavier Universities to help these students enroll in graduate programs related to environmental sciences. NSF administrators have said this is one of the most successful programs of this type they have funded.

## A C A D E M I C   A C T I V I T I E S

### T E A C H I N G

#### Preceptor for Doctoral Students . . .

**1995 - 1998   Bridgette Collins-Burow**

Dissertation: Phytoestrogens as Signaling Molecules in Human Breast Cancer Cells  
(defended August 1998)

Current position: Associate Professor, Department of Medicine, Tulane University School of Medicine,  
New Orleans, LA

**1995 - 1998   Peter Vonier**

Dissertation: Molecular Details of Estrogen Receptor Binding to Natural and Synthetic Estrogens  
(defended October 1998)

Current position: Owner and CRA consultant, Vonier Research Consulting, LLC, New Orleans, LA

**1998 - 2002   Jennifer Fox**

Dissertation: Molecular Signaling Between Plants and Bacteria (NSF Grantee)  
(defended March 2002)

Current position: Executive Director, Oregon Translational Research and Development Institute,  
Portland, OR

**1999 -2003   Daniel Frigo**

Dissertation: DDT Signaling Through Non-ER Molecular Transcriptional Sites  
(defended December 2003)

Current position: Assistant Professor, Department of Biology and Biochemistry, University of Houston,  
Houston, TX

**1999 - 2004   Bich Duong**

Dissertation: Estrogen Signaling in Cell Survival  
(defended March 2004)

Current position: Adjunct Faculty at Northwestern University School of Professional Studies, Chicago, IL

**1999 - 2006   Melvenia Martin**

Dissertation: Abnormal Expression of HMG Genes in Human Uterine Myometrial and Endometrial Cells  
(NCI Grantee)

(defended May 2006)

Current position: Assistant Professor, Department of Biological Sciences, Grambling State University,  
Monroe, LA

**2001 - 2005   Wei-Wei Huang**

Dissertation: Gene Network Imprinting During Development (NIGMS Grantee)  
(defended March 2005)

Tulane MD/PhD Program

Current position: Dermatologist, Mercy Hospital, St. Louis, MO

**2001 - 2007   Meredith Latino**

Dissertation: Hormones and Early Feline Embrogenesis

Joint appointment with the Audubon Center for Research on Endangered Species

(defended March 2007)

Current position: Clinical Research Scientist, Impact Pharmaceutical Services, Research Triangle Park, NC



## Preceptor for Doctoral Students . . .

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### 2002 - 2007 **Erica Simpson**

Dissertation: Rapid Cellular Signaling for Estrogenic Chemicals and Pharmaceuticals  
(defended March 2007)

Current position: Senior Lecturer, Department of Biology, Texas State University - San Marcos,  
San Marcos, TX

### 2003 - 2009 **Kirk Williams**

Co-directed with Dr. Tom Wiese, College of Pharmacy, Xavier University

Dissertation: Environmental Estrogen Sturcture Activity Relationships Computational Studies  
(NIGMS grantee)

(defended March 2009)

Current position: Computational Biologist, Genomics and Bioinformatics, Ft. Detrick, MD

### 2005 -2009 **Tung-Chin Chiang**

Dissertation: Epigenetic Imprinting of Genes by Estrogen

(defended March 2009)

Current position: Senior Associate Scientist, BioReliance, Rockville, MD

## Preceptor for Masters of Science in Pharmacology Students . . .

### 2004 - 2005 **Kim Smith**

Research Topic: Phytoestrogens as Natraceutical Products

### 2006 - 2007 **Lisa To**

Research topic: Diethylstilbestrol: a Key to Endocrine Disruption

## Preceptor for Tulane Undergraduate Honors Students . . .

### 1999 - 2000 **Marta Starcevic**

(on publications #161, #176)

Research topic: Analyzing effects of environmental estrogens on nitrogen-fixing symbiosis

Current position: (Ph.D. 2005, Human Genetics, UCLA); Principal Scientist at Amgen, Inc., Los Angeles, CA

### 2001 - 2002 **Katinka Vigh-Conrad**

(on publications #178, #186)

Research topic: DDT and signaling through AP-1

Current position: (Ph.D. 2009, Human Genetics, University of Chicago); Manager of Marketing and  
Communications, Pathology & Immunology, Washington University School of Medicine, St Louis, MO

### 2002 - 2003 **Renee Gardner**

Research topic: Plant compounds that have estrogenic potential

Current position: (Ph.D. 2009, Dept of Environmental Health Serivces, Bloomberg School of Public Health,  
The Johns Hopkins University); Postdoctoral Fellow, Karolinska Institutet, Stockholm, SWEDEN

### 2005 - 2006 **Arvind Pandey**

Research topic: Estrogenic activity of fungal products

Presenter: American Federation of Medical Research Meeting, Jan 2007, awarded prize for best

student presentation. Current position: (MD, 2010, Tulane University School of Medicine; Residency,  
Johns Hopkins Hospital; Research Fellowship, Vanderbilt); Internist in private practice, Baltimore, MD

## Preceptor for High School Students in Tulane Science Scholars Program . . .

### 2003 - 2004 **Mithun Kamath**

Research topic: Biology of the alligator gar fish

### **Preceptor for Clinical Fellows . . .**

**1983-1984 Donald Maier, M.D.**

Reproductive Endocrine Fellow, Division of Reproductive Endocrinology, Department of Obstetrics and Gynecology, Duke University. Project, Prenatal exposure to DES alters uterine response to estrogen, published in Endocrinology.

Current position, Chief, Division of Reproductive Endocrinology and Fertility, Department of Obstetrics and Gynecology, University of Connecticut Health Sciences Center, Farmington, CT

**1989-1990 David Walmer, M.D., Ph.D.**

Reproductive Endocrine Fellow, Division of Reproductive Endocrinology, Department of Obstetrics and Gynecology, Duke University. Project, Role of growth factors in uterine function published in Cancer Research.

Current position, Chief, Division of Reproductive Endocrinology and Intertility, Department of Obstetrics and Gynecology, Duke University Medical Center, Durham, NC.

**1993-1994 Mark Bidwell, M.D.**

Reproductive Endocrine Fellow, Division of Reproductive Endocrinology, Department of Obstetrics and Gynecology, Duke University. Project, PDGF and estrogen interaction in uterine function was published in Endocrinology.

Current position, Private Practice, Kettering Reproductive Medicine, Endocrinology and Infertility, Kettering, OH

### **Preceptor for Postdoctoral Fellows (since 1995) . . .**

**1996 - 1998 Ann Oliver Cheek, Ph.D.**

Research topic: Influence of environmental hormones on the reproduction and development of fish and frogs (laboratory and field)

Current position: Instructional Associate Professor of Biology & Biochemistry, University of Houston, Houston, TX

**1997 - 1998 Eva Oberdoester, Ph.D.**

Research topic: Ecdysone receptor, environmental hormones and invertebrate development (laboratory and field)

Current position: Lecturer, Department of Biology, Southern Methodist University, Dallas, TX

**1998 - 2000 Matthew Burow, Ph.D.**

Research topic: Cell signaling in estrogen-associated proliferation or differentiation

Current position: Associate Professor, Department of Medicine, Tulane University Medical School, New Orleans, LA

**1999 - 2002 Cynthia Gulledge, Ph.D.**

Research topic: Hormonally associated gene imprinting during neural development in song birds

Current position: Associate Professor, Department of Biology, University of Louisville, Louisville, KY

**2000 - 2002 Phillip Jones, Ph.D.**

Research topic: Chemical analysis of estrogenic compounds occurring in plants and other environmental systems

Current position: Assistant Professor, Department of Biology, Xavier University of Louisiana, New Orleans, LA

**2002 - 2005 Karla Johanning, Ph.D.**

Research topic: Molecular mechanisms of environmental estrogen action

Current position: Owner and consultant at K. Johanning Consultancy, Austin, TX

**Preceptor for Postdoctoral Fellows . . .****(continued)**

- 2005 Heather LaMarca Machado, Ph.D.**  
Research topic: Effect of Estrogen in stem cells  
Current position: Assistant Professor, Department of Biochemistry, Tulane University School of Medicine, New Orleans, LA
- 2007 - 2009 Erica Nierth-Simpson, Ph.D.**  
Research topic: Rapid Cellular Signaling by Estrogens and Xenoestrogens  
Current position: Senior Lecturer, Department of Biology, Texas State University - San Marcos, San Marcos, TX
- 2005 - 2009 Syreeta Tilghman, Ph.D.**  
Co-mentor, Dr. Matthew Burow. Research Topic: intracellular signaling and environmental hormones.  
Current position: Associate Professor, College of Pharmacy and Pharmaceutical Sciences, Florida A&M University, Tallahassee, FL
- 2007 - 2010 Melyssa Bratton, Ph.D.**  
Research Topic: Molecular actions of environmental estrogens and antiestrogens.  
Current Position: Research Assistant Professor and Molecular and Cellular Core Manager, Xavier University, New Orleans, LA
- 2008 - 2010 Chasity Coleman, Ph.D.**  
Research Topic: Effects of environmental estrogens on human uterine leiomyoma cells in culture.  
Current Position: Assistant Professor, Department of Biology, Palm Beach State College, Boca Raton, FL
- 2009 - 2010 Brandon Moore, Ph.D.**  
Research Topic: Reptilian Endocrine Signaling  
Current position: Assistant Professor, Biology Department, Sewanee, University, Sewanee, TN

**Preceptor for Junior Faculty Trainees . . .**

- 2009 - 2010 Thea Edwards, Ph.D.**  
Research Topic: Ecological Signals  
Current position: Research Assistant Professor and Fullbright Traveling Scholar, Biology Department, Sewanee University, Sewanee, TN
- 2010 - 2012 Melyssa Bratton, Ph.D.**  
Research topic: Signaling Mechanisms for Estrogens  
Current position: Research Assistant Professor and Molecular and Cellular Core Manager, Xavier University, New Orleans, LA

**Member of Graduate Student Committees . . .**

- 1995 - 1997 Kevin Lorick**, Department of Environmental Health Sciences, TUSPHTM
- 1996 - 1998 Stacey Ricci**, Department of Environmental Health Sciences, TUSPHTM
- 1996 - 1999 Shaun Armstrong**, Molecular and Cell Biology Program, Tulane University
- 1997 - 1999 Matthew Burow**, Molecular and Cell Biology Program, Tulane University
- 1997 - 2000 Carolyn Mattingly**, Department of Environmental Health Sciences, TUSPHTM
- 1997 - 1999 Emily Willingham**, Department of Zoology, University of Texas, Austin, TX

**Member of Graduate Student Committees . . .****(continued)**

- 1999 - 2003 **Jeannine Martinez**, Department of Ob/Gyn, MD Anderson Tumor Hospital, Houston, TX
- 1999 - 2003 **Shang Yi Tsai**, Molecular and Cell Biology Program, Tulane University
- 2001 - 2004 **Chun-Ting Lee**, Molecular and Cell Biology Program, Tulane University
- 2002 - 2004 **Heather LaMarca**, Molecular and Cell Biology Program, Tulane University
- 2004 - 2006 **Harris McFerrin**, Molecular and Cell Biology Program, Tulane University
- 2004 - 2006 **Janet Hess-Wilson**, Cell and Molecular Biology, University of Cincinnati
- 2005 - 2008 **Carla Zimmerman**, Pharmacology, Tulane University School of Medicine
- 2006 - 2009 **Lyndsay Vanhoy Rhodes**, Biomedical Sciences, Tulane University School of Medicine
- 2009 - 2014 **Elizabeth C. Martin**, Biomedical Sciences, Tulane University School of Medicine
- 2012 - 2016 **Latonya Jackson**, Biology, University of Louisiana at Lafayette, Lafayette, LA
- 2013 - 2015 **Courtney Standlee**, Biomedical Sciences, Tulane University School of Medicine
- 2013 - 2015 **Henry C. Segar**, Biomedical Sciences, Tulane University School of Medicine
- 2013 - 2014 **George Lasker**, Biomedical Sciences, Tulane University School of Medicine
- 2014 - date **Hope Burks**, Biomedical Sciences, Tulane University School of Medicine

**Sabbatical visitors . . .**

- 1995 - 1996 **Louis Guillette, Ph.D.** Distinguished Professor of Zoology, University of Florida, Gainesville, FL  
Research topic: Binding of environmental chemicals to the estrogen receptor and serum binding proteins in humans and alligators (laboratory and field)
- 1996 - 1997 **Charles Ide, Ph.D.** Associate Professor, Department of Cell and Molecular Biology, Tulane University  
Research topic: Effects of environmental chemicals on frog morphogenesis
- 2000 - 2001, 2015 **Paul Galand, Ph.D.** Professor, Institute of Biology, Free University of Brussels, Brussels, BELGIUM  
Research topic: Estrogen-related signaling pathways in cell proliferation

**Classes taught . . .**

- 1995 - present **Class lectures** for Departments of Pharmacology, Environmental Health Sciences, Biochemistry, Obstetrics and Gynecology, and Cell and Molecular Biology, Tulane University; Pharmacy and Environmental Studies, Xavier University.
- 1999 - 2005 **Course Director**, Class on Environmental Hormones, Tulane Science Scholars Program
- 2000 - 2012 **Course Co-Director**, Environmental and Endocrine Pharmacology, Department of Pharmacology, Tulane University School of Medicine
- 2001 - 2005 **Course Co-Director**, Integral Ecology, Philosophy-308, Tulane University

**Classes taught . . .****(continued)**

- 2002 - date **Lecturer**, Pharmacology of Gonadotropins and Sex Steroids, Medical Pharmacology, Tulane University School of Medicine
- 2004 - 2008 **Lecturer**, Mississippi River Basin Colloquium, Environmental Studies Program, Tulane University
- Lecturer**, TIDES course, New Orleans Six Feet Under, Tulane University Freshman Experience
- 2013 - date **Lecturer**, Medical Student Elective on Complementary and Alternative Medicine, Tulane University School of Medicine
- Course Co-Director**, Environmental Signaling in Medicine, Department of Pharmacology, Tulane University School of Medicine
- 2014 - 2015 **Lecturer**, Gynecologic Pharmacology, HEAL-X Curriculum for medical students who had a Ph.D.

**Academic appointments . . .**

- 1995 - 2006 **Member**, Molecular and Cell Biology Program, Tulane University (program ended)
- 1996 - 2006 **Member**, Graduate Faculty, Tulane University (program ended)
- 2006 - date **Member**, Biomedical Science Program, Tulane University School of Medicine

**S E R V I C E****Committee Memberships . . .**

- 1995 - 1996 **Member**, Search Committee, Dean of Tulane University School of Public Health and Tropical Medicine
- Member**, Strategic Planning Executive Committee, Tulane University Medical Center
- Member**, Tulane Cancer Center Executive Planning Committee and Co-chair, Program on Cancer Prevention and Intervention
- Member**, Planning Task Force on the Women's Health Center, Tulane University
- 1995 - 1997 **Member**, Tulane 2000 (University-wide strategic planning committee)
- 1995 - date **Member**, Tulane Cancer Center
- 1996 **Member**, Search Committee, Director, Center for Gene Therapy, Tulane University Medical Center
- 1996 - 1997 **Member**, Search Committee, Provost, Tulane University
- 1996 - 2009 **Member**, Faculty Steering Committee, Environmental Studies Program, Tulane University
- 1996 - 2010 **Member**, Basic Science Council, Tulane University Medical Center
- 1997 - 1999 **Member**, Provost's Planning Committee for Academic Excellence (Freshman Experience)
- 1997 - 1999 **Member**, Ad Hoc Task Force for the National Museum of the Mississippi River

**Committee Memberships . . .****(continued)**

- 1998 **Coordinator**, Molecular and Cell Biology Program 1998 Student-Faculty Retreat, Tulane University
- 1999 **Member**, Search Committee, Chair, Department of Epidemiology Tulane University School of Public Health and Tropical Medicine
- 1999 - 2002 **Member**, Chancellor's Council, Tulane University Medical Center
- 1999 - 2005 **Member**, President's Advisory Committee, Tulane University
- 1999 - 2006 **Member**, Strategic Planning Framework Committee, Tulane University
- 1999 - 2006 **Member**, Faculty Senate Subcommittee on the Coordinated Instrumentation Facility, Tulane University
- 1999 - 2009 **Member**, Tulane University/Xavier University Partnership Committee
- 2004 **Chair**, Planning Committee and Coordinator, Tulane Faculty Summit on the Environment
- 2005 - 2011 **Member**, Research Council, Tulane University
- 2006 - 2007 **Member**, Organizing Committee, Partnership for the Urban Community, Tulane University
- 2006 - 2009 **Member**, Executive Committee, School of Science and Engineering, Tulane University
- 2007 - 2009 **Member**, Environmental Planning Task Force, School of Science and Engineering, Tulane University
- 2007 - 2010 **Chair**, Tulane Climate Committee, Tulane University
- 2008 **Chair**, Environmental Science Subcommittee, Task Force to 300 Million, Tulane University
- 2009 - 2010 **Member**, Scientific Advisory Committee, New Orleans/Shanghai Ecopartnership Program, Tulane University
- 2009 - 2012 **Member**, Steering Committee, Disaster Resilience Leadership Academy, Tulane University
- Member**, Advisory Committee, Cowen Institute for Public Education, Tulane University
- 2012 - date **Member**, Department of Pharmacology Promotion and Tenure Committee, Tulane University
- 2015 - date **Chair**, Department of Pharmacology Promotion and Tenure Committee, Tulane University

**R E S E A R C H**

**Pharmacology, Developmental Biology and Toxicology, Environmental Endocrinology, and Hormonal and Transplacental Carcinogenesis:** My laboratory studies the mechanisms for induction and expression of estrogen-associated differentiation defects, including the development of hormone responsiveness, mechanisms of differentiation, and cell transformation by estrogens. We further study hormonally related environmental chemicals to understand their mechanisms of action. These studies are conducted at the population, organism, tissue, cell, and molecular levels. Our interests in phylogenetic similarities in response and naturally occurring estrogenic chemicals support research in the evolutionary aspect of signaling. Finally, overarching concepts of environmental signaling seek to bring understanding to diverse signals from the external and internal environments. At present, lab research is conducted as part of a collaboratory with colleagues and students from various labs and disciplines.

**Funding (Principal Investigator except where noted) . . .**

- 1995 **W. Alton Jones Foundation**, Estrogens in the Environment: Clarifying the Research and Educating  
\$80,000 the Public
- 1996 **National Institute of Environmental Health Sciences (NIEHS)**, Environmental Concepts Made Easy web  
\$22,000 site support
- 1996 **United States Department of Agriculture**, Cooperative Agreement with the Southern Regional  
\$350,000 Research Center (USDA): Phytoestrogens in Health and Disease
- 1996 - 1998 **W. Alton Jones Foundation**, Estrogens in the Environment: Clarifying the Research and Educating  
\$220,000 the Public
- 1996 - 1998 **National Science Foundation/LEQSF**, Molecular Modeling in Environmental Estrogen Action (Joint Faculty  
\$450,000 Appointment Program)
- 1996 - 1998 **Uniroyal Company**, Tulane/Xavier Student Exchange Program  
\$5,000
- 1996 - 1999 **Department of Defense**, Receptor-based Hazard Monitoring (DSWA 01 - 96 - 1 - 0004)  
\$3,000,000
- 1996 - 1999 **Department of Energy - Basic Science**, Environmental Analysis of Endocrine Disrupting Effects from Hy-  
\$620,000 drocarbon Contaminants in the Ecosystem
- 1996 - 2000 **Shell Oil Company Foundation**, Laboratory for Environmental Biotechnology (A Research and  
\$1,000,000 Teaching Facility).
- 1996 - 2002 **Greater New Orleans Foundation**, The Environment and Women's Health  
\$540,000
- 1997 **United States Department of Agriculture**, Cooperative Agreement with the Southern Regional  
\$350,000 Research Center (USDA): Phytoestrogens in Health and Disease
- 1997 - 2000 **Department of Defense**, Bioenvironmental Hazards Research Program (DSWA - 02 - 97 - 00)  
\$3,900,000
- 1997 - 2002 **United States Department of Agriculture**, Phytoestrogens in Health and Disease  
\$982,726
- 1998 **United States Department of Agriculture**, Cooperative Agreement with the Southern Regional  
\$350,000 Research Center (USDA): Phytoestrogens in Health and Disease
- 1998 - 2001 **Department of Defense, Defense Threat Reduction Agency**, Environmental Management -  
\$3,622,844 Bioenvironmental Hazards Research Program
- 1999 **United States Department of Agriculture**, Cooperative Agreement with the Southern Regional  
\$350,000 Research Center (USDA): Phytoestrogens in Health and Disease
- 1999 - 2001 **Coypu Foundation**, Mississippi River Research Project  
\$150,000

1999 - 2001 \$150,000	<b>Coypu Foundation</b> , Nuclear Receptors and the Biology of Introduced Species
1999 - 2002 \$7,491,000	<b>Department of Defense, Office of Naval Research</b> , Bioenvironmental Hazards Research Program
2000 \$350,000	<b>United States Department of Agriculture</b> , Cooperative Agreement with the Southern Regional Research Center (USDA): Phytoestrogens in Health and Disease
2000 - 2003 \$1,732,347	<b>Department of Health and Human Services</b> , Environmental Signals and Sensors - A Virtual Center for Disease Prevention in Humans and Ecosystems
2000 - 2003 \$2,472,096	<b>Department of Energy</b> , Is it Safe?: An Integrated Program in Support of the Long Term Stewardship of the DOE Complex
2001 \$30,000	<b>National Institutes of Health, Environmental Protection Agency, and the State of Louisiana</b> , <i>e.hormone</i> Workshop Support
2001 - 2003 \$364,500	<b>Coypu Foundation</b> , A Century of Environmental change (1950 - 2050): Learning from the Past, Shaping the Future
2002 - 2003 \$300,000	<b>Department of the Interior, United States Geological Survey</b> , Long Term Estuary Assessment Group: Nexus of Science in the Lower Mississippi river and Gulf of Mexico
2002 - 2003 \$953,500	<b>Department of the Navy, Office of Naval Research</b> , Integrated Bioenvironmental Hazards Research Program
2002 - 2003 \$1,110,000	<b>Department of Commerce, National Oceanic and Atmospheric Administration</b> , Long Term Estuary Assessment Group: Science in Service of Policy in the Mississippi River/Gulf of Mexico Estuary
2002 - 2004 \$90,000	<b>Louisiana Department of Wildlife and Fisheries, Environmental Protection Agency</b> , Louisiana State Management Plan for Aquatic Invasive Species
2003 \$265,500	<b>Coypu Foundation</b> , Invasive Species Initiative at the Center for Bioenvironmental Research
2003 - 2005 \$202,803	<b>Costa Rica-United States of America Foundation</b> , Environmental Pollution and its Impacts on Endocrine Systems of Marine Organisms
2003 - 2008 \$499,843	<b>National Science Foundation</b> , Environmental Signaling Network (#0234143)
2003 - 2008 \$1,000,000	<b>J Aron Charitable Foundation</b> , Challenges and Opportunities: Realizing the Potential of the RiverSphere at Tulane University
2002 - 2007 \$2,455,260	<b>United States Department of Agriculture</b> , Phytoestrogens in Development of Natural Products
2003 - 2005 \$2,024,982	<b>United States Department of Defense, Office of Naval Research</b> , Integrated Bioenvironmental Hazards Research Program



## Funding (P. I. except where noted) . . .

(continued)

2004 - 2005 \$542,983	<b>United States Department of Interior, United States Geological Survey,</b> Long-term Estuary Assessment Group (LEAG): Nexus of Science in the Lower Mississippi River and Gulf of Mexico Year III
2005 - 2006 \$1,027,983	<b>United States Department of Interior, United States Geological Survey,</b> Long-term Estuary Assessment Group (LEAG): Nexus of Science in the Lower Mississippi River and Gulf of Mexico Year IV
2005 \$127,837	<b>Coypu Foundation,</b> RiverSphere Project Studios: A Program of Mississippi River Art, Sciences, and Humanities
2005 - 2007 \$199,995	<b>National Science Foundation,</b> Katrina Environmental Research and Restoration Network (#0601934)
2006 \$134,897	<b>Coypu Foundation,</b> RiverSphere: Scientific Surveying of a New Riverine Place
2005 - 2006 \$1,010,827	<b>United States Department of Defense, Office of Naval Research,</b> Integrated Bioenvironmental Hazards Research Program (#N00014-05-1-0783)
2006 - 2007 \$365,000	<b>United States Department of Interior, United States Geological Survey,</b> The Mississippi River as a Supplier and Transformer of Inputs to Coastal Wetlands and Gulf of Mexico: A Long-Term Estuary Assessment Group (LEAG) Investigation Year V, (#06HQAG0134)
2006 - 2007 \$912,160	<b>United States Department of Commerce, National Oceanic and Atmospheric Administration,</b> The Mississippi River as a Recipient and Transformer of River Inputs: A Long-Term Estuary Assessment Group (LEAG) Investigation Year V, (#NA06NOS4260226)
2006 - 2010 \$4,329,205	<b>United States Department of Defense, Office of Naval Research,</b> Biosensors for Defense Applications Program (including Supplement: A Systems Approach to Assessing Exposure) (#N00014-06-1-1136)
2007 - 2008 \$426,930	<b>United States Department of Agriculture,</b> Phytoestrogens in Development of Natural Products
2007 - 2012 \$882,560	<b>United States Department of Agriculture,</b> Determine Isoflavonoid Induction in Legumes and their Phytoestrogenic Effects in Animal Systems. (Cooperative agreement #59-6435-7-188)
2008 - 2010 \$249,797	<b>US Department of Interior, US Geological Survey,</b> Ecology of the Mississippi River Deltaic Plain: A Long Term Estuary Assessment Group (LEAG) Investigation (G09AC00329)
2008 - 2013 \$1,714,094	<b>United States Department of Agriculture,</b> Phytoestrogenic Effects of Fungally Induced Isoflavonoids in Legumes. (Cooperative agreement #59-6435-8-317)
2009 - 2010 \$244,000	<b>US Department of Interior, US Geological Survey,</b> Lower Mississippi Deltaic Plain Environmental Observatory: A U.S. Geological Survey/Long-term Estuary Assessment Group(LEAG) Collaboration – Year VI (08HQAG0138)
2009 - 2011 \$1,988,200	<b>US Department of Defense, Office of Naval Research,</b> Biosensors for Defense Applications – Supplement: A Systems Approach to Assessing Exposure (#N00014-10-1-0270) ( <b>NCE 9/30/2012</b> )
2009 - 2012 \$299,551	<b>National Science Foundation,</b> Reconsidering the “New Normal”: The Impact of Trauma on Urban Ecological and Social Diversity (BCS0948993) (Co-P.I.)

**Funding (P. I. except where noted). . .**

(continued)

- 2009 - 2012**    **National Science Foundation**, Enhancing Diversity in Environmental Biology (DBI-0829238, Xavier University and DBI-0829236, Tulane University) (**NCE until December 31, 2015**)  
**\$901,120**
- 2010 - 2011**    **US Department of Defense, Office of Naval Research**, Biosensors for Defense Applications Program - Emerging Environmental Factors in Inflammatory and Cellular Stress Responses (#N00014-11-1-0177) (**NCE to 11/30/13**)  
**\$792,650**

**Endowments . . .**

- 1998**    **Weatherhead Foundation**, The Celia Scott Weatherhead and Albert J. Weatherhead III Distinguished Chair in Environmental Studies  
**\$1,500,000**
- 2004-2007**    **Weatherhead Foundation**, The Celia Scott Weatherhead Fund – CBR at Tulane University  
**\$3,704,850**
- 2005**    **J Aron Charitable Foundation**, Challenges and Opportunities: Realizing the Potential of the River-Sphere at Tulane University  
**\$500,000**

**Patents and Intellectual Property . . .**

- 2012**    U.S. Patent 8,323,706: **Antiestrogenic Glyceollins Suppress Breast and Ovarian Carcinoma Proliferation and Tumorigenesis**. Inventors: Cleveland, Thomas E., Boue, Stephen M., Burow, Matthew E. and McLachlan, John A. Submitted 4/29/2005; Approved 12/04/2012  
**Approved**
- 2009**    PCT/US2009/035803, filed 3/3/2009. **Methods For Synthesizing Glycinols, Glyceollins I and II, Compositions Of Selected Intermediates, And Therapeutic Uses Thereof**. Inventors: Erhardt, Paul W., Khupse, Rahul S., Sarver, Jeffrey G., Cleveland, Thomas E., Boue, Stephen M., Wiese, Thomas E., Burow, Matthew E. and McLachlan, John A.  
**Under review**

## Publications . . .

- 1 McLachlan, J. A., Sieber, S. M., Cowherd, C. M., Straw, J. A., and Fabro, S.: **The pH Values of the Uterine Secretions and Preimplantation Blastocyst of the Rabbit.** *Fertil. Steril.* 21: 84-87, 1970.
- 2 McLachlan, J. A., Newbold, R., and Bullock, B.: **Reproductive Tract Lesions in Male Mice Exposed Prenatally to Diethylstilbestrol.** *Science.* 190: 991-992, 1975
- 3 Shah, H. C. and McLachlan, J. A.: **The Fate of Diethylstilbestrol in the Pregnant Mouse.** *J. Pharmacol. Exp. Ther.* 197: 687-696, 1976.
- 4 McLachlan, J. A., Dames, N. M., Sieber, S. M., and Fabro, S.: **Accumulation of Nicotine in the Uterine Fluid of the Six Day Pregnant Rabbit.** *Fertil. Steril.* 27: 1204-1213, 1976.
- 5 McLachlan, J. A.: **Prenatal Exposure of Dethylstilbestrol in Mice: Toxicological Studies.** *J. Toxicol. Env. Health* 2: 527-537, 1977.
- 6 Metzler, M. and McLachlan, J. A.: **Oxidative Metabolites of Diethylstilbestrol in the Fetal, Neonatal, and Adult Mouse.** *Pharmacology.* 27: 1087-1094, 1978
- 7 Metzler, M. and McLachlan, J. A.: **Is Diethylstilbestrol Bioactivated by Peroxidase-mediated Oxidation?** *J. Environ. Pathol. Toxicol.* 1: 531-533, 1978.
- 8 Metzler, M. and McLachlan, J.A.: **Peroxidase-mediated Oxidation, a Possible Pathway for Metabolic Activation of Diethylstilbestrol.** *Biochem. Biophys. Res. Comm.* 85: 874-884, 1978.
- 9 McLachlan, J. A., Metzler, M., and Lamb, J. C. IV: **Possible Role of Peroxidase in the Diethylstilbestrol-induced Lesions of the Syrian Hamster Kidney.** *Life Sci.* 23: 2521-2524, 1978.
- 10 Korach, K. S., Metzler, M., and McLachlan, J. A.: **Estrogenic Activity *in Vivo* and *in Vitro* of Some Metabolites and Analogs of Diethylstilbestrol.** *Proc. Natl. Acad. Sci. USA* 75: 468-471, 1978
- 11 Luster, M. I., Faith, R. E., and McLachlan, J. A.: **Modulation of the Antibody Response Following *in Utero* Exposure to Diethylstilbestrol** *Bull. Environ. Contam. Toxicol.* 20: 433-437, 1978.
- 12 Lamb, J. C., IV, Stumpf, W. E., Newbold, R. R., and McLachlan, J. A.: **Transitional Changes in the Surface Epithelium of the Cycling Mouse Vagina, Cervix, and Uterus: Scanning Electron Microscopic Studies.** *Biol. Reprod.* 19: 701-711, 1978.
- 13 Metzler, M. and McLachlan, J. A.: **Proposed Nomenclature for Diethylstilbestrol Metabolites.** *J. Environ. Pathol. Toxicol.* 2: 579-582, 1978.
- 14 Luster, M. I., Faith, R. E., and McLachlan, J. A.: **Effect of *in Utero* Exposure to Diethylstilbestrol on the Immune Response in Mice.** *Toxicol. Appl. Pharmacol.* 47: 287-293, 1979.
- 15 Metzler, M. and McLachlan, J. A.: **Diethylstilbestrol Metabolic Transformation in Relation to Organ Specific Tumor Manifestation.** *Arch. Toxicol. Suppl.* 2: 275-280, 1979.
- 16 Tilson, H. A., Davis, G. J., McLachlan, J. A., Lucier, G. W.: **The Effects of Polychlorinated Biphenyls Given Prenatally on the Neurobehavioral Development of Mice.** *Environ. Res.* 18: 466-474, 1979.

- 17 Lamb, J. C. IV, Newbold, R. R., and McLachlan, J. A.: **Evaluation of the Transplacental Toxicity of Diethylstilbestrol with the Scanning Electron Microscope.** *J. Toxicol. Environ. Health* 5: 599-603, 1979.
- 18 McLachlan, J. A., Baucom, K., Korach, K. S., Levy, L., and Metzler, M.: **A Novel Fluorinated Derivative of Diethylstilbestrol.** *Steroids* 33: 543-547, 1979.
- 19 Korach, K. S., Metzler, M., and McLachlan, J. A.: **Diethylstilbestrol Metabolites and Analogs: New Probes for the Study of Hormone Action.** *J. Biol. Chem.* 254: 8963-8968, 1979.
- 20 Suzuki, Y., Lamb, J. C. IV, and McLachlan, J. A.: **Age-dependent Morphological Changes in the Seminal Colliculus in Male Mice: Light and Scanning Electron Microscopic Study.** *Anat. Embryol.* 158: 1-12, 1979.
- 21 McLachlan, J. A., Newbold, R. R., and Bullock, B. C.: **Long-term Effects on the Female Mouse Genital Tract Associated with Prenatal Exposure to Diethylstilbestrol.** *Cancer Res.* 40: 3988-3999, 1980.
- 22 Newbold, R. R., Carter, D. B., Harris, S. E., and McLachlan, J. A.: **Molecular Differentiation of the Mouse Genital Tract: Serum Free Organ Culture System for Morphological and Biochemical Correlations.** *In Vitro* 17: 51-54, 1981.
- 23 Barrett, J. C., Wong, A., and McLachlan, J. A.: **Diethylstilbestrol Induces Neoplastic Transformation without Measurable Gene Mutation at Two Loci.** *Science* 212: 1402-1404, 1981.
- 24 Lamb, J. C. IV, Newbold, R. R., and McLachlan, J. A.: **Visualization by Light and Scanning Electron Microscopy of Reproductive Tract Lesions in Female Mice Treated *in Utero* with Diethylstilbestrol.** *Cancer Res.* 41: 4057-4062, 1981.
- 25 McLachlan, J. A., Newbold, R. R., Shah, H. C., Hogan, M., and Dixon, R. L.: **Reduced Fertility in Female Mice Exposed Transplacentally to Diethylstilbestrol.** *Fertil. Steril.* 38: 364-371, 1982.
- 26 Newbold, R. R. and McLachlan, J. A.: **Vaginal Adenosis and Adenocarcinoma in Mice Transplacentally Exposed to Diethylstilbestrol.** *Cancer Res.* 42: 2003-2011, 1982.
- 27 Degen, G. H., Eling, T. E., and McLachlan, J. A.: **Oxidative Metabolism of Diethylstilbestrol by Prostaglandin Synthetase.** *Cancer Res.* 42: 919-923, 1982.
- 28 Carter, D. B., Newbold, R. R., Harris, S. E., and McLachlan, J. A.: **Molecular Differentiation of the Mouse Genital Tract: Protein Synthesis in the Fetal and Immature Reproductive Tract.** *Biol. Reprod.* 27: 201-209, 1982.
- 29 McLachlan, J. A., Wong, A., Degen, G. H., and Barrett, J. C.: **Morphologic and Neoplastic Transformation of Syrian Hamster Embryo Fibroblasts by Diethylstilbestrol and its Analogs.** *Cancer Res.* 42: 3040-3046, 1982.
- 30 Barrett, J. C., McLachlan, J. A., and Elmore, E.: **Inability of Diethylstilbestrol to Induce 6-thioguanine Resistant Mutants and to Inhibit Metabolic Cooperation of V-79 Chinese Hamster Cells.** *Mutat. Res.*
- 31 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Exposure to Diethylstilbestrol during Pregnancy Alters the Ovary and Oviduct.** *Biol. Reprod.* 28: 735-744, 1983.

- 32 Degen, G. H., Wong, A., Eling, T. E., Barrett, J. C., and McLachlan, J. A.: **Involvement of Prostaglandin Synthetase in the Peroxidative Metabolism of Diethylstilbestrol in Syrian Hamster Fibroblast Cell Cultures.** *Cancer Res.* 43: 992-996, 1983.
- 33 Maydl, R., Newbold, R. R., Metzler, M., and McLachlan, J. A.: **Diethylstilbestrol Metabolism by the Fetal Genital Tract.** *Endocrinology* 113: 146-151, 1983.
- 34 Newbold, R. R., Tyrey, S., Haney, A. F., and McLachlan, J. A.: **Developmentally Arrested Oviduct: a Structural and Functional Defect in Mice Following Prenatal Exposure to Diethylstilbestrol.** *Teratology* 27: 417-426, 1982.
- 35 Tsutsui, T., Maizumi, H., McLachlan, J. A., and Barrett, J. C.: **Aneuploidy Induction and Cell Transformation by Diethylstilbestrol: A Possible Chromosomal Mechanism in Carcinogenesis.** *Cancer Res.* 43: 3814-3822, 1983.
- 36 Liehr, J. G., Ballatore, A. M., McLachlan, J. A., and Sirbasku, D. A.: **Mechanism of DES Carcinogenicity as Studied with the Fluorinated Analog E-31,311,51511-Tetrafluorodiethylstilbestrol.** *Cancer Res.* 43: 2678-2683, 1983.
- 37 Degen, G. and McLachlan, J. A.: **Non-estrogenic Metabolites of Diethylstilbestrol Produced by Prostaglandin Synthetase Mediated Metabolism.** *Steroids* 42: 253-265, 1983.
- 38 Haney, A. F., Newbold, R. R., and McLachlan, J. A.: **Prenatal DES Exposure in the Mouse: Effects on Ovarian Histology and Steroidogenesis *in vitro*.** *Biol. Reprod.* 30: 471-478, 1984.
- 39 Fabro, S. McLachlan, J. A., and Dames, N. M.: **Chemical-Exposure of Embryos During the Preimplantation Stages of Pregnancy—Mortality Rate and Intrauterine Development (English).** *Am. J. Obstet. Gynecol.* 148: 929-938, 1984.
- 40 Newbold, R. R., Carter, D. B., Harris, S. E., and McLachlan, J. A.: **Molecular Differentiation of the Mouse Genital Tract: Altered Protein Synthesis Following Prenatal Exposure to Diethylstilbestrol.** *Biol. Reprod.* 30: 459-470, 1984
- 41 Tsutsui, T., Degen, G. H., Schiffmann, D., Wong, A., Maizumi, H., McLachlan, J. A., and Barrett, J. C.: **Dependence on Exogenous Metabolic Activation for Induction of Unscheduled DNA Synthesis in Syrian Hamster Embryo Cells by DES and Related Compounds.** *Cancer Res.* 44: 184-189, 1984.
- 42 Duax, W. L., Swenson, D. C., Strong, P. D., Korach, K. S., McLachlan, J. A., and Metzler, M.: **Molecular Structures of Metabolites and Analogues of Diethylstilbestrol and Their Relationship to Receptor Binding and Biological Activity.** *Mol. Pharmacol.* 26: 520-525, 1984.
- 43 Newbold, R. R., Suzuki, Y., and McLachlan, J.: **Mullerian duct Maintenance in Heterotypic Organ Culture after *in Vivo* Exposure to Diethylstilbestrol.** *Endocrinology* 115: 1863-1868, 1984.
- 44 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Animal Model of Human Disease: Diverticulosis and Salpingitis Isthmica Nodosa (SIN) of the Fallopian Tube: Estrogen-induced Diverticulosis and SIN of the Mouse Oviduct.** *Am. J. Pathol.* 117: 333-335, 1984.
- 45 Maydl, R., McLachlan, J. A., Newbold, R. R., and Metzler, M.: **Localization of Diethylstilbestrol Metabolites in the Mouse Genital Tract.** *Biochem. Pharmacol.* 34: 710-712, 1985.

- 46 Maier, D. B., Newbold, R. R., and McLachlan, J. A.: **Prenatal Diethylstilbestrol Exposure Alters Murine Uterine Responses to Prepubertal Estrogen Stimulation.** *Endocrinology* 116: 1878-1886, 1985.
- 47 Tomooka, Y., Harris, S. E., and McLachlan, J. A.: **Growth of Seminal Vesicle Epithelial Cells in Serum-free Collagen Gel culture.** *In Vitro* 21: 237-245, 1985.
- 48 Degen, G. H. and McLachlan, J. A.: **Peroxidase Mediated *in Vitro* Metabolism of Diethylstilbestrol and Structural Analogs with Different Biological Activities.** *Chem. Biol. Interact.* 54: 363-375, 1985.
- 49 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Lesions of the Rete Testis in Mice Exposed Prenatally to Diethylstilbestrol.** *Cancer Res.* 45: 5145-5150, 1985.
- 50 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Progressive Proliferative Changes in the Oviduct of Mice Following Developmental Exposure to Diethylstilbestrol.** *Teratog. Carcinog. Mutagen.* 5: 473-480, 1985.
- 51 Isenhower, W. D., Jr., Newbold, R. R., Cefalo, R. C., Korach, K. S., and McLachlan, J. A.: **Absence of Estrogenic Activity in Some Drugs Commonly Used during Pregnancy.** *Biol. Res. in Preg.* Z: 6-10, 1986.
- 52 Tomooka, Y., DiAugustine, R. P., and McLachlan, J. A.: **Proliferation of Mouse Uterine Epithelial Cells *in Vitro*.** *Endocrinology* 118: 1011-1018, 1986.
- 53 Hey, M. M., Haaf, H., McLachlan, J. A., and Metzler, M.: **Indirect Evidence for the Metabolic Dehalogenation of Tetrafluorodiethylstilbestrol by Rat and Hamster Liver and Kidney Microsomes: Species-and Organ-dependent Differences.** *Biochem. Pharmacol.* 35: 2135-2139, 1986.
- 54 Haney, A. F., Newbold, R. R., Fetter, B. F., and McLachlan, J. A.: **Paraovarian Cysts Associated with Prenatal Diethylstilbestrol Exposure: Comparison of the Human with a Mouse Model.** *Am. J. Pathol.* 124: 405-411, 1986.
- 55 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Animal Model for Human Disease: Adenocarcinoma of the Rete Testis: Diethylstilbestrol Induced Lesions of the Mouse Rete Testis.** *Am. J. Pathol.* 125: 625-628, 1986.
- 56 Tsutsui, T., Suzuki, H., Maizumi, H., McLachlan, J. A., and Barrett, J. C.: **Alteration in Diethylstilbestrol-induced Mutagenicity and Cell Transformation by Exogenous Metabolic Activation.** *Carcinogenesis* Z: 1415-1418, 1986.
- 57 Teng, C. T., Walker, M. P., Bhattacharyya, S. N., Klapper, D. G., DiAugustine, R. P., and McLachlan, J. A.: **Purification and Properties of an Estrogen-stimulated Mouse Uterine Glycoprotein (approx. 70 kDa).** *Biochem. J.* 240: 413-422, 1986.
- 58 Degen, G. H., McLachlan, J. A., Eling, T. F., and Sivarajah, K.: **Cooxidation of Steroidal and Non-steroidal Estrogens by Purified Prostaglandin Synthase: a Possible Mechanism for Hormonal Stimulation of Prostaglandin Formation.** *J. Steroid Biochem.* 26: 679-685, 1987.
- 59 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Müllerian Remnants of Male Mice Exposed Prenatally to Diethylstilbestrol.** *Teratog. Carcinog. Mutagen.* Z: 377-389, 1987.

- 60 Bern, H. A., Cunha, G. R., and McLachlan, J. A.: **Diethylstilbestrol and Clear Cell Vaginal Carcinoma. [Letter to the Editor].** Am. J. Med. 83: 372, 1987.
- 61 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Testicular Tumors in Mice Exposed *in utero* to Diethylstilbestrol.** J. Urol. 138: 1446-1450, 1987.
- 62 Tsutsui, T., Suzuki, N., Fukada, S., Sato, M., McLachlan, J. A., and Barrett, J. C.: **170-Estradiol-induced Cell Transformation and Aneuploidy of Syrian Hamster Embryo Cells in Culture.** Carcinogenesis 8: 1715-1719, 1987.
- 63 Chen, Y. H., Pentecost, B. T., McLachlan, J. A., and Teng, C. T.: **The Androgen-dependent Mouse Seminal Vesicle Secretory protein IV: Characterization and CDNA Cloning.** Mol. Endocrinol. 1: 707-716, 1987.
- 64 Teng, C. T., DiAugustine, R. P., Pentecost, B. T., and McLachlan, J. A.: **Isolation Characterization and Molecular Cloning of an Estrogen Responsive Gene from Mouse Uterus.** Environ. Health Perspect. 75: 137-138, 1987.
- 65 Bunyagidj, C. and McLachlan, J. A.: **Determination of Estradiol 2 and 4-hydroxylase Activities in Mouse Liver Microsomes by Liquid Chromatography/Electrochemistry.** J. Chromatographic Science 26: 24-28, 1988.
- 66 DiAugustine, R. P., Petrusz, P., Bell, G. I., Brown, C. F., Korach, K. S., McLachlan, J. A., and Teng, C. T.: **Influence of Estrogens on Mouse Uterine Epidermal Growth Factor Precursor Protein and MRNA.** Endocrinology 122: 2355-2363, 1988.
- 67 Korach, K. S., Sarver, P., Chae, K., McLachlan, J. A., and McKinney, J. D.: **Estrogen Receptor Binding Activity of Polychlorinated Hydroxybiphenyls: Conformationally Restricted Structural Probes.** Mol. Pharmacol. 33: 120-126, 1988.
- 68 Korach, K. S., Horigome, T., Tomooka, Y., Yamashita, S., Newbold, R. R., and McLachlan, J. A.: **Immunodetection of Estrogen Receptor in Epithelial and Stromal Tissues of the Neonatal Mouse Uterus.** Proc. Natl. Acad. Sci. USA 85: 3334-3337, 1988.
- 69 Bunyagidj, C. and McLachlan, J. A.: **Catechol Estrogen Formation in Mouse Uterus.** J. Steroid Biochem. 31: 795-801, 1988.
- 70 Pentecost, B. T., Newbold, R. R., Teng, C. T., and McLachlan, J. A.: **Prenatal Exposure of Male Mice to Diethylstilbestrol Alters the Expression of the Lactotransferrin Gene in Seminal Vesicles.** Mol. Endocrinol. 2: 1243-1248, 1988.
- 71 Teng, C. T., Pentecost, B. T., Chen, Y. H., Newbold, R. R., Eddy, E. M., and McLachlan, J. A.: **Lactotransferrin Gene Expression in the Mouse Uterus and Mammary Gland.** Endocrinology 124: 992-999, 1989.
- 72 Ozawa, N., Oshimura, M., McLachlan, J. A., and Barrett, J. C.: **Nonrandom Karyotypic Changes in Immortal and Tumorigenic Syrian Hamster Cells Induced by Diethylstilbestrol.** Cancer Genet. Cytogenet. 38: 271-282, 1989.

- 73 Newbold, R. R., Pentecost, B. T., Yamashita, S., Lum, K., Miller, J. V., Nelson, P., Blair, J., Kong, H., Teng, C. T., and McLachlan, J. A.: **Female Gene Expression in the Seminal Vesicle of Mice Following Prenatal Exposure to Diethylstilbestrol.** *Endocrinology* 124: 2568 - 2576, 1989.
- 74 Yamashita, S., Newbold, R. R., McLachlan, J. A., and Korach, K. S.: **Developmental Pattern of Estrogen Receptor Expression in Female Mouse Genital Tracts.** *Endocrinology* 125: 2888-2896, 1989.
- 75 McKinney, J. D., Korach, K. S., and McLachlan, J. A.: **Detoxification of Polychlorinated Biphenyls.** *Lancet* 3: 222-223, 1990.
- 76 Tomooka, Y., Edery, M., Mills, K. T., Bern, H. A., and McLachlan, J. A.: **Effects of Androgen on Mouse Seminal Vesicle Epithelial Cells in Serum-free Culture.** *Zool. Sci.* 7: 731-738, 1990.
- 77 Santti, R., Pylkkanen, L., Newbold, R., and McLachlan, J. A.: **Developmental Oestrogenization and Prostatic Neoplasia.** *Int. J. Androl.* 13: 77-80, 1990.
- 78 Yamashita, S., Newbold, R. R., McLachlan, J. A., and Korach, K. S.: **The Role of the Estrogen Receptor in Uterine Epithelial Proliferation and Cytodifferentiation in Neonatal Mice.** *Endocrinology* 127: 2456-2463, 1990.
- 79 Bossert, N. L., Nelson, K. G., Ross, K. A., Takahashi, T., and McLachlan, J. A.: **Epidermal Growth Factor Binding and Receptor Distribution in the Mouse Reproductive Tract during Development.** *Dev. Biol.* 142: 75-85, 1990.
- 80 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Uterine Adenocarcinoma in Mice Following Developmental Treatment with Estrogens: A Model for Hormonal Carcinogenesis.** *Cancer Res.* 50: 7677-7681, 1990.
- 81 Nelson, K. G., Takahashi, T., Bossert, N. L., Walmer, D. K., and McLachlan, J. A.: **Epidermal Growth Factor Replaces Estrogen in the Stimulation of Female Genital-tract Growth and Differentiation.** *Proc. Natl. Acad. Sci. USA* 88: 21-25, 1991.
- 82 Santti, R., Newbold, R. R., and McLachlan, J. A.: **Androgen Metabolism in Control and Neonatally Estrogenized Male Mice.** *Reprod. Toxicol.* 5: 149-155, 1991.
- 83 Jellinck, P. H., Newbold, R. R., and McLachlan, J. A.: **Characteristics of Estrogen-induced Peroxidase in Mouse Uterine Luminal Fluid.** *Steroids* 56: 162-167, 1991.
- 84 Pylkkanen, L., Santti, R., Newbold, R. R., and McLachlan, J. A.: **Regional Differences in the Prostate of the Neonatally Estrogenized Mouse.** *The Prostate* 18: 117-129, 1991
- 85 Ignar-Trowbridge, D. M., Nelson, K. G., Ross, K. A., Washburn, T. F., Korach, K. S., and McLachlan, J. A.: **Localization of the Estrogen Receptor in Uterine Cells by Affinity Labeling with [3] Tamoxifen Aziridine.** *J. Steroid Biochem. Mol. Biol.* 39: 131-132, 1991.
- 86 Fukamachi, H. and McLachlan, J. A.: **Proliferation and Differentiation of Mouse Uterine Epithelial Cells in Primary Serum-free Culture: Estradiol 17 $\beta$  Suppresses Uterine Epithelial Proliferation Cultured on Basement Membrane-like Substratum.** *In Vitro Cell. Dev. Biol.* 27A: 907-913, 1991.



- 87 Ignar-Trowbridge, D. M., Hughes, A. R., Putney, J. W., Jr., McLachlan, J. A., and Korach, K. S.: **Diethylstilbestrol Stimulates Persistent Phosphatidylinositol Lipid Turnover by an Estrogen Receptor-mediated Mechanism in Immature Mouse Uterus.** *Endocrinology* 129: 2423-2430, 1991.
- 88 Migliaccio, S., Newbold, R., Bullock, B., McLachlan, J. A., and Korach, K. S.: **Developmental Exposure to Estrogens Induces Persistent Changes in Skeletal Tissue.** *Endocrinology* 130: 1756-1758, 1992.
- 89 Ignar-Trowbridge, D. M., Nelson, K. G., Bidwell, M. C., Curtis, S. W., Washburn, T. R., McLachlan, J. A., and Korach, K. S.: **Coupling of Dual Signaling Pathways: Epidermal Growth Factor Action Involves the Estrogen Receptor.** *Proc. Natl. Acad. Sci.* 89: 4658-4662, 1992.
- 90 Newbold, R. R., Jellinck, P. H., Metzler, M., and McLachlan, J. A.: **Ontogeny of Peroxidase Activity in Epithelium and Eosinophils of the Mouse Uterus.** *Teratog. Carcinog. Mutagen.* 11: 267-278, 1992.
- 91 Hebert, C. D., Endo, S., Korach, K. S., Boyd, J., Barrett, J. C., McLachlan, J. A., and Newbold, R. R.: **Characterization of Murine Cell Lines from Diethylstilbestrol-induced Uterine Endometrial Adenocarcinomas.** *In Vitro Cell. Dev. Biol.* 28A: 327-336, 1992.
- 92 Ignar-Trowbridge, D., Risinger, J. I., Dent, G. A., Kohler, M., Berchuck, A., McLachlan, J. A., and Boyd, J.: **Mutations of the Ki-ras Oncogene in Endometrial Carcinoma.** *Am. J. Obstet. Gynecol.* 167: 227-232, 1992.
- 93 Risinger, J. I., Dent, G. A., Ignar-Trowbridge, D., McLachlan, J. A., Tsao, M-S., Senterman, M., and Boyd, J.: **p53 Gene Mutations in Human Endometrial Carcinoma.** *Mol. Carcinog.* 5: 250-256, 1992.
- 94 Newbold, R. R., Teng, C. T., Beckman, W. C., Jr., Jefferson, W. N., Hanson, R. B., Miller, J. V., and McLachlan, J. A.: **Fluctuations of Lactoferrin Protein and mRNA in the Reproductive Tract of the Mouse during the Estrous Cycle.** *Biol. Reprod.* 47: 903-915, 1992.
- 95 Nelson, K. G., Takahashi, T., Lee, D. C., Luetkeke, N. C., Bossert, N. L., Ross, K., Eitzman, B. E., and McLachlan, J. A.: **TGF $\alpha$  is a Potential Mediator of Estrogen Action in the Mouse Uterus.** *Endocrinology* 131: 1657-1664, 1992.
- 96 Ignar-Trowbridge, D. M., Teng, C. T., Ross, K. A., Parker, M. G., Korach, K. S., and McLachlan, J. A.: **Peptide Growth Factors Elicit Estrogen Receptor-dependent Transcriptional Activation of an Estrogen-responsive Element.** *Mol. Endocrinol.* 7: 992-998, 1993.
- 97 McLachlan, J. A.: **Functional Toxicology: A New Approach to Detect Biologically Active Xenobiotics.** *Environ. Health. Perspect. Vol* 101: 386-386, 1993.
- 98 Beckman, W. C., Jr., Newbold, R. R., Teng, C. T., and McLachlan, J. A.: **Molecular Feminization of Mouse Seminal Vesicle by Prenatal Exposure to Diethylstilbestrol: Altered Expression of Messenger RNA.** *J. Urol.* 151: 1370-1378, 1994.
- 99 Santti, R., Newbold, R. R., Makela, S., Pylkkanen, L., and McLachlan, J. A.: **Developmental Estrogenization and Prostatic Neoplasia.** *The Prostate* 24: 67-78, 1994.

- 100 Endo, S., Kodama, S., Newbold, R. R., McLachlan, J. A., and Barrett, J. C.: **Cytogenetic Analysis of Murine Cell Lines from Diethylstilbestrol-induced Uterine Endometrial Adenocarcinomas.** *Cancer Genet. Cytogenet.* 74: 99-103, 1994.
- 101 Sakai, Y., Nelson, K., Snedeker, S., Bossert, N., Walker, M., McLachlan, J., and DiAugustine, R.: **Expression of Epidermal Growth Factor in Suprabasal Cells of Stratified Squamous Epithelia, Implications for a Regulatory Role in Differentiation.** *Cell Growth Differ.* 5: 527-535, 1994.
- 102 Nelson, K. G., Sakai, Y., Eitzman, B., Steed, T., and McLachlan, J.: **Exposure to Diethylstilbestrol during a Critical Developmental Period in the Mouse Reproductive Tract Leads to Persistent Induction of Two Estrogen-regulated Genes.** *Cell Growth Differ.* 5: 595-606, 1994.
- 103 Takahashi, T., Eitzman, B., Bossert, N. L., Walmer, D., Sparrow, K., Flanders, K. C., McLachlan, J. A., and Nelson, K. G.: **Transforming Growth Factors  $\beta$ 1,  $\beta$ 2, and  $\beta$ 3 Messenger RNA and Protein Expression in Mouse Uterus and Vagina during Estrogen-induced Growth: A Comparison to Other Estrogen-Regulated Genes.** *Cell Growth Differ.* 5: 919-935, 1994
- 104 Bergeron, J. M., Crews, D., and McLachlan, J. A.: **PCBs as Environmental Estrogens: Turtle Sex Determination as a Biomarker of Environmental Contamination.** *Environ. Health Perspect.* 102: 780-781, 1994.
- 105 Gray, K., Eitzman, B., Raszmann, K., Steed, T., Geboff, A., McLachlan, J. A., and Bidwell, M.: **Coordinate Regulation by Diethylstilbestrol of the PDGF-A & -B Chains and the PDGF Receptor- $\alpha$  & - $\beta$  Subunits in the Mouse Uterus and Vagina: Potential Mediators of Estrogen Action.** *Endocrinology* 136: 2325-2340, 1995.
- 106 Walmer, DK, Padin, C.J., Wrona, M.A., Healy, B.E., Bentley, R.C., Tsao, M-S., Kohler, M.F., McLachlan, J.A., and Gray, K.D.: **Malignant Transformation of the Human Endometrium is Associated with Overexpression of Lactoferrin mRNA and Protein.** *Cancer Res.* 55: 1168-1175, 1995.
- 107 Bidwell, M. C., Eitzman, B. A., Walmer, D. K., McLachlan, J. A., and Gray, K. D.: **Characterization of the Platelet-derived Growth Factor Signaling Pathway in the Placenta, Extraembryonic Membranes, and Uterus during the Latter Half of Murine Gestation: Potential Interface with Fundamental Processes during Development.** *Endocrinology.* Vol 136, 1995.
- 108 Baird, D. D., Umbach, D. M., Lansdell, L., Hughes, C. L., Setchell, K. D. R., Weinberg, C. R., Haney, A. F., Wilcox, A. J., and McLachlan, J. A.: **Dietary intervention Study to Assess Estrogenicity of Dietary Soy Among Postmenopausal Women.** *J. Clin. Endocrinol. Metab.* 80: 1685-1690, 1995.
- 109 Song, W-C., McLachlan, J. A., and Negishi, M.: **Molecular Characterization of a Testis-specific Estrogen Sulfotransferase and Abberant Liver Expression in Obese and Diabetogenic Mice.** *Endocrinology* 136: 2477-2484, 1995.
- 110 Boyd, J., Takahashi, H., Waggoner, S. E., Jones, L. A., Hajek, R. A., Wharton, J. T., Liu, F., Fujino, T., Barrett, J. C., and McLachlan, J. A.: **Molecular Genetic Analysis of Diethylstilbestrol-associated Clear Cell Adenocarcinomas of the Vagina and Cervix.** *Cancer* 77: 507-513, 1996.
- 111 Song, W-C., Deng, C., Raszmann, K., Moore, R., Newbold, R. R., McLachlan, J. A., and Negishi, M.: **Mouse Decay Acceleration Factor: Selective and Tissue-specific Induction by Estrogen of the Gene Encoding the Glycosylphosphatidlinositol-anchored Form.** *J. Immunol.* 157: 4166-4172, 1996.

- 112 Shigeta, H., Newbold, R. R., McLachlan, J. A., and Teng, C. T.: **Estrogenic Effect on the Expression of Estrogen Receptor, COUP-TF and Lactoferrin mRNA in Developing Mouse Tissues.** *Mol. Reprod. Dev.* 45: 21-30, 1996.
- 113 Ignar-Trowbridge, D. M., Pimental, M., Parker, M. G., McLachlan, J. A., and Korach, K.S.: **Peptide Growth Factor Cross-talk with the Estrogen Receptor Requires the A/B Domain and Occurs Independently of Protein Kinase C or Estradiol.** *Mol. Endocrinol.* 137: 1735-1744, 1996.
- 114 Arnold, S. F., Robinson, M. K., Notides, A. C., Guillette, L. J. Jr. and McLachlan, J. A.: **A Yeast Estrogen Screen for Examining the Relative Exposure of Cells to Natural and Xenoestrogens.** *Environ. Health Perspect.* 104: 544-548, 1996.
- 115 Arnold, S. F., Klotz, D. M., Voiner, P., Guillette, L. J., Jr., and McLachlan, J. A.: **Synergistic Activation of Estrogen Receptor with Combinations of Environmental Chemicals.** *Science* 272: 1489-1492, 1996. (withdrawn, July 25, 1997)
- 116 McLachlan, J. A.: **Activation of Estrogen Receptors-Response.** *Science*, 274: 1285-1296, 1996.
- 117 Klotz, D. M., Beckman, B. S., Hill, S. M., McLachlan, J. A., Walters, M. R., and Arnold, S. F.: **Identification of Environmental Chemicals with Estrogenic Activity Using an Estrogen Screening Procedure.** *Environ. Health Perspect.* 104: 1084-1089, 1996.
- 118 Arnold, S. F., Collins, B. M., Robinson, M. K., Guillette, L. J., Jr., and McLachlan, J. A.: **Differential Interaction of Natural and Synthetic Estrogens with Extracellular Binding Proteins in a Yeast Estrogen Screen.** *Steroids* 61: 624-646, 1996.
- 119 Vonier, P. M., Crain, A. D., Guillette, L. J., Jr., McLachlan, J. A., and Arnold, S. F.: **Interaction of Environmental Chemicals with the Estrogen and Progesterone Receptors from the American Alligator.** *Environ. Health Perspect.* 104: 1318-1322, 1996.
- 120 Tran, D. Q., Kow, K. Y., McLachlan, J. A., and Arnold, S. F.: **The Inhibition of Estrogen Receptor Receptor-mediated Responses by Chloro-S-triazine-derived Compounds is Dependent on Estradiol Concentration in Yeast.** *Biochem. Biophys. Res. Comm.* 227: 140-146, 1996.
- 121 Gray, K., Bullock, B., Dickson, R., Raszmann, K., Walmer, D., McLachlan, J. A., and Merlino, G.: **TGF $\alpha$  Transgene Expression Potentiates Diethylstilbestrol-induced Alterations in the Female Mouse Reproductive Tract.** *Mole. Carcinogenesis.* 17: 163-173, 1996.
- 122 Hayashi, N., Hasegawa, K., Komine, A., Tanaka, Y., McLachlan, J. A., Barrett, J. C., and Tsutsui, T.: **Estrogen-Induced Cell Transformation and DNA Adduct Formation in Cultured Syrian Hamster Embryo.** *Cells. Mol. Carcinog.* 16: 149-156, 1996.
- 123 Tran, D. Q., Ide, D. F., McLachlan, J. A., and Arnold, S. F.: **The Anti-estrogenic Activity of Selected Polynuclear Aromatic Hydrocarbons in Yeast Expressing Human Estrogen Receptor.** *Biochem. Biophys. Res. Comm.* 229: 102-108, 1996.
- 124 Tran, D. Q., Klotz, D. M., Ladlie, B. L., Ide, C. F., McLachlan, J. A., and Arnold, S. F.: **Inhibition of Progesterone Receptor Activity in Yeast by Synthetic Chemicals.** *Biochem. Biophys. Res. Comm.* 229: 518-523, 1996.

- 125 Hanssard, L. J., Healy-Gardner, B. E., Drapkin, A. T., Bentley, R. C., McLachlan, J. A., and Walmer, D. K.: **Human Endometrial Transforming Growth Factor-Alpha: A Transmembrane, Surface Epithelial Protein That Transiently Disappears During the Midsecretory Phase of the Menstrual Cycle.** J. Soc. Gynecol. Invest. 4: 160-166, 1997.
- 126 Vonier, P. M., Guillette, L. J., Jr., McLachlan, J. A., and Arnold, S. F.: **Identification and Characterization of Estrogen and Progesterone Receptors from the Oviduct of the American Alligator (*Alligator mississippiensis*)** Biochem. Biophys. Res. Comm. 232: 308-312, 1997.
- 127 Couse, J. F., Davis, V. L., Hanson, R. B., Jefferson, W. N., McLachlan, J. A., Bullock, B. C., Newbold, R. R., and Korach, K. S.: **Accelerated Onset of Uterine Tumors in Transgenic Mice with Aberrant Expression of the Estrogen Receptor after Neonatal Exposure to Diethylstilbestrol.** Mol. Carcinog. 19: 236-242, 1997.
- 128 Collins, B. M., McLachlan, J. A., and Arnold, S. F.: **The Estrogenic and Antiestrogenic Activities of Phytochemicals with the Human Estrogen Receptor Expressed in Yeast.** Steroids 62: 1-7, 1997.
- 129 Arnold, S. F., Vonier, P. M., Collins, B. M., Klotz, D. M., Guillette, L. J., Jr., and McLachlan, J. A.: ***In Vitro* Synergistic Interaction of Alligator and Human Estrogen Receptors with Combinations of Environmental Chemicals.** Env. Health Perspectives 105, Supplement 3: 615-618, April, 1997.
- 130 Klotz, D. M., McLachlan, J. A., and Arnold, S. F.: **Inhibition of 17 Beta-estradiol and Progesterone Activity in Human Breast and Endometrial Cancer Cells by Carbamate Insecticides.** Life Sci. 60: 1467-1475, 1997.
- 131 Klotz, D. M., Ladlie, B. L., Vonier, P. M., McLachlan, J. A., and Arnold, S. F.: ***o,p'*-DDT and its Metabolites Inhibit Progesterone-dependent Responses in Yeast and Human Cells.** Mol. Cell. Endocrinol. 129: 63-71, 1997.
- 132 Jin, L., Tran, D. Q., Ide, C. F., McLachlan, J. A., and Arnold, S. F.: **Several Synthetic Chemicals Inhibit Progesterone Receptor-mediated Transactivation in Yeast.** Biochem. Biophys. Res. Comm. 233: 139-146, 1997.
- 133 Arnold, S. F., Klotz, D. M., Collins, B. M., Vonier, P. M., Guillette, L. J. Jr., and McLachlan, J. A.: **Potency of Combined Estrogenic Pesticides,** [response]. Science, 275: 405-406, 1997.
- 134 Li, S., Raszmann, K. A., Moore, R., Uno, T., Teng, C. T., McLachlan, J. A., and Negishi, M.: **Developmental Exposure to DES Elicits Demethylation of an Estrogen Regulated Gene in the Mouse Uterus.** Cancer Res. 57: 4356-4359, 1997.
- 135 Arnold, S. F., Bergeron, J. M., Tran, D. Q., Collins, B. M., Vonier, P. M. Crews, D., Toscano, W. A., Jr., and McLachlan, J. A.: **Synergistic Responses of Steroidal Estrogens *in Vitro* (Yeast) and *in Vivo* (Turtles).** Biochem. Biophys. Res. Comm. 235: 336-342, 1997.
- 136 Tran, D. Q., Jin, L., Chen, L., McLachlan, J. A., and Arnold, S. F.: **Evaluation of Clinical and Environmental Anti-estrogens with Human Estrogen Receptor Expressed in *Saccharomyces cerevisiae*: A Novel for ABC-cassette Transporters in Mediating Anti-estrogenic Activity.** Biochem. Biophys. Res. Comm. 235: 669-674, 1997.

- 137 Crain, D. A., Noriega, N., Vonier, P. M., Arnold, S. F., McLachlan, J. A., and Guillette, L. J. Jr.: **Cellular Bioavailability of Natural Hormones and Environmental Contaminants as a Function of Serum and Cytosolic Binding Factors.** *Toxicol. Ind. Health* 14: 261-273, 1998.
- 138 Chae, K., Lindzey, J. K., McLachlan, J. A., and Korach, K. S.: **Estrogen-dependent Gene Regulation by an Oxidative Metabolite of Diethylstilbestrol, Diethylstilbestrol-4',4''-Quinone.** *Steroids* 63: 149-157, 1998.
- 139 Crain, D. A., Noriega, N., Vonier, P. M., Arnold, S. F., McLachlan, J. A., and Guillette, L. J., Jr.: **Cellular Bioavailability of Natural Hormones and Environmental Contaminants as a Function of Serum and Cytostolic Binding Factors.** *Toxicol. Ind. Health* 14: 261-273, 1998.
- 140 Newbold, Retha R., Hanson, Rita B., Jefferson, Wendy N., Bullock, Bill C., Haseman, Joseph, and McLachlan, John, A.: **Increased Tumors but Uncompromised Fertility in the Female Descendants of Mice Exposed Developmentally to Diethylstilbestrol..** *Carcinogenesis* 19: 1655-1663, 1998.
- 141 Cheek, A. O., Kow, K., Chen, J., and McLachlan, J. A.: **Potential Mechanisms of Thyroid Disruption in Humans: Interaction of Organochlorine Compounds with Thyroid Receptor, Transthyretin and Thyroid Binding Globulin.** *Environ. Health Perspect.* 107 (4): 273-278, 1999.
- 142 Parks, L. G., Cheek, A. O., Denslow, N. D., Heppell, S. A., McLachlan, J. A., LeBlanc, G. A., and Sullivan, C. V: **Fathead Minnow (*Pimephales Promelas*) Vitellogenin: Purification, Characterization and Quantitative Immunoassay for the Detection of Estrogenic Compounds.** *Comp. Biochem. Physiol.* 123 (2): 119-125, 1999.
- 143 Cheek, A. O., Ide, C. F., Bollinger, J. E., Rider, C. V., and McLachlan, J. A.: **Alteration of Leopard Frog (*Rana Pipiens*) Metamorphosis by the Herbicide Acetochlor.** *Arch. Environ. Contam. Toxicol.* 37 (1): 70-77, 1999.
- 144 Anderson, H. R., Andersson, A-M., Arnold, S. F., Autrup, H., Barfoed, M., Beresford, N. A., Bjerregaard, P., Christiansen, L. B., Gissel, B., Hummel, R., Jorgensen, E. B., Korsgaard, B., Le Guevel, R., Leffers, H., McLachlan, J. A., Moller, A., Nielsen, J. B., Olea, N., Oles-Karasko, A., Pakdel, F., Pedersen, K. L., Perez, P., Skakkeboek, N. E., Sonnenshein, C., Soto, A. M., Sumpster, J. P., Thorpe, S. M., and Grandjean, P.: **Comparison of Short-Term Estrogenicity Tests for Identification of Hormone-Disrupting Chemicals.** *Environ. Health Perspect.* 107, Suppl. 1: 89-108, 1999.
- 145 Burow, M. E., Tang, Y., Collins-Burow, B. M., Krajewski, S., Reed, J. C., McLachlan, J. A., and Beckman, B. S.: **Effects of Environmental Estrogens on TNF-mediated Apoptosis in MCF-7 Breast Carcinoma Cells.** *Carcinogenesis* 20: 2057-2061, 1999.
- 146 Oberdörster, E., Martin, M., Ide, C. F., McLachlan, J. A. **Benthic Community Structure and Biomarker Induction in Grass Shrimp in an Estuarine System.** *Arch. Environ. Contam. Toxicol.* 37: 512-518, 1999.
- 147 Oberdörster, E., Cottam, D. M., Wilmot, F. A., Milner, M. J., and McLachlan, J. A.: **Interaction of PAHs and PCBs with Ecdysone-dependent Gene Expression and Cell Proliferation.** *Toxicol. Appl. Pharmacol.* 160(1): 101-108, 1999.

- 148 Burow, M. E., Tang, Y., Collins-Burow, B. M., Krajewski, S., Reed, J. C., McLachlan, J. A., and Beckman, B. S.: **Effects of Environmental Estrogens on Tumor Necrosis Factor Alpha Mediated Apoptosis in MCF-7 Cells.** *Carcinogenesis* 20 (11): 2057-2061, 1999.
- 149 Burow, M. E., Weldon, C. B., Collins-Burow, B. M., Ramsey, N., McKee, A., Klippel, A., McLachlan, J. A., Clejan, S., and Beckman, B. S.: **Cross-talk Between Phosphatidylinositol-3 Kinase and Sphingomyelinase Pathways as a Mechanism for Cell Survival/Death.** *J. Biol. Chem.* 275 (13): 9628-9635, 2000.
- 150 Burow, M. E., Weldon, C. B., Melnik, L., Duong, B., Collins-Burow, B. M., Klippel, A., Beckman, B. S., and McLachlan, J. A.: **Phosphatidylinositol-3 Kinase/Akt Mediated Regulation of NF- $\kappa$ B Signaling Events as a Mechanism for Suppression of TNF-induced Apoptosis.** *Biochem. Biophys. Res. Comm.* 271 (2): 342-345, 2000.
- 151 Oberdörster, E., Brouwer, M., Hoexum-Brouwer, T., Manning, S., and McLachlan, J. A.: **Long-term Pyrene Exposure of Grass Shrimp, *Palaemonetes pugio*, Affects Molting and Reproduction of Exposed Males, and Offspring of Exposed Females.** *Environ. Health Perspect.* 108 (7): 641-646, 2000.
- 152 Burow, M. E., Weldon, C. B., Chiang T-C, Tang, Y., Collins-Burow, B. M., Rolfe, K., Li, S., McLachlan, J. A., and Beckman, B. S.: **Differences in Protein Kinase C and Estrogen Receptor, Expression and Signaling Correlate with Apoptotic Sensitivity of MCF-7 Breast Cancer Cell Variants.** *Int. J. Oncol.* 16: 1179-1187, 2000.
- 153 Newbold, R. R., Hanson, R. B., Jefferson, W. N., Bullock, B. C., Haseman, J. and McLachlan, J. A.: **Proliferative Lesions and Reproductive Tract Tumors in Male Descendants of Mice Exposed Developmentally to Diethylstilbestrol.** *Carcinogenesis* 21 (7): 1355-1363, 2000.
- 154 Collins-Burow, B. M., Burow, M. E., Duong, B. N., and McLachlan, J. A.: **The Estrogenic and Anti-estrogenic Activities of Flavonoid Phytochemicals Through Estrogen Receptor Binding Dependent and Independent Mechanisms.** *Nutrition and Cancer* 38 (2) 229-44, 2000.
- 155 Cheek, A. O., Brouwer, T. H., Carroll, S., Manning, S., McLachlan, J. A., Brouwer, M.: **Experimental Evaluation of Vitellogenin as a Predictive Biomarker for Reproductive Disruption.** *Environ. Health Perspect.* 109 (7): 681-90, 2001.
- 156 Oberdörster, E., Clay, M. A., Cottam, D. M., Wilmott, F. A., Milner, M. J., and McLachlan, J. A.: **Common Phytochemicals are Ecdysteroid agonists and antagonists: A Possible Evolutionary Link Between Vertebrate and Invertebrate Steroid Hormones.** *J. Steroid Biochem. & Mol. Biol.* 77 (4-5): 229-38, 2001.
- 157 O'Neil, J. S., Burow, M. E., McLachlan, J. A., Green, A. E., and Hendon, M. C.: **Effects of Estrogen on LEP Gene Promotor Activation in MCF-7 Breast Cancer and JEG-3 Choriocarcinoma Cells.** *Mol. Cell. Endocrinol.* 176 (1-2): 67-75, 2001.
- 158 Li, S., Chiang, T-C., Davis, G. R., Williams, R. M., Wilson, V. P., McLachlan, J. A.: **Decreased expression of Wnt-7a mRNA is inversely associated with the expression of estrogen receptor  $\alpha$  in human uterine leiomyoma.** *J. Clin. Endocrinol. and Metab.* 86 (1): 454-457, 2001.

- 159 Burow, M. E., Boue, S., Collins-Burow, B. M., Melnik, L. I., Duong, B. N., Li, S., Wiese, T., Cleavland, E., and McLachlan, J. A.: **Phytochemical Glyceollins, Isolated from Soy, Mediate Anti-hormonal Effects through Estrogen Receptor  $\alpha$  and  $\beta$ .** J. Clin. Endocrinol. and Metab. 86 (4): 1750-1758, 2001.
- 160 Li, S., Ma, L., Chiang, T. C., Burow, M. E., Newbold, R. R., Negishi, M., Barrett, J. C., McLachlan, J. A. **Promoter CpG Methylation of Hox-a10 and Hox-a11 in Mouse Uterus not Altered upon Neonatal Diethylstilbestrol Exposure.** Molecular Carcinogenesis. 32 (4): 213-19, 2001.
- 161 Fox, J. E., Starcevic, M., Kow, K. Y., Burow, M. E., McLachlan, J. A. **Nitrogen Fixation: Endocrine Disrupters and Flavanoid Signaling.** Nature 413 (6852): 128-9, 2001.
- 162 O'Neil, J. S., Burow, M. E., McLachlan, J. A., Green, A. E., and Henson, M. C.: **Effects of Estrogen on LEP Gene Promotor Activation in MCF-7 Breast Cancer and JEG-3 Choriocarcinoma Cells.** Mol. Cell. Endocrinol. 176 (1-2): 67-75, 2001.
- 163 Burow, M. E., Weldon, C. B., Tang Y., McLachlan, J. A., Beckman, B. S. **Oestrogen-mediated Suppression of TNF-induced Apoptosis in MCF-7 Cells: Subversion of Bcl-2 by Anti-oestrogens.** J. Steroid Biochem. & Mol. Biol. 78(5): 409-418, 2001.
- 164 Mattingly, C. J., McLachlan, J. A., Toscano Jr., W. A. **Green fluorescent protein (GFP) as a marker of aryl hydrocarbon receptor (AhR) function in developing zebrafish (Danio rerio).** Environ Health Perspect 109 (8):845-849, 2001.
- 165 Fox, J. E., Burow, M. E., McLachlan, J. A. **Symbiotic gene activation is interrupted by endocrine disrupting chemicals.** The ScientificWorld 1: 653-655, 2001.
- 166 Cheek, A. O., Hoexum-Brouwer, T., Carroll, S., Manning, S., Brouwer, M., McLachlan, J. A.: **Experimental Evaluation of Vitellogenin as a Predictive Biomarker for Reproductive Disruption.** Environmental Health Perspectives 109 (7): 681-90, 2001.
- 167 Cheek, A. O., Hoexum-Brouwer, T., Carroll, S., Manning, S., Brouwer, M., McLachlan, J. A. **Developmental exposure to anthracene and estradiol alters reproductive success in medaka (Oryzias latipes).** Environmental Sciences. 8: 31-45, 2001.
- 168 Frigo, D. E., Duong, B. N., Melnik, L. I., Schief, L., Collins-Burow, B. M., Pace, D. K., McLachlan, J. A., Burow, M.E. **Flavonoid Phytochemicals Regulate Multiple Signal Transduction Pathways in Endometrial and Kidney Stable Cell Lines.** Journal of Nutrition 132 (7): 1848-53, 2002.
- 169 Weldon, C. B., Scandurro, A. S., Rolfe, K. W., Clayton J. L., Elliott, S. E., Butler, N. N., Melnik, L. I., Alam J., McLachlan, J. A., Jaffe, B. M., Beckman, B. S., Burow M. E. **Identification of mitogen-activated protein kinase kinase 5 (MEK5) as a chemoresistance pathway in MCF-7 cells using gene expression microarray.** Surgery 132 (2): 293-301, 2002.
- 170 Guillette, L. J. Jr., Vonier, P. M., McLachlan, J. A. **Affinity of the Alligator Estrogen Receptor for Serum Pesticide Contaminants.** Toxicology 181-182: 151-4, 2002.
- 171 Frigo, D. E., Burow, M. E., Mitchell, K. A., Chiang, T-C., McLachlan, J. A. **DDT and its metabolites alter gene expression in human uterine cell lines through ER-independent mechanisms.** Environmental Health Perspectives 110 (12): 1239-45, 2002.

- 172 Boue, S. M., Wiese, T. E., Nehls, S., Burow, M. E., Elliott, S., Carter-Wientjes, C. H., Shih, B. Y., McLachlan, J. A., Cleveland, T. E. **Evaluation of the Estrogenic Effects of Legume Extracts Containing Phytoestrogens.** *J. Agricultural & Food Chem.* 51 (8): 2193-9, 2003.
- 173 Li, S., Chiang, T-C., Richard-Davis, G., Barrett, J. C., McLachlan, J. A. **DNA Hypomethylation and Imbalanced Expression of DNA Methyltransferases (DNMT1, 3A, and 3B) in Human Uterine Leiomyoma.** *Gynecologic Oncology* 90 (1): 123-30, 2003.
- 174 Li, S., Hansman, R., Newbold, R., Davis, B., McLachlan, J.A., Barrett, J.C. **Neonatal Diethylstilbestrol Exposure Induces Persistent Elevation of c-fos Expression and Hypomethylation in its exon-4 in Mouse Uterus.** *Mol. Carcinog.* 38 (2): 78-84, 2003.
- 175 Frigo, D. E., Tang, Y., Beckman, B. S., Scandurro, A. B., Alam, J., Burow, M. E., McLachlan, J. A. **Mechanism of AP-1-Mediated Gene Expression by Select Organochlorines Through the p38 MAPK Pathway.** *Carcinogenesis* 25 (2): 249-61, 2004.
- 176 Fox, J. E., Starcevic, M., Jones, P. E., Burow, M. E., McLachlan, J. A. **Phytoestrogen Signaling and Symbiosis are Disrupted by Endocrine Disrupting Chemicals.** *Environmental Health Perspectives.* 112: 672-7, 2004.
- 177 Huang, W. W., Yin, Y., Bi, Q., Chiang, T. C., Garner, N., Vuoristo, J., McLachlan, J. A., Ma, L. **Developmental diethylstilbestrol (DES) Exposure Alters Genetic Pathways of Uterine Cytodifferentiation.** *Mol. Endocrinol.* 19 (3): 669-82, 2005.
- 178 Frigo, D. E., Vigh, K. A., Struckhoff, A. P., Elliott, S., Beckman, B. S., Burow, M. E., McLachlan, J. A. **Xenobiotic-Induced TNF- $\alpha$  Expression and Apoptosis Through the p38 MAPK Signaling Pathway.** *Toxicol. Let.* 155: 237-48, 2005.
- 179 Weldon C. B., McKee, A., Collins-Burow, B. M., Melnik, L. I., Scandurro A. B., McLachlan, J. A., Burow, M.E., Beckman, B.S. **PKC-mediated Survival Signaling in Breast Carcinoma Cells: A Role for MEK1-AP1 Signaling.** *Int. J of Oncol.* 26 (3): 763-8, 2005.
- 180 Frigo, D. E., Basu, A., Simpson E. N., Weldon, C. B., Dugan, C. B., Elliott, S., Collins-Burow, B. M., Salvo, V. A., Zhu, Y., Melnik, L. I., Lopez, G. N., Kushner, P. J., Curiel, T. J., Rowan, B. G., McLachlan, J. A., Burow, M.E. **The p38 MAPK Stimulates Estrogen-Mediated Transcription and Proliferation Through the Phosphorylation and Potentiation of the p160 Coactivator Glucocorticoid receptor interacting protein 1.** *Molecular Endocrinology* 20 (5): 971-983, 2006.
- 181 Duong, B. N., Elliott, S., Frigo, D. E., Melnik, L. I., Vanhoy, L., Tomchuck, S., Lebeau, H. P., David, O., Beckman, B. S., Alam, J., Bratton, M. R., McLachlan, J. A., Burow, M. E. **AKT regulation of ER-beta transcriptional activity in breast cancer.** *Cancer Res.* 66 (17): 8373-8381, 2006.
- 182 Salvo, V. A., Boue, S. M., Fonseca J. P., Elliott, S., Corbitt, C., Collins-Burow, B. M., Curiel, T. J., Shih, B. Y., Carter-Wientjes, C., Wood, C. E., Erhardt, P., Beckman, B. S., McLachlan, J. A., Cleveland, T. E., Burow, M. E. **Antiestrogenic Glyceollins Suppress Human Breast and Ovarian Carcinoma Tumorigenesis.** *Clinical Cancer Res.* 12: 7159-7164, 2006.



- 183 Fox, J. E., Gullledge, J., Engelhaupt, E., Burow, M. E. and McLachlan, J. A. **Pesticides reduce symbiotic efficiency of nitrogen fixing rhizobia and host plants.** Proc. Natl. Acad. Sciences 104:10282-10287, 2007.
- 184 Wetherill, Y. B., Akingbemi B. T., Kanno, J., McLachlan, J. A., Nadal, A., Sonnenschein, C., Watson, C. S., Zoeller, R. T., Belcher, S. M. ***In vitro* molecular mechanisms of bisphenol A action.** Reprod. Toxicol. 2007 May 29; : 17628395
- 185 Fox, J.E., Burow, M.E., McLachlan, J.A, Miller, C.A. 3rd, **Detecting ligands and dissecting nuclear receptor signaling pathways using recombinant strains of the yeast *Saccharomyces cerevisiae*.** Nature Protocols 3(4):637-645, 2008. [PMID: 18388946]
- 186 Zhou, C., Nitschke, A.M., Xiong, W., Zhang, Q., Tang, Y., Bloch, M., Elliott S., Zhu, Y., Bazzone, L., Yu, D., Weldon, C.B., Schiff, R., McLachlan, J.A., Beckman, B.S., Wiese, T.E., Nephew, K.P., Shan, B., Burow, M.E., Wang, G. **Proteomic analysis of tumor necrosis factor-alpha resistant human breast cancer cells reveals a MEK5/Erk5-mediated epithelial-mesenchymal transition phenotype.** Breast Cancer Research 10(6), R105, (2008). [PMCID: PMC2656902] **Highly accessed**
- 187 Bratton, M.R., Frigo, D.E., Vigh, K.A., Fan, D., Wadsworth, S., McLachlan, J.A., Burow, M.E. **Organochlorine mediated potentiation of the general coactivator p300 through p38 mitogen-activated protein kinase.** Carcinogenesis. 30(1), 106-113, (2009). [PMCID: PMC2639031]
- 188 Boue, S.M., Tilghman, S.L., Elliott, S., Zimmerman, M.C., Williams, K., Payton-Stewart, F., Miraflor, A., Carter-Wientjes, C., Shih, B.Y., Segar, C., Beckman, B.S., Wiese T.E., Cleveland, T.E., McLachlan, J.A., Burow, M.E. **Identification of the potent phytoestrogen glycinol in elicited soybean (*Glycine max*).** Endocrinology 150(5):2446-2453. (2009). [PMCID: PMC2671905]
- 189 Nierth-Simpson, E.N., Martin, M.M., Chiang, T.C., Melnik, L.I., Rhodes, L.V., Muir, S.E, Burow, M.E., and McLachlan, J.A. **Human uterine smooth muscle and fibroid cells differ in their rapid estrogen signaling: implications for proliferation.** Endocrinology. 150(5):2436-2445. (2009). [PMCID: PMC2671893]
- 190 Boue, S.M., Cleveland, T.E., Carter-Wientjes, C., Shih, B.Y., Bhatnagar, D., McLachlan, J.A., Burow, M.E. **Phytoalexin-Enriched Functional Foods.** J. of Agriculture and Food Chemistry 57(7):2614-2622 (2009). [PMID: 19334749]
- 191 Rhodes, L.V., Muir, S.E., Elliott, S., Guillot, L.M., Antoon, J.W., Penforinis, P., Tilghman, S.L., Salvo, V.A., Fonseca, J.P., Lacey, M.R., Beckman, B.S., McLachlan, J.A, Rowan, B.G., Pochampally, R., Burow, M.E. **Adult human mesenchymal stem cells enhance breast tumorigenesis and promote hormone independence.** Breast Cancer Research and Treatment 121(2):293-300 (2010). [PMID: 19597705]
- 192 Zimmermann, M.C., Tilghman, S.L., Boué, S.M., Salvo, V.A., Elliott, S., Williams, K.Y., Skripnikova, E.V., Ashe, H., Payton-Stewart, F., Vanhoy-Rhodes, L., Fonseca, J.P., Corbitt, C., Collins-Burow, B.M., Howell, M.H., Lacey, M., Shih, B.Y., Carter-Wientjes, C., Cleveland, T.E., McLachlan, J.A., Wiese, T.E., Beckman, B.S., Burow, M.E. **Glyceollin I, a novel anti-estrogenic phytoalexin isolated from activated soy.** Journal Pharmacology & Experimental Therapeutics 332(1): 35-45, (2010). [PMCID: PMC2802480] [Selected for Journal Cover]
- 193 Bratton, M.R., Duong, B.N., Elliott, S., Weldon, C.B., Beckman, B.S., McLachlan, J.A., Burow M.E. **Regulation of ER $\alpha$ -mediated transcription of Bcl-2 by PI3K-AKT crosstalk: Implications for breast cancer cell survival.** International Journal of Oncology 37: 541-550, (2010).[PMID: 20664923]

- 194 Jiang, Q., Payton-Stewart, F., Elliott, S., Driver, J. Rhodes, L.V., Zhang, Q., Zheng, S., Bhatnagar, D., Boué, S.M., Collins-Burow, B.M., Sridhar, J., Stevens, C., McLachlan, J.A., Wiese, T.E., Burow, M.E., Wang, G. **Effects of 7-O Substitutions on Estrogenic and Anti-Estrogenic Activities of Daidzein Analogues in MCF-7 Breast Cancer Cells.** J. Med. Chem. 53(16), 6153-6163, (2010). [PMID: 20669983]
- 195 Tilghman SL, Nierth-Simpson EN, Wallace R, Burow ME, McLachlan JA. **Environmental hormones: Multiple pathways for response may lead to multiple disease outcomes.** Steroids 75(8-9):520-523, (2010). [PMID: 20466011]
- 196 Payton-Stewart, F., Khupse, R.S., Boué, S.M., Elliott, S., Zimmermann, M.C., Skripnikova, E.V., Ashe, H., Tilghman, S.L., Beckman, B.S., Cleveland, T.E., McLachlan, J.A., Bhatnagar, D., Wiese, T.E., Erhardt, P., Burow, M.E. **Glyceollin I enantiomers distinctly regulate ER-mediated gene expression.** Steroids 75(12):870-878. (2010) [PMID: 20493896]
- 197 Boue, S.M., Burow, M.E., Wiese, T.E., Shih, B.Y., Elliott, S., Carter-Wientjes, C., McLachlan, J.A., Bhatnagar, D. **Estrogenic and Antiestrogenic Activities of Phytoalexins from Red Kidney Bean (*Phaseolus vulgaris* L.).** J. of Agriculture and Food Chemistry 59(1):112-120, (2011).
- 198 Tilghman, S.L., Bratton, M.R., Segar, H.C., Martin, E., Rhodes, L.V., Li, M., McLachlan, J.A., Wiese, T.E., Nephew, K.P., Burow, M.E., **Endocrine disruptor regulation of microRNA expression in breast carcinoma cells.** PLoS One 7(3):e32754 (2012). [PMID:22430704]
- 199 Wang G, Ma P, Zhang Q, Lewis J, Lacey M, Furukawa Y, O'Reilly SE, Meaux S, McLachlan J, Zhang S.: **Endocrine disrupting chemicals in New Orleans surface waters and Mississippi Sound sediments.** J Environ Monit. 2012 May 2;14(5):1353-64. Epub 2012 Mar 22. [PMID: 22438038]
- 200 Bratton, M.R., Antoon, J.W., Duong, B.N., Frigo, D.E., Tilghman, S.L., Collins-Burow, B.M., Elliott, S., Tang, Y., Melnik, L., Lai, L., Alam, J., Beckman, B.S., Hill, S.M., Rowan, B.G., McLachlan, J.A., Burow, M.E. **G-alpha protein-stimulated activation of Estrogen Receptor-alpha Via the Erk signaling pathway.** Journal of Endocrinology. 214(1): 45-54 (2012). [PMID:22562654]
- 201 Bratton, M.R., Frigo, D.E., Segar, H.C., Nephew, K.P., McLachlan, J.A., Wiese, T.E., Burow, M.E. **The organochlorine o,p'-DDT plays a role in coactivator-mediated MAPK crosstalk in MCF-7 breast cancer cells.** Environmental Health Perspectives 129(9):1291-1296 (2012). [PMID:22609851]
- 202 Collins-Burow, B.M., Antoon, J.W., Frigo, D.E., Elliot, S., Weldon, C.B., Boue, S.M., Beckman, B.S., Curiel, T.J., Alam, J., McLachlan, J.A., Burow, M.E. **Antiestrogenic activity of flavonoid phytochemicals mediated via c-jun N-terminal protein kinase pathway: cell-type specific regulation of estrogen receptor alpha.** J. Steroid Biochem. & Mol. Biol.132(1-2):186-193 (2012). [PMID:22634477]
- 203 Antoon, J.W., Bratton, M.R., Guillot, L.M., Wadsworth, S., Salvo, V.A., Elliott, S., McLachlan, J.A., Burow, M.E. **Pharmacology and Anti-Tumor Activity of RWJ67657, a Novel Inhibitor of p38 Mitogen Activated Protein Kinase.** American Journal of Cancer Research 2(4): 446-458 (2012) [PMID:22860234]
- 204 Johnson, K.P., Johnson, D.E., Hawthorne, T., Gibbs, L., Burow, M.E., Rhodes, L.V., Gray, M., Tilghman, S.L., McLachlan, J.A., Ochieng, J. **In Vitro and In Vivo Evaluation of Novel Anticancer Agents in Triple Negative Breast Cancer Models.** Journal of Healthcare for the Poor and Underserved 24:104-111 (2013). [PMID: 23395947]

- 205 Ohlstein, J.F., Strong, A.L., McLachlan J.A., Gimble, J.M., Burow, M.E., Bunnell, B.A. **Bisphenol A enhances adipogenic differentiation of human adipose stromal/stem cells.** J Mol Endocrinol. 53(3):345-53 (2014). [PMID: 25143472]
- 206 Bratton, M.R., Martin, E.C., Elliott, S., Rhodes, L.V., Collins-Burow, B.M., McLachlan, J.A., Wiese, T.E., Boue, S.M., Burow, M.E.. **Glyceollin, a novel regulator of mTOR/p70S6 in estrogen receptor positive breast cancer.** J Steroid Biochem Mol Biol 150: 17-23 (2015). [PMID: 25771071]
- 207 Strong, A.L., Shi, Z., Strong, M.J., Miller, D.F., Rusch, D.B., Buechlein, A.M., Flemington, E.K., McLachlan, J.A., Nephew, K.P., Burow, M.E., Bunnell, B.A. **Effects of the Endocrine-Disrupting Chemical DDT on Self-Renewal and Differentiation of Human Mesenchymal Stem Cells.** Environ Health Perspect 123(1):42-8 (2015). [PMID: 25014179]
- 208 Strong, A.L., Miller, D.F., Buechlein, A.M., Fang, F., Glowacki, J., McLachlan, J.A., Nephew, K.P., Burow, M.E., Bunnell, B.A. **Bisphenol A alters the self-renewal and differentiation capacity of human bone-marrow- derived mesenchymal stem cells.** Endocrine Disruptors, DOI: 10.1080/23273747.2016.1200344 (June 2016)

## Book chapters, conference proceedings, and reviews . . .

- 1 McLachlan, J. A.: **Lesions in the Genital Tract of Male Mice Following Prenatal Exposure to Diethylstilbestrol.** Proceedings of the 17th Annual Meeting of the European Society for Toxicology XVII: 413-418, 1976.
- 2 McLachlan, J. A., and Dixon, R. L.: **Transplacental Toxicity of Diethylstilbestrol: A Special Problem in Safety Evaluation.** In: Mehlman, M. A., Shapiro, R. E. and Blumenthal, H. (eds.): Advances in Modern Toxicology. Washington, D. C., Hemisphere Publishing Corporation vol:1, part 1, New Concepts in Safety Evaluation, 1976, pp. 423-448.
- 3 McLachlan, J. A. and Dixon, R. L.: **Toxicologic Comparisons of Experimental and Clinical Exposure to Diethylstilbestrol during Gestation.** In: Thomas, J. A. and Singhal, R. L. (eds.): Advances in Sex Hormone Research. Baltimore, University Park Press, Vol:3, Regulatory Mechanisms Affecting Gonadal Hormone Action, 1977, pp. 309-336.
- 4 Lamb, J. C., IV, Newbold, R. R., Stumpf, W. E. and McLachlan, J. A.: **The Development of the Luminal Surface of the Vagina, Cervix and Uterus of the Mouse.** IITRI/SEM, Vol: II, 355-360, 1977.
- 5 McLachlan, J. A.: **Male as well as Female Mice are Affected by *in Utero* Exposure to Diethylstilbestrol.** Proceedings of Conference on Women and the Workplace; Society for Occupational and Environmental Health, pp 32-39, 1977.
- 6 Lamb, J. C., Newbold, R. R. and McLachlan, J. A.: **Modulation of the Female Mouse Genital Tract by Hormones.** SEM/1978, Vol: II, pp.773-778, 1978.
- 7 Metzler, M. and McLachlan, J. A.: **Oxidative Metabolism of Diethylstilbestrol and Steroidal Estrogens in Relation to their Fetotoxicity.** In: Neubert, D., Merker, H.-J., Nau, H. and Langman, J. (eds.): Role of Pharmacokinetics in Prenatal and Perinatal Toxicology. Stuttgart, Georg Thieme Publishers, 1978, pp. 157-164.
- 8 McLachlan, J. A., Korach, K. S., and Metzler, M.: **Bioavailability as a Determinant in the Transplacental Toxicity of Diethylstilbestrol.** In: Neubert, D., Merker, H.-J., Nau, H. and Langman, J. (eds.): Role of Pharmacokinetics in Prenatal and Perinatal Toxicology. Stuttgart, Georg Thieme Publishers, 1978, pp. 147-155.
- 9 Lucier, G. W., Davis, G. J., and McLachlan, J. A.: **Transplacental Toxicology of the Polychlorinated and Polybrominated Biphenyls.** In: Mahlum, D. D., Sikov, M. R., Hackett, P. L., and Andrew, F. D. (eds.): Proceedings of the 17th Hanford Biology Symposium. Developmental Toxicology of Energy-Related Pollutants. U.S. Department of Energy Symposium Series 47: 188-204, 1978.
- 10 Luster, M. I., Faith, R. E., McLachlan, J. A., and Clark, G.: **Immunological Effects Following *in utero* Exposure to Diethylstilbestrol in Mice.** In: Asher, I. (ed.): Inadvertent Modification of the Immune Response. Annapolis, 1978, pp. 263-267.
- 11 McLachlan, J. A.: **Transplacental Effects of Diethylstilbestrol in Mice.** In Perinatal Carcinogenesis, National Cancer Institute Monograph, 51: 67-73, 1979.
- 12 Rall, D. P. and McLachlan, J. A.: **Potential for Exposure to Estrogens in the Environment.** In: McLachlan, J. A. (ed.): Estrogens in the Environment. New York, Elsevier North Holland, 1980, pp. 199-203.

- 13 Metzler, M., Gottschlich, R., and McLachlan, J. A.: **Oxidative Metabolism of Stilbene Estrogens.** In: McLachlan, J. A. (ed.): Estrogens in the Environment. New York, Elsevier North Holland, 1980, pp. 293-305.
- 14 McLachlan, J. A., Newbold, R. R., Korach, K. S., Lamb, J. C. IV, and Suzuki, Y.: **Transplacental Toxicology: Prenatal Factors Influencing Postnatal Fertility.** In: Kimmel, C. A. and Beulke-Sam, J. (eds.): Developmental Toxicity. New York, Raven Press, 1981, pp. 213-232.
- 15 McLachlan, J. A.: **Rodent Models for Perinatal Exposure to Diethylstilbestrol and their Relation to Human Disease in the Male.** In: Herbst, A. L. and Bern, H. (eds.): Developmental Effects of Diethylstilbestrol (DES) in Pregnancy. New York, Thieme-Stratton, 1981, pp. 148-157.
- 16 Metzler, M. and McLachlan, J. A.: **Oxidative Metabolism of the Synthetic Estrogens Hexestrol and Dienestrol Indicates Reactive Intermediates.** In: Synder, Parke, Kocsis, Jollow, Gibson (eds.): Biological Reactive Intermediates-II, Part A. New York, Plenum Publishing Corp., 1982, pp. 829-837.
- 17 McLachlan, J. A. and Fabro, S. E.: **Altered Postnatal Development Following Intrauterine Exposure to Hormonally Active Chemicals.** In: Yoshida, H., Hagihira, Y. and Ebashi, S. (eds.): Advances in Pharmacology and Therapeutics II. New York, Pergamon Press, vol. 5, 1982, pp. 211-220.
- 18 McLachlan, J. A., Korach, K. S., Newbold, R. R., and Degen, G. H.: **Diethylstilbestrol and Other Estrogens in the Environment.** *Fundamental and Applied Toxicology* 4: 686-691, 1984.
- 19 Korach, K. S. and McLachlan, J. A.: **The Role of the Estrogen Receptor in Diethylstilbestrol Toxicity.** *Arch. Toxicol., Suppl.* 8, 33-42, 1985.
- 20 Newbold, R. R. and McLachlan, J. A.: **Diethylstilbestrol Associated Defects in Murine Genital Tract Development.** In: McLachlan, J. A. (ed.): Estrogens in the Environment II: Influences on Development. New York, Elsevier North Holland, 1985, pp. 288-318.
- 21 McLachlan, J. A.: **Developmental Biology of Estrogens.** In: McLachlan, J. A. (ed.): Estrogens in the Environment II: Influences on Development. New York, Elsevier North Holland, 1985, p. 251.
- 22 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Diverticulosis and Salpingitis Isthmica Nodosa (SIN) of the Fallopian Tube.** In: Capen, C. C., Jones, T. C., and Migaki, G. (eds.): Handbook: Animal Models of Human Disease, 14th Fascicle. Washington, D.C., Registry of Comparative Pathology, Armed Forces Institute of Pathology, 1985, Model No. 305.
- 23 Newbold, R. R. and McLachlan, J. A.: **Effects of Perinatal Exposure to Diethylstilbestrol on Oviductal Development.** In: Siegler, A. M. (ed.): The Fallopian Tube: Basic Studies and Clinical Contributions. New York, Futura Publishing Co., Inc., 1986, pp. 179-189.
- 24 McLachlan, J. A.: **The Role of Metabolism in the Activity and Toxicity of Xenobiotic Estrogens.** *Fed. Proc.* 46: 1854, 1987.
- 25 McLachlan, J. A. and Newbold, R. R.: **Estrogens and Development.** *Environmental Health Perspectives* 75: 25-27, 1987.

- 26 Hogan, M. D., Newbold, R. R., and McLachlan, J. A.: **Extrapolation of Teratogenic Responses Observed in Laboratory Animals to Humans: Diethylstilbestrol as an Illustrative Example.** In: J. A. McLachlan, R. M. Pratt, and C. Markert (eds.): *Developmental Toxicology: Mechanisms and Risk.* Banbury Report No. 26, 1987, pp. 257-269.
- 27 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Adenocarcinoma of the Rete Testis, Model No. 341.** In: C. C. Capen, T. C. Jones, and G. Migaki (eds.): *Handbook: Animal Models of Human Disease.* Fasc. 16. Registry of Comparative Pathology, Armed Forces Institute of Pathology, Washington, D. C., 1987.
- 28 McLachlan, J. A., Newbold, R. R., Korach, K. S., and Hogan, M.: **Risk Assessment Considerations for Reproductive and Developmental Toxicity of Oestrogenic Xenobiotics.** In: M. V. Rolloff and A. W. Wilson (eds.): *Human Risk Assessment: The Roles of Animal Selection and Extrapolation.* London, Taylor and Francis, Ltd. 1987, pp. 187-193.
- 29 McLachlan, J. A., Newbold, R. R., Pentecost, B. T., and Teng, C. T.: **Adverse Hormonal Regulation of Reproductive Organ Development.** Serono Symposium on Reproductive Organ Development, Raven Press, 1988.
- 30 Bullock, B. C., Newbold, R. R., and McLachlan, J. A.: **Lesions of the Testis and Epididymis Associated with Prenatal Diethylstilbestrol Exposure.** *Environmental Health Perspectives* 77: 29-32, 1988.
- 31 Newbold, R. R. and McLachlan, J. A.: **Neoplastic and Non-neoplastic Lesions in Male Reproductive Organs Following Perinatal Exposure to Hormones and Related Substances.** In: T. Mori and H. Nagasawa (eds.): *Toxicity of Hormones in Perinatal Life.* CRC Press, Inc., Boca Raton, Florida, 1988, pp. 89-109.
- 32 McLachlan, J. A. and Newbold, R. R.: **Endpoints for Assessing Reproductive Toxicology in the Female.** In: P. Working (ed.): *Toxicology of the Male and Female Reproductive Systems.* Hemisphere Publishing, Washington, D. C. 1989, pp. 173-177.
- 33 McLachlan, J. A., Nelson, K. G., Takahashi, T., Bossert, N. L., Newbold, R. R., and Korach, K. S.: **Estrogens and Growth Factors in the Development, Growth, and Function of the Female Reproductive Tract.** In: D. W. Schomberg (ed.): *Proceedings of the Serono Symposium on Growth Factors in Reproduction.* Norwell, MA, Serono Symposia USA, 1990, pp. 197-203.
- 34 McLachlan, J. A., Nelson, K. G., Takahashi, T., Bossert, N. L., Newbold, R. R., and Korach, K. S.: **Do Growth Factors Mediate Estrogen Action in the Uterus?** In: R. B. Hochberg and F. Naftolin (eds.): *The New Biology of Steroid Hormones.* New York, NY, Raven Press, 1991, Vol. 74:337-344.
- 35 McLachlan, J. A., Newbold, R. R., Nelson, K. G., and Korach, K. S.: **Control of Uterine Epithelial Growth and Differentiation: Implications for Estrogen Associated Neoplasia.** In: J. Li, R. Nandi, and S. Li (eds.): *Hormonal Carcinogenesis.* New York, NY, Springer-Verlag, 1992, pp. 51-57.
- 36 Newbold, R. R., Bullock, B. C., and McLachlan, J. A.: **Hormone Dependent Uterine Adenocarcinoma Following Developmental Treatment with Diethylstilbestrol: A Murine Model for Hormonal Carcinogenesis.** In: J. Li, R. Nandi, and S. Li (eds.): *Hormonal Carcinogenesis.* New York, NY, Springer-Verlag, 1992, 309-312.

- 37 McLachlan, J. A., Newbold, R. R., Teng, C. T., and Korach, K. S.: **Environmental Estrogens: Orphan Receptors and Genetic Imprinting.** In: T. Colborn and C. Clement (eds.): Volume XXI of Advances in Modern Environmental Toxicology. New Jersey, Princeton Scientific 1992, pp. 107-112.
- 38 McLachlan, J. A.: **Functional Toxicology: A New Approach to the Detection of Biologically Active Xenobiotics.** Environ. Hlth. Perspect. 101(5): 386-387, 1993.
- 39 Newbold, RR., Bullock, BC., and McLachlan, JA.: **Diverticulosis and Salpingitis Isthmica Nodosa (SIN) of the Fallopian Tube: Estrogen-induced Diverticulosis and SIN of the Mouse Oviduct.** In: Capen, CC., Migaki, G., and Johnson, LK. (eds.): Handbook: Animal Models of Human Disease, Fasc. 19. Washington, D.C., Registry of Comparative Pathology, Armed Forces Institute of Pathology, 1993.
- 40 Ross, K. A., Nelson, K. G., Sakai, Y., Takahashi, T., Burroughs, C. D., and McLachlan, J. A.: **Isolation and Culture of Mouse Uterine Epithelial and Stromal Cells.** In: R. E. Chapin and J. J. Heindel (eds.): Methods in Toxicology, Volume 3, Part B. Female Reproductive Toxicology San Diego, CA, Academic Press, 1993, pp. 371-386.
- 41 Newbold, RR., and McLachlan, JA.: **Transplacental Hormonal Carcinogenesis: Diethylstilbestrol as an Example.** In: J. Huff, J. Boyd, and J. C. Barrett (eds.): Cellular and Molecular Mechanisms of Hormonal Carcinogenesis: Environmental Influences. New York: Wiley Liss & Sons, 1996, pp. 131-147.
- 42 McLachlan, JA., and Newbold, RR.: **Cellular and Molecular Mechanisms of Cancers of the Uterus in Animals.** In: J. Huff, J. Boyd, and J. C. Barrett (eds.): Cellular and Molecular Mechanisms of Hormonal Carcinogenesis: Environmental Influences. New York: Wiley Liss & Sons 1996, pp. 175-182.
- 43 Migliaccio, S., Newbold, R. R., Centanni, M., McLachlan, J. A., Andreoli, M., and Korach, K. S.: **Transient Developmental Exposure of Female Mice to Diethylstilbestrol Affects its Adult Bone Density.** Frontiers in Endocrinology, Proceedings Serona Symposium (In Press).
- 44 McLachlan, J. A. and Korach, K. S.: **Introduction: Symposium on Estrogens in the Environment, III.** Proceedings of the Conference on Estrogens in the Environment III: Global Health Implications. Environ. Hlth. Perspect. 103 Supplement 7: 3-4, 1995.
- 45 Korach, K. S. and McLachlan, J. A.: **Session Summary: Techniques for Detection of Estrogenicity.** Proceedings of the Conference on Estrogens in the Environment III: Global Health Implications. Environ. Hlth. Perspect. 103 Supplement 7: 5-8, 1995.
- 46 Ignar-Trowbridge, D. M., Pimentel, M., Teng, C. T., Korach, K. S., and McLachlan, J.A.: **Cross-talk Between Peptide Growth Factor and Estrogen Receptor Signaling Systems.** Proceedings of the Conference on Estrogens in the Environment III: Global Health Implications. Environ. Hlth. Perspect. 103 Supplement 7: 35-38, 1995.
- 47 Crews, D., Bergeron, J. M., and McLachlan, J. A.: **The role of Estrogen in Turtle Sex Determination and the Effect of PCBs.** Proceedings of the Conference on Estrogens in the Environment III: Global Health Implications. Environ. Hlth. Perspect. 103 Suppl. 7: 73-78, 1995.
- 48 Migliaccio, S., Newbold, R. R., McLachlan, J. A., and Korach, K. S.: **Alterations in Estrogen Levels during Development Affects the Skeleton: Use of an Animal Model.** Proceedings of the Conference on Estrogens in the Environment III: Global Health Implications. Environ. Hlth. Perspect. 103 Supplement 7: 95-98, 1995.

- 49 Makela, S., Santti, R., Salo, L., and McLachlan, J. A.: **Phytoestrogens are Partial Estrogen Agonists in the Adult Male Mouse.** Proceedings of the Conference on Estrogens in the Environment III: Global Health Implications. Environ. Hlth. Perspect. 103 Supplement 7: 123-128, 1995.
- 50 Guillette, L. J., Jr., Arnold, S. F., and McLachlan, J. A.: **Ecoestrogens and Embryos- Is There a Scientific Basis for Concern?** Animal Reproduction Science. 42: 13-24, 1996.
- 51 McLachlan, J. A. and Arnold, S. F.: **Environmental Estrogens.** American Scientist. 84: 452-461, 1996.
- 52 Arnold, S. F. and McLachlan, J. A.: **Synergistic Signals in the Environment.** Environ. Hlth. Perspect. 104: 1020-1023, 1996
- 53 Arnold, S. F., Klotz, D. M., Vonier, P. M., Collins, B. M., and McLachlan, J. A.: **Synergism in Estrogen Regulated Gene Expression.** Mol. Cell. Endo. 123: 119-122, 1996.
- 54 Arnold, S. F. and McLachlan, J. A.: **Synergistic Signals: A New Mechanism for Hormone-like Chemicals in the Environment.** Soc. Environ. Tox. Chem. 16: 34, 1996.
- 55 Toppari, J., Larsen, J. C., Christiansen, P., Giwercmann, A., Grandjean, P., Guillette, L. J., Jegou, B., Jenson, T. K., Jouannet, P., Keiding, N., Leffers, H., McLachlan, J. A., Meyer, O., Muller, J., De Meyts, E. R., Scheike, T., Sharpe, R., Sumpter, J., and Skakkebaek, N. E.: **Male Reproductive Health and Environmental Xenoestrogens.** Enviro. Health Persp. Vol: 104, Suppl. 4, 741-803, 1996.
- 56 Gray, K., Bullock, B., Dickson, R., Raszmann, K., McLachlan, J. A., and Merlino, G.: **Mechanisms of DES Carcinogenicity: Effects of the TGF $\alpha$  Transgene.** Etiology of Breast and Gynecological Cancers New York, Wiley-Liss, In: Aldaz, C. M. Gould, M. N., McLachlan, J. A. and Slaga, T. J. (eds.): 217-231, 1997.
- 57 Gray, L. E., Jr., Kelce, W. R., Wiese, T., Tyl, R., Gaido, K., Cook, J., Klinefelter, G., Desaulniers, D., Wilson, E., Zacharewski, T., Waller, C., Foster, P., Laskey, K., Reel, J., Giesy, J., Laws, S., McLachlan, J. A., Breslin, W., Cooper, R., DiGiulio, R., Johnson, R., Purdy, R., Mihaich, E., Safe, S., Sonnenschein, C., Welshons, W., Miller, R., McMaster, S., and Colborn, T.: **Endocrine Screening Methods Workshop Report: Detection of Estrogenic and Androgenic Hormonal and Antihormonal Activity for Chemicals that Act via Receptors or Steroidogenic Enzyme Mechanisms.** Repro. Tox. 11: 719-750. 1997.
- 58 Cheek, A. O. and McLachlan, J. A.: **Environmental Hormones and the Male Reproductive System.** J. Andrology 19: 5-10, 1998.
- 59 Cheek, A. O., Vonier, P. M., Oberdörster, E., Collins-Burow, B., and McLachlan, J. A.: **Environmental Signaling: A Biological Context for Endocrine Disruption.** Env. Health Perspectives Vol: 106 Suppl. 1, 1-4, 1998.
- 60 Landrigan, P. J., Carlson, J. E., Bearer, C. F., Cranmer, J. S., Bullard, R. D., Etzel, R. A., Groopman, J., McLachlan, J. A., Perera, F. P., Reigart, J. R., Robison, L., Schell, L., and Suk, W. A.: **Children's Health and the Environment: A New Agenda for Prevention Research.** Env. Health Perspectives Vol: 106 Suppl. 3, 787-794, 1998.
- 61 McLachlan, J. A., Newbold, R. R., Li, S., and Negishi, M.: **Are Estrogens Carcinogenic During Development of the Testes?** AMPIS 106: 240-244, 1998.



- 62 McLachlan, J. A., Newbold, R. R., Burow, M. E., and Li, S.: **From Malformation to Molecular Mechanisms in the Male: Three Decades of Research on Endocrine Disruption.** *APMIS* 109: 263-72, 2001.
- 63 McLachlan, J. A. **Environmental Signaling: What Embryos and Evolution Teach Us About Endocrine Disrupting Chemicals.** *Endocrine Reviews* 22 (3): 319-41, 2001.
- 64 McLachlan, J. A.: **Gene Imprinting in Developmental Toxicology: A Possible Interface Between Physiology and Pathology.** *Toxicology Letters* 120: 161-164, 2001.
- 65 Gullledge, C. C., Burow, M. E., McLachlan, J. A., **Endocrine Disruption in Sexual Differentiation and Puberty: What do Pseudohermaphroditic Polar Bears have to do with the Practice of Pediatrics?** *Pediatric Clinics of North America.* 48 (5): 1223-40, 2001.
- 66 Li S., McLachlan, J. A. **Estrogen-associated Genes in Uterine Leiomyoma.** *Ann NY Acad Sci* 948:112-120, 2001.
- 67 Li, S., Hursting, S. D., Davis, B. J., McLachlan, J. A., Barrett, J. C. **Environmental Exposure, DNA Methylation, and Gene Regulation: Lessons from Diethylstilbestrol-induced Cancers.** *Ann NY Acad Sci* 983: 161-0, 2003.
- 68 McLachlan, J. A. **Commentary: Prenatal Exposure to Diethylstilbestrol (DES): A Continuing Story.** *Int. J. Epidemiol.* 35: 868-870, 2006.
- 69 Crews, D. and McLachlan, J. A. **Epigenetics, Evolution, Endocrine Disruption, Health and Disease.** *Endocrinol.* 147(suppl): S4-10, 2006.
- 70 McLachlan, J. A., Simpson, E. and Martin, M. **Endocrine Distruptors and Female Reproductive Health.** *Best Pract. Res. Clin. Endocrinol. Metab.* 20: 63-75, 2006.
- 71 McLachlan J. A., Tilghman, S. L., Burow, M. E, Bratton, M. R.: **Environmental signaling and reproduction: a comparative biological and chemical perspective.** *Mol Cell Endocrinol.* 2012 May 6;354(1-2):60-2. Epub 2011 Dec 8. [PMID: 22178089]
- 72 Tilghman, S.L., Rhodes, L.V., Bratton, M.R., Carriere, P., Preyan, L.C., Boue, S.M., McLachlan, J.A., Burow, M.E. **Phytoalexins, miRNAs and Breast Cancer: a review of phytochemical- mediated miRNA regulation in breast cancer.** *Journal of Healthcare for the Poor and Underserved* 24: 36-46 (2013) [PMID: 23395943]
- 73 McLachlan, J. A. **Environmental signaling: From environmental estrogens to endocrine disrupting chemicals and beyond.** *Andrology* 4: 684-94 (2016). [PMID: 27230799]
- 74 Schug, T. T., Johnson, A. F., Birnbaum, L. S., Colborn, T., Guillette, L. J., Jr., Crews, D. P., Collins, T., Soto, A. M., Vom Saal, F. S., McLachlan, J. A., Sonnenschein, C., Heindel, J. J. **Minireview: Endocrine Disruptors: Past Lessons and Future Directions.** *Mol Endocrinol.* 30(8): 833-47 (2016). [PMID: 27477640]
- 75 Bateman, M. E., Strong, A. L., McLachlan, J. A., Burow, M. E., Bunnell, B. A. **The Effects of Endocrine Disruptors on Mesenchymal Stem Cells: A Review.** *Front Endocrinol (Lausanne)* 7: 171-180. 2017 [PMID: 28119665]

- 76 Burks, H., Pashos, N., Martin, E., McLachlan, J., Bunnell, B., Burow, M., **Endocrine disruptors and the tumor microenvironment: A new paradigm in breast cancer biology**. *Mol Cell Endocrinol.* 5:13-19. 2017 [PMID: 2801284]

## Books edited . . .

- 1 McLachlan, J. A.: (ed.) ***Estrogens in the Environment***. New York, Elsevier North Holland, 1980.
- 2 Thomas, J. A., Korach, K. S., and McLachlan, J. A.: (eds.) ***Endocrine Toxicology***, New York, Raven Press, 1985.
- 3 McLachlan, J. A. (ed.): ***Estrogens in the Environment II: Influences on Development***. New York, Elsevier North Holland, 1985.
- 4 McLachlan, J. A., Pratt, R. M., and Markert, C. (eds.): ***Developmental Toxicology: Mechanisms and Risk***. Banbury Report No. 26, 1987.
- 5 McLachlan, J. A. and Korach, K. S.(eds): ***Estrogens in the Environment III: Global Health Implications***. *Environmental Health Perspectives* 103 Suppl. 7, 1995.
- 6 Aldaz, C. M., Gould, M., McLachlan, J. A. and Slaga, T. J. (eds): ***Etiology of Breast and Gynecologic Cancers***. New York, Wiley-Liss, 1997.

# C O M M U N I C A T I O N

## C O N F E R E N C E L E A D E R S H I P

1979 **Organizer**, First Symposium on Estrogens in the Environment, Raleigh, NC (October)

1980 **Member, Organizing Committee**, Target Organ Toxicology Symposium, Endocrine System, Morgantown, WV (June)

1983 **Chairperson**, Satellite Symposium on Estrogen Metabolism and Cancer, European Society of Toxicology Meeting, Rome, Italy (April)

**Member, Organizing Committee**, Satellite Symposium on Hormones and Cell Transformation, Endocrine Society Meeting, San Antonio, TX (June)

1983 - 1988 **Co-Organizer**, Lectures in Reproduction and Development, Jointly sponsored by the NIEHS and the Piedmont Reproduction Colloquium, Research Triangle Park, NC

1984 **Member, Organizing Committee and Session Chairperson**, Gordon Research Conference on the Mammalian Genital Tract Plymouth, NH (July 9–13)

1985 **Organizer and Session Chairperson**, Second Symposium on Estrogens in the Environment, Raleigh, NC (April 10–12)

**Session Co-Chairperson**, Estrogens and Cancer: A Multidisciplinary Focus on Diethylstilbestrol (DES), University of California, Berkeley, CA (June 7–8)

**Member, Organizing Committee and Session Chairperson**, Gordon Research Conference on Hormonal Carcinogenesis (August)

1986 **Co-Chairperson**, Symposium on "Role of Metabolism in the Activity and Toxicity of Xenobiotic Estrogens," FASEB Meeting, St. Louis, MO (April 13–18)

**Chairperson**, Gordon Research Conference on Mammalian Genital Tract, Plymouth, NH (July 7-11)

**Chairperson, Organizing Committee**, Banbury Conference on Mechanistic Approaches to Developmental Toxicology, Cold Spring Harbor, NY (October 19–21)

1987 **Vice Chairperson and Session Chairperson**, Gordon Research Conference on Hormonal Carcinogenesis, New Hampton, NH (August 2–7)

**Session Chairperson**, NICHD Symposium on Regulatory Actions of Growth Factors in Reproduction and Early Development, Marine Biological Laboratory, Woods Hole, MA (September 1–2)

1988 **Session Chairperson**, Gordon Research Conference on Reproductive Tract Biology, Wolfeboro, NH (July 3–8)

**Session Chairperson**, Symposium on the Control of Cell Proliferation and Cancer, Tufts University Health Sciences Center, Boston, MA (October 13–14)

1989 **Organizer and Chairperson**, Symposium on Ontogeny of Steroid Hormone Responses, FASEB Annual Meeting, New Orleans, LA (March 20–23)

- 1989 continued** **Chairperson**, Gordon Research Conference on Hormonal Carcinogenesis, New Hampton, NH (July 2–7)
- 1990** **Member, Organizing Committee, and Session Chairperson**, Symposium on Growth Factors in Reproduction, Serono Symposia, USA, Savannah, GA (April 1–4)
- Session Chairperson**, Gordon Research Conference on Reproductive Tract Biology, Wolfeboro, NH (July 7–13)
- 1991** **Member, Organizing Committee**, First International Symposium on Hormonal Carcinogenesis, Cancun, Mexico (March 19–23)
- 1992** **Member, Organizing Committee**, NIH Workshop: Long-Term Effects of Exposure to Diethylstilbestrol (DES), Falls Church, VA (April 22–24)
- 1993** **Member, Advisory Committee**, Symposium on Women’s Health and the Environment, Society for the Advancement of Women’s Health Research, Washington, DC (June)
- Organizer and Session Chairperson**, Symposium on “What is the Role of Growth Factor in the Uterus?” Society for the Study of Reproduction Annual Meeting, Fort Collins, CO (August 1–4)
- Session Chairperson**, Gordon Research Conference on Hormonal Carcinogenesis, Salve Regina College, Newport, RI (August 9–13)
- Session Chairperson**, Ninth Annual Symposium on Cellular Endocrinology “Cell Signaling and the Molecular Stress Response,” Lake Placid, NY (September 23–26)
- 1994** **Co-organizer**, Conference on Estrogens in the Environment III: Global Health Implications, Washington, D.C. (January 9–11)
- Session Chairperson**, Keystone Symposium, Taos, NM (February 7–13)
- Member, Planning Committee**, First International Symposium on the Environment and Children’s Health, Washington, D.C. (March)
- Session Chair**, Symposium on Environment and Male Reproduction, Annual Meeting of the Andrology Society, Raleigh, NC (April 1)
- Session Chairperson**, Second International Symposium of Hormonal Carcinogenesis, Stockholm, Sweden (July 3–8)
- Session Chairperson**, Gordon Research Conference on Reproductive Tract Biology, Plymouth, NH (July 10–15)
- 1995** **Co-Chair, Organizing Committee** for the Barton Creek Conference on Cancer and the Environment, Austin, TX (January–February)
- Panel Chair**, Environment and Reproduction, First Annual Meeting of the Environmental Health Foundation, Biosphere, AR (June 2–3)

- 1995** **Session Chairperson**, International Symposium on Hormones and Growth Factors in Development and Cancer, Fogarty International Center, National Institutes of Health, Bethesda, MD (June 26–28)  
**continued**
- Session Chairperson**, Gordon Research Conference on Hormonal Carcinogenesis, Colby-Sawyer, NH (August 6–11)
- Session Chairperson**, Barton Creek Conference on Etiology of Breast and other Gynecologic Neoplasms, MD Anderson Tumor Hospital, Barton Creek, TX (November 29–December 2)
- 1996** **Session Chair**, Symposium on Male Reproduction, Aix les Baines, France (November 10–14)
- Co-Organizer**, First NOLA Workshop on Environmental Hormones, New Orleans, LA (December 12–13)
- 1997** **Invited Moderator**, Symposium on Endocrine Disrupting Chemicals, Center for Environmental Policy, Tufts University, Boston, MA (April 16)
- Invited Session Chair**, Symposium on Phytoestrogens, Tucson, AR (September 22–23)
- Session Chair and Panelist**, Symposium on Breast Cancer Research, Department of Defense, Washington, DC (November 2)
- 1998** **Session Chair**, Gordon Research Conference on Reproductive Tract Biology (July 5–9)
- Session Chair**, Gordon Research Conference on Endocrine Disrupting Chemicals, (July 12–16)
- Session Chair**, Symposium on Women’s Health, Washington, D.C. (September 10)
- 1999** **Session Chair**, Development and Estrogens Session, Symposium on Endocrine Disrupting Chemicals, Keystone Meetings on Cell and Molecular Biology, Lake Tahoe, CA (January 31–February 4)
- Organizer**, U.S./Japan Workshop on Environmental Hormones, Center for Bioenvironmental Research, Tulane and Xavier Universitites, New Orleans, LA (February 6)
- Coordinator**, Public Meeting on Toxics, Society of Toxicology Annual Meeting, New Orleans, LA (March 13)
- Session Chair**, Workshop on Diethylstilbestrol (DES) Research Priorities, National Cancer Institute, Bethesda, MD (July 19-20)
- Session Chair**, Gordon Research Conference on Hormonal Carcinogenesis, Plymouth, NH (August 1-5)
- Session Chair**, Environmental factors in Symposium on Uterine Fibroids Research, National Institute of Environmental Health Sciences, NIH, Research Triangle Park, NC (October 7-8)
- Organizer**, International Symposium on Environmental Hormones, e.hormone 1999: Past, Present, Future, New Orleans, LA (October 18-20)
- 2000** **Session Chair**, Symposium on Minorities and Cancer, Washington, DC (February 9-11)

**2000 continued** **Session Chair**, Meeting on Children's Health and Endocrine Disruption, Mt. Sinai School of Medicine, New York, NY (March 16-18)

**Session Chair**, Symposium on Global Environmental Change, Annual Meeting of the International Development Bank, New Orleans, LA (March 25)

**Invited Chair**, Planning Meeting of the Gynecological Oncology Group, Washington, DC (May 4-5)

**Session Chair**, Beijing Plus Five: Women's Health Around the World Conference, New York, NY (June 7)

**Organizer**, U.S./Japan Workshop on Environmental Hormones, Center for Bioenvironmental Research, Tulane and Xavier Universities, New Orleans, LA (June 24)

**Organizer**, International Symposium on Environmental Hormones, e.hormone 2000: the cutting edge of endocrine disrupter research, New Orleans, LA (October 15-18)

**Panel Chair**, Symposium on Childrens' Exposure to Environmental Contaminants, Childrens' Environmental Health Network, Austin, TX (October 27-28)

**2001** **Organizer**, International Symposium on Environmental Hormones, e.hormone 2001: the cutting edge of endocrine disrupter research, New Orleans, LA (October 18-20)

**2002** **Session Chair**, Symposium on Hormonally Active Agents, Center for Alternatives to Animal Testing, Johns Hopkins University Medical Center, Arlington, VA (February 25-26)

**Invited Moderator**, World Congress on Alternatives to Animal Testing, New Orleans, LA (August 14)

**Organizer**, The Minamata-New Orleans Workshop on Environmental Mercury, New Orleans, LA (October 16)

**Organizer**, International Symposium on the Environment and Hormones, e.hormone 2002: the cutting edge of endocrine disrupter research, New Orleans, LA (October 17-19)

**2003** **Organizer**, International Symposium on the Environment and Hormones, e.hormone 2003: the cutting edge of endocrine disrupter research, New Orleans, LA (October 15-18)

**2004** **Co-organizer**, Symposium on Endocrine and Immune Disruption, Annual Meeting of the Society for Integrative and Comparative Biology, New Orleans, LA (January 5-9)

**Chair, Organizing Committee**, Mini-symposium on Endocrine and Environmental Signaling, Satellite Symposium for the Endocrine Society, New Orleans, LA (June 15)

**Organizer**, Workshop on Endocrine Disrupting Chemicals and Pharmaceuticals in Water, National Ground Water Association Meeting, Minneapolis, MN (October 13-15)

**Organizer**, International Symposium on the Environment and Hormones, e.hormone 2004: the cutting edge of endocrine disrupter research, New Orleans, LA (October 27-30)

**Session Chair**, Symposium on Children's Environmental Health, Austin, TX (September)

- 2004 continued** **Co-organizer**, Workshop on Endocrine Disrupting Chemicals and Pharmaceuticals in Water, National Ground Water Association Meeting, Minneapolis, MN (October 13-15)
- 2005** **Session Chair**, Gordon Research Conference on Hormone Action in Development and Cancer, Mount Holyoke College, South Hadley, MA (July 10-15)
- Organizing Committee**, ONR Conference on Majority-Minority Partnerships: The Tulane/Xavier Model, Tulane University, New Orleans, LA (August 4-5)
- Co-organizer**, Meeting on Reinhabiting New Orleans, Fanny Mae Foundation, New Orleans, LA (November 29-30)
- 2006** **Co-organizer**, New Directions Meeting on Science, Engineering and Humanities in Post-Katrina New Orleans, New Orleans, LA (February 22-23)
- Session Chair**, Gordon Research Conference on Environmental Endocrine Disruptors, Il Ciocco, Luca, ITALY (June 4-9)
- Session Chair**, Testes Cancer Workshop, University of Copenhagen, Copenhagen, DENMARK (October 26-28)
- 2007** **Session Chair**, 4th International Symposium on Endocrine Disruption, Copenhagen, DENMARK (May 28-31)
- Session Chair**, Gordon Research Conference on Hormone Action, Development and Cancer, New London, NH (July 15 - 20)
- 2008** **Organizer**, International Symposium on the Environment and Hormones, e.hormone 2008: the cutting edge of endocrine disrupter research, New Orleans, LA (April 13-16)
- Session chair**, Gordon Research Conference on Environmental Endocrine Disruption, Waterville Valley, NH (june 8-13)
- 2009** **Session chair**, Gordon Research Conference on Hormone Action in Development and Cancer, Holderness, NH (July 26-31)
- Organizer**, International Symposium on the Environment and Hormones, e.hormone 2009: the cutting edge of endocrine disrupter research, New Orleans, LA (October 21–24)
- 2010** **Organizer**, International Symposium on the Environment and Hormones, e.hormone 2010: the cutting edge of endocrine disrupter research, New Orleans, LA (October 19-23)
- 2013** **Organizing Committee**, Charting a Renewed Vision for Children’s Environmental Health organized by the Children’s Environmental Health Network, The American Public Health Association, Washington, DC (Sept 20)
- 2014** **Session Chair**, Gordon Research Conference Environmental Endocrine Disruptors, Renaissance Tuscany Il Ciocco Resort in Lucca (Barga) Italy (May 11-15)
- 2016** **Organizing Committee**, International Symposium on Endocrine Disruption: Twenty five Years of Research, Co-sponsored by the Endocrine Society and the National Institute of Environmental Health Sciences, NIH, Bethesda, MD (September 18 - 20)

S E L E C T E D I N V I T A T I O N S ( S I N C E 1 9 9 3 )

1993 **Distinguished Visiting Professor** in Pharmacology, The University of Texas Health Science Center at Houston, Houston, TX (January 10–12)

**Invited Participant**, Workshop on Environmental Health, Physicians for Social Responsibility, Queenstown, MD (February 19–21)

**Invited Speaker**, Clinical Center Grand Rounds, National Institutes of Health, Bethesda, MD (March 3)

**Invited Speaker**, Society of Toxicology Symposium on Molecular Mechanisms in Hormonal Carcinogenesis: Update and Challenges for Future Research, New Orleans, LA (March 16)

**Invited Speaker**, Environmental Health Sciences Center, 25th Year Celebration and Symposium, Oregon State University, Corvallis, OR (April 2)

**Invited Speaker**, First Annual Environmental Careers Symposium, NIEHS, RTP, NC (April 20)

**Invited Speaker**, President's Cancer Panel Special Commission on Breast Cancer, New York, NY (April 29)

**Invited Participant**, International Congress on the Health Effects of Hazardous Waste, Agency for Toxic Substances and Disease Registry, Atlanta, GA (May 3–4)

**Invited Speaker**, Congressional Staff Retreat on Toxics Policy, Airlie House, Reston, VA (May 13–14)

**Invited Speaker**, Symposium on the Environment and Women's Health, Society for the Advancement of Women's Health Research, Washington, DC (June 14)

**Kinter Lecturer**, The Mount Desert Island Biological Laboratory, Salsbury Cove, ME (July 14)

**Invited Speaker**, Environmental Policy Seminars, Environmental and Occupational Health Sciences Institute, Piscataway, NJ (August 24)

**Invited Speaker**, Ninth Annual Symposium on Cellular Endocrinology "Cell Signaling and the Molecular Stress Response," Lake Placid, NY (September 23–26)

**Invited Speaker**, NCI Workshop on Epidemiology of Prostate Cancer: An Endocrine Perspective, Bethesda, MD (September 27)

**Invited Speaker**, Carolina Federation of Environmental Programs, Department of Environmental Sciences and Engineering, University of North Carolina at Chapel Hill, NC (October 7)

**Invited to testify** at the U.S. House of Representatives Committee on Energy and Commerce, Health and Environment Subcommittee hearing on Health Effects of Exposure to Pesticides Having Estrogenic Qualities, Rayburn House Office Building, Washington, DC (October 21)

**Invited Speaker**, Physicians for Social Responsibility, International Joint Commission of the USA & Canada World Wildlife Fund, "Balancing the Scales: Mitigating the Health Effects of Great Lakes Pollution," Washington, DC (October 25)



**1993 continued** **Invited Speaker**, Society for the Advancement of Women's Health Research, Congressional Staff Briefing on Women's Health and the Environment, Rayburn House Office Building, Washington, DC (November 4)

**Invited Speaker**, The Environmental Biotechnology Program, University of Florida, Gainesville, FL (November 15)

**Invited Speaker**, Department of Zoology, North Carolina State University, Raleigh, NC (November 18)

**Invited Speaker**, North American Wildlife Biologists Network sponsored by World Wildlife Fund and The Johnson Foundation, Racine, WI (December 10–12)

**Invited Participant**, Department of Health and Human Services Secretary's Conference to Establish a National Action Plan for Breast Cancer, National Institutes of Health, Washington, DC (December 14)

**1994** **Invited Speaker**, University of Texas Health Science Center, San Antonio, TX (January 21)

**Invited Speaker**, Department of Cell Biology and Anatomy, The University of North Carolina at Chapel Hill, School of Medicine, Chapel Hill, NC (February 15)

**Invited Speaker**, 1994 Annual Winter Meeting of The Toxicology Forum, Washington, DC (February 23)

**Invited Speaker**, Twelfth National Pesticide Forum, "Freedom From Pesticides is Everybody's Right: Preventing the Poisoning," Alexandria, VA (March 11–14)

**Invited Speaker**, First National Symposium on Preventing Child Exposures to Environmental Hazards: Research and Policy Issues, Children's Environmental Health Network, Washington, DC (March 18–19)

**Invited Speaker**, Watkins Life Science Conference, Cancer Symposium, Wichita State University, Wichita, KS (April 16)

**George A. Miller Lecturer**, University of Illinois at Urbana-Champaign, Urbana, IL (April 28)

**Invited Speaker**, American Society for Clinical Nutrition, Federation of American Societies for Experimental Biology, Anaheim, CA (April 24–28)

**Invited Speaker**, 3rd Annual Meeting of the Carolinas Chapter of SETAC, Duke University, School of the Environment, Durham, NC (May 20)

**Invited Speaker**, Congress on Cell and Tissue Culture, 1994 Meeting of the Tissue Culture Association, Research Triangle Park, NC (June 4–7)

**Invited Speaker**, Human Health and the Environment Conference, Physicians for Social Responsibility, Atlanta, GA (June 24–26)

**Keynote Speaker**, 34th Annual Teratology Society Meeting, Las Croabas, Puerto Rico (June 26–27)

**Invited Speaker**, Society for the Advancement of Women's Health Research, Chicago, IL (July 21)

- 1994**  
continued
- Invited Speaker**, Linda Creed Breast Cancer Foundation, Philadelphia, PA (September 9)
- Invited Speaker**, Twenty-Second Annual Conference of the European Teratology Society, Fourth Scientific Meeting of the International Federation of Teratology Societies, Prague, Czechoslovakia (September 12–15)
- Invited Speaker**, National Cancer Institute, Workshop on Dietary Phytoestrogens: Cancer Cause or Prevention? Herndon, VA (September 21–23)
- Invited Speaker**, Symposium on Environment and Fertility, International Federation of Gynecology and Obstetrics XIV World Congress Meeting, Montreal, Canada (September 26–28)
- Invited Speaker**, Symposium on Hormones and Women's Health, University of Maryland, Women's Health Research Group, Baltimore, MD (October 7–9)
- Invited Speaker**, Reproductive Biology Program, University of Michigan, Ann Arbor, MI (October 20)
- Invited Speaker**, Joint Meeting of the Midwest Chapter of the Society of Toxicology and the Midwest Teratology Association, Ann Arbor, MI (October 21)
- Invited Speaker**, National Security Agency, Fort George G. Meade, MD (November 2)
- Invited Speaker**, North Carolina State University, Department of Toxicology, Raleigh, NC (November 8)
- Invited Speaker**, Department of Molecular and Developmental Biology, Albert Einstein College of Medicine of Yeshiva University, Bronx, NY (November 15)
- Invited Speaker**, Symposium on Estrogens in the Environment, Gulf Coast Society of Toxicology Annual Meeting, Houston, TX (November 19)
- Invited Speaker**, Panel Discussion on Science Education, Appalachian State University, Boone, NC (December 1)
- Invited Speaker**, Annual Meeting of the North Carolina Student Academy of Sciences, Research Triangle Park, NC (December 3)
- Invited Participant**, Workshop on Endocrine Disrupting Chemicals, Natural Resources Defense Council, Washington, D.C. (December 6)
- 1995**
- Invited Speaker**, Symposium on Estrogens in the Environment, Annual Meeting of the American Society of Zoologists, St. Louis, MO (January 6–8)
- Invited Participant**, Workshop on Environmental Hormones and Male Reproductive Health, Danish EPA and Health Ministry for Nordic and EC countries, Copenhagen, Denmark (January 23–28)
- Invited Speaker**, Symposium on Estrogens in the Environment and Male Reproductive Health, Joint Meeting of the Danish Societies of Andrology, Toxicology, and Environmental Studies, Copenhagen, Denmark (January 26)

**1995 continued** **Invited Participant**, Workshop on the Impact of Hormonally-active Xenobiotics, Medical Research Council, Toxicology Unit, Leicester, United Kingdom (January 29–30)

**Invited Speaker**, Workshop on Hormonally-active Xenobiotics, Institute of Environmental Health Studies, University of Leicester, Leicester, United Kingdom (January 31)

**Invited thesis opponent**, University of Lund Medical Faculty, Lund, Sweden (February 12)

**Invited Speaker**, Symposium on Environment and Cancer, Annual Meeting of the American Association for Cancer Research, Toronto, Canada (March 19–22)

**Invited Speaker**, Controversy Session: Do Estrogens Cause Breast Cancer? Annual Meeting of the American Association for Cancer Research, Toronto, Canada (March 19–22)

**Invited Speaker**, Tulane University President's Council, "The Center for Bioenvironmental Research: Cutting Edge Science for Solutions to Tomorrow's Environmental Problems," Tulane University, New Orleans, LA (March 31)

**Invited Speaker**, Symposium on Environment and Male Reproduction, Annual Meeting of the Andrology Society, Raleigh, NC (April 1)

**Invited Plenary Speaker**, Symposium on Environmental Hormones and Biomarkers, Annual Meeting of the Association for Testing, Substances and Materials, Denver, CO (April 3)

**Invited Participant**, Workshop on Endocrine Disrupting Chemicals, Environmental Protection Agency, Raleigh, NC (April 10–12)

**Invited Speaker**, Duke University School of the Environment, Durham, NC (April 13)

**Invited Speaker**, Annual Advisory Board Meeting, Office of Research on Women's Health, National Institutes of Health, Bethesda, MD (April 24)

**Invited Speaker**, Russian River Conference on Endocrine Disrupting Chemicals in the Environment, Sonoma, CA (May 13)

**Invited Participant**, Dioxin Reassessment Panel, Environmental Protection Agency, Reston, VA (May 15 - 17)

**Invited Advisor**, Tufts University Center for Environmental Studies, Boston, MA (May 22–23)

**Invited Participant**, Environment and Reproduction, First Annual Meeting of the Environmental Health Foundation, Biosphere, AR (June 2–3)

**Invited Speaker**, Pathology Grand Rounds, "Altered gene expression associated with estrogen-induced neoplasia," Tulane University Medical Center, New Orleans, LA (June 9)

**Invited Speaker**, Surgery Grand Rounds, "Environmental factors and cancer," Tulane University Medical Center, New Orleans, LA (June 10)

**Keynote Speaker**, Department of Energy-Environmental Management Investigators Retreat, Tulane University, New Orleans, LA (June 19)

**1995 continued** **R. K. Miller Lecturer**, “From turtles to people: long-term consequences of exposure to estrogen during fetal development,” University of Rochester Medical School, Rochester, NY (June 22)

**Invited Speaker**, Student/Faculty Chalk Talk, “Estrogens in the environment: signals or noise?” University of Rochester Medical School, Rochester, NY (June 23)

**Invited Speaker**, Symposium on Hormones and Growth Factors in Development and Cancer, Fogarty International Center, National Institutes of Health, Bethesda, MD (June 26–28)

**Invited Speaker**, Symposium on Environmental Hormones, International Union of Toxicology Meeting, Seattle, WA (July 3–7)

**Invited Speaker**, Gordon Research Conference on Hormonal Carcinogenesis, Colby-Sawyer, NH (August 6–11)

**Invited Speaker**, Gordon Research Conference on Toxicology Mechanisms, Kimball Union, NH (August 6–11)

**Plenary Speaker**, Annual Society of Theiriogenology Meeting, San Antonio, TX (September 14–15)

**Invited Speaker**, Meet the Professor Session, International Congress on Hormones and Cancer, Quebec City, Canada (September 17–20)

**Invited Speaker**, Workshop on Metabolism of Hormones and Chemicals in Breast Cancer, National Cancer Institute and the National Action Plan on Breast Cancer, Tulane University, New Orleans, LA (September 28–29)

**Invited Speaker**, Grand Rounds, Department of Obstetrics and Gynecology, Tulane University Medical School, New Orleans, LA (October 12)

**Invited Speaker**, Tulane University Green Club, “Estrogens in the Environment: A metaphor for research in the CBR,” Tulane University, New Orleans, LA (October 30)

**Invited Speaker**, Pharmacology Department Seminar Series, “Estrogens in the Environment: Molecular pharmacology for understanding human disease,” Tulane University Medical School, New Orleans, LA (November 11)

**Invited Speaker**, Symposium on Environmental Chemicals and Breast Cancer Development, Center for Molecular and Cellular Toxicology with Human Applications, Wayne State University, Detroit, MI (November 15)

**Invited Speaker**, Mayor’s Environmental Breakfast, Office of Mayor Marc Morial, New Orleans, LA (November 17)

**Invited Speaker**, Region 5 Louisiana Board of Regents Grant Workshop, Tulane University, New Orleans, LA (November 17)

**Keynote Speaker**, Barton Creek Cancer Conference on Etiology of Breast and other Gynecologic Neoplasms, MD Anderson Tumor Hospital, Barton Creek, TX (November 29–December 2)

**1995 continued** **Invited Speaker**, Symposium on Declining fertility: The estrogen jigsaw, Joint International Conference of the British Fertility Society and The British Society of Andrology, University of Warwick, Coventry, UNITED KINGDOM (December 17–19)

**Invited Speaker**, Toxicology Unit, Medical Research Council, Leicester University, Leicester, UNITED KINGDOM (December 20)

**1996** **Invited Speaker**, Reproductive Sciences Seminar, Biotechnology Institute, Texas A&M University, Houston, TX (January 9)

**Invited Speaker**, Symposium on Risk of Endocrine Modulating Chemicals, International Society for Regulatory Toxicology and Pharmacology, Research Triangle Park, NC (January 13–14)

**Invited Speaker**, Seminar on Environmental Estrogens: A case study in epigenetic toxicology, Environmental and Occupational Health Sciences Center, Robert Wood Johnson Medical Center, Rutgers University, New Brunswick, NJ (January 18)

**Invited Speaker**, Symposium on Environment and Health, Integrated Pest Management, USDA, Annual Meeting, Washington, D.C. (February 28)

**Invited Speaker**, Reproductive Sciences Seminars, University of Texas, Austin, TX (April 11)

**Invited Speaker**, Endocrine Modulators Consortium, Chemical Manufacturers Association, Washington, D.C. (April 18)

**Invited Speaker**, Sunrise Session, Environmental Impact on Cancer, Annual Meeting of the American Association for Cancer Research, Washington, D.C. (April 22)

**Invited Speaker**, Center for Bioenvironmental Research Earth Day Symposium, Tulane University, New Orleans, LA (April 22)

**Invited Speaker**, American Association for Cancer Research Special Symposium on Inducible Genomic Responses, Skamania Lodge, Stevenson, WA (June 8–12)

**Invited Speaker**, International Congress of Endocrinology Symposium on Environment and Male Reproductive Health, San Francisco, CA (June 12–14)

**Invited Participant**, Workshop on Endocrine Disrupting Chemicals for the World Wildlife Fund, Environmental Protection Agency, and Chemical Manufacturers Association, Duke University, Durham, NC (July 15–16)

**Invited delegate**, US-Canadian Forum on Women's Health, Ottawa, Canada (August 8–10)

**Scientific Director's Distinguished Lecturer**, "Estrogens in the Environment: From Molecules to Men (or at least turtles)," National Institute of Environmental Health Sciences, Research Triangle Park, NC (August 23)

**Invited Speaker**, Symposium on Endocrine Disrupting Chemicals, American Chemical Society Annual Meeting, Orlando, FL (August 25)

**1996 continued** **Invited Speaker**, Symposium on the Ecological Health of the Lower Columbia River, Annual Meeting of the Pacific Northwest Association of Toxicologists, Edgefield Lodge, Portland, OR (September 12)

**Invited Speaker**, Meeting of the Advisory Council, National Institute of Environmental Health Sciences, Research Triangle Park, NC (September 16)

**Invited Speaker**, Steroid Receptor Superfamily Symposium, University of Wisconsin, Madison, WI (September 27–29)

**Invited Speaker**, Deutsche Forschungsgemeinschaft Symposium on Hormonally Active Agents in Food, University of Kaiserslautern, Kaiserslautern, GERMANY (October 6–9)

**Invited Speaker**, Institute of Food Chemistry, University of Karlsruhe, Karlsruhe, Germany (October 10)

**Invited Speaker**, Society of Toxicology, Mid Atlantic Chapter, Symposium on Endocrine Modulation, East Windsor, NJ (October 31–November 1)

**Invited Speaker**, Symposium on Male Reproduction, Aix les Baines, France (November 10–14)

**Invited Speaker**, NCI Workshop on DES Research, Baltimore, MD (December 11)

**Invited Speaker**, First NOLA Workshop on Environmental Hormones, New Orleans, LA (December 12–13)

**Invited Speaker and Participant**, International Workshop on the Risk of Endocrine Disrupting Chemicals, Research Triangle Park, NC (January 13–14)

**Invited Speaker**, Smithsonian Institute International Meeting on Global Endocrine Disruptors Research, Washington, DC (January 23–24)

**Invited Speaker**, Georgia State Symposium on Cutting Edge Research, Athens, GA (January 25)

**Invited Speaker**, State of Science Tutorial, Endocrine Disruptors Screening and Testing Advisory Committee (EDSTAC) Meeting, Houston, TX (February 5–6)

**Invited Speaker and Participant**, Hawaii Heptachlor Foundation Meeting, North Coast Hilton, Honolulu, HI (February 15–16)

**Invited Lecturer**, University of Hawaii, Honolulu, HI (February 18)

**Invited Speaker**, Symposium on Estrogens and the Male, Annual Meeting of the American Society of Andrology, Baltimore, MD (February 24)

**Invited Speaker**, Seminar in Environmental Health Sciences, Environmental Health Sciences Center, University of Cincinnati, Cincinnati, OH (March 12)

**Invited Speaker**, Seminar on Environmental Estrogens, Center on Environmental Health, Centers for Disease Control and Prevention, Atlanta, GA (March 17)

**1997** **Invited Speaker**, Symposium on Receptor Mediated Toxicities, British Society of Toxicology Meeting, Warwick, United Kingdom (March 25)  
**continued**

**Invited Speaker**, Symposium on Cellular Interactions in Uterine Disease, Annual FASEB Meeting, New Orleans, LA (April 8)

**Invited Speaker**, Symposium on Children's Environmental Health, Sundance Institute, Sundance, UT (April 25)

**Distinguished Lecturer**, Lectures on the Environment, Annual public lecture organized by the Brandywine Conservancy, Chadds Ford, PA (May 8)

**Invited Speaker**, Fourth International Workshop on Testicular Cancer, Copenhagen, Denmark (May 18–13)

**Distinguished Lecturer**, Lectures in Reproductive Biology, Annual Lecture Jointly Sponsored by the University of Maryland and the Johns Hopkins University, Baltimore, MD (June 3)

**Invited Speaker**, Congressional Briefing on DES, Washington, DC (June 4)

**Invited Speaker**, Tulane University Cancer Center Seminar Series, Tulane University Medical Center, New Orleans, LA (June 5)

**Invited Discussant**, Symposium on Women's Health, Office of Women's Health Research, National Institute of Health, New Orleans, LA (June 12)

**Invited Speaker**, International Congress of Pediatrics, Stockholm, Sweden (June 23–26)

**Invited Workshop Speaker**, World Congress on Breast Cancer, Kingston, Ontario (July 15)

**Invited Speaker**, Fourth International Symposium on Environmental Estrogens, sponsored by National Institute of Environmental Health Sciences, National Institute of Health, Washington, DC (July 21–22)

**Keynote Speaker**, Gordon Research Conference on Hormonal Carcinogenesis, Plymouth, NH (July 27–31)

**Distinguished Scientist Lecturer**, Inaugural Distinguished Scientist Lecture, Duquesne University, Pittsburgh, PA (October 6)

**Invited Speaker and Guest Professor**, Lectures in Human Health and Global Environmental Change, Harvard Medical School Curriculum Environmental Medicine, Boston, MA (November 20)

**Invited Speaker**, Seminar at Biomedicine Institute, University of Turku, Turku, Finland (December 15)

**Invited Lecturer**, Graduate Curriculum in Endocrinology, Karolinska Institute, Stockholm, SWEDEN (December 16)

**Invited Speaker**, Symposium on Endocrine Disrupting Chemicals, Swedish Research Council, Stockholm, SWEDEN (December 17)

- 1998 Invited Speaker**, Hormones and Cancer in Breast and Prostate, Keystone Meetings on Cell and Molecular Biology, Keystone, CO (February 22–25)
- Invited Speaker**, Environmental education, Association of Minority Health Professional Schools, New Orleans, LA (April 9)
- Invited Speaker**, Gordon Research Conference on Endocrine Disrupting Chemicals, Mount Holyoke College, South Hadley, MA (July 12–16)
- Invited Speaker**, Annual Meeting on Medical Toxicology, Orlando, FL (September 11–12)
- Invited Speaker**, Festschrift for Professor Hans Funter Neumann, University of Wurzburg, Wurzburg, GERMANY (September)
- Invited Speaker**, Workshop on Environment and Frog Malformation, sponsored by the National Science Foundation, San Diego Zoo, San Diego CA (November 6–7)
- Invited Speaker**, KRI Symposium on Trends for the Millenium, Kansai Research Institute, Kyoto, JAPAN (December 1)
- Invited Speaker**, Workshop on Endocrine Disrupting Chemicals, KRI, Kyoto, JAPAN (December 2)
- Invited Speaker**, Obstetrics and Gynecology Department, Shinshu University, Matsumoto, JAPAN (December 4)
- Invited Speaker**, Tokyo University of Pharmacy and Life Sciences, Tokyo, Japan (December 7)
- Invited Speaker**, Department of Zoology, University of Tokyo, Tokyo, Japan (December 9)
- Invited Speaker**, International Symposium on Environmental Hormones, Kyoto, Japan (December 11–13)
- 1999 Invited Speaker**, Symposium on Endocrine Disrupting Chemicals, Annual Society for Comparative and Integrative Biology Meeting, Denver, CO ( January 9–10)
- Invited Speaker**, Annual Meeting of Louisiana Chapter of American Public Health Association, Baton Rouge LA (January 20)
- Speaker**, US/Japan Workshop on Environmental Hormones, Center for Bioenvironmental Research, Tulane and Xavier Universities, New Orleans, LA (February 6)
- Invited Speaker**, Mardi Gras Institute, Tulane University School of Public Health and Tropical Medicine, New Orleans, LA (February 8)
- Invited Seminar Speaker**, Department of Anatomy and Cell Biology, Louisiana State University Medical School, New Orleans, LA (April 5)
- Distinguished Speaker**, Sigma Xi Initiation Banquet, Louisiana State University, Baton Rouge, LA (April 13)



**1999** **Invited Speaker**, Louisiana Board of Regents *Links to Success* Conference, Baton Rouge, LA (April 14)  
continued

**Invited Speaker**, Symposium on Estrogen, Experimental Biology Congress, Washington, DC (April 17)

**Invited Speaker**, Workshop on Diethylstilbestrol (DES) Research Priorities, National Cancer Institute, Bethesda, MD (July 19-20)

**Invited Speaker**, Teagle Foundation Workshop on Scholarly Activities for Junior Faculty at HBCUS, New Orleans, LA (September 25)

**Invited Plenary Speaker**, International Symposium on Environmental Hormones: Past, Present, Future, New Orleans, LA (October 18-20)

**Invited Speaker**, Memorial Symposium in honor of David P. Rall, National Institute of Environmental Health Sciences, Research Triangle Park, NC (December 6)

**Invited Speaker**, Second International Symposium on Endocrine Disrupting Chemicals, Kobe, Japan (December 9-11)

**Invited Speaker**, Consensus Conference on Endocrine Disrupting Chemicals, Yokohama, Japan (December 13)

**2000** **Invited Speaker**, Symposium on Minorities and Cancer, Washington, DC (February 9-11)

**Invited Speaker**, Meeting on Children's Health and Endocrine Disruption, Mt. Sinai School of Medicine, New York, NY (March 16-18)

**Invited Speaker**, Symposium on Global Environmental Change, Annual Meeting of the International Development Bank, New Orleans, LA (March 25)

**Invited Speaker**, Annual Meeting of the Japanese Society of Pharmaceutical Sciences, Gifu, JAPAN (March 30)

**Lecturer**, Environmental Issues Curriculum, Nicholas School of the Environment, Duke University (April 17)

**Keynote Speaker**, International Symposium on Endocrine Disrupting Chemicals and Health, Copenhagen, DENMARK (May 28-30)

**Invited Speaker**, Beijing Plus Five: Women's Health Around the World Conference, New York, NY (June 7)

**Keynote Speaker**, Gordon Research Conference on Endocrine Disruption, Plymouth, NH (June 19-22)

**Invited Speaker and Panelist**, Gordon Research Conference on Reproductive Tract Biology, New London, CT (July 1-5)

**Invited Speaker**, Reproductive Biology Unit Seminar, Medical Research Council, University of Edinburgh, Edinburgh, Scotland (September 14)

- 2000** **Invited Speaker**, Symposium on Genomic Imprinting, Eurotox 2000, London, England (September 18)  
**continued**
- Invited Speaker**, Department of Environmental Health Sciences, Colorado State University, Fort Collins, CO (October 6)
- Plenary Speaker**, Symposium on Childrens' Exposure to Environmental Contaminants, Childrens' Environmental Health Network, Austin, TX (October 27-28)
- Invited Speaker**, Symposium on Steroids and Signals, Center for Environmental Genetics, University of Cincinnati, Cincinnati, OH (November 18)
- Keynote Speaker**, Symposium on Chemicals in the Environment: Hazards for Human Development, Developmental Biology Center, UC Irvine, Irvine, CA (December 2)
- Invited Panelist**, Third International Meeting on Environmental Hormones, Yokohama, Japan (December 17-19)
- 2001** **Keynote Speaker**, TestSmart Endocrine Disrupter Workshop, The Johns Hopkins Center for Alternatives to Animal Testing, Baltimore, MD (February 21-22)
- Invited Speaker**, Symposium on Recent Progress of Endocrine Disrupter Research, NIBB International Conference, Okazaki City, Japan (March 3-5)
- Invited Speaker**, International Symposium on Diethylstilbestrol, Washington, DC (April 2)
- Invited Speaker**, NIH Endometriosis Conference, Bethesda, MD (April 9-10)
- Plenary Speaker**, Symposium on Endocrine Disrupting Chemicals, Canadian Federation of Biological Societies, Ottawa, Canada (June 18-20)
- Invited Speaker**, Gordon Research Conference on Hormonal Carcinogenesis, New Hampshire (July 8-13)
- Invited Keynote Speaker**, Symposium on Health Hazard Assessment, National Institute of Environmental Health Sciences and University of Florida, Gainesville (December 10)
- 2002** **Invited Speaker**, Symposium on Hormonally Active Agents, Center for Alternatives to Animal Testing, Johns Hopkins University Medical Center, Arlington, VA (February 25-26)
- Invited Plenary Speaker**, World Congress on Endometriosis, San Diego, CA (February 27-28)
- Invited Keynote Speaker**, International Symposium on Chemical Hazards, Minamata, JAPAN (March 20-22)
- Invited Speaker**, National Institute of Health Science, Tokyo, JAPAN (March 25)
- Invited Speaker**, Symposium on the Environment and Humans, Nicholas School of the Environment, Duke University, Durham, NC (April 23)

**2002** **Invited Speaker**, 4<sup>th</sup> Annual Symposium on Breast Cancer, European Institute of Oncology, Milan, ITALY  
**continued** (June 13-14)

**Invited Speaker**, Milan Breast Cancer Meeting, Milan, ITALY (June 3-9)

**Invited Speaker**, Gordon Research Conference on Reproductive Tract Biology, Connecticut College, New London, CT (June 30-July 4)

**Invited Speaker**, Gordon Research Conference on Endocrine Disrupting Chemicals, Mt. Holyoke, MA (July 14-19)

**Invited Speaker**, Conference on Phytochemicals, UCAL Davis, Davis, CA (October 21-22)

**Invited Speaker**, Environmental Endocrine Disrupters Symposium, Hiroshima, JAPAN (November 26-28)

**2003** **Invited Lecturer**, 15<sup>th</sup> Annual Richard G. Bond Memorial Lecture in Environmental and Occupational Health, University of Minnesota School of Public Health, Minneapolis, MN (March 19)

**Invited Speaker**, Department of Cell Biology, LSU Medical Center, New Orleans, LA (May 5)

**Invited Speaker**, Symposium on Environment and Society, University of Kentucky, Lexington, KY (June 2-3)

**Invited Lecturer**, Second Annual Herman J. Doucet, Sr. Memorial Lecture, Nicholls State University, Thibodaux, LA (June 7)

**Invited Speaker**, Gordon Research Conference on Hormones and Development, Connecticut College, CT (June 8-12)

**Invited Speaker**, Teratology Society Meeting, Philadelphia, PA (June 22-25)

**Invited Speaker**, Conference on Endocrine Disrupting Chemicals: Wingspread II, Western State College, Gunnison, CO (July 17-21)

**Invited Speaker**, Gibson Conference on New Orleans and the River, USACE and Tulane University, New Orleans, LA (October 7-8)

**Invited Speaker**, NCI Workshop on Hormones and Cancer, Rocky Gap, MD (October 23-24)

**Invited Speaker**, Symposium on Nuclear Receptors in Honor of Elwood Jensen, Cincinnati, OH (December 5-7)

**2004** **Invited Speaker**, Symposium on Endocrine and Immune Disruption, Annual Meeting of the Society for Integrative and Comparative Biology, New Orleans, LA (January 5-9)

**Invited Speaker**, CBR Strategy, Meeting of the National Science Board, NSF, Xavier University, New Orleans, LA (February 5)

**2004 continued** **Invited Speaker**, Symposium on Fetal Programming, Midwestern Society of Toxicology Meeting, University of Michigan, Ann Arbor, MI (March 5)

**Invited Lecturer**, Department of Environmental Health Sciences, University of Minnesota, School of Public Health (lecture by long distance computer connection), (March 15)

**Invited Speaker**, CBR: Past, Present and Future, Tulane University Board of Administrators, Tulane University, New Orleans, LA (March 17)

**Invited Keynote Speaker**, Workshop on Environmental Chemicals in Water, Health Canada, Environment Canada, Agriculture and Agrifood Canada, Canadian Water Network and the Ontario Ministry of the Environment, Niagra-on-the-Lake, Ontario, CANADA (March 28-30)

**Invited Speaker**, Cancer Center Symposium, Wayne State University, Detroit, MI (March 31)

**Invited Participant**, Round Table Discussion, Department of Pharmacology and Molecular Genetics, University of Illinois at Chicago, Chicago, IL (April 2)

**Invited Distinguished Lecturer**, The Augustin Martinez de Andino Memorial Lecture, Annual Meeting of the Puerto Rican Endocrine Society, San Juan, PR (May 24)

**Invited Speaker**, Mini-symposium on Fetal Development, Woods Hole Oceanographic Institute, Woods Hole, MA (June 4)

**Invited Keynote Speaker**, Gordon Research Conference on Reproductive Tract Biology, Providence, RI (June 6-10)

**Invited Speaker**, Symposium on Systems Biology in Environmental Health Research, American Chemical Society Annual Meeting, Philadelphia, PA (August 24)

**Invited Speaker**, Symposium on Children's Environmental Health, Austin, TX (September)

**Invited Speaker**, Workshop on Nuclear Receptors, CASCADE Symposium, Lyon, FRANCE (September 13-17)

**Invited Speaker**, Workshop on Endocrine Disrupting Chemicals and Pharmaceuticals in Water, National Ground Water Association Meeting, Minneapolis, MN (October 13-15)

**Invited Lecturer**, Department of Environmental Health Sciences, University of Minnesota School of Public Health, Minneapolis, MN (October 13)

**Invited Panelist**, Artists for the Earth, New Orleans, LA (October 19)

**Invited Presenter**, Medical Grand Rounds, Obstetrics and Gynecology, Tulane University School of Medicine, New Orleans, LA (November 4)

**Invited Speak and Panelist**, Forum on the Media and Science, Research America, Annual Meeting of the American Public Health Association, Washington, D.C. (November 9)

**2004 continued** **Invited Speaker**, Annual Gibson Conference: History and Culture of the Mississippi River, Tulane University and the US Army Corps of Engineers, New Orleans, LA (November 18-19)

**2005** **Invited Panelist**, Workshop on Garfish Biology and Culture, American Association of Aquaculture, Annual Meeting, New Orleans, LA (January 9)

**Invited Speaker**, Copenhagen Workshop on Environment and Reproductive Health and Fertility, Copenhagen, DENMARK (January 15 - 18)

**Invited Speaker**, 2005 Keystone Symposium on Hormonal Regulation of Tumorigenesis, Monterey, CA (February 20-25)

**Invited Speaker**, Seminar on Epigenetic Actions of Estrogen, Center for Research on Reproduction and Women's Health, University of Pennsylvania Medical Center, Philadelphia, PA (March 15)

**Invited Panelist**, Panel on Endocrine Disrupting Chemicals, 10th Annual Spring Conference on Environmental Law, Science and the Public Interest, Tulane University School of Law, New Orleans, LA (April 2)

**Invited Distinguished Lecturer**, National Institute of Occupational Safety and Health, Morgantown, WV (May 9)

**Invited Panelist**, Workshop on Humanities and Sciences, Annual Meeting of the Program Directors of the National Endowment for the Humanities Councils, Louisiana Endowment for the Humanities, New Orleans, LA (June 3)

**Invited Speaker**, Second International Symposium on Recent Advances in Environmental Health Research, Jackson State University, Jackson, MS (September 19-21)

**Invited Keynote Speaker**, Symposium on Endocrine Disruptors: Occurrence in the Bioenvironment and Possible Effects in Animals and Humans, The Norwegian Academy of Science and Letters, Oslo, NORWAY (October 13-14)

**Invited Speaker**, Symposium on Environmental Public Health Impacts of Disasters: Hurricane Katrina, Institute of Medicine, National Academy of Sciences, Washington, D.C. (October 20)

**Invited Speaker**, Symposium on Environmental Epigenomics, Imprinting and Disease Susceptibility, Duke University, Durham, NC (November 2-4)

**2006** **Invited Presenter**, New Directions Meeting on Science, Engineering and Humanities in Post-Katrina New Orleans, New Orleans, LA (February 22-23)

**Invited Speaker**, Symposium on Cancer and the Environment, Duke University Cancer Center and Nicholas School for the Environment, Durham, NC (March 30-31)

**Invited Speaker**, National Science Board Committee on Hurricane Science and Engineering, Pensacola, FL (April 17-18)

**2006** **Invited Speaker**, Gordon Research Conference on Environmental Endocrine Disruptors, Il Ciocco, Luca, ITALY (June 4-9)  
**continued**

**Invited Speaker**, Third International Symposium on Recent Advances in Environmental Health Research, Jackson State University, Jackson, MS (September 18-20)

**Invited Speaker**, Annual Baybio Symposium for Bay Area Biotech Industry, San Francisco, CA (September 21-24)

**Invited Distinguished Lecturer**, Brown and Williamson Distinguished Lecture, Department of Biology, University of Louisville, Louisville, KY (September 28)

**Invited Speaker**, Department of Biology, University of Louisville, Louisville, KY (September 29)

**Invited Lecturer**, Symposium on Reproductive Health in Honor of Professor Niels Skaekkebaek, University of Copenhagen, Copenhagen, DENMARK (October 25)

**Invited Speaker**, Seminar, Department of Cell and Molecular Biology, Kumamoto University, Kumamoto, JAPAN (November 9)

**Invited Speaker**, Meeting on Endocrine Disruption, Japanese Society for Endocrine Disruptor Research, Tokyo, JAPAN (November 11)

**Invited Speaker**, International Symposium on Endocrine Disruption, Kushiro, Hokkaido, JAPAN (November 13 -15)

**Invited Speaker**, International Meeting on Cancer: The Amazon Project, Palermo, Sicily, ITALY (November 16-18)

**Invited Participant**, Workshop on the Developmental Toxicity of Bis-Phenol A, National Institute of Environmental Health Sciences, Research Triangle Park, NC (November 28-29)

**Invited Speaker**, Department of Environmental Health Sciences, University of Cincinnati School of Medicine, Cincinnati, OH (December 12)

**2007** **Invited Speaker**, Panel on Environmental Chemicals and Health, American Society of Environmental History Annual Meeting, Baton Rouge, LA (March 2)

**Invited Speaker**, Waterways 2007, North Texas University, Denton, TX (March 13 - 14)

**Keynote Speaker**, Korean Endocrine Society Annual Meeting, Seoul, KOREA (May 3)

**Keynote Speaker**, Symposium on Emerging Contaminants, Environmental and Water Research Institute, American Society of Civil Engineers Annual Meeting, Tampa, FL (May 15)

**Invited Speaker**, 4th International Symposium on Endocrine Disruption, Copenhagen DENMARK (May 28 - 31)

**Invited Speaker**, Urban Geochemistry and Health Conference, New Orleans, LA (July 23 - 25)

- 2007** **Invited Speaker**, Fourth International Symposium on Recent Advances in Environmental Health Research, Jackson State University, Jackson, MS (September 17 - 18)  
**continued**
- 2008** **Invited Speaker**, Workshop on The Environment and Women's Health, UCSF Environment and Women's Health Center, Bolinas, CA (January 6-9)
- Invited Speaker**, Global Climate Change and Human Health, Tulane Focus the Nation, New Orleans, LA (January 31)
- Invited Speaker**, Man and Biosphere, UNESCO, Madrid (February 5-7)
- Invited Speaker**, Symposium on Hormones and Cancer in Honor of Angela Brodie, University of Maryland School of Medicine, Baltimore, MD (March 28)
- Invited Speaker**, Workshop on Green Chemistry and Endocrine Disrupting Chemicals, American Chemical Society Annual Meeting, New Orleans, LA (April 6)
- Invited Speaker**, Thirtieth Anniversary for DES ACTION, San Francisco, CA (April 25)
- Keynote Speaker**, International Symposium on Steroid Enzymes, Erice, Italy (May 3-8)
- Invited Speaker**, Gordon Research Conference on Environmental Endocrine Disrupters, Waterville Valley, NH (June 8 - 13)
- Invited Speaker**, Workshop on Health Disparities, MD Anderson Medical Center, Houston, TX (June 26-23)
- 2009** **Invited Keynote Lecture**, "Environmental estrogens from the very beginning" at the Annual Meeting of the Society for the Study of Reproduction, Pittsburgh, PA (July 19)
- Invited Speaker**, "Signaling pathways of endocrine disrupting chemicals across the animal kingdom," Gordon Research Conference on Environmental Endocrine Disrupters, New Hampshire (July 28)
- Invited Keynote Lecture**, "Environmental Hormones: Cellular Mechanisms and Clinical Importance" at International Symposium on Rapid Responses to Steroid Hormones, Alicante, Spain (September 3)
- Invited Introductory Lecture** at International Symposium on Environment and Hormones, New Orleans, LA (October 21)
- Invited Keynote Lecture**, "Environmental disparities in post-Katrina New Orleans: from use-inspired research to community action," Annual Meeting of the Society for Environmental Toxicology and Chemistry, New Orleans, LA (November 20)
- 2010** **University President's Lecture**, "Genes, germs and the environment: an ecological perspective on health and disease," Carnegie Mellon University, Pittsburgh, PA (February 18)
- Invited Keynote Lecture**, "From mice to women: developmental induction of uterine disease or how two guys could spend their lives with a female sex hormone and live to tell about it", Special Symposium on Comparative Endocrinology in honor of Professor Howard Bern, Berkeley, CA (March 2)

**2010** **Invited State of the Art Plenary Lecture**, “Endocrine disrupting chemicals: recent findings in gene imprinting and cellular signaling,” International Congress of Endocrinology, Kyoto, Japan (March 28)  
**continued**

**Invited Holland Family Lecturer**, “Genes, germs and the environment: an ecological perspective on health and disease,” University of Albany Medical School, Albany, NY (April 15)

**Invited Commentary**, Gordon Research Conference on Environmental Endocrine Disrupters, Geneva, Switzerland (June 3)

**2011** **Invited Speaker**, “Developmental Estrogenization Syndrome,” Workshop on Research Priorities for Women’s Health and the Environment, National Institute of Environmental Health Sciences (NIEHS/NIH), Research Triangle Park, NC (September 28)

**2012** **Invited Speaker**, “Environmental Signaling and Gene Expression: Integrating the Outside with the Inside,” Spring Symposium, Causes and Consequences Connecting Environmental and Human Health, Integrated Toxicology and Environmental Health Program, Duke University, Durham, NC (April 20)

**Invited speaker**, “The Role of Mentors” The 25th Biennial Symposium of the Intercultural Cancer Council on Minorities, the Medically Underserved and Health Equities in Houston, TX (June 27)

**Invited Speaker**, “Environmental Urban Medicine,” Ninth International Symposium on Recent Advances in Environmental Health Research, Jackson State University, Jackson MS (September 17)

**Invited Speaker**, “Environmental Signaling and Gene Regulation: Implications for Reproductive Function,” Seminar series for Center for Reproductive Science, Northwestern University, Chicago IL (November 7)

**2013** **Invited “Endnote Speaker,”** “Environment and women’s health: Emerging trends and future directions” Women’s Reproductive Environmental Health Consortium, NIEHS, Research Triangle Park, NC (January 30)

**Invited Speaker**, “Endocrine Disruption 101,” Global Environmental Health Sciences Seminar Series, Tulane University School of Public Health and Tropical Medicine, New Orleans, LA (February 7)

**Invited Speaker**, “Prenatal exposure to DES: An historical perspective on the future,” International Symposium on DES Effects – What More to Expect? Organized by The Netherlands Cancer Institute and the Dutch DES Centrum, Amsterdam, The Netherlands [Virtual presentation by Skype] (March 20)

**Interview** on “Estrogens in the Environment” on Health Talk Radio, Austin, TX with Lindsey Berkson (August 18)

**Invited Speaker**, “Non-traditional models for studying endocrine disrupting environmental chemicals,” Tenth International Symposium on Recent Advances in Environmental Health Research, Jackson State University, Jackson, MS (September 16)

**2014** **Invited Speaker**, (Historical Comments) at 42nd anniversary and retirement of Vickie Englebright, Director of Facilities Services, NIEHS/NIH Research Triangle Park, NC (January 16)



**2014 continued** **Invited Speaker**, "Estrogens in Health and Disease: Consideration of Environmental and Evolutionary Signals," Medical Grand Rounds, Department of Pathology, Tulane University School of Medicine (March 7)

**Invited Judge** for Science Day at Nicholls State University, Thibodaux, LA (March 11)

**Invited Speaker**, "Estrogen, the earth mother of hormones," Le Petit Salon, New Orleans, LA (May 1)

**Invited Speaker and Poster Presenter**, "Developmental Estrogenization Syndrome: Multiple Disease Endpoints Associated with Exogenous Estrogenic Chemicals," Gordon Research Conference Environmental Endocrine Disruptors, Renaissance Tuscany Il Ciocco Resort in Lucca (Barga) Italy (May 11-15)

**Invited Participant**, Panel Discussion on "Current Trends in Environmental Health," Annual Meeting of the Society of Environmental Journalists, New Orleans, LA (September 6)

**Invited Speaker**, Eleventh International Symposium on Recent Advances in Environmental Health Research, Jackson State University, Jackson, MS (September 16-18)

**Invited Keynote Speaker and Workshop Participant** in a Wingspread Conference on "Charting a Renewed Vision for Children's Environmental Health," organized by the Children's Environmental Health Network, Wingspread Conference Center, Racine, WI (October 21-23). The meeting resulted in a call to action statement delivered to policy makers and politicians (<http://www.prweb.com/releases/CEHN/VisionStatement/prweb12282999.htm>).

**Invited Lecturer** on Endocrine Disruption in an interdisciplinary undergraduate course for Tulane School of Liberal Arts and School of Science and Engineering (October 29)

**Invited Calver Award Lecturer**, "Making sense of environmental signals - a priority for public health," American Public Health Association Annual Meeting, New Orleans, LA (November 17) The Calver Award Lecture is the highest award for environmental health given by the American Public Health Association.

**Invited Speaker**, "Environmental Estrogens, Epigenetics and Breast Cancer Risk," Amazon Project, an international meeting on women and breast disease, Palermo, Sicily (November 21-23)

**2015** **Invited Judge** for Science Day at Nicholls State University, Thibodaux, LA (March 3)

**Invited Keynote Speaker**, "Environmental Signaling: From Environmental Estrogens to Endocrine Disrupting Chemicals and Beyond," 8th Copenhagen Workshop on Endocrine Disruptors, Copenhagen Denmark (April 27-30)

**Invited Distinguished Lecturer**, "Endocrine Disrupting Environmental Chemicals Alter Differentiation of Adult Human Stem Cells," Honorary Biomedical Sciences and Health Information Lecture Series, at the Twelfth International Symposium on Recent Advances in Environmental Health Sciences, Jackson State University, Jackson, MS (September 15)

**Invited Plenary Speaker**, "Environmental Signaling: The Past and Future of Endocrine Disruption," 49th Conference of the National Institute of Basic Biology: Symposium on Environment and Bioresponse, Okazaki, Japan (November 30)

S E L E C T E D I N V I T A T I O N S (continued)

2015 **Invited Speaker**, "Non-traditional models for endocrine disrupting environmental chemicals," Yokohama City University, Yokohama, Japan (December 4)  
continued

**Invited Guest Researcher Seminar**, "Cellular signaling with estrogenic environmental chemicals and cellular differentiation," National Institute of Basic Biology, Okazaki, Japan (December 7)

**Invited Speaker**, "Non-traditional models for studying endocrine disrupting environmental chemicals," Jichi Medical University, Tochigi, Japan (December 9)

**Invited Keynote Speaker**, "Environmental signals alter differentiation in stem cells," Japanese Society for Endocrine Disruption Research Annual Meeting at Jichi Medical University, Tochigi, Japan (December 10)

**Invited Departmental Speaker and student reviewer**, "Estrogens, environmental chemicals and intracellular signaling in cell culture," Tokyo Science University, Tokyo, Japan (December 11)

2016 **Invited Speaker**, 50th Anniversary Opening Event, National Institute of Environmental Health Sciences, NIH, Research Triangle Park, NC (January 21)

**Invited Speaker and Closing Panelist**, International Symposium on "Endocrine Disruption: Twenty five Years of Research," NIH Clinical Center, Bethesda, MD (September 18-20)

**Invited Congressional Briefing Panel Member**, "From Hormones to Brain Development: 25 Years of Groundbreaking Research on Endocrine Disrupting Chemicals," Sponsored by the Endocrine Society for Senator Barbara Boxer, Dirksen Senate Office Building, Washington, DC (September 21)

2017 **Invited Keynote Speaker**, "Environmental Hormones and Other Signals," 12th Annual Symposium, NIH Center of Excellence in Environmental Toxicology, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA (June 19)

**Invited Lecturer**, "Environmental Signaling as a Model to Integrate Diverse Environmental Factors at the Mechanistic Level," 14th International Symposium on Recent Advances in Environmental Health Sciences, Jackson State University, Jackson, MS (September 12)

**Invited Participant and Session Leader**, Endocrine Disruption Strategies International Workshop, Raleigh, NC (December 4-5)

**Invited Speaker**, Commencement Address, Combined Biological Sciences, North Carolina State University, Reynolds Coliseum, Raleigh, NC (December 15)