
CURRICULUM VITAE

R. Thomas Zoeller
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Academic Appointments:

Professor, Biology Department, University of Massachusetts at Amherst, '01
Associate Professor, Biology Department, University of Massachusetts at Amherst, '94-'01
Assistant Professor, Dept Anat. & Neurobiol., Univ. Missouri-Columbia Sch. Med. '88-'94
Research Associate, Laboratory of Neurochemistry, NINDS, NIH, Bethesda, MD, '87-'88
Guest Researcher, Laboratory of Cell Biology, NIMH, NIH, Bethesda, MD '84-'87.
Research Assistant, Department of Zoology, Oregon State Univ. Corvallis, '80-'84

Education:

B.S., Indiana University, Bloomington. 1977 (Biology)
M.A., Oregon State University, Corvallis. 1979 (Endocrinology)
Ph.D., Oregon State University, Corvallis. 1983 (Neuroendocrinology)

Affiliations:

American Association for the Advancement of Science
American Thyroid Association
Endocrine Society
International Brain Research Organization
Society for Neuroscience
Society of Toxicology
UMass Molecular and Cellular Biology Program
UMass Organismal and Evolutionary Biology Program
UMass Neuroscience and Behavior Program

Honors:

Oregon State University Bayley Graduate Fellow, '82-'83.
Individual National Research Service Award (1984-1987), NIMH, NIH.
Individual Resident Research Associateship (1987-1988), NINDS. Awarded by the National Research Council of the National Academy of Sciences
Invited Speaker, "Reproductive Neuroendocrinology, New Approaches to Old Questions", San Antonio, TX, 27 December, 1990.
Invited Discussant, Ciba Foundation Symposium #168, "Functional Anatomy of the Neuroendocrine Hypothalamus", 8-10 October, 1991, Budapest, Hungary.
Invited Speaker and Chair, Session on "Thyroid Hormones and Brain Function" 1995 Steroid Hormone Workshop, Breckenridge, CO
Invited Speaker, "Prenatal Environmental Exposures", convened by the Centers for Disease Control, December 3-4, 1998. Atlanta, GA
Invited Speaker, Workshop on Endocrine Disruptors, Congress Corporation, Kyoto, Japan (December 1999).

- Invited Speaker*, “Thyroid Hormone of Maternal Origin Directly Affects Fetal Brain Development”, 17th International Neurotoxicology Conference, Little Rock, AR. September, 1999
- Invited Speaker*, “Effects of Developmental Exposure to PCBs on Thyroid Hormone Action in the Developing Brain are not Consistent with Effects on Circulating Thyroid Hormone” 17th International Neurotoxicology Conference, Little Rock, AR. September, 1999
- Invited Keynote Speaker*, “Thyroid Hormone, PCBs, and Brain Development”, 26th New England Endocrinology Conference, University of Rhode Island. October, 1999
- Invited Discussant* Workshop on Children’s Health-2000. Mt. Sinai Univ. Sch. Med. February, 2000
- Invited Speaker*, “Thyroid Hormone of Maternal Origin Regulates Fetal Brain Development” 2000 Steroid Hormone Workshop, Breckenridge, CO. April, 2000
- Invited Speaker*, “Polychlorinated Biphenyls as Disruptors of Thyroid Hormone Action”, PCB Workshop: Recent Advances in the Environmental Toxicology and Health Effects of PCBs. Lexington, KY. April 2000
- Invited Tutorial Lecture*: Hormones, Brain Development, and Endocrine Disruptors. 18th International Neurotoxicology Conference, Children’s Health and the Environment 2000. Colorado Springs, CO September 2000
- Invited Speaker* Maternal Thyroid Hormone Affects Fetal Brain Development. 18th International Neurotoxicology Conference, Children’s Health and the Environment 2000. Colorado Springs, CO September 2000
- Invited Speaker* PCBs and Thyroid Hormone Action in the Developing Brain. Gordon Conference on Endocrine Disruptors, June, 2000.
- Invited Speaker* “Challenges Confronting a Screening and Testing Program for Thyroid Disruptors”. Workshop: TestSmart – Endocrine Disruptors. Johns Hopkins School of Medicine and Public Health, Baltimore, MD February, 2001.
- Invited Speaker* Thyroid Hormone, Brain Development and Environmental Health. *Children’s Environmental Health – Developing a Framework* Office of Environmental Health Hazard Assessment, California EPA, April 24-25, 2001
- Invited Speaker* “Thyroid Hormone-Nutrition Interaction on Brain Development” – Nutrients, Toxicants and Brain Development Rochester University School of Medicine, June 24-26, 2001
- Invited Speaker* Thyroid Hormone, Brain Development and the Environment. World Conference on Endocrine Disruptors, Erice, Italy. September, 2001.
- Invited Speaker* Thyroid Hormone, Brain Development and the Environment. Fourth International Conference on Endocrine Disruptors. Tsukuba, Japan. December, 2001.
- Invited Speaker* Thyroid Hormone and Brain Development. *National Meeting, of the Learning Disabilities Association*, Denver, Co, February, 2002.
- Invited Speaker* Creating Standards for Cleanup: Perchlorate Case Study, ISIS annual meeting, June, 2002
- Invited Speaker* PCB Effects on Thyroid Hormone Action in the Fetal Brain. *Thyroid Hormone and Brain Development: Translating Molecular Mechanisms to Population Risk*. September, 2002.
- Invited Speaker* Thyroid Hormone and the Environment, “Meet the Professor” luncheon, American Thyroid Association, October 2002.
- Invited Speaker* Genetic and Environmental Compromises to Essential Thyroid Receptors and Function During Fetal Development and the Outcome in Abnormal Human

Development. *National Meeting, of the Learning Disabilities Association*, Chicago, IL, February, 2003.

Invited Speaker CERHR Workshop Thyroid Toxicants: Assessing Reproductive Health Effects April 28-29, 2003, Alexandria, VA

Invited Symposium Speaker Annual meeting of the Teratology Society. June 25, 2003; Philadelphia

Military Service

Drafted June 14, 1972, Honorable Discharge June 13, 1974.

Service to Discipline:

Member Editorial Board: Environmental Toxicology and Pharmacology (Jan 1, 2000-Present)

Member Professional Advisory Board: Learning Disabilities Association of America (Jan 1, 2000 to Dec 31, 2003).

Standing Member US EPA Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC) Screening and Testing Workgroup (1997-1998). (see: <http://www.epa.gov/scipoly/oscpendo/history/finalrpt.htm>).

Member subcommittee on *in vitro* screens for endocrine disruptors, Office of Economic Cooperation and Development (EU).

Frequent Ad Hoc Reviewer for the following journals:

American Journal of Physiology

Molecular Brain Research,

Development

Molecular Endocrinology

General and Comparative Endocrinology

Histochemistry

Journal of Neuroscience

Neuroscience Journal

Molecular and Cellular Endocrinology

Brain Research

Developmental Brain Research

Endocrinology

Endocrine

Journal of Neuroendocrinology

Journal of Experimental Zoology

Regulatory Peptides

Environmental Health Perspectives

Ad hoc Reviewer for the following funding agencies

National Science Foundation

Human Frontier Science Program

Italian Science Foundation

Strategic Environmental Research and Development Program

US Veteran's Administration

EPA RFP study section

US-Israel Science Foundation.

Meetings Organized

Thyroid Hormones and Brain Function, a session at the 1995 Workshop on Steroid Hormones and Brain Function, Breckenridge, CO.

23rd New England Endocrinology Conference, Amherst, MA (September, 1995).

Advisory Committee, 18th International Neurotoxicology Conference (September, 2000)
Co-Chair, NIEHS-sponsored Workshop: Thyroid Hormone and Brain Development:
Translating Molecular Mechanisms to Population Risk. (see entire videocast at
<http://videocast.nih.gov/PastEvents.asp?c=1>)
27th New England Endocrinology Conference, Amherst MA (September, 2002).

Meeting Session Chairperson

Session Chairperson: Northwest Regional Conference on Comparative Endocrinology;
University of Washington, Seattle, Washington. Sponsored by the Division of
Comparative Endocrinology, American Society of Zoologists (1982).
Session Chairperson: American Society of Zoologists Annual Meeting in Philadelphia,
Pennsylvania (1983).
Session Chairperson: American Society of Zoologists Annual Meeting in Denver,
Colorado (1984).
Session Organizer and Chair: "Thyroid Hormone Receptors", 1995 Workshop on
Steroid Hormones and Brain Function, Breckenridge, CO. March, 1995.
Symposium co-organizer for the 23rd New England Endocrinology Conference held at
UMass September, 1995.
Session Chair: Endocrine Disruptors. 18th International Neurotoxicology Conference.
Colorado Springs, CO. September 2000
Session Chair: Methods of Screening Thyroid Toxicants. CAAT conference on
endocrine disruptors. Fairfax, VA. February, 2002.
Session Chair. Thyroid disruptors. Gordon Conference. July, 2002.

Departmental Research Seminars

Department of Zoology, University of Washington, Seattle, Washington. September,
1981.
Department of Zoology, University of New Hampshire, Durham, New Hampshire, May,
1986.
Department of Neurology, Massachusetts General Hospital and Harvard Medical
School, Boston, MA. July 1984
Department of Gerontology, Veterans Administration Hospital, Seattle, Washington,
September, 1986.
Department of Obstetrics and Gynecology, University of Washington Medical School,
Seattle, Washington, September 1986.
Department of Zoology, Oregon State University, Corvallis, Oregon. September, 1986.
Department of Anatomy and Cellular Biology, Tufts University Medical School, Boston,
Massachusetts. July, 1987.
Department of Anatomy, University of Maryland School of Medicine, Baltimore,
Maryland, October, 1987.
Section on Comparative Studies of Brain and Behavior, Laboratory of Clinical Science
National Institute of Mental Health, Poolsville, Maryland, October, 1987.
Department of Anatomy, University of Missouri School of Medicine, University of
Missouri-Columbia, Columbia MO., December, 1987.

GRECC, Veterans Administration Medical Center, Tacoma, Washington, February, 1988.

Department of Zoology, University of Maryland, College Park, Maryland, May, 1988.

Department of Pharmacology, St. Louis University School of Medicine, March, 1989.

Department of Veterinary Biomedical Science, University of Missouri Sch Vet Med, September, 1989.

Department of Microbiology, University of Missouri-Columbia School of Medicine (March, 1989).

Yerkes Regional Primate Center, Emory University School of Medicine, and Georgia State University, Atlanta, GA (May, 1990)

Department of Pharmacology, University of Missouri School of Medicine (October, 1990)

Department of Physiology and Biophysics, University of Tennessee School of Medicine (November, 1990).

Mo-Kan symposium on Reproductive Endocrinology, University of Missouri-Columbia (June, 1991).

Neuroendocrine Section, National Institute of Environmental Health Science, Research Triangle Park, NC (August, 1991)

Department of Anatomy, University Medical School Pécs, 7643 Pécs Szigeti u.12, Hungary (October, 1991)

Department of Biology, City University of New York at Brooklyn, New York (December, 1991).

Department of Anatomy, University of Nebraska School of Medicine (December, 1991).

Department of Biology, Georgia State University, Atlanta, GA (April, 1992).

C.S. Mott Reserch Center, Wayne State University, Detroit, MI (March, 1993)

Department of Biology, University of Massachussetts Amherst (February, 1993)

Division of Biological Sciences, University of Missouri-Columbia (April, 1993)

Department of Pharmacology and Toxicology, Albany Medical College, New York (April, 1994)

Instituto De Biotecnologia, Universite Nacional Autonoma Mexico, Cuernavaca, Mexico (May, 1994)

Department of Zoology, University of Rhode Island, Kingston, RI April, 1995

Department of Environmental Sciences, University of Illinois, Urbana March 22, 1996

The Shriver Center for Research and Harvard University, Boston, MA April 24, 1996

BayState Hospital, Springfield, MA, April 11, 1996

NIEHS, Research Triangle Park, NC. November 22, 1996

EPA, Neurotoxicology branch, Research Triangle Park, NC. March 18, 1998

NIEHS, Research Triangle Parck, NC. December 7-9, 1998

University of Pittsburgh School of Medicine, January 18, 1999.

Program in Environmental Toxicology, University of Illinois, Champaign-Urbana, September, 2000

Department of Biochemistry and Molecular Biology, University of Louisville School of Medicine, March, 2001

Molecular and Cellular Biology Program, Colorado State University, Ft. Collins, CO. March, 2001

Biology Department, Long Island University, Brooklyn, NY (May, 2001).

University of Toronto Sch Medicine (Dec 2002)

Neuroscience Division, Johns Hopkins University (Jan, 2003)
University of Michigan Ann Arbor (Feb, 2003)
Biology Department, Boston University (March, 2003)
Dept Medicine, University of Massachusetts-Worcester (March 2003)

Research Support History:

Oregon State University

Bayley Graduate Fellow (Oregon State Univ., 1983-1984). Fellowship awarded to two graduate students, University-wide, within a single academic year.

National Institutes of Health

Individual National Research Service Award (MH09104; 1984-1987)
Individual Fellow of the National Research Council (1987-1992). "Molecular Analysis of Neuroendocrine Peptide Gene Expression"

University of Missouri School of Medicine

Graduate Research Council, "Molecular Analysis of Neuroendocrine Peptide Gene Expression" (University of Missouri, 1988-1989; \$5,000)
Medical Research Council, "Neuroendocrine Peptide Gene Expression in Rat Brain" (University of Missouri, 1989-1990; \$25,000)
American Heart Association, "Cardiovascular Elements within the CNS: The Role of TRH Neurons" (T. Zoeller, PI, 1990-1991; \$25,000)
Graduate Research Council, *UMC* "Central Regulation of Cardiovascular Function" (1990-1991; \$5,000)
NIH, "Molecular Basis for Ethanol Induced Hypothyroidism" (T. Zoeller, PI; RO1 AA 08887; 1991-1995; \$450,000 direct)
NIH, "IP3 metabolism and Ca⁺⁺ homeostasis in cerebral ischemia (GY Sun, PI; T.Zoeller, 10% effort; RO1 NS30178; 1992-1995).
NIH, "Ethanol and Hypothalamic-Pituitary-Thyroid Axis" (1993-1996) NRSA to Dr. Heather Scott; Sponsored by RT Zoeller

University of Massachusetts-Amherst

Graduate Research Council, Univ. Massachusetts, "Identification of Thyroid Hormone-Regulation Genes in CNS Development" (1994-1995; \$5,000)
NIH, "Molecular Mechanisms Underlying Fetal Alcohol Syndrome" (T.Zoeller, PI; \$450,000 direct, RO1 AA10418; 1996-1999).
NSF, "Functional Organization of Hypophysiotropic TRH Neurons" (T.Zoeller, PI; \$110,000 direct; IBN-9514835; 1996-1999)
NIH, "PCBs and Thyroid Hormone Action in Developing Cochlea" (T. Zoeller, PI; \$450,000 ES083330; 1996-1999)
Faculty Research Grant-Umass Amherst, "Hormone-Responsive Genes in Blood" (\$5,000, 1999-2000)
NIH, "PCB Disruption of Thyroid Hormone Action in Development" (T. Zoeller, PI; \$1,400,000 total cost, 2000-2005).
NIH, "Thyroid Hormone and Brain Development" (\$1,600,000 request T. Zoeller, PI; In revision).

NSF, "Thyroid Hormone and Brain Development: A Genomics Approach" (\$551,000 requested, in review).

NIH RO1 Bisphenol A and Thyroid Hormone Signaling. (T. Zoeller, PI; \$1,860,000 total). In Review.

NIH PO1 with Michele Marcus (Emory University). Effects of Polybrominated biphenyls on Endocrine Mechanisms of Development (being developed for a June 1 submission)

NIH PO1 with Frederick Wondisford (Univ Chicago). Influence of Environment on Thyroid Hormone Action in the Brain. Planned for a June 1 submission.

Research

Students and Postdoctoral Research Associates

Postdoctoral Research Associates

Heather C. Scott, Ph.D. (1991-1994), University of Missouri School of Medicine.

Agnes Simonyi, Ph.D. (1992-1994), University of Missouri School of Medicine.

Olimpia Butnariu, M.D. (1992-1994) University of Missouri School of Medicine.

Anna Hrabovszky, M.D. (1999-2000) University of Massachusetts-Amherst.

Doctoral Students

Amy L.S. Dowling, Ph.D. (1995-2000). University of Massachusetts-Amherst. Molecular and Cellular Biology Program in May, 2000. Dissertation Title: "The Role of Thyroid Hormone in Fetal Brain Development". *Presently in her 3rd year as a postdoc at the University of Washington*

Jun Yang (1996-2001). University of Massachusetts-Amherst. Molecular and Cellular Biology Program in May, 2000. Dissertation Title: "Molecular Basis of Fetal Alcohol Syndrome in a Rat Model". *Presently in her 2nd year as a postdoc at Harvard University.*

Eric Iannacone (1998-2002). University of Massachusetts-Amherst. Molecular and Cellular Biology Program in 2002. Dissertation title: "Effects of Polychlorinated Biphenyls on Thyroxine Actions in the Developing Brain".

Kelly Gauger (2001-) University of Massachusetts-Amherst. Molecular and Cellular Biology Program. Dissertation title: "Actions of Polychlorinated biphenyls on Thyroid Hormone Receptors"

Bulent Ataman (Fall, 2000), MCB Rotation Student

Yiqin Yang (Fall, 2000), MCB Rotation Student

Li Zhi (Spring, 2001) MCB Rotation Student.

David Sharlin (Fall, 2002) MCB Rotation Student

Sudha Krishnan (Fall, 2002) MCB Rotation Student

Master's Students

Xiaohui Zhang, M.D., M.S. (1992-1994). University of Missouri School of Medicine. Thesis Title, "Cerebral Ischemia and IP3 Receptor".

Alisa Croci, B.S., M.S. (1999-2000). University of Massachusetts-Amherst. Thesis Title: "Development of the Hypothalamic-Pituitary-Thyroid Axis".

Carolyn Herzig, B.S., M.S. (2001-2002) University of Massachusetts-Amherst. Thesis Title: "PCB Effects on Thyroid Hormone Signaling in Fetal Brain".

Undergraduate Honors Students

Justin Harder, B.S. (1996). Honors thesis submitted to the Neuroscience Program, Amherst College. Thesis Title: "Regulation of Glucocorticoid Receptor Gene Expression in the Rat Brain".

Karen Terry, B.S. (2000). Honors thesis submitted to the Honors College, University of Massachusetts, entitled "Thyroid Hormone-Responsive Genes in Rat White Blood Cells".

Arthur Yan, B.S. (2000). Honors thesis submitted to the Neuroscience Program, Amherst College, entitled "Role of Thyroid Hormone in Development of Cortical Lamina in the Rat".

Carolyn Herzig, B.S. (2001). Honors thesis submitted to the Honors College, University of Massachusetts-Amherst entitled, "Effects of Polychlorinated Biphenyls on Thyroid Hormone Action in the Developing Rat Brain".

Erica Gross, B.S. Biology and Legal Studies, submitted to the Honors College, University of Massachusetts-Amherst entitled, "PCBs and Phantom Risk".

Tina Ling, B.S. (2002). Department of Biochemistry. Honors thesis to be submitted to the Honors College, University of Massachusetts-Amherst entitled, "Thyroid Hormone Receptor Expression in Monocytes".

Carolyn O'Donnell (2003). Department of Biochemistry. Honors thesis to be submitted to the Honors College, University of Massachusetts-Amherst.

Rebecca Burch (2002). Department of Biology. Honors thesis to be submitted to the Honors College, University of Massachusetts-Amherst.

Terese Frazier (2002) Department of Biology. Honors thesis to be submitted to the Honors College, University of Massachusetts-Amherst.

Undergraduate Researchers

René Wolff, B.S. Clark University (1983-1984). Admitted to M.D. Program, George Washington University. Presently surgical resident, Vanderbilt University.

Margarett Warden, B.S., George Washington University (1984-1985). Admitted to M.D. Program, George Washington University.

Dan Dolan, B.S., University of Missouri (1992). Admitted to M.D./Ph.D. Program Washington University St. Louis, presently University of Chicago.

Don Fletcher, B.S., University of Missouri (1993-1994).

Nisreen Kabeer, B.S., University of Missouri (1992-1994). MPH from St. Louis University.

Bradley Broyles, B.S., University of Missouri (1992-1993). M.D., University of Missouri School of Medicine.

John Earley, B.S., University of Missouri (1992-1993).

Deborah Lardner, B.S., University of Massachusetts (1995-1996). D.O., Bidiford College of Osteopathic Medicine.

Joyce Correia, B.S., University of Massachusetts (1995-1996).

Jennifer Moodie, B.S., University of Massachusetts (1995-1996). M.D. Program at Rutgers University.

Rebecca Lee, B.S., University of Massachusetts (1995-1998).

Michael DiGregorio, University of Massachusetts (1996-1997)
 Johanna Heard, B.S., University of Massachusetts (1995-1996)
 Heather Lebel, B.S., University of Massachusetts (1997-1998)
 Leah LaRicca, B.S., University of Massachusetts (1997-1998) Ph.D. Program Harvard University.
 Betsy Ross, B.S., University of Massachusetts (1997-1998).
 Andrea Bullock, B.S., Duke University (1998). M.D. Program Washington University School of Medicine.
 Zachary Solkin, B.S. University of Massachusetts (2002)
 Michele
 Jessica Kapitanos, B.S. University of Massachusetts (2000-2001).

Student Committees

Frank Corratto, Ph.D., Division of Biological Sciences, University of Missouri
 Wan-Lin Wang, Ph.D., Department of Pharmacology, University of Missouri
 Lucy Collins, Ph.D., Neuroscience and Behavior Program, University of Massachusetts
 Robyn Blaine, Ph.D., Department of Public Health, University of Massachusetts
 Lauren Shearman, Ph.D., Neuroscience and Behavior Program, University of Massachusetts
 Jay McMeekan, M.S., Molecular and Cellular Biology Program, University of Massachusetts
 Xiwei Wang, Ph.D., Molecular and Cellular Biology Program, University of Massachusetts
 Yue Ma, Ph.D., Neuroscience and Behavior Program, University of Massachusetts
 Megan Davis-Cox, Graduate Program in Molecular and Cellular Biology, SUNY-Albany
 Danhui Sun, Ph.D., Molecular and Cellular Biology Program, University of Massachusetts
 Lihong Cheng, Ph.D. Molecular and Cellular Biology Program, University of Massachusetts
 Yanhui Hu, Ph.D., Molecular and Cellular Biology Program, University of Massachusetts
 Meredith Curran, Neuroscience and Behavior Program, University of Massachusetts
 Tina Han, Neuroscience and Behavior Program, University of Massachusetts
 Alison McReynolds, Neuroscience and Behavior Program, University of Massachusetts
 Jason Luszcz, M.S., Biology Program, University of Massachusetts
 Umar Imtiaz, M.D., Neuroscience and Behavior Program, University of Massachusetts

Articles Published

Papers in Refereed Journals or Edited Volumes:

1. Moore FL, and Zoeller RT 1980 Endocrine control of amphibian sexual behavior: evidence for a neurohormone-androgen interaction. *Hormones and Behavior* 13, 207-213.
2. Moore FL, Speilvogel SP, Zoeller RT, Wingfield JC 1981 Seasonal study of testosterone-binding globulin in the plasma of *Taricha granulosa*. *General and Comparative Endocrinology* 49, 15-21.

3. Moore FL, Zoeller RT, Spielvogel SP, Baum MJ, Han SJ, Crews D, and Tokarz RR 1981 Arginine vasotocin enhances influx of testosterone in newt brain. *Journal of Comparative Biochemistry and Physiology* 70A, 115-117.
4. Zoeller RT, Moore FL 1981 Duration of androgen treatment modifies behavioral response to arginine vasotocin in *Taricha granulosa*. *Hormones and Behavior* 16, 23-30.
5. Zoeller RT, Lais LT, Moore FL 1983 Amphibian Wolffian ducts contract in response to acetylcholine, norepinephrine, and arginine vasotocin. *Journal of Experimental Zoology* 226, 53-58.
6. Moore FL, Zoeller RT 1985 Stress-induced inhibition of reproduction: evidence of suppressed secretion of LH-RH in an amphibian. *General and Comparative Endocrinology* 60, 252-258.
7. Zoeller RT, Moore FL 1985 Seasonal changes in luteinizing hormone-releasing hormone concentrations in microdissected brain regions of male rough-skinned newts (*Taricha granulosa*). *General and Comparative Endocrinology* 58, 222-230.
8. Sherwood NM, Zoeller RT, Moore FL 1986 Multiple forms of gonadotropin-releasing hormone in amphibian brain. *General and Comparative Endocrinology* 61, 313-332.
9. Mason AJ, Hayflick JS, Zoeller RT, Young III WS, Phillips HS, Nicolics K, Seeburg PH 1986 A deletion truncating the GnRH gene is responsible for hypogonadism in the *hpg* mouse. *Science* 234, 1366-1371.
10. Zoeller RT, Moore FL 1986 Correlation between immunoreactive vasotocin in optic tectum and seasonal changes in reproductive behaviors of male rough-skinned newts. *Hormones and Behavior* 20, 148-154.
11. Zoeller RT, Moore FL 1986 Arginine vasotocin immunoreactivity in hypothalamic and extrahypothalamic areas of an amphibian brain. *Neuroendocrinology* 42, 120-123.
12. Young III WS, Zoeller RT 1987 Neuroendocrine gene expression in the hypothalamus: *in-situ* hybridization studies. *Cellular and Molecular Neurobiology* 7, 353-366.
13. Koller KJ, Wolff RS, Warden MK, Zoeller RT 1987 Thyroid hormones regulate thyrotropin-releasing hormone mRNA levels in the paraventricular nucleus. *Proceedings of the National Academy of Science USA* 84, 7329-7333.
14. Zoeller RT, Moore FL 1988 Sexual behaviors are acutely correlated with concentrations of a behaviorally active neuropeptide in microdissected brain areas of a male amphibian (*Taricha granulosa*). *Hormones and Behavior* 22, 66-75.
15. Zoeller RT, Wolff RS, Koller KJ 1988 Thyroid hormone regulation of messenger ribonucleic acid encoding thyrotropin (TSH)-releasing hormone is independent of the pituitary gland and TSH. *Molecular Endocrinology* 2, 353-366.
16. Miller M, Zoeller RT, Dorsa DM 1988 Distribution of vasopressin mRNA-containing neurons in the bed nucleus of the stria terminalis of male rats. *Neuroscience Letters* 94:264-268.

17. Zoeller RT, Seeburg PH, Young III WS 1988 In situ hybridization histochemistry for messenger RNA encoding gonadotropin-releasing hormone (GnRH): effect of estrogen on cellular levels of GnRH mRNA in the organum vasculosum of the lamina terminalis. *Endocrinology* 122, 2570-2577.
18. Zoeller RT, Young III WS 1988 Changes in cellular levels of messenger ribonucleic acid encoding gonadotropin-releasing hormone in the anterior hypothalamus of female rats during the estrous cycle. *Endocrinology* 123, 1827-1828.
19. Zoeller RT, Conway KM 1989 Neurons expressing thyrotropin-releasing hormone-like messenger ribonucleic acid are widely distributed in *Xenopus laevis* brain. *General and Comparative Endocrinology* 76, 139-146.
20. Zoeller RT, Lebacqz-Verheyden A-M, Battey JF 1989 Distribution of two distinct messenger ribonucleic acids encoding gastrin-releasing peptide in rat brain. *Peptides* 10, 415-422.
21. Albers HE, Stopa EG, Zoeller RT, Kauer JS, King JC, Fink JS, Mobtaker H, Wolfe H 1989 Day-night variation in prepro vasoactive intestinal peptide/peptide histidine isoleucine mRNA within the rat suprachiasmatic nucleus. *Molecular Brain Research* 7, 85-89.
22. Wray S, Zoeller RT, Gainer H 1989 Differential effects of estrogen on LHRH gene expression in slice-explant cultures prepared from specific rat forebrain regions. *Molecular Endocrinology* 3(8):1197-1206.
23. Masserano JM, Disbrow-Erickson J, French TA, Zoeller RT, Zhao H, Weiner N. 1989 LS and SS mice: models for the study of the role of TRH in ethanol sensitivity. *Ann. NY Acad. Sci.* 553, 505-527.
24. Bohler HCL, Zoeller RT, King JC, Rubin BS, Weber R, Merriam G 1990 Corticotropin releasing hormone mRNA is elevated on the afternoon of proestrus in the parvocellular paraventricular nuclei of the female rat. *Molecular Brain Research* 8, 259-262.
25. Albers HE, Liou SY, Ferris CF, Stopa EG, Zoeller RT 1990 Neurochemistry of Circadian Timing. In: *The Suprachiasmatic Nucleus: The Mind's Clock*, DC Klein, RY Moore and SM Reppert (eds). New York: Oxford University Press.
26. Zoeller RT, Kabeer N, and Albers HE 1990 Cold exposure elevates cellular levels of messenger ribonucleic acid encoding thyrotropin-releasing hormone in paraventricular nucleus despite elevated levels of thyroid hormones. *Endocrinology* 127(6), 2955-2962.
27. Selmanoff M, Shu C, Petersen SL, Barraclough CA, Zoeller RT 1990 Single cell levels of hypothalamic messenger ribonucleic acid encoding luteinizing hormone-releasing hormone in intact, castrated and hyperprolactinemic male rats. *Endocrinology* 128(1), 459-466.
28. Albers HE, Liou SY, Stopa EG, Zoeller RT 1990 Interaction of co-localized neuropeptides: functional significance in the circadian timing system. *Journal of Neuroscience* 11(3): 846-851.

29. Erickson JD, Masserano JM, Zoeller RT, Weiner N 1991 Differential responsiveness of the pituitary-thyroid axis to TRH in mouse lines selected to differ in central nervous system sensitivity to ethanol. *Endocrinology* 128(6), 3013-3020.
30. Albers HE, Liou S-Y, Stopa EG, Zoeller RT 1992 Neurotransmitter colocalization and circadian rhythms. *Progress in Brain Research*. 92, 289-307.
31. Zoeller RT, Broyles B, Earley J, Anderson ER, and Albers, HE 1992 Cellular levels of mRNAs encoding vasoactive intestinal peptide (VIP) and gastrin-releasing peptide (GRP) exhibit different 24-hour rhythms in neurons of the suprachiasmatic nucleus. *J. Neuroendocrinology* 4: 119-124.
32. Zoeller RT, Rudeen PK 1992 Ethanol blocks the cold-induced increase in thyrotropin-releasing hormone mRNA in paraventricular nuclei but not the cold-induced increase in thyrotropin. *Molecular Brain Research* 13: 321-330.
33. Dolan DR, Nichols MF, Bhend E, Schadt JC, Zoeller RT 1992 Cold- and Ethanol-induced hypothermia reduces cellular levels of mRNA encoding thyrotropin releasing-hormone (TRH) in neurons of the preoptic area. *Molecular and Cellular Neurosciences* 3: 425-432.
34. Zoeller RT, Kabeer N, Albers HE 1993 Molecular Mechanisms of Signal Integration in Hypothalamic Neurons. *American Zoologist* 32(2), 244-254.
35. Sun GY, Lin TA, Wixom P, Zoeller RT, *et al.* 1993 Effects of focal cerebral ischemia on expression and activity of inositol 1,4,5-trisphosphate 3-kinase in rat cortex. *Ann NY Acad Sci* 679: 382-387.
36. Peters RV, Zoeller RT, Hennessey AC, Stopa EG, Anderson G, Albers HE 1994 The control of circadian rhythms and the levels of vasoactive intestinal peptide mRNA in the suprachiasmatic nucleus are altered in spontaneously hypertensive rats. *Brain Research* 639: 217-227.
37. Zoeller RT, Butnariu O, Fletcher DL, Riley E 1994 Perinatal ethanol exposure permanently alters the expression of messenger RNAs encoding myelin basic protein (MBP) and myelin associated glycoprotein (MAG) in rat cerebellum. *Alcoholism: Clinical and Experimental Research* 18: 909-916.
38. Zoeller RT and Fletcher DL 1994 A single administration of ethanol simultaneously increases *c-fos* mRNA and reduces *c-jun* mRNA in the paraventricular nucleus. *Molecular Brain Research* 24: 185-191.
39. Scott HC, Zoeller RT, Rudeen PK 1995 Acute prenatal ethanol exposure and LHRH messenger RNA expression in the fetal mouse brain. *Alcoholism: Clinical and Experimental Research* 19:153-159.
40. Zoeller RT, Simonyi A, Butnariu O, Fletcher DL, Rudeen PK, McCrone SL, Petersen SL 1995 Effects of acute ethanol on the hypothalamic-pituitary-thyroid axis. *Endocrine* 3: 39-47.

41. Zhang SX, Zhang J-P, Fletcher DL, Zoeller RT, Sun GY 1995 In situ hybridization of mRNA expression for IP3 receptor and IP3-3-kinase in rat brain after transient focal cerebral ischemia. *Molecular Brain Research* 32: 252-260.
42. Zoeller RT, Fletcher DL, Simonyi A, Rudeen PK 1996 Chronic ethanol treatment reduces the responsiveness of the hypothalamic-pituitary-thyroid axis to central stimulation. *Alcoholism: Clinical and Experimental Research* 20(5): 954-960.
43. Zoeller RT, Fletcher, DL, Butnariu, O, Lowry, C and Moore, FL 1997 N-ethylmaleimide (NEM) can significantly improve in situ hybridization results using 35S-labeled oligodeoxynucleotide or complementary RNA probes. *Journal of Histochemistry and Cytochemistry* 45: 1035-1041
44. Lowry CA, Richardson CF, Zoeller RT, Miller LJ, Muske LE and Moore FL 1997 Neuroanatomical distribution of vasotocin in a urodele amphibian (*Taricha granulosa*) revealed by immunohistochemical and in situ hybridization techniques. *Journal of Comparative Neurology* 385:43-70.
45. Albers HE, Zoeller RT, Huhman KL 1997 Application of In Situ Hybridization to the study of rhythmic neural systems. In: *Molecular Regulation of Arousal States*, R. Lydic Ed. CRC Press.
46. Sun D, Swaffield JC, Johnston SA, Milligan CE, Zoeller RT, Schwartz LM. 1997. Identification of a phylogenetically conserved Sug1 CAD family member that is differentially expressed in the mouse nervous system. *Journal of Neurobiology* 33:877-890.
47. Scott HC, Sun GY, Zoeller RT. 1998 Prenatal Ethanol Exposure Selectively Reduces the Alpha-1 Thyroid Hormone Receptor in Fetal Rat. *Alcoholism: Clinical and Experimental Research* 22 (9): 2111-2117.
48. Kim CK, Giberson PK, Yu W, Zoeller RT, Weinberg J. 1998. Effects of prenatal ethanol exposure on hypothalamic-pituitary-adrenal responses to chronic cold stress in rats. *Alcoholism: Clinical and Experimental Research* 23(2): 301-310.
49. Joseph-Bravo P, Uribe RM, Vargas MA, Perez-Martinez I, Zoeller T, Charli JL 1998 Multifactorial modulation of TRH metabolism. *Cellular and Molecular Neurobiology* 18(2):231-247.
50. Bigsby R, Chapin RE, Daston GP, Davis BJ, Gorski, J, Gray LE, Howdeshell KL, vom Saal, FS, and Zoeller RT. 1999. Evaluating the Effects of Endocrine Disruptors on Endocrine Function during Development. *Environmental Health Perspectives* 107 (Suppl 4): 613-618
51. Dowling ALS, Martz GU, Leonard JL, Zoeller RT. 2000 Acute Changes in Maternal Thyroid Hormone Induce Rapid and Transient Changes in Specific Gene Expression in Fetal Rat Brain. *Journal of Neuroscience* 20(6): 2255-2265.
52. Zoeller RT, Dowling ALS, Vas AA 2000 Developmental Exposure to Polychlorinated Biphenyls (PCBs) Exerts Thyroid Hormone-Like Effects on the Expression of RC3/Neurogranin and Myelin Basic Protein mRNAs in the Developing Rat Brain. *Endocrinology* 141: 181-189.

-
53. Slikker W and Zoeller RT 2000 Hot new topics in developmental neurotoxicology – novel and changing perspectives: Session X summary and research needs. *Neurotoxicology* 21: 279-280.
 54. Zoeller RT and Crofton KM. 2000. Thyroid Hormone Action in Fetal Brain Development and Potential for Disruption by Environmental Chemicals. *NeuroToxicology* 21(6): 935-946.
 55. Dowling ALS and Zoeller RT 2000 Thyroid Hormone of Maternal Origin Regulates The Expression Of RC3/Neurogranin mRNA In The Fetal Rat Brain. *Molecular Brain Research* 82: 126-132.
 56. Dowling ALS, Iannacone EI, and Zoeller RT 2000. Maternal Hypothyroidism Selectively Affects the Expression of Neuroendocrine-Specific Protein-A Messenger Ribonucleic Acid in the Proliferative Zone of the Fetal Rat Brain Cortex. *Endocrinology* 142(1):390-399.
 57. Zoeller RT. (2001). Polychlorinated Biphenyls as Disruptors of Thyroid Hormone Action. In: *PCBs: Recent Advances in the Environmental Toxicology and Health Effects of PCBs*. L.W. Robertson and L.G. Hansen, Eds. Univ Kentucky Press, Lexington. P 265-272.
 58. Myers JP, Krimsky S, and Zoeller RT. 2000. Endocrine Disruptors: A Controversy in Science and Policy. Session III Summary and Research Needs. *NeuroToxicology* 21:1-2.
 59. Yen G, Croci A, Dowling A, Zhang S, Zoeller RT and Darling DS. 2001 Developmental and functional evidence of a role for Zfh1 in neural cell development. *Molecular Brain Research* 96(1-2): 59-67.
 60. Iannacone EI, Yan AW, Amy L.S. Dowling, and Zoeller RT. 2001 Thyroid hormone exerts site-specific effects on SRC-1 and NcoR expression selectively in the neonatal rat brain. *Molecular and Cellular Endocrinology* 186 (1): 49-59.
 61. Sanchez E, Uribe RM, Corkidi G, Zoeller RT, Cisneros M, Zacarias M, Morales-Chapa C, Charli J.-L., and Joseph-Bravo P. 2001 Differential Responses of TRH Neurons to Cold Exposure or Suckling Indicate Functional Heterogeneity of the TRH System in the paraventricular nucleus of rat hypothalamus. *Neuroendocrinology* 74: 407-422.
 62. Yang J and Zoeller RT (2002) Differential Display Identifies Neuroendocrine-Specific Protein-A (NSP-A) and Interferon-Inducible Protein 10 (IP-10) as Ethanol-Responsive Genes in the Fetal Rat Brain. *Developmental Brain Research* 138: 117-133.
 63. Zoeller RT, Dowling ALS, Herzig, CTA, Iannacone EA, Gauger KJ, and Bansal R (2001) Thyroid hormone, brain development, and the environment. *Environmental Health Perspectives* 110 (Suppl 3): 355-362.
 64. Zoeller RT (2003) Challenges confronting risk analysis of thyroid toxicants. *Risk Analysis* 23(1): 143-162.
 65. Zoeller RT and Rovet JA (2003) Timing of thyroid hormone actions in the developing brain – clinical observations and experimental findings. *J. Neuroendocrinol.* (In Press).

66. Zoeller RT (2003) Commentary: Maternal thyroxine and fetal brain development. *Journal of Clinical Investigation*. (In Press).

Manuscripts Submitted to Peer-Review Journals

67. Yang J and Zoeller RT (2001) Fetal Alcohol Exposure Increases Apoptosis in Ventricular Zone of Rat Cerebral Cortex and Hippocampal Formation on Gestational Day 16. *Submitted*.
68. Yang J and Zoeller RT (2001) Ethanol-responsive genes in fetal rat brain revealed by cDNA microarray: Bone morphogenetic protein receptor IA is increased by fetal alcohol exposure. *Submitted*.

Manuscripts in Preparation

69. Yang J, Vas A, and Zoeller RT. Effects of Binge-like Alcohol Exposure on Gene Expression in the Fetal Rat Brain (Manuscript form)
70. Dowling ALS and Zoeller RT. Thyroid Hormone Exerts Site- and Transcript-specific Regulation of Neuroendocrine-Specific Protein mRNA in the Adult Rat Brain.
71. Zoeller RT, Dowling ALS, and Crofton KM. Effects of Perinatal PCB Exposure on the Hypothalamic-Pituitary-Thyroid Axis of the Adult.
72. Croci A, Devaskar U, Zoeller RT. Functional Development of the Hypothalamic-Pituitary-Thyroid Axis in the Hyt/Hyt Mouse.

GenBank Entries

1. M14872
2. AF133275
3. AF133274
4. AF133273

Published Abstracts

Contributed Paper (March, 1979): Modulation of sexual behavior in male newts by neurohormones. Northwest Regional conference on Comparative Endocrinology, Eugene Oregon.

Contributed Paper (March, 1980): Evidence for androgen-neurohormone interaction in endocrine regulation of sexual behavior in male *Taricha granulosa*. Western Regional Conference on Comparative Endocrinology, Moscow Idaho.

Zoeller, R.T. and Moore, F.L. 1980. Effects of androgen and arginine vasotocin (AVT) on courtship in male rough-skinned newts. *American Zoologist* 20(4), #547.

Moore, F.L., Zoeller, R.T. and Spielvogel, S.P. 1980. Localization of the sex-behavior response to arginine vasotocin (AVT) in an amphibian. *American Zoologist*

- Contributed Paper (March, 1982): Characterization of contractile responses of *Taricha* vas deferens to acetylcholine, norepinephrine and various neuropeptides. Western Regional Conference on Comparative Endocrinology, Seattle Washington.
- Zoeller, R.T. 1982. Changes in LHRH content of infundibulum, preoptic and septal areas following castration of male newts. *American Zoologist* 22(4), #579.
- Zoeller, R.T. and Moore, F.L. 1982. Characterization of contractile responses of amphibian Wolffian duct to acetylcholine, norepinephrine, and neurohypophysial peptides *in vitro*. *Physiologist* 25(4), #14.4.
- Contributed Paper (March, 1983): Feedback relationship between brain LHRH and testis in the rough-skinned newt, *Taricha granulosa*. Western Regional Conference on Comparative Endocrinology, Berkeley California.
- Moore, F.L. and Zoeller, R.T. 1983. Increase in LHRH concentration in microdissected hypothalamic areas of male newts following stress or corticosterone injection. European Comparative Endocrinology Conference. Sheffield, England. *General and Comparative Endocrinology* 53, #460.
- Zoeller, R.T. and Moore, F.L. 1983. Seasonal changes in radioimmunoassayable LHRH in microdissected brain areas of the rough-skinned newt (*Taricha granulosa*). *American Zoologist* 23(4), #21.
- Moore, F.L. and Zoeller, R.T. 1984. Seasonal effects of corticosterone injection of stressful stimuli on LHRH concentration in microdissected hypothalamic areas of male newts. VIIth International Congress of Endocrinology. Quebec City, Quebec.
- Zoeller, R.T. and Moore, F.L. 1984. Evidence that different components of the vasotinergetic system regulates sexual behavior independent of water balance in an amphibian. *American Zoologist* 24(4), #300.
- Moore, F.L. and Zoeller, R.T. 1985. Hormonal control of sexual behaviors in amphibians: androgens and arginine vasotocin. Xth International Symposium on Comparative Endocrinology.
- Meyers, B.A., Zoeller R.T., and Loh, Y.P. 1986. An in situ hybridization study of POMC mRNA levels in the amphibian intermediate lobe during background adaptation. Satellite Conference on the Melanotropic Peptides.
- Zoeller, R.T., Mason, A.J., Seeburg, P.H., and Young, III W.S. 1986. Steroid regulation of mRNA levels encoding precursor for gonadotropin-releasing hormone (GnRH) and GnRH-associated peptide (GAP). Annual Meeting of the Society for Neuroscience #14.10.
- Zoeller, R.T., Seeburg, P.H. and Young, III W.S. 1986. Cellular levels of messenger RNA encoding gonadotropin-releasing hormone are decreased by estrogen treatment. 68th Annual Meeting of the Endocrine Society, Anaheim, CA #32.
- Koller, K.J., Wolff, R.S., and Zoeller, R.T. 1987. Thyroid hormone regulation of messenger RNA encoding thyrotropin-releasing hormone (TRH) in the paraventricular Nucleus. 69th Annual Meeting of the Endocrine Society, Indianapolis, Indiana #813.
- Koller, K.J., Wolff, R.S., and Zoeller, R.T. 1987. Thyroid hormone regulation of thyrotropin-releasing hormone mRNA in the paraventricular nucleus is independent of thyrotropin. Annual Meeting of the Society for Neuroscience #378.17, p. 1372.
- Wray, S., Zoeller, R.T., and Gainer, H. 1987. Quantitative hybridization histochemistry for LHRH mRNA in organotypic cultures. Annual Meeting of the Society for Neuroscience #301.3, p. 1081.

- Zoeller, R.T., and Young, III W.S. 1987. Cellular levels of messenger RNA encoding gonadotropin-releasing hormone (GnRH) are elevated after the LH surge on the day of proestrus. Annual Meeting of the Society for Neuroscience #10.7, p. 19.
- Shu, C. Petersen, S.L., Zoeller, R.T., Barraclough, C.A., and Selmanoff, M. 1988. Cellular levels of mRNA encoding gonadotropin releasing hormone (GnRH) in intact, castrated and hyperprolactinemic male rats. 70th Annual Meeting of the Endocrine Society, New Orleans, LA #1191.
- Taylor, T. and Zoeller R.T. 1988. Thyrotropin-releasing hormone (TRH) and thyroid-stimulating hormone (TSH) mRNA levels in response to acute and chronic hypothyroidism differ for young and old rats. Annual Meeting of the American Federation of Clinical Research.
- Conway, K.M. and Zoeller, R.T. 1988. Developmental implications of three-dimensional distributions of peptidergic perikarya in the brain of frogs. Annual Meeting of the Society for Neuroscience #359.10, p. 893.
- Hayes, W.P., Zoeller, R.T., and Loh, Y.P. 1988. Spatial and temporal expression of neuropeptide mRNAs encoding met-enk, POMC, and TRH: Mapping in *Xenopus laevis* using in situ hybridization. Annual Meeting of the Society for Neuroscience #407.6, p. 1019
- Selmanoff, M., Shu, C., Petersen, S.L., Barraclough, C.A., and Zoeller, R.T. 1988. Cellular levels of mRNA encoding gonadotropin releasing hormone (GnRH) in intact, castrated and hyperprolactinemic male rats. Annual Meeting of the Society for Neuroscience.
- Zoeller, R.T., Lebacqz-Verheyden, A.-M., and Battey J.F. 1988. Distribution of Gastrin-releasing Peptide (GRP) mRNA-containing cells in rat brain as shown by in situ hybridization. Annual Meeting of the Society for Neuroscience #395.4, p. 983.
- Albers, H.E., Stopa, E.G., Zoeller, R.T. and King, J.C. 1989. Day-night variation in vasoactive intestinal peptide (VIP)/peptide histidine isoleucine (PHI) mRNA within the rat suprachiasmatic nucleus (SCN). 71st Annual Meeting of the Endocrine Society #1486, p. SP85.
- Banks, P., Brodie, A., Petersen, S., Zoeller, T. and Barraclough, C. 1989. Localization of aromatase mRNA in human term placenta by in situ hybridization histochemistry. 71st Annual Meeting of the Endocrine Society #76, p. SP5.
- Strong R, Hale C, Moore MA, Wessels-Reiker M, Zoeller RT. 1989 Modulation of tyrosine hydroxylase gene expression in subregions of the locus ceruleus. Annual Meeting of the Society of Neuroscience #393.8.
- Albers HE, Liou SY, Zoeller RT. 1990 Peptide co-localization: functional significance within the circadian timing system. Annual Meeting of Society for Neuroscience #293.13.
- Zoeller RT, Licklider NR, Anderson ER, and Albers HE 1990 Cellular levels of messenger RNAs encoding VIP/PHI and gastrin releasing peptide (GRP, Bombesin) exhibit different 24 hr rhythms in the rat SCN. Annual Meeting of the Endocrine Society #1247.
- Albers HE, Stopa EG, Zoeller RT 1990 Vasoactive intestinal peptide (VIP), peptide histidine isoleucine (PHI) and gastrin releasing peptide (GRP) interact within the suprachiasmatic nucleus (SCN) in a dose-dependent manner to mimic the phase delaying effects of light. Ann Meeting Soc. Neurosci. Abs # 317.15.
- Zoeller RT, Albers HE 1990 Cold increases thyrotropin-releasing hormone mRNA levels in rat paraventricular nucleus despite elevated T₃. Annual Meeting of the Society for Neuroscience Abs # 277.8

- Rudeen PK, Zoeller RT 1991 Effects of ethanol on paraventricular TRH mRNA and thyroid hormones during hypothermia. Ann Meeting Research Society on Alcoholism.
- Zoeller RT, Dolan D, Nichols MF, Schadt JC 1991 Cold exerts opposite effects on TRH mRNA levels in neurons of the paraventricular nucleus (PVN) and preoptic area (POA), independent of changes in baroreceptor activity. Annual Meeting of the Society for Neuroscience Abs # 472.8.
- Scott HC, Zoeller RT, Rudeen PK. 1991 LHRH gene expression in C57BL/6J mice exposed to ethanol in utero. Annual Meeting of the Society for Neuroscience Abs#601.22.
- Lin T-A, Wixom P, Zhang Z-P, Lin T-N, He YY, Hsu CY, Zoeller RT, Sun GY 1992 Effects of focal cerebral ischemia on Ins(1,4,5)P3-kinase. Annual Meeting of Society for Neurochemistry
- Rudeen PK, Zoeller RT 1992 Ethanol effects on TRH-stimulated TSH secretion in rats: *in vivo* and *in vitro* studies. Annual Meeting Research Society for Alcoholism, San Diego, CA.
- Zoeller RT, Dolan D, Fletcher DL, Nichols MF 1992 Ethanol produces opposite effects on TRH mRNA levels in neurons of the preoptic area (POA) and paraventricular nucleus (PVN) independent of blood pressure changes. Annual Meeting Research Society for Alcoholism, San Diego, CA.
- Butnariu O, Fletcher FL, Zoeller RT. 1992. Selective effects of ethanol on expression of myelin protein mRNA isoforms in development. Annual Meeting Research Society for Alcoholism, San Diego, CA.
- Scott HC, Zoeller RT, Rudeen PK 1992 Expression of LHRH mRNA in the C57BL/6J mouse following acute *in utero* ethanol exposure. Annual Meeting of the Society for Neuroscience Abs#470.7.
- Sun GY, Wixom P, Lin TA, Lin TN, Zoeller RT, Hsu CY 1992 Decrease in INS(1,4,5)P3 3-Kinase mRNA expression in focal cerebral ischemia. Annual Meeting of the Society for Neuroscience Abs#665.2.
- Rudeen PK, Zoeller RT, Scott HC 1993 Reduction of TRH mRNA expression in the olfactory bulb of C57BL/6J mice following fetal ethanol exposure. Annual Meeting Research Society for Alcoholism, San Antonio, TX.
- Butnariu O, Zoeller RT 1993 Efficiency of producing transcription templates by PCR. Annual Meeting Research Society for Alcoholism, San Antonio, TX.
- Zoeller RT, Fletcher DL, Rudeen PK 1993 Acute alcohol produces specific changes in responsiveness of the thyroid axis. Annual Meeting Research Society for Alcoholism, San Antonio, TX.
- Fletcher DL, Butnariu O, Rudeen PK, Zoeller RT 1993 Effect of acute ethanol administration and cold exposure on *c-fos* mRNA levels in paraventricular nuclei (PVN). Annual Meeting Research Society for Alcoholism, San Antonio, TX.
- Hrabovszky E, Zoeller RT, Liposits Zs 1993 Immunoreactive galanin, SP, TRH and PNMT are present in synaptic afferents of the tuberoinfundibular dopaminergic (TIDA) system. Annual Meeting of the Endocrine Society, Las Vegas NV.
- Zoeller RT, Butnariu O, Simonyi A, Fletcher A, Stafford-Segert I, McCrone S, Petersen SL 1993 Ethanol disrupts stimulus-induced synthesis-secretion coupling in TRH neurons of the PVN. Annual Meeting of the Society for Neuroscience, Washington, DC.
- Boyd SK, Zoeller RT (1993) Distribution of vasotocin mRNA in the bullfrog brain. Annual Meeting of the Society for Neuroscience, Washington, DC.

- Hennessey AC, Wilson ME, Zoeller RT, Albers HE (1993) Estradiol reduces somatostatin mRNA within the periventricular nucleus of immature female rats. Annual Meeting of the Society for Neuroscience, Washington, DC.
- Zhang SX, Zhang J-P, Zoeller RT, Sun GY 1994 Effects of focal cerebral ischemia on the poly-PI signaling pathway. Annual Meeting of the Neurochemistry Society.
- Scott HC, Sun GY, Zoeller RT 1995 Chronic prenatal ethanol exposure and thyroid hormone receptor mRNA expression. Annual Meeting Research Society for Alcoholism, Steamboat Springs, CO
- Osborn JA, Kim CK, Yu WK, Herbert L, Zoeller RT, Weinberg JA 1995 Fetal ethanol effects on hypothalamic CRF mRNA levels following stress in dexamethasone (DEX) treated animals. Annual Meeting of the Society for Neuroscience.
- Zoeller RT, Lee R, Curran M, Fletcher DL and Blazis EJ 1996 Functional organization of hypophysiotropic TRH neurons. Annual meeting of the Society for Neuroscience, Washington DC.
- Dowling ALS, Leonard J, Zoeller RT 1996 Thyroid hormone regulated genes in the developing rat brain. Annual Meeting of the Society for Neuroscience #486.12, pg 1220.
- Dowling ALS, Yang J, Leonard J, Zoeller RT 1997 Identification of thyroid hormone regulated genes in the developing brain. *Thyroid* 7(Suppl 1): S-114
- E. Sanchez, C. Morales, R.M. Uribe, T. Zoeller, J.L. Charli and P. Joseph-Bravo. 1997 Characterization Of TRH Responsive Cells To Neural Stimuli In The Hypothalamic Paraventricular Nucleus. Annual Meeting of the Society for Neuroscience, New Orleans, La. (Oct 25 - Oct 30).
- Yang J, Dowling ALS, Fletcher DL, Zoeller RT. 1998. Identification of genes expressed in fetal cortex during cortical development that are affected by maternal ethanol consumption. Annual meeting of the Research Society on Alcoholism, Hilton Head NC. June, 1998.
- Zoeller R, Fletcher D, Martz G, Dowling A, Yang J, Christie S, and Crofton K. (1998) Perinatal Exposure To Polychlorinated Biphenyls Increases Circulating Levels Of T4, And Tsh, And Affects The Expression Of Multiple Genes In The Brain Of 200-Day Old Rats. *Thyroid* 8(Suppl 1): 65
- Dowling ALS, Martz GU, Darling DS, and Zoeller RT (1998) Thyroid hormone affects the expression of multiple genes in the fetal and adult brain. *Thyroid* 8(Suppl 1): 64
- Specker, Jennifer L., R. Thomas Zoeller and Leroy C. Folmar. 1998. Thyroid Status and Function in Aquatic Vertebrates: Assessment and Disruption (Abstract). Prepared for the 8th ASTM Symposium on Environmental Toxicology and Risk Assessment: Standardization of Biomarkers for Endocrine Disruption and Environmental Assessment, 20-22 April 1998, Atlanta, GA. 1 p.
- Zoeller RT and K.M. Crofton 1998 Perinatal Exposure to polychlorinated biphenyls exerts both thyroid hormone-like and anti-thyroid effects in rats. NIEHS/USEPA Endocrine Disruptor Investigators Meeting, Research Triangle Park, NC, Oct 1998.
- Vas AA, Joseph-Bravo P, and Zoeller RT. 1999. Expression of adrenergic receptor subtypes within hypophysiotropic Thyrotropin-Releasing Hormone (TRH) neurons. Annual Meeting of the Society for Neuroscience.
- Dowling ALS and Zoeller RT. 1999. Thyroid Hormone Affects the mRNA Expression of Neuroendocrine-Specific Protein in the Adult Cortex, Hippocampus, and Cerebellum. *Thyroid* 9 (Suppl 1). Abstract # 166.
- Terry KA and Zoeller RT 2000 Identification Of Thyroid Hormone-Responsive Genes in Rat White Blood Cells. Annual Meeting of the Endocrine Society, Toronto, CA

- Sanchez E, Zacarias M, Cisneros M, Corkidi G, Uribe RM, Zoeller RT, Charli JL and Joseph-Bravo P. 2000 TRH mRNA expression differs in the paraventricular nucleus of lactating rats exposed to cold or suckling. Annual Meeting of the Endocrine Society, Toronto, CA
- Curran MA, Sears CA, Terry K, Zoeller RT, and Petersen SL 2000 The effect of thyroid status on luteinizing hormone-releasing hormone (LHRH) mRNA levels in the male rat. Annual Meeting of the Society for Neuroscience. New Orleans, LA.
- Yang J, and Zoeller RT (2000) Limited changes in patterns of gene expression in alcohol-treated rat fetal brain revealed by differential display and cDNA array. Annual Meeting of the Society for Neuroscience. New Orleans, LA.
- Darling DS, Yen G, Zoeller RT, and Stearman RP (2001) Zfh1 transcription factor may influence neural cell differentiation. Annual Meeting of the Society for Developmental Biology, Seattle, WA. Developmental Biology 235: 218, Abstract # 220.
- Herzig C, Bansal R, Iannacone E, Zoeller R. (2002) Maternal exposure to a mixture of polychlorinated biphenyls (Arocolor 1254) exerts thyroid hormone-like effects on notch signaling in the fetal cortex. Annual Meeting of the Society of Toxicology, Nashville, TN.
- Iannacone E, Zoeller R. (2002). Do polychlorinated biphenyls interfere with non-genomic actions of thyroid hormones? Annual Meeting of the Society of Toxicology, Nashville, TN.
- Zoeller R. (2002). Interpreting thyroid toxicity for risk assessment. Annual Meeting of the Society of Toxicology, Nashville, TN.
- Gauger K, Herzig C, Zoeller R. Exposure to polychlorinated biphenyls exerts thyroid hormone-like effects on the expression of thyroid hormone-responsive genes in the fetal cortex. Annual Meeting of the Society of Toxicology, Nashville, TN.
- Bansal R, Herzig C, Iannacone E, Zoeller R. (2002). Maternal thyroid hormone increases the expression of genes that affect glial determination in the early cortex. Annual Meeting of the Society of Toxicology, Nashville, TN.

Teaching

University of Missouri

- M205: "Medical Histology"
 AN491: "Reproductive Neuroendocrinology" Special Topics
 DBS490 "Neurobiology Seminar" (for graduate students).

University of Massachusetts

- Biol 325 "Introduction to Human Physiology"
 Biol 564/5 "Human Physiology " ("Experimental Animal Physiology I" in 1995).
 Biol 797B "Gene Expression in the Nervous System"
 Biol 568/9 "Endocrinology".
 Biol 297A "Human Physiology".

Administrative

University of Missouri

Graduate Faculty Senate from Anatomy/Neurobiology ('89-'94). Secretary of GFS ('93-'94)

Director of Graduate Studies, Department of Anatomy/Neurobiology ('90-'94)

Vice President, Mid-Missouri Chapter of the Society for Neuroscience ('90-'91)

President, Mid-Missouri Chapter of the Society for Neuroscience ('93-'94)

Member of Medical School Task Force on Assessment, ('92-'94)

Member of Curriculum Committee on Endocrinology, ('93)

University of Massachusetts

Biology Personnel Committee (Elected '95-'98 and '99-'02; **chair** '96-'01)

Biology Department Executive Committee '98-'01, '01-'02

Departmental Space Committee (Elected '95-'00)

Dean's advisory committee on CNSM organization, March, '94.

NSB steering committee (Elected '95-'98)

MCB admissions committee ('96, '98, '99; chair '99, '00)

Chair, Animal Care Office Review, 1999-2000

References

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