

CURRICULUM VITAE

6/16

PETER THOMAS

PERSONAL

Citizenship: U.S.A.

ADDRESS & TELEPHONE

The University of Texas at Austin
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EDUCATION

Ph.D., Physiology, Department of Physiology, University of Leicester, Leicester, England, 1978
B.Sc., Zoology with Psychology and Chemistry, University of Hull, Hull, England, 1970

ADDITIONAL COURSEWORK

Training course on Advanced Research Training in Marine Molecular Biology and Biotechnology, Duke University Marine Laboratory, Beaufort, North Carolina (6 graduate credits), 1992
Training course on Molecular Endocrinology, Baylor College of Medicine, Houston, Texas, 1985
Radioligand Assay Techniques, Endocrine Society, Bethesda, Maryland, U.S.A., 1978

PROFESSIONAL EXPERIENCE

2003-present H.E.B. Endowed Chair in Marine Science, Professor, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas.
2002-2009 Research Professor, Marine Science Institute, The University of Texas at Austin, Port Aransas, Texas.
1993-present Professor, Integrative Biology, The University of Texas at Austin, Austin, Texas.
1990-present Professor, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas.
1993-1996 Acting Chairman, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas.
1989-2002 Senior Research Scientist, Marine Science Institute, The University of Texas at Austin, Port Aransas, Texas.
1987-1990 Adjunct Professor, Corpus Christi State University, Corpus Christi, Texas.

- 1986-1989 Part-time Lecturer, Principles and Practices of Aquaculture, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas.
- 1983-1989 Research Scientist, Marine Science Institute, The University of Texas at Austin, Port Aransas, Texas.
- 1980-1983 Research Associate III, Marine Science Institute, The University of Texas at Austin, Port Aransas, Texas.
- 1977-1980 Research Associate w/Dr. J.M. Neff, Department of Biology, Texas A&M University.
- 1975-1977 Part-time Assistant Professor (equivalent), Advances in Endocrinology, Department of Pharmacology, Leicester Polytechnic, Leicester, England.
- 1975-1976 Instructor, Physiology and Endocrinology, Department of Physiology, University of Leicester, Leicester, England.
- 1974-1976 Teaching Assistant, Department of Physiology, University of Leicester, Leicester, England.
- 1973-1977 Research Assistant, Royal Free Hospital School of Medicine, University of Leicester, Leicester, England.
- 1973-1974 Teaching Assistant, Department of Physiology, Royal Free Hospital, School of Medicine, University of London, London, England.
- 1972-1973 Research Student, Misaki Marine Biological Station, Tokyo University, Kanagawa-ken, Japan. Professor H. Kobayasi
- 1971-1972 Research Student, Waseda University, Tokyo, Japan. Dr. S. Ishii

HONORS AND AWARDS

- 2015 Top ten paper published in the field of endocrinology in 2014- selection committee Endocrine Society- at ENDO2015
- 2008 Howard Bern Distinguished Lecture in Comparative Endocrinology, Division of Comparative Endocrinology of the Society of Integrative and Comparative Biology Annual Meeting.
- 2006 Irving I. Geswhind Memorial Lecture in Comparative Endocrinology, Western Regional Division of Comparative Endocrinology of the Society of Integrative Biology.
- 2006 Honorary Doctor of Philosophy in Biology from Örebro University, Sweden
- 2003 H.E.B. Endowed Chair in Marine Science, The University of Texas at Austin,

PROFESSIONAL SOCIETIES

Coastal & Estuarine Research Federation
 American Physiological Society
 International Society for Fish Endocrinology
 Society for the Study of Reproduction
 Endocrine Society
 North American Society for Comparative Endocrinology

PROFESSIONAL ACTIVITIESAppointments:

- 2013-present Editorial Board, *Endocrine Disruptors*
- 2014-present Editorial Board, *Journal of Experimental Zoology, Part A*,
- 2013-present Editorial Board, *Domestic Animal Endocrinology*
- 2011-present Editorial Board, *Frontiers in Endocrinology*
- 2011-present Corresponding Editor, *Journal of Steroid Biochemistry and Molecular Biology*
- 2010 Review Panel, U.S. Dept. of Aquaculture Reproductive Biology, Competitive Grants Program, Washington
- 2010-2012 Council Member, North American Society for Comparative Endocrinology
- 2007-2009 Editorial Board, *Zoological Science*
- 2007-2010 Editorial Board, *Endocrinology*
- 1998-2008 Member, Expert Consultation on Testing in Fish - Organization for Economic Co-Operation and Development-Environment Directorate (OECD)
- 1997-2009 Editorial Board, *Aquatic Living Resources*
- 1997-2008 Member, Board of the International Union of Biological Sciences, Reproductive Biology in Aquaculture (IUBS-RBA)
- 1994-present Editorial Board, *General and Comparative Endocrinology*
- 1994-2010 Editorial Board, *Aquaculture*
- 1992-2011 Editorial Board, *Diseases of Aquatic Organisms*
- 2002-2007 External Scientific Review Panel, EPA NHEERL Mid-Continent Ecology Division, Duluth
- 2002-2005 Scientific Advisory Board, Pacific Ecosystem Indicator Research Center, EPA STAR Program
- 1999-2005 Scientific Advisory Board, EPA Superfund Program, Boston University School of Public Health
- 1997-2000 Editorial Board, *Journal of Experimental Zoology*
- 1996-1998 Associate Editor, Encyclopedia of Reproduction
- 1996-1998 Member, Screening and Testing Work Group, Endocrine Disruptor Screening and Testing Advisory Committee: Environmental Protection Agency
- 1993 Review Panel, U.S. Dept. of Aquaculture Reproductive Biology, Competitive Grants Program, Washington
- 1991, 1996 Site Review Panel, National Institute of Health Marine Biomedical Centers Program Milwaukee
- 1991 Review Panel, Environmental Protection Agency - Toxicology Centers Program, Washington
- 1990-1991 Secretary, Division of Comparative Endocrinology, American Society of Zoologists
- 1990 Review Panel, Environmental Protection Agency - Biomarkers, Program - Environmental Biology, Nashville

- 1989-1992 Scientific Advisor, National Academy of Sciences, National Research, Council for aquaculture research in Thailand
- 1989 Toxic Substances and Pesticides Subcommittee, Gulf of Mexico Program. Environmental Protection Agency
- 1987-1989 Editorial Board, *Marine Environmental Research*
- 1987-1988 Nominating, Best Student Paper Committee, American Society of Zoologists, Division of Comparative Endocrinology

Co-Organizer of Meetings:

- 2000 Fourth International Symposium on Fish Endocrinology, Scientific Program Committee
- 1997 Joint Western/Southwestern Regional Conference on Comparative Endocrinology
- 1995 Fifth International Symposium on Reproductive Physiology of Fish
- 1988 Southwest Regional Conference on Comparative Endocrinology, American Society of Zoologists
- 1987 Red Drum Aquaculture Conference
- 1983 Migration: Mechanisms and Adaptive Significance

Co-Editor of Proceedings:

- 1995 "Reproductive Physiology of Fish." Proceedings of the 5th International Symposium on the Reproductive Physiology of Fish. F.W. Goetz and P. Thomas (eds.). The University of Texas at Austin Printing Dept., pp. 388.
- 1989 "Red Drum Aquaculture." Proceedings of a Symposium on the Culture of Red Drum and Other Warm Water Fishes. C.R. Arnold, G.J. Holt, and P. Thomas (eds.). *Contributions in Marine Science* 30 (Suppl.) pp. 197.
- 1985 "Migration: Functional Aspects and Adaptive Significance". M.A. Rankin, D. Checkley, J. Cullen, C. Kitting, and P. Thomas (eds.). *Contributions in Marine Science* 27 (Suppl.), pp. 868.

Session Chairman:

- 2016 8th International Symposium of Fish Endocrinology, Gothenburg, Sweden
- 2013 17th International Symposium on Pollution Responses in Marine Organisms, Faro, Portugal
- 2012 7th International Symposium of Fish Endocrinology, Buenos Aires
- 2011 1st Annual Meeting North American Society for Comparative Endocrinology, Ann Arbor
- 2011 16th International Symposium on Pollution Responses in Marine Organisms, Long Beach
- 2009 Annual Meeting of the Society of Environmental Chemistry and Toxicology, New Orleans

- 2009 6th International Symposium on Rapid Responses to Steroid Hormones, Elche, Spain
- 2009 16th International Congress of Comparative Endocrinology, Hong Kong
- 2009 15th International Symposium on Pollution Responses in Marine Organisms, Bordeaux, France.
- 2007 5th International Symposium on Rapid Responses to Steroid Hormones, Dublin, Ireland
- 2007 14th International Symposium on Pollution Responses in Marine Organisms, Florianopolis, Brazil
- 2006 Hormonal Seroids and Steroids and Cancer Athens, Greece
- 2005 12th International Symposium on Pollutant Responses in Marine Organisms, Alessandria, Italy
- 2005 4th Rapid Responses Steroid Symposium, San Diego, California
- 2004 3rd Rapid Responses Steroids Symposium, Florence, Italy
- 2001 Annual Meeting Society of Environmental Toxicology and Chemistry, Baltimore
- 2000 4th International Symposium on Fish Endocrinology, Seattle, Washington
- 1999 10th International Symposium on Pollution Responses in Marine Organisms, Williamsburg, Virginia
- 1997 XIIIth International Congress of Comparative Endocrinology, Yokohama, Japan
- 1996 4th International Symposium on Fish Endocrinology, Hakodate, Japan
- 1995 Society of Environmental Toxicology and Chemistry Annual Meeting, Vancouver
- 1995 7th International Symposium on Pollution Responses of Marine Animals, Pacific Grove California
- 1993 6th International Symposium on Pollution, Responses of Marine Animals, Göteborg, Sweden
- 1992 Society of Environmental Toxicology and Chemistry Annual Meeting, Cincinnati, Ohio
- 1989 Workshop on "Traditional and Nontraditional Steroids" at XIth International Congress of Comparative Endocrinology, Malaga, Spain
- 1986, 1988 American Society of Zoologists Annual Meeting
- 1987 Red Drum Aquaculture Conference, Corpus Christi, Texas
- 1987 3rd International Symposium of Reproductive Physiology of Fish, St. Johns, Newfoundland

COURSES TAUGHT

Undergraduate:

- MNS 354V Principles and Practices of Aquaculture, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Summer 1990, 1988, 1985
- MNS 354Q Marine Environmental Science, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, 2015, 1998, 1997

Graduate:

MNS 483C Adaptations to the Marine Environment, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007, 2006, 2005, 2001, 2000

MNS 384U Reproductive Physiology of Fish, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, 2009, 2006, 2003, 2000, 1998, 1994

MNS 398T Supervised Teaching in Marine Science, 2011

MNS 383 Topics in Marine Science: Methods in Fisheries and Mariculture, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, 1996

MNS 191 Seminar in Marine Science, 2005, 2014

PHR 284K Fundamentals of Toxicology (co-taught), The University of Texas at Austin, Austin, Texas, 2001, 2000, 1999

UNDERGRADUATE STUDENT RESEARCH TRAINING (since 2010)

Megan Aguirre 2013-2016 (minority student)

Ethan Taulbee 2014 (REU student)

Nana-Ama-Anang 2013 (minority student)

Kethsaly Salinas 2012 (minority student)

Aubrey Converse 2011

Kathryn Ondricek 2010

GRADUATE STUDENT & POSTDOCTORAL FELLOW SUPERVISION

Current Students
Aubrey Converse

Degree working towards
Ph.D.

<u>Past Students</u>	<u>Degree Awarded</u>	<u>Yr. Graduated</u>
Kathryn Ondricek	M.S.	2015
Amanda Fitzgerald	M.S.	2015
Wenxian Tan	Ph.D.	2013
Chenan Zhang	M.S.	2011
Candace Peyton	M.S.	2010
Gwen Dressing	Ph.D.	2008
Caleb Harris	M.S.	2007
Christopher Tubbs	Ph.D.	2007
Margaret Pace	Ph.D.	2005
Abby Benninghoff	Ph.D.	2004
Alyssa Dotte Braun	Ph.D.	2002
Mary Beth Hawkins	Ph.D.	2002
C. LaSonya Mathews	M.S.	2000
Karen Rogowski	M.A.	1999
Todd Sperry	Ph.D.	1999
A. Katrina Loomis	M.A.	1998
Charles Detweiler	M.A.	1997

Jonathon Pinter	Ph.D.	1995	
Charles Laidley	Ph.D.	1995	
Lestari Budiantara	M.A.	1994	
Jennifer Di Cocco	M.A.	1994	
Susan Safford	Ph.D.	1992	(Dr. Clark Hubbs co-supervisor)
Richard White	Ph.D.	1991	(Dr. Jim Bull co-supervisor)
John Smith	Ph.D.	1990	(Dr. David Crews co-supervisor)
Elizabeth Sharpe	M.A.	1989	Texas A&M University (Dr. Don Lewis co-supervisor)
Gary LaFleur	M.A.	1989	Corpus Christi State University
John Trant	Ph.D.	1987	(Dr. David Crews co-supervisor)
Lori Robertson	M.A.	1986	
Marlene Juedes	M.A.	1986	Corpus Christi State University

<u>Postdoctoral Fellows</u>	<u>Date</u>
Tapan Chourasia	2012-2013
Joseph Aizen	2011-2013
Matt Picha	2009-2011
Rebecca Alyea	2009-2011
Christopher Tubbs	2007
Hakan Berg	2004-2007
Saydur Rahman	2003-2007
Mary Beth Hawkins	2003-2004
Yefei Pang	2001-2004
Judith Bergeron	1998-2001
Janet Ungerer	1994-1995
Yong Zhu	1992-1995
Shampa Ghosh	1992-1995
Probodh Ghosh	1992-1993
Izhar Khan	1990-1993
Hanuman Singh	1990-1991
Kevin Baer	1988-1989
Reynaldo Patiño	1988-1989
John M. Trant	1988
Hong Y. Yan	1987
Paul C. Copeland	1984-1987
H. Wayne Wofford	1983-1986

UNIVERSITY & DEPARTMENTAL COMMITTEES

2015-present	Member Awards Committee
2015-present	Member Faculty Diversity, Recruitment and Retention Committee
2013-2015	Member, UTMSI Seminar Committee
2012-2013	Chair, Search Committee for Director of Marine Science Institute
2011-2012	Chair, Memorial Resolution Committee for Patrick Parker

2010-2011 Chair, Search Committee for Director of Fisheries and Aquaculture laboratory
 2009-2010 Member, CNS Dean's Advisory committee on new Director of Fisheries and Aquaculture, UTMSI
 2008-2010 Member, UTMSI Seminar Committee - Organizer of Schweppe seminar series
 2006-2010 Member, CNS Course and Curriculum committee
 2011-2012 Member, CNS Safety Committee
 2006-2010 Chair, DMS Course and Curriculum committee
 2010-2012 Member, DMS Course and Curriculum committee
 2010-2012 Chair, UTMSI Awards Committee
 2005-2008 Member, UTMSI Awards Committee
 1992-1994 Graduate Adviser, DMS
 Member, DMS Budget Council
 Member, DMS Student Recruitment Committee
 Member, UTMSI Space and Facilities Committee
 Member, UTMSI Seminar Committee
 Member, UTMSI Library Committee
 Member, UTMSI Safety Committee
 Member, DMS Course & Curriculum-Undergraduate
 Chair, UTMSI Awards Committee
 Member, College of Natural Sciences Tenure and Promotion Committee
 Member, College of Natural Sciences Review of Org. Research Units Committee

GRANTS AND CONTRACTS

Lichtenstein Medical Research Foundation. Additional funds for "Progesterone regulation of human vascular smooth muscle relaxation through mPR α ". \$214,288 (09/01/15-03/31/18) PI

Lichtenstein Medical Research Foundation "Progesterone regulation of human vascular smooth muscle relaxation through mPR α ". \$363,900 (04/01/15-03/31/18) PI

Lichtenstein Medical Research Foundation "Dual hormonal control of human vascular cell functions through membrane progesterone receptors (mPRs) and estrogen receptors." \$238,760 (09/01/13-09/01/15) PI

Jack and Valerie Guenther Foundation and Herrmann Family Charitable Foundation "Characterization of the novel membrane androgen receptor" \$500,000 (09/01/14-08/31/16) PI

Repros Therapeutics Inc. "Testing compounds for interactions with membrane progestin receptors" \$15,000 (01/24/14-01/23/15) PI

East Carolina University/NIH "Training students in membrane progesterone receptor techniques" \$20,000 (07/01/13-06/30/16) PI

Baylor College of Medicine. NIH subaward "Non-classical cellular pathways for progesterone regulation of behavior" \$125,000 (06/01/10-06/30/15) PI

NSF "Mechanism of hypoxia down-regulation of reproductive neuroendocrine function in

- Atlantic croaker” \$515,448 (7/01/2011-06/30/14) PI.
- Lichtenstein Medical Research Foundation “Role of the novel membrane progesterone receptors (mPRs) in the human vascular system.” \$314,000 (2/01/11-01/31/14) PI
- U.S. Department of Agriculture, AFRI Competitive Grants Program “Mechanism of progestin regulation of sperm motility in southern flounder,” \$325,000. (10/01/09-09/30/12). PI.
- NOAA Coastal Ocean Program “NGOMEX 2009: Modeling Reproductive and Population Impacts of Hypoxia in the Northern Gulf of Mexico,” total 6 years: \$2,048,182. (10/01/09-9/30/15). PI, K. Rose, D. Justice, K. Craig, and T. Grothues Co-PIs.
- DHHS/PHS/NIEHS “Characteristics of a putative steroid membrane receptor,” \$1,626,375. (07/01/06-06/30/11). PI.
- NOAA Coastal Ocean Program “NGOMEX 2006: Reproductive and population effects of moderate hypoxia,” \$1,300,000. (08/01/06-07/31/09). PI, and E. Buskey, Co-PI.
- Rhode Island hospital/NIH “Study of GPR30: a novel estrogen receptor linked to breast cancer,” \$256,000-subcontract. (03/01/06-02/28/11). P. Thomas and E. Filardo Co-PI.
- USDA CREES “Role of a membrane progestin receptor alpha in motility of fish sperm,” \$315,000. (08/01/06-07/30/09). PI.
- Sea Grant/TAMU “Atlantic Croaker Indicators of Estuarine Condition,” \$178,000. (03/01/06-02/28/08). PI.
- University of Southern Mississippi/U.S. Environmental Protection Agency, GR01079-B10 (Yr. 4 of 4) “Individual Level Indicators: Reproductive Function in Estuarine Fishes,” \$370,043. (11/01/04-10/30/05). PI.
- Organon “Characterization of a Novel family of Genes Encoding Putative Membrane Progesterone Receptors in Mammals,” \$522,100. (04/01/04-03/31/06). PI.
- University of Southern Mississippi/U.S. Environmental Protection Agency, GR01079-B10 (Yr. 3 of 4) “Individual Level Indicators: Reproductive Function in Estuarine Fishes,” \$431,852. (11/01/03-10/30/04). PI.
- University of Southern Mississippi/U.S. Environmental Protection Agency, GR01079-B10 (Yr. 2 of 4) “Individual Level Indicators: Reproductive Function in Estuarine Fishes,” \$361,447. (11/01/02-10/30/03). PI.
- DHHS/PHS/NIEHS, National Institute of Health “Mechanisms of Reproductive Neuroendocrine Toxicity,” \$765,463. (05/0/203 – 03/31/06). PI.
- National Sea Grant Program “Early Detection of Reproductive Function in Atlantic Croaker Exposed to Anthropogenic Stressors Using Gene Microarrays,” \$300,000. (12/01/02-11/30/05). PI.
- Brown University / American Cancer Society; Contract: RSG-02-194-01-TBE “Estrogen Binding Characteristics of GPR30,” \$122,297, 7.5%. (07/01/ 02-06/30/06). Co-I.
- Virginia Institute of Marine Science/Sea Grant, 114774-GL10013 “*Cobia* Aquaculture Development in Texas,” \$188,573. (09/01/01-08/31/03). PI.

- TAMU-Sea Grant, R/ES-92 (Yrs. 1, 2 of 3) "Assessment of Feminization in Male Croaker and the Presence of Estrogenic Contaminants in Estuarine Environments," \$155,524. (03/01/01-02/28/03). PI.
- University of Southern Mississippi/U.S. Environmental Protection Agency, GR01079-B10 (Yr. 1 of 4) "Individual Level Indicators: Reproductive Function in Estuarine Fishes," \$348,715. (11/01/01-10/30/02). PI.
- Environmental Protection Agency, R8290-2401 (Yr. 1 of 3) "Xenobiotic Chemical Interference With Non-genomic Steroid Actions: A Novel Mechanism of Endocrine Disruption of Potential Environmental Concern," \$108,318. (09/01/01-08/31/02). PI.
- Tuition and Research Support in Connection with Fellowship to Abby Benninghoff. Environmental Protection Agency, U915-731-01-1, \$27,107. (08/28/00-08/31/03). PI.
- Texas Tech Univ/USDA-CREES "*In Vitro* Experiments in Atlantic Croaker Ovarian Tissues," \$13,387. (08/05/00-08/14/02). PI.
- Environmental Protection Agency "Evaluation of endocrine-disrupting chemical effects across multiple levels of biological organization, integration of physiology, behavior, and population dynamics in fishes," \$862,290. (09/01/99-08/31/02). PI.
- USDA-CSREES-NRICGP "Regulation and function of a progestin receptor on fish sperm membranes," \$200,000. (09/01/99-08/31/02). PI.
- National Science Foundation "Cloning, Sequencing and Expression of a Steroid Membrane Receptor," \$80,000. (09/01/99-08/31/01). PI.
- "Reproductive and Endocrine Effects of o,p'-DDT, an Environmental Estrogen, and p,p'-DDE, an Antiandrogen in Male and Female Atlantic Croaker During Critical Periods of Their Reproductive Life History Cycles," (Suppl.), \$36,000. (12/20/99-02/28/00). PI.
- Texas Higher Education Board/Coordinating Board ARP/ATP-1997 "Pollutant-induced Feminization in Male Fish: Is it a Problem in Texas Estuaries?" \$78,375. (01/01/98 - 12/31/99).
- U.S.G.S. 1434-CR-98-AG-00034 RQ-Q "Marine Toxicology Program," \$55,000. (10/01/97-09/30/02). Co-PI.
- Environmental Protection Agency "Reproductive and Endocrine Effects of o,p'-DDT, an Environmental Estrogen, and p,p'-DDE, an Antiandrogen in Male and Female Atlantic Croaker During Critical Periods of Their Reproductive Life History Cycles," \$430,010. (09/1/97-08/31/00). Co-PI.
- DHHS/PHS/NIEHS "Mechanisms of Reproductive Neuroendocrine Toxicity," \$513,914. (07/01/97-06/30/00). PI.
- USDA (NRICGP) "Role and Regulation of Connexin Genes in Fish Ovaries," \$207,327. (09/01/96-08/31/99). PI.
- DHHS/PHS National Institute of Health "Endocrine Effects of Reproductive Toxins in Female Fish," \$401,364. (03/01/95-02/28/98). PI.

- TAMU Sea Grant Program “Steroid Receptor-mediated Mechanisms of Endocrine Disruption in Atlantic Croaker by Chemicals in the Marine Environment,” \$181,739. (09/01/95-08/31/98). PI.
- TAMU Sea Grant Project “Identification of the Ruffe Maturation-inducing Substance and Characterization of its Receptor,” \$86,675. (07/01/95-06/30/98). PI.
- Environmental Protection Agency “Biomarkers of Reproductive Function and Larval Fitness in Croaker Exposed to Pesticides,” \$90,300. (08/01/95-07/31/96). PI.
- Louisiana Sea Grant College Program “Red drum Growth Hormone Heterologous Production in a Eukaryotic Expression System, Physiology and Effects on Growth after Dietary Administration,” \$193,500. (09/02/94-08/31/97). PI.
- National Science Foundation “Research Experiences for Minority and Women Undergraduates at the Marine Science Institute of The University of Texas at Austin,” \$150,270. (03/01/94-02/29/97). Co-PI.
- Environmental Protection Agency “Evaluation of Endocrine and Morphological Biomarkers of Reproductive Toxicity During Critical Stages of the Reproductive Cycle in Atlantic Croaker,” \$334,998. (10/01/93-09/30/96). PI.
- USFWS Cooperative Agreement 14-48-009-93-926 and USDI 1445-0009-95-0013 “Marine Toxicology Program,” \$200,000. (10/01/92–09/30/97). PI.
- Texas Higher Education Advanced Research Program #462 \$99,000. “Field Assessment of Reproductive Indices and Stress Proteins in Fish as Biomarkers of Environmental Contamination in Galveston Bay,” (\$180,000). (09/01/91-08/31/94). Co-PI with Howard.
- USDA/Texas Tech University Subcontract “Identification of Gene Transcripts Synthesized During Ovarian Maturation in Fish,” \$5,200. (09/01/91-08/31/93). PI.
- USFWS/Texas Tech University Interagency Contract “Development of Optimal Techniques for Hormonal Induction of Spawning in Spotted Seatrout by Oral Administration of LHRHa,” \$15,200. (09/01/91-08/31/93). PI.
- NOAA/TAMU Sea Grant “Role of Gonadotropins and Prolactin in Atlantic Croaker, Red Drum, and Spotted Seatrout,” \$102,120. (09/01/91-08/31/93). PI.
- NOAA/TAMU Sea Grant Coastal Ocean Program “Field and Laboratory Evaluation of Endocrine Indices of Reproductive Dysfunction in Atlantic croaker,” \$230,309. (10/01/91-09/30/94).
- DHHS/PHS/NIEHS 2R01-ES04214-04 “Endocrine Effects of Reproductive Toxins in Female Fish,” \$577,000. (03/01/90-02/28/95). PI.
- Environment Protection Agency R816023-01-0 “Assessment of Endocrine Indices as Early Warning Indicators of Reproductive Impairment in Female Fish,” \$245,388. (07/01/90-06/30/93). PI.
- Texas A&M University Sea Grant College Program “Physiology of Gonadotropins in Atlantic Croaker and Red Drum,” \$95,052. (09/01/89-08/31/91). PI.

- Abbott Laboratories "Effect of Administration of Leuprolide or Other LHRH Analogs on Ovulation and Spawning of Fish," \$30,000. (12/11/89-12/10/90). PI.
- Texas Higher Education Coordinating Board/Advanced Technology Program "Technological Solutions to the Major Problems of the Developing Red Drum Industry," (Thomas/Reproduction: \$189,448.) (\$500,000). (06/01/88-05/31/90). Co-PI.
- U.S. Fish & Wildlife Service, FWS-14-16-0009-88-900 "Marine Toxicology Program," \$210,000. (10/01/87-09/30/92). PI.
- Sid W. Richardson Foundation #8766 "Induction of Precocious Sexual Maturation in Laboratory-Reared Red Drum," \$145,000. (09/01/87-08/31/90). PI.
- Texas A&M University Sea Grant College Program "Environmental Influences on Gonadotropin Secretion in Atlantic Croaker and Red Drum," \$84,824. (09/01/87-08/31/89). PI.
- DHHS-PHS/National Institute Environmental Health Science, 5RO1-ESO4214-01/02/03 "Endocrine Effects of Reproductive Toxins in Female Fish," \$261,235. (01/01/87 12/31/89). PI.
- Lawrence Livermore National Laboratory/NOAA, P.O. 1841403 "Steroid Hormone Analyses," \$12,800. (09/01/87-12/14/87). PI.
- Support of ongoing research programs, Caesar Kleberg Foundation. \$5,000. (01/30/87-until expended).
- Texas Water Development Board, IAC[86-87]1476; [88-89]0689; [88-89]1429 (Thomas/Holt, Co-PIs) "Salinity Requirements for Reproduction of Several Important Fishes in Texas Estuaries," (Thomas/Reproductive Physiology: \$105,000). (\$170,000). (09/05/86-08/31/89). Co-PI.
- Environmental Protection Agency, R-812797-01 "Development of Early-Warning Indices of Ovarian Dysfunction and Reduced Hatching Success in Fish Exposed to Pollutants," \$161,030. (08/01/86-07/31/88). PI.
- Higher Education Coordinating Board/Texas Advanced Technology Research Program "Application of Recent Scientific Advances to the Development of Marine Finfish Culture in Texas." (Thomas/Reproductive Physiology: \$291,000). (\$730,000). (11/06/86-08/31/87). Co-PI.
- Texas Parks & Wildlife Department, IAC[86-87]0904; [86-87]1668 "Development of Optimal Procedures for the Artificial Propagation of Fish in TPWD Hatcheries," \$16,000. (01/22/86-08/31/87). PI.
- Gift in support of ongoing research, Wildlife Labs, Inc. \$3,200. (05/24/85-until expended).
- The Asia Foundation "Work-Study Program (Hong Wanshu): Marine Environmental Chemistry," \$3,450. (10/31/84-10/30/85). PI.
- National Science Foundation, OCE-8310504 "Reproductive Endocrine Function in Marine Fish Exposed to Pollutants," \$80,927. (12/01/83-07/31/85). PI.

- Caesar Kleberg Foundation “Redfish Mariculture Studies,” (Thomas/Reproductive Physiology: \$72,500). (\$145,290). (11/01/82-11/30/84). PI.
- Battelle-Columbus Laboratories/National Science Foundation, W-8326(8373)-130 “Development of Diagnostic Biochemical Indices of Early Pollutant Stress in Marine Animals,” \$140,723. (05/01/81-04/30/84). PI.
- Sid W. Richardson Foundation “Reproductive Physiology in Fishes,” \$17,487. (10/16/81-8/31/82). PI.
- Sid W. Richardson Foundation “Reproductive Physiology in Fishes,” \$32,065. (04/01/81-03/31/82). PI.
- Caesar Kleberg Foundation “Reproductive Physiology of Marine Teleosts,” \$26,000. (09/01/80-08/31/81). PI.

MANUSCRIPTS SUBMITTED/IN PRESS

- Pang, Y., and P Thomas. Additive effects of low concentrations of estradiol-17 β and progesterone on nitric oxide production by human vascular endothelial cells through shared signaling pathways. (resubmission review by sponsors, 10/15/15) to be submitted to *Journal of Steroid Biochemistry and Molecular Biology*.

PEER REVIEWED PUBLICATIONS

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