♦ CURRICULUM VITAE ♦

*WARREN W. BURGGREN*

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## ♦ PERSONAL INFORMATION ♦

PROFESSIONAL CONTACT INFORMATION

|  |  |
| --- | --- |
| * **Mailing Address**: 1155 Union Circle #311190   University of North Texas  Denton, TX 76205-5189  940-565-3952  940-565-4438 (FAX)  [burggren@unt.edu](mailto:burggren@unt.edu)  biology.unt.edu/burggren |  |

DATE AND PLACE OF BIRTH

* August 14, 1951, Edmonton, Alberta, Canada

MARITAL STATUS

* Married, 3 daughters, 1 son

CITIZENSHIP

* Canadian and American

UNDERGRADUATE TRAINING

* Department of Biology, University of Calgary, Alberta, Canada 1969-1973

GRADUATE TRAINING

* School of Biological Sciences, University of East Anglia, Norwich, England 1973-1976

DEGREES HELD

* B.Sc. (1st Class Honors) in Biology - University of Calgary, 1973
* Ph.D. in Physiology - University of East Anglia, U.K. 1976

## ♦ ACADEMIC AND ADMINISTRATIVE- RELATED INFORMATION ♦

### PROFESSIONAL APPOINTMENTS

* Administrative Appointments

|  |  |
| --- | --- |
| • 2015-2016 | President’s Special Advisor for STEM and International Activities |
| • 2010-2015 | Provost and Vice President for Academic Affairs, Univ. of North Texas |
| • 1998-2010 | Dean, Arts and Sciences, Univ. of North Texas |
| • 1997-1998 | Chair, Biological Sciences, Univ. of Nevada, Las Vegas |
| • 1995-1997 | Interim Dean, College of Science and Mathematics, Univ. of Nevada, Las Vegas |
| • 1995-1996 | Director, “Bridges to the Future” Program for University of Nevada, Las Vegas for Minority College Students; jointly funded by National Institutes of Health and Department of Energy |
| • 1992-1995 | Chair, Biological Sciences, Univ. of Nevada, Las Vegas |
| • 1991 | Acting Chair, Zoology Dept., Univ. of Massachusetts |

* Faculty Appointments

|  |  |
| --- | --- |
| • 1998-present | Professor of Biology, Univ. of North Texas |
| • 1992-1998 | Professor of Biological Science, Univ. of Nevada, Las Vegas |
| • 1990 | Visiting Professor, Univ. of Sao Paulo, Brazil |
| • 1987-1991 | Professor of Zoology, Univ. of Massachusetts |
| • 1985 | Visiting Scholar, Univ. of Melbourne, Australia |
| • 1982-1987 | Associate Professor of Zoology, Univ. of Massachusetts |
| • 1978-1982 | Assistant Professor of Zoology, Univ. of Mass |
| • 1976-1978 | Killam Postdoctoral Fellow, Univ. of British Columbia |
| • 1976-1978 | N.R.C. Postdoctoral Fellow, Univ. of British Columbia |
| • 1976 | Visiting Lecturer, Univ. of Aarhus, Denmark |
| • 1973-1976 | Ph.D., Cardiovascular and Respiratory Physiology, Univ. of East Anglia, supervised by Dr. G. Shelton |
| • 1973-1976 | Demonstrator in vertebrate and invertebrate physiology, invertebrate taxonomy, vertebrate and invertebrate morphology, Univ. of East Anglia |
| • 1970-1973 | Research Assistant, Univ. of Calgary |

### HONORS

* Awards and Other Distinctions (See also Plenary and Honorary

Lectures)

|  |  |
| --- | --- |
| • 2019 | Fellow, American Physiological Society |
| • 2018 | Evolutionary Biology Advisory Board, Baylor College of Medicine, Houston. |
| • 2017 | University Distinguished Research Professor |
| • 2012 | Rector Honoris Causa (Honorary University President), The Autonomous University of the State of Mexico, Toluca, Mexico |
| • 2012 | Invited Participant, Commandant’s National Security Program, US Army War College |
| • 2008 | Academia Mexicana de Ciencias Distinguished Visiting Professor |
| • 2006-2011 | National Science Foundation Advisory Board – Biology Directorate |
| • 2002-2005 | Science Advisory Board, Bigelow Aerospace, Inc |
| • 2002 | Outstanding Supporter Award, Student Center for Ethnic Enrichment, University of North Texas |
| • 2002 | Annual Equity and Diversity Recognition Award, University of North Texas |
| • 2000 | Chair, Science Advisory Board - National Institute for Discovery Science |
| • 1997 | Barrick Distinguished Scholar, Univ. of Nevada, Las Vegas |
| • 1997 | Regent’s Research Medal - University and Community College System of Nevada Board of Regents |
| • 1997 | Regents’ Researcher Citation, University and Community College System of Nevada Board of Regents |
| • 1996 | Medal of the University of Helsinki, Finland |
| • 1992 | Fellow, Japan Society for the Promotion of Science |
| • 1984 | Elected Program Officer, Division of Comparative Physiology and Biochemistry, American Society of Zoologists |
| • 1976-1978 | Killam Postdoctoral Scholarship - Univ. of British Columbia |
| • 1976-1978 | NRC Postdoctoral Fellowship - Univ. of British Columbia |
| • 1974-1976 | Commonwealth Scholarship, Univ. of East Anglia, England |
| • 1972-1974 | Univ. of East Anglia Studentship, England |
| • 1972 | Province of Alberta Scholarship, Univ. of Calgary, Canada |

### ADMINISTRATIVE EXPERIENCE

### CONSULTING AND TRAINING

* Program Evaluation, Site Visits
* University of Alberta, Edmonton, Canada – UofA Water Initiative
* Auburn University,
  + - * + Biology Graduate Program
        + Department of Biological Sciences
        + Five-Year Evaluation of Cellular and Molecular Biology Program
* University of Calgary – Faculty of Science
* University of the Central Caribbean - NIH Behavioral Testing Facility
* Middle Tennessee State University, Biology Masters Degree
* University of North Carolina - Greensboro, Evaluation of Department of Biological Sciences
* Indiana University Terre Haute, Department of Biological Sciences
* State of North Dakota, NSF EPSCOR Evaluation for University of North Dakota and North Dakota State University
* Idaho State University, Department of Biological Sciences
* University of Idaho, Department of Biological Sciences
* Western Washington University, College of Sciences
* United Arab Emirates University
* College of Sciences Evaluation
* Training Workshop on "Effective Resource Management" for University Deans and Chairs
* Prince Mohammed University, Saudi Arabia. Undergraduate Core Curriculum Development
* Personnel Search Consultant
* University of Helsinki, Finland
* Academia Sinica, Taipei, Taiwan
* ***Training Workshops Conducted***

|  |
| --- |
| • New Deans Workshop - Council of Colleges of Arts and Sciences - Facilitator for Williamsburg, VA. |
| • Effective Resource Management Workshop   * United Arab Emirates University * University of Nevada, Las Vegas * University of North Texas   • Creating Winning Grant Proposals   * Autonomous University of the State of Mexico * University of North Texas * City University of Hong Kong * Education University of Hong Kong |

* Other Consulting - Advising
* University of the Central Caribbean - Department of Physiology
* Texas International Education Consortium
* International Isotopes Incorporated
* Bigelow Aerospace Corporation
* Jwala Technologies, Inc. (Director)
* Lucid Med Tech II, Inc. (Chief Scientific Officer)
* Higher Education Service

System, Regional and State Higher Education Committees and Councils

|  |  |
| --- | --- |
| • 2014-2015 | UNT System Executive Council |
| • 2010-2015 | Texas Council of Chief Academic Officers |
| • 2001-2003 | Advisory Board Member, the Institute for Diversity in Engineering and Society (IDEAS), North Texas |
| • 2001-2002 | Advisory Board Member, Futures in Research, Science and Technology (FIRST), Mountain View Community College, Dallas, TX |
| • 2000-2003 | Executive Council Member, Texas Association of Deans of Liberal Arts and Sciences |
| • 2001 | Deans Circle, Institute for Diversity in Engineering and Society (IDEAS) |
| • 1998 | University and Community College System of Nevada Regents’ Researcher Award Selection Committee |
| • 1996-1997 | Director, Southern Nevada School Science Fair |
| • 1992 | University and Community College System of Nevada Regents’ Researcher Award Selection Committee |

University Committees (UNT 1998-present; UNLV 1992-1998; UMASS, 1978-1991)

|  |  |
| --- | --- |
| • 2018-present | University Distinguished Research Professor Selection Committee |
| • 2018-present | International Risk Oversight Committee |
| • 2013-2015 | China Advisory Council (Co-Chair) |
| • 2011-2015 | Distinguished Alumni Awards Selection Committee |
| • 2011-2015 | President’s Diversity Council |
| • 2010-2015 | Provost’s Council (Chair) |
| • 2010-2015 | University Gift Acceptance Committee |
| • 2010-2014 | President’s Capital Projects Council |
| • 2010-2014 | President’s Finance Council |
| • 2010-2015 | President’s Enrollment and Retention Council |
| • 2010-2015 | President’s Cabinet |
| • 2009-2010 | Institute for the Advancement of the Arts Steering Committee |
| • 2008-2010 | Information Technology Council (Chair) |
| • 2007 | Search Committee for Provost and Vice President for Academic Affairs |
| • 2006-2008 | UNT System Life Sciences Council (Co-Chair) |
| • 2005-2008 | Academic Planning Council |
| • 2005 | RCM Sub-Committee on Indirect Costs (Chair) |
| • 2004-2005 | Task Force on Centers and Institutes (Chair) |
| • 2004-2006 | UNT Critical Incident Management Team |
| • 2004-2007 | UNT Master Planning Committee |
| • 2003 | Search Committee for CEO and President of University of North Texas Foundation |
| • 2002 | Search Committee for Vice President for Research and Technology Transfer |
| • 2002-2003 | Campus Beautification Committee |
| • 2001-2004 | Chemistry Building Construction Steering Committee |
| • 2001-2002 | Executive Committee – University Planning Council |
| • 2001-2002 | Academic Affairs Committee |
| • 2001 | Institutional Information System Steering Committee |
| • 2001 | Enrollment Management Steering Committee |
| • 2000 | Task Force on Honors Program |
| • 2000-2008 | Teacher Education Council |
| • 2000 | Donor Relations Committee |
| • 1999-2000 | Search Committee for Dean, School of Music, (Chair) |
| • 1999-2000 | Assessment Advisory Council |
| • 1998-2001 | Facilities Planning Committee |
| • 1998-2004 | University Planning Council |
| • 1998 | Minority Recruitment and Retention Task Force |
| • 1998 | Undergraduate Student Retention Steering Committee |
| • 1997-1998 | Barrick Distinguished Scholar Award Committee |
| • 1997-1998 | Gerentology Certificate Program Advisory Committee |
| • 1997 | Bigelow Endowed Chair Search Committee - (Chair) |
| • 1996-1997 | UNLV 40th Anniversary Planning Committee |
| • 1996-1997 | President’s Task Force on Planning - Subcommittee on Strategic Initiative Funding |
| • 1995-1997 | President’s Task Force on Planning - General Member |
| • 1996-1997 | Women’s Studies Steering Committee |
| • 1996 | Faculty Discipline Hearing Officer |
| • 1995-1996 | Research Strategic Planning Committee (Co-Chair) |
| • 1995-1996 | *Ad hoc* Committee for Distance Education Evaluation |
| • 1995 | Development Council |
| • 1995-1997 | UNLV Academic Council |
| • 1994-1995 | Research Issues Resolution Committee |
| • 1993-1995 | Executive Committee of the NIH “Bridges to the Baccalaureate Minority Recruitment Program” |
| • 1993-1994 | University Priority and New Program Review Committee |
| • 1988-1989 | Organization Committee for Biology Undergraduate Degree |
| • 1986-1991 | Graduate Operations Committee for Neuroscience and Behavior Ph.D. Program |
| • 1982-1985 | University Research Council |
| • 1982-1985 | Faculty Research Grant Committee |
| • 1984 | University Health Council |
| • 1985 | University Computer Use Committee |
| • 1981-1983 | Biomedical Research Support Grant Committee |

College Committees (UNT, College of Arts and Sciences, 1998-present; UNLV, College of Science and Mathematics, 1992-1998,: UMASS, College of Natural Sciences and Mathematics, 1978-1991)

|  |  |
| --- | --- |
| • 2016-2017 | College of Science and Mathematics Planning Committee |
| • 2005 | Strategic Planning Committee (Chair) |
| • 1998-2010 | Personal Affairs Committee (Chair) |
| • 1995-1997 | Financial Aid Committee (Chair) |
| • 1995-1997 | Executive Committee (Chair) |
| • 1994-1995 | Computing Services Committee |
| • 1993-1994 | Commencement Committee |
| • 1992-1998 | Executive Committee |
| • 1990-1991 | Organismal and Evolutionary Biology Ph.D. Organization Committee (Co-chair) |
| • 1980 | Dean's Search Committee for Zoology Department Chair |

Departmental Committees (UNT, 1998-present; UNLV 1992-1998: UMASS, 1978-1991)

|  |  |
| --- | --- |
| • 1997 | Animal Physiologist Search Committee |
| • 1992-1998 | Field Station Committee (Chair) |
| • 1992 | Invertebrate Physiologist Search Committee (Chair) |
| • 1990-1991 | Undergraduate Physiology Concentration (Chair) |
| • 1988-1990 | Personnel Committee (Promotions and Tenure Committee) |
| • 1979-1985 | Graduate Operations Committee |
| • 1980-1985 | Qualifying Exam Committee |
| • 1980 | Ad Hoc Committee for Development of Animal Facilities |
| • 1978-1981 | Colloquium Committee (Chair) |

* Professional Service - National / International Committees

Society and Professional Associations

|  |  |
| --- | --- |
| • 2004 | Nominations Committee, Division of Comparative Physiology and Biochemistry, Society for Integrative and Comparative Biology |
| • 2000 | Case Study Facilitator, Council of College of Arts and Science Annual Meeting, Toronto, Canada |
| • 1999-2002 | Publication Committee (Chair) - Society for Integrative and Comparative Biology |
| • 1996-1998 | American Heart Association Research Committee - Nevada Affiliate |
| • 1995-2002 | Publication Committee - Society for Integrative and Comparative Biology |
| • 1993 | George A. Bartholomew Award Committee - American Society of Zoologists (Division of Comparative Physiology and Biochemistry) |
| • 1991-1992 | Standing Committee on Comparative Physiology and Biochemistry, Systematics Agenda 2000, NSF |
| • 1990 | Nomination Committee for Executive Committee, Division of Comparative Physiology and Biochemistry, American Society of Zoologists |
| • 1984-1986 | Member of Executive Committee, Division of Comparative Physiology and Biochemistry, Am. Soc. of Zoologists |
| • 1985 | American Society of Zoologists (Division of Comparative Physiology and Biochemistry): International Union of Biological Sciences (1988)- Program Committee |
| • 1984 | American Society of Zoologists (Division of Comparative Physiology and Biochemistry): International Union of Physiological Sciences (1986)- Program Committee |
| • 1984 | American Society of Zoologists (Division of Comparative Physiology and Biochemistry) - Committee for Selection of Best Student Paper |

National Research Funding Panels

|  |  |
| --- | --- |
| • 2015  • 2012 | Integrative Animal Biology – National Science Foundation – Panel Member  Animal Biology Experimentation Flight Panel, NASA, Panel Chair |
| • 2009 | Animal Biology Experimentation Flight Panel, NASA, Panel Chair |
| • 2004 | American Heart Association – Western Region - Panel Member |
| • 2004 | STEP Undergraduate Education Panel - National Science Foundation. - Panel Member |
| • 2001 | Animal Biology Experimentation Flight Panel, NASA, Panel Chair |
| • 1998-2001 | Integrative Animal Biology - National Science Foundation - Panel Member |
| • 1997 | Professional Opportunities for Women in Research and Education - National Science Foundation -Panel Member |
| • 1992 | Outstanding Young Investigator Awards -National Science Foundation - Panel Member |
| • 1986 | International Programs: Postdoctoral Fellowships - National Science Foundation - Panel Member |

* Membership In Administrative Professional Organizations

|  |  |
| --- | --- |
| • 2010-2015 | APLU Council on Academic Affairs |
| • 1999-2010 | Texas Association of Deans of Liberal Arts and Sciences |
| • 1995-1997 | American Conference of Academic Deans |
| • 1995-2010 | Council of Colleges of Arts and Sciences |
| • 1995-1997 | Rocky Mountain Deans Association |

### TEACHING AND RESEARCH INFORMATION

### TEACHING AND MENTORING

* Classroom Instruction

University of North Texas, Dept. of Biological Sciences (1998-present)

• Metabolic Physiology (Graduate)

• The Biology of Extreme Environments (Graduate)

• Animal Adaptation: Mechanisms for Survival (Graduate)

• The Biology of Extreme Environments (Undergraduate)

University of Nevada, Las Vegas, Dept. of Biological Sciences (1992-1996)

• Human Anatomy and Physiology

• Bioenergetics

• Ethics in Science

University of Massachusetts, Department of Zoology (1978-1991)

• Introductory Zoology

• Human Anatomy and Physiology

• Introductory Physiology

• Comparative Physiology

• Physiology Laboratory

• Topics in Respiratory Physiology

• Member of Undergraduate Program in Marine and Coastal Sciences

• Member of Graduate Program in Neuroscience and Behavior

• Member of Graduate Program in Organismal and Evolutionary Biology

University of British Columbia, Department of Zoology (1977)

• Animal Physiology

University of East Anglia (1973-1976)

• Demonstrator in Vertebrate and Invertebrate Physiology

• Invertebrate Taxonomy

• Vertebrate and Invertebrate Morphology

* Graduate Students Mentored (As Major Advisor)

Doctors of Philosophy (graduation date)

1. Wanasa Frifer. Current Student
2. Lindsey Daniel. Current Student
3. Sylvia Ruck Branum – Current Student
4. Melissa Lewallen – 2019. Metabolic physiology of planarians
5. Sheela Sadruddin – 2017. Optimization of in vitro mammalian blastocyst development: assessment of culture conditions, ovarian stimulation and experimental micro-manipulation.
6. Josele Flores Santin– 2016.  Cardiovascular fetal programming in quail (Colinus virginianus), an avian comparative model.
7. Fernando Mendez-Sanchez - 2015. Environmental modulation of the onset of air-breathing of the Siamese Fighting Fish and the Blue Gourami
8. Kelly Reyna – 2010. Thermal stress during pre-incubation induces subsequent developmental plasticity in northern bobwhites.
9. Francis Pan – 2009. Metabolic, cardiac and ventilatory regulation in early larvae of the South African clawed frog, Xenopus laevis.
10. Greta Bolin – 2009. Incubation humidity as an environmental stressor on the osmoregulatory developmental program of the chicken, Gallus gallus domesticus.
11. Tara Blank – 2009. Cardio-respiratory ontogeny and the transition to bimodal respiration in an air-breathing fish, the blue gourami (Trichogaster trichopterus): Morphological and physiological development in normoxia and hypoxia.
12. Dao Ho - 2008. Morphological and Physiological Developmental Consequences of Parental Effects in the Chicken Embryo (Gallus gallus domesticus) and the Zebrfish Larva (Danio rerio).
13. Bonnie Myer, 2007. A contravention of established principles of interspecific allometric metabolic scaling in developing silkworms, Bombyx mori. University of North Texas.
14. Brian Bagatto, 2001. The Developmental Physiology of the Zebrafish: Influence of Environment on Metabolic and Cardiovascular Attributes. University of North Texas.
15. Dane Crossley, 1999. Development of Cardiovascular Regulation in Embryos of the Domestic Fowl (Gallus gallus), with Partial Comparison to Embryos of the Desert Tortoise (Gopherus agassizi). University of North Texas.
16. Paul Territo, 1996. The Ontogeny of Cardio-Respiratory Support for Metabolism, University of Nevada, Las Vegas.
17. Tobias Wang, 1993 (co-advisor) Control of Breathing and Arterial Blood Gases in Reptiles and Amphibians, University of Aarhus, Denmark, and University of Nevada, Las Vegas.
18. Lucy Ping-Chun Hou, 1991. Development of Hemodynamic Regulation in the African Clawed Toad Xenopus laevis, University of Massachusetts, Amherst.
19. XiXi Jia, 1991. Chemoreceptor Modulation of Gill Ventilation in the Larval Bullfrog Rana catesbeiana, University of Massachusetts, Amherst.
20. Robert Infantino, 1991. Ontogeny of Ventilatory Regulation in the bullfrog Rana catesbeiana, University of Massachusetts, Amherst.
21. Carl Reiber, 1991. The Hemodynamics of the Crustacean Open Circulatory Systems: Hemolymph Flow in the Crayfish (Procambarus clarkii) and the lobster (Homarus americanus), University of Massachusetts, Amherst.
22. Peter Kimmel, 1990. Ontogeny of the Regulation of Cardiovascular Physiology in the Bullfrog Rana catesbeiana, University of Massachusetts, Amherst.
23. Alan Pinder, 1985. Respiratory Physiology of the Frogs Rana pipiens and Rana catesbeiana: Influence of Temperature and Hypoxia, University of Massachusetts, Amherst.
24. Dana Quinn, 1982. The Exercise Physiology of Rana catesbeiana during Recovery from Exercise to Exhaustion, University of Massachusetts, Amherst.

Masters of Science / Masters of Arts in Science (graduation date)

1. Karem Vazquez. Current Student
2. Jenika Sanchez. Current Student
3. Wenasa Frifer – 2016 - Respiratory Responses in the Freshwater Snail (Pomacea bridgesii) are Differentially Affected by Temperature, Body Mass and Oxygen Availability.
4. Shaun Jones – 2015. Phenotypic Morphological Plasticity Induced By Environmental Salt Stress in the Brine Shrimp, Artemia
5. Melissa Lewallen, 2012. Chronic Hypoxia and Hyperoxia Modifies Morphology and VEGF Expression of the Lungs of the Developing Chicken (Gallus gallus domesticus).
6. Josie Rossitto, 2012. Beta-Adrenergic Blockade Via Atenolol Exposure in the Developing Chicken (Gallus Gallus Domesticus) and its Effects on Embryonic Blood Pressure, Heart Rate, and Renal Morphology.
7. Travis Alvine, 2011. Retinoic acid treatment affects development of the kidney and osmoregulatory system in the developing chicken, Gallus gallus.
8. Sylvia Ruck, 2010. Induced bradycardia effects on angiogenesis, growth, and development in early development in chicken embryos, Gallus domesticus.
9. Matt Gore, 2007. Influence of parental swimming stamina on the cardiac and metabolic perforamance of larval zebrafish (Danio rerio).
10. Marc Wuerdeman, 2007. M.Sc.
11. Jessie Brown, 2004. M.Sc. Heart Rate and Oxygen Consumption During the Critical Prenatal Period in Chicken Embryos (Gallus gallus): Influence of Light Cues and the Onset of Pulmonary Ventilation.
12. Sheva Khorrami, 2004. M.Sc. Hematocrit, Hematocrit Regulation and its Effect On Oxygen Consumption in the Late Stage Chicken Embryos (Gallus gallus).
13. Nora Elmonoufy, 2003. M.Sc. Differential Effects of Hypoxia on Morphology and Hematology of the Quail Coturnix coturnix. University of North Texas.
14. Juli Black, 2003. M.Sc. Developmental patterns of metabolism and hematology in the late stage chicken embryo (Gallus domesticus) at two incubation temperatures. University of North Texas.
15. Natasha Capell, 2002. M. A.
16. Brett Clarke, 1997. M.Sc. The Influence of Blood Flow on Angiogenesis in the 3 Day Chick Embryo. University of Nevada, Las Vegas.
17. Shilpa Thanker, 1998. M.A.Sc. Changes in Dorsal Aortic Diameter in Day 3 chicken embryos in Response to Invasive Sham Aortic Ligation: Assessment of the Ligation Technique.
18. Dulynn Hastings, 1994. M.Sc. The Metabolic Rate of Xenopus laevis: Interactional Influences of Development and Short Term Hypoxia. University of Nevada, Las Vegas.
19. Henry Bermudez, 1994. M.Sc. The Mechanism and Function of Transient Pressure fluctuations occurring in the lungs During Diving in the Turtle, Trachemys [=pseudemys] scripta elegan. University of Nevada, Las Vegas.
20. Lucy Ping-Chun Hou. 1987. M.Sc. Allometry of Cardiac and Hematological Variables in Developing Mice (Mus musculus): Intraspecific vs. Interspecific Allometry. University of Massachusetts, Amherst.
21. Rosalba Sacca, 1982. M.Sc. Oxygen Partitioning Between the Skin, Gills and Lungs of the Air-Breathing Reedfish, Calamoicthys calabaricus. University of Massachusetts, Amherst.

Post-Doctoral Fellows and Research Scientists Supervised (Current Position)

1. Naim Martinez, 2015-2019 (Post-Doctoral Fellow)
2. Amelie Crespel, 2016-2017 (Marie Curie Fellow)
3. Prescilla Perrichon, 2015-2018 (Research Scientist)
4. Benjamin Dubansky, 2013-2018
5. Casey Mueller, 2011-2013 (Assistant Professor)
6. Sarah Andrewartha, 2010-2011 (Research Scientist)
7. Francis Pan, 2010 (Research Scientist)
8. Dao Ho, 2008-2010 (Research Scientist)
9. Bonnie Myer, 2007-2009 (Lecturer)
10. Edward Dzialowski, 1999-2002 (Associate Professor)
11. Jordi Altimiras, American Heart Association Fellow, 1995-1997 (Associate Professor)
12. Regina Fritsche, 1994-1995 (Corporate Executive)
13. Tobias Wang, 1993-1994 (Professor and Chair)
14. Stephen Warburton, NIH Fellow), 1992-1994 (Associate Professor - retired)
15. Francis Ragsdale, 1992-1993 (Professor)
16. Andrew Gannon, 1990-1992 (Professor)
17. Alan Pinder, 1985-1987 (Associate Professor)
18. Timothy Vitalis, Parker B. Francis Fellow), 1987-1990 (Research Scientist)
19. Bernd Pelster, German Research Council Fellow), 1989-1990 (Professor, Dean)
20. Allan Smits, Parker B. Francis Fellow, 1984-1986 (Professor, Associate Dean)

### GRANTS AND EXTRAMURAL RESEARCH ACTIVITIES

* Research Grant Awards

Federal and State Research Grants

|  |  |  |
| --- | --- | --- |
| • 2018-2019 | Department of Defense – US Amry | $90,000 |
| • 2018-2020 | Gulf of Mexico Research Initiative | $600,000 |
| • 2015-2019 | Natnl. Sci. Found (Int. Org. Biol) | $300,000 |
| • 2015-2017 | Gulf of Mexico Research Initiative | $856,318 |
| • 2010-2014 | Natnl. Sci. Found (Int. Org. Biol) | $806,255 |
| • 2009-2011 | Natnl. Sci. Found (Int. Org. Biol) | $198,344 |
| • 2008-2011 | Natnl. Sci. Found (SciSIP) | $393,688 |
| • 2006-2010 | Natnl. Sci. Found (Int Biol and Neurosci) | $677,227 |
| • 2002-2006 | Natnl. Sci. Found (Int Biol and Neurosci) | $601,000 |
| • 2001-2002 | Natnl. Sci. Found (Math. Sci. Infra.) (Co-PI) | $100,000 |
| • 2001-2002 | Natnl. Sci. Found (Intern. Programs) | $25,000 |
| • 1999-2001 | Texas Advanced Research Program | $99,600 |
| • 1999-2000 | Natnl. Sci. Found. (Int Biol and Neurosci) | $51,544 |
| • 1997-2001 | Natnl. Sci. Found. (Int Biol and Neurosci) | $287,000 |
| • 1995-1996 | American Heart Association (Co-PI) | $24,722 |
| • 1993-1997 | Natnl. Sci. Found. (Int Biol. and Neurosci) | $382,000 |
| • 1990-1993 | Natnl. Sci. Found. (Intern. Programs) | $34,562 |
| • 1989-1992 | Natnl. Sci. Found. (Phys. Proc.) | $234,500 |
| • 1986-1989 | Natnl. Sci. Found. (Reg. Biol.) | $242,000 |
| • 1985 | Natnl. Sci. Found. (Reg. Biol.) (Co-PI) | $13,300 |
| • 1984 | Natnl. Sci. Found. (Reg. Biol.) (Co-PI) | $3,000 |
| • 1983-1986 | Natnl. Sci. Found. (Reg. Biol.) | $275,190 |
| • 1980-1983 | Natnl. Sci. Found. (Reg. Biol.) | $100,850 |
| • 1980 | Natnl. Sci. Found. (Inst. Sci. Equip. Program) | $34,008 |

Private Foundation Grants and International Agencies

|  |  |  |
| --- | --- | --- |
| • 2018 | AstraZeneca | $65,220 |
| • 1997 | Max Baer Heart Fund | $5,000 |
| • 1992 | Japan Society for the Promotion of Science | $5,000 |
| • 1990 | Japanese Ministry of Education., Science & Culture | $5,000 |
| • 1990 | State Government of Sao Paulo, Brazil | $3,500 |
| • 1988 | Parker B. Francis Foundation (Co-PI) | $136,000 |
| • 1985 | Puritan-Bennett Foundation (Co-PI) | $56,000 |
| • 1984 | Puritan-Bennett Foundation (Co-PI) | $24,180 |

University Grants (Competitive Review)

|  |  |  |
| --- | --- | --- |
| • 1999 | Unswachoke International Collaboration Grant (UNT) | $3,600 |
| • 1992 | University Research Grant (UNLV) | $3,000 |
| • 1979-1988 | Biomedical Research Support Grants (UMASS) | $25,000 |
| • 1978-1987 | Faculty Research Grant (UMASS) | $17,820 |
| • 1983 | Healey Endowment Grant (UMASS) | $4,800 |

Training Grants

|  |  |  |
| --- | --- | --- |
| • 1995-1996 | Dept. of Energy Training Grant for Minority Students(Co-PI) | $29,663 |
| • 1995-96 | NIH Bridges to the Future Program for Minority Students (Co-PI) | $173,251 |

Editorships And Membership In Editorial Boards

|  |  |
| --- | --- |
| • 2009-2017 | Associate Editor, Frontiers in Aquatic Physiology |
| • 2003-present | Founding Series Editor, Ecological and Environmental Physiology, a monograph series published by Oxford University Press |
| • 1999 | Guest editor for *Comparative Biochemistry and Physiology A: Molecular and Integrative Physiology. Vol 124A* |
| • 1998-2015 | Editorial Board, *University of North Texas Press,* University of North Texas, Denton, Texas |
| • 1988-1995 | Editor-in-Chief, *Physiological Zoology* (now *Physiological Biochemistry and Zoology)*, published by University of Chicago Press, Journals Division |
| • 1986-2000 | Editorial Board, *Zoophysiology*, (monograph series published by Springer-Verlag, Berlin) |
| • 1986 | Guest editor for *Journal of Morphology: Centennial Supplement #1* |

Memberships In Learned Societies

|  |  |
| --- | --- |
| • 1995-present | American Physiological Society |
| • 1987-1995 | Council of Biology Editors |
| • 1986-present | American Assoc. for the Advancement of Science (USA) |
| • 1985-1989 | Society For the Preservation of Old Fishes |
| • 1978-1996 | American Society of Zoologists |
| • 1996-present | Society for Comparative and Integrative Biology |
| • 1973-1991 | The Society for Experimental Biology (Britain) |
| • 1972-1990 | Canadian Society of Zoologists (Canada) |

Membership In Science Advisory Boards

|  |  |
| --- | --- |
| • 2006-2012 | National Science Foundation Advisory Board – Biology Directorate |
| • 2002-2009 | Science Advisory Board, Jwala Technolgies Inc. |
| • 2002-present | External Advisory Board, North Dakota State NSF-EPSCoR Program |
| • 2002-2004 | Research Advisory Council, Biotechnology Research Partnership (BRP) consortium with Univ. Texas, Arlington, Univ. of North Texas Health Science Center and Univ. of North Texas, Member |
| • 2000 | Science Advisory Board, National Institute for Discovery Science, Chair |
| • 1998-2004 | Science Advisory Board, National Institute for Discovery Science, Member |
| • 1996-1998 | Corporate Board of Directors, National Institute for Discovery Science, Member |

Formal Extramural Research/Training Activities

|  |  |
| --- | --- |
| • 1996 | Invited Lecturer for Amphibian Physiology Section of “Graduate Topics in Biology”. University of Puerto Rico, San Juan, Puerto Rico |
| • 1990 | Invited Lecturer for Gas Transport and Circulation Section of "Graduate Topics in Comparative Physiology" University of California, Irvine |
| • 1990 | Visiting Professor, Univ. of Sao Paulo, Brazil |
| • 1985 | Visiting Scholar, University of Melbourne, Australia |
| • 1983 | Visiting Investigator, Naos Marine Laboratory, Smithsonian Tropical Research Institute, Panama |
| • 1982 | Invited Lecturer for Gas Transport and Circulation Section of "Graduate Topics in Comparative Physiology" University of California, Irvine |
| • 1980 | Visiting Investigator, Univ. of Aarhus, Denmark |
| • 1979 | Alpha Helix expedition to Palau, Western Caroline Islands |
| • 1976 | Visiting Lecturer, University of Aarhus, Denmark |

### 4.PLENARY LECTURES, SYMPOSIA AND SEMINARS

* Plenary and Honorary Lectures

|  |  |
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| • 2018 | Plenary Lecture, Annual Meeting of the German Zoological Society, Greifswald, Germany |
|  | Plenary Lecture, Annual Meeting of Incubation and Fertiltiy Research Group. Edinburgh, Scotland |
| • 2017 | Plenary Lecture, Annual Meeting of the Society for Chaos Theory in Psychology and Life Sciences, Cininnati, Ohio  August Krogh Distinguished Lecturer, American Physiological Society, Chicago, Illinois |
| • 2015 | Plenary Lecture, Fisheries and Aquaculture Conference 2015, Guilin, China |
|  | Plenary Lecture, BEACON Congress on Evolution in Action, Michigan State University, East Lansing, Michigan |
| • 2014 | Davidson Annual Lecture, Department of Biology, Baylor University, Waco, Texas. |
| • 2013 | Keynote Speaker, Spring Convocation, Mountain View Community College, Dallas, Texas, USA |
| • 2012 | Inaugural Kjell Johansen Lecture, University of Aarhus, Aarhus, Denmark |
| • 2008 | Plenary Lecture, 32nd Annual Larval Fish Conference, Kiel, Germany |
| • 2002 | Diebold Lecture, Kalamazoo College, Michigan, USA |
| • 2002 | Plenary Lecture, Symposium on Ontogeny of Cardiorespiratory Mechanisms: An Evolutionary Perspective, Experimental Biology Meeting, New Orleans, USA |
| • 2001 | Plenary Lecture, American Association for the advancement of Science - South West and Rocky Mountain Regional Meeting. Denton, Texas |
| • 2000 | Plenary Lecture, Sixth International Workshop on Perinatal Physiology in Birds. Berlin, Germany |
| • 1998 | Annual W. S. Hoar Lecture, University of British Columbia, Vancouver, British Columbia, Canada |
| • 1998 | Plenary Lecture, International Conference on Animal Adaptation, Academia Sinica, Taipei, Taiwan |
| • 1997 | Plenary Lecture, International Workshop on Developmental Physiology, Gothenberg, Sweden |
| • 1995 | Annual Phi Sigma Lecturer, Univ. of Texas, Arlington |
| • 1993 | Annual Williams Lecturer, Univ. of Akron |
| • 1990 | Plenary Lecture, Annual meeting of Japanese Society of Comparative Physiologists and Biochemists |
| • 1988 | Annual Dunaway-Burnham Visiting Lecturer, Dartmouth College Medical School |

* Invited Symposium/Workshop Presentations

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| 2018 | Symposium on Phenotypic Plasticity and Epigenetics: Annual Meeting of Society for Advancement of Chicano and Native American Students, San Antonio, USA. |
| 2017 | Symposium on Morphology Meets Physiology: A Tribute to Pierre Laurent. Society for Experimental Biology, Gothenburg, Sweden |
| 2016 | Symposium on The Physiology and Genetics of Fishes, Autonomous Juarez University of Tabasco, Villahermosa, Mexico |
|  | Symposium on Physiological Systems in Birds and Mammals, Jaboticabal, Sao Paulo, Brazil |
|  | Open Access Publishing Symposium, University of North Texas, Denton, Texas. |
| 2015 | Fisheries and Aquaculture Conference 2015. Guilin, China |
|  |
| Symposium onHow Environmental Influences on Parents and Early Developmental Stages Determine “Winners and Losers”. **Society for Experimental Biology, Prague, Czech Republic.** |
| 2014 | Symposium on **Challenges from the Very Beginning: Developmental Physiology, Epigenetics, and Critical Windows. American Physiological Society, San Diego, CA.** |
| Symposium on Epigenetics: Molecular Through Organismal Influences. SICB Annual Meeting, Austin, Texas |
| JEB Workshop on Epigenetics, Banff, Alberta, Canada |
| 2012 | BioEnergetics Workshop, Thermodynamics Conference. Autonomous University of the State of Mexico, Toluca, Mexico |
| Comparative Physiology Symposium. Society for Experimental Biology. Sarteano, Italy |
| Workshop on Cardiovascular Physiology. Aarhus University, Aarhus, Denmark |
| Symposium on Women in Science. 99th Indian Science Congress. Bhubeneswar, India |
| 2010 | Symposium on Environmental Adaptations of Cardio-Respiratory Systems. APS Intersociety Meeting, Westminster, CO. |
| Symposium on Integrative Developmental Systems: Where Developmental Biology, Physiology and Ecology Meet. 34th Larval Fish Conference, Santa Fe, NM. |
| 2009 | Symposium on Developmental Physiology and Genetics. Society for the Advancement of Chicano and Native American Students Annual Meeting, New Orleans, LA. |
| Symposium on Oxygen Stressors, Development And Adaptations Experimental Biology Annual Meeting, New Orleans, LA. |
| 2006 | Symposium on Physiological Complexity: Recognition, Definitions, Modeling and Predictions, American Physiological Society Comparative Physiology Conference, Virginia Beach, VA. |
| 2004 | Symposium on Ontogeny of Physiological Regulatory Mechanisms: Fitting into the Environment. Society for Integrative and Comparative Biology, Annual Meeting, New Orleans, LA. |
| 2002 | Symposium on Cardiovascular Developmental Physiology. Experimental Biology Annual Meeting, New Orleans, LA. |
| Bilateral Seminar of Cooperative Research on Development of Physiological Functions in Avian Embryos. Muroran Institute of Technology, Muroran, Japan |
| 2001 | Symposium on “From First Beat to Last”. Society for Experimental Biology Annual Meeting, Canterbury, U.K. |
| 2000 | Sixth International Workshop on “Perinatal Physiology in Birds”. Berlin, Germany |
| 1999 | Symposium on "Functional Ontogeny of Organ Systems". Annual Meeting of the Deutsche Zoologische Gesellschaft. Innsbruck, Austria |
| 1997 | International Symposium on “Animal Adaptation”. Academic Sinica, Taipei, Taiwan. “Developmental Physiology: Past, Present and Future” |
| Workshop on “Animal Physiology Techniques”, National Taiwain Normal University, Department of Biology, Taipei, Taiwan |
| Third Workshop on Comparative Physiology. “Physiological Changes During Ontogeny”, Sao Paulo, Brazil |
| International Workshop on “Homeostasis and Environment During Development. Gothenberg, Sweden |
| 1995 | American Society of Zoologists Symposium on "The Regulation of Arterial Blood Gases ", Annual Meeting, Washington, D. C. |
| International Symposium on Hypoxia, Session on “Comparative Physiology of Respiratory Pigments”. Lake Louise, Alberta, Canada |
| 1994 | American Physiological Society Symposium on "Ontogeny of Cardiovascular Systems", San Diego, California |
| International Symposium on "Metabolism and Respiration in Vertebrates". Sao Carlos, Brazil |
| International Conference on "Environmental Physiology and Metabolism". Friedrichroda, Germany; Japanese Society for Comparative Physiology and Biochemistry, Tokyo, Japan |
| 1993 | Italian Association of Cardiovascular Sciences: "International Workshop on Determinants of Cardiac Shape and Function". Trento, Italy |
| 1992 | American Society of Zoologists Symposium on "The Form and Function of Open and Closed Circulations", Annual Meeting, Vancouver, B.C., Canada |
| 1991 | American Society of Zoologists Symposium Current Perspectives on the "Evolution, ecology and Comparative Physiology of Bimodal Breathing", Annual Meeting, Atlanta, GA. |
| 1990 | "Plenary Lecture", Japanese Society of Comparative Biochemistry and Physiology, Japan |
| Symposium on "Gas Exchange, Gas Transport, and Acid-base Regulation in Lower Vertebrates" - Max Planck Institute for Experimental Medicine Gottingen, West Germany |
| American Society of Zoologists Symposium on "The Publication Process", Annual Meeting, San Antonio, Texas |
| American Society of Zoologists Symposium on "The Complete Crab: Physiological Ecology of Everyday Life and Special Events", Annual Meeting, San Antonio, Texas |
| American Society of Zoologists Symposium on "Amphibian Metamorphosis", Annual Meeting, San Antonio, Texas |
| 1989 | International Union of Physiological Sciences - Satellite Symposium on "Strategies on Physiological Adaptation", Copenhagen, Denmark |
| 1988 | Spring Systematics Symposium on "Evolutionary Innovations: Pattern and Processes", Field Museum, Chicago, Illinois |
| 1986 | American Society of Zoologists Symposium on "Cutaneous Exchange of Gases and Ions", Annual Meeting, Nashville, Tennessee |
| International Union of Physiological Sciences - Satellite Symposium on "Diving and Hypometabolism", Cowichan Bay, British Columbia, Canada |
| National Science Foundation Workshop on "New Directions in Physiological Ecology", Washington, D.C. |
| Society for Experimental Biology Symposium on "Bimodal Respiration", Nottingham, England |
| Canadian Society of Zoologists Symposium on "Respiratory Strategies in Non-mammalian Vertebrates", Annual Meeting, Saskatoon, Canada |
| 1985 | NATO Conference on "Evolutionary Biology of Primitive Fishes", Bamfield Marine Station, Vancouver Island, Canada |
| 1984 | American Society of Zoologists Symposium on "The Biology and Evolution of Lungfishes", Annual Meeting, Denver, Colorado |
| American Society of Zoologists Symposium on "Cardiovascular Adaptations in Reptiles", Annual Meeting, Denver, Colorado |
| Alfred Benzon Foundation Symposium on "Cardiovascular Shunts: Phylogenetic, Ontogenetic and Clinical Aspects", Royal Danish Academy of Sciences and Letters, Copenhagen, Denmark |
| 1983 | International Union of Physiological Sciences Satellite Symposium on "Respiration and Metabolism in Embryonic Vertebrates", University of Adelaide, Australia |
| 1982 | Symposium on "Gas Exchange, Gas Transport, and Acid base Regulation in Lower Vertebrates" - Max Planck Institute for Experimental Medicine Gottingen, West Germany |

Conference/Symposium Organizing

|  |  |
| --- | --- |
| • 2017 | Co-organizer, Larval Fish Converence, Austin, Texas. |
| • 2015 | Co-organizer. Fisheries and Aquaculture Conference 2015. Guilin, China |
| • 2014 | Organizer. Epigenetics: Molecular Through Organismal Influences. Society of Comparative and Integrative Biology, Annual Meeting. Austin, Texas |
| • 2009 | Co-Organizer of Symposium on Oxygen Stressors, Development And Adaptations Experimental Biology Annual Meeting, New Orleans, LA. |
| • 2006 | Organizer. Symposium on Physiological Complexity: Recognition, Definitions, Modeling and Predictions, American Physiological Society Comparative Physiology Conference, Virginia Beach, VA. |
| • 2002 | Co-organizer of International Roundtable on Comparative Developmental Physiology, Glen Rose, Texas |
| • 1999 | Co-organizer of International Symposium on Crustacean Physiology, International Union of Biological Sciences, Calgary, Alberta Canada |
| • 1998 | Co-organizer of International Symposium on Cardiac Rhythms in Animals: Regulation, Development and Environmental Influences, Muroran, Japan |
| • 1995 | Co-organizer of International Union of Biological Sciences Symposium on "Amphibian Models in the Study of Transcapillary and Lymphatic Fluid Movement", Manchester, England |
| • 1994 | Organizer of American Physiological Society Symposium on "Ontogeny of Cardiovascular Systems", San Diego, California |
| • 1994 | Co-organizer of "International Workshop on Developmental Physiology", University of Nevada, Las Vegas |
| • 1988 | Co-organizer of International Union of Biological Sciences Symposium on "Comparative Physiology of Tissue Fluid Balance", Baton Rouge, Louisiana |
| • 1986 | Co-organizer of National Science Foundation Workshop on "New Directions in Physiological Ecology", Washington, D.C. |
| • 1986 | Co-organizer of American Society of Zoologists Symposium on "Cutaneous Exchange of Gases and Ions", Nashville, Tennessee |
| • 1985 | Co-organizer of Alfred Benzon Foundation Symposium on "Cardiovascular Shunts: Phylogenetic, Ontogenetic and Clinical Aspects". Copenhagen, Denmark |
| • 1985 | Co-organizer of American Society of Zoologists Symposium on "Cardiovascular Adaptations in Reptiles", Denver, Colorado |

* INSTITUTIONAL SEMINARS (INVITED)

**United States**

• Alaska-Anchorage, University of - Biology

• Alaska-Fairbanks, University of - Biology

• Arizona, University of - Biology

• Arizona State University - Zoology

• Baylor School of Dentistry

• Baylor University – Biology (2 occasions)

• Baylor University – Environmental Sciences

• Boston University – Biology

• Brookhaven College – Biology

• Brown University - Physiology (2 occasions)

• California, Irvine, University of - Cellular/Developmental Biology

• California, Los Angeles, University of – School of Medicine

• Chicago, University of - Anatomy (2 occasions)

• Colorado, University of - Population/Organismic Biology

• Connecticut, University of - Biology

• Dartmouth University - Physiology (2 occasions)

• Eastern Connecticut State University - Biology

• Illinois, University of - Physiology and Biophysics

• Harvard Medical School - Cardiology

• Kalamazoo College - Biology

• Loma Linda University - Physiology

• Lovelace Medical Center - Bioengineering (2 occasions)

• Lovelace Medical Center - Oxygen Transport Group

• Louisiana State University - Biology

• Massachusetts, University of, Amherst - Zoology

• Massachusetts, University of, Amherst - Biology

• Miami, University of - Rosenstiel School of Marine and Atmospheric Science

• Midwestern State University (Wichita Falls, TX) - Biology

• Mount Holyoke College, Mass. - Biology (2 occasions)

• Nevada, Reno, University of - Ecology, Evolution and Conservation Biology

• Nevada, Las Vegas, University of - Biology (2 occasions)

• New Mexico, University of - Physiology (2 occasions)

• New Mexico, State University - Biology

• North Dakota, University of - Biology

• North Texas, University of, Health Sciences Center - Integrative Physiology

• North Texas, University of, Health Sciences Center - Cell. & Mol. Biology

• North Texas, University of - Biology (2 occasions)

• Northeastern University - Zoology

• Northern Arizona University - Biology

• Oklahoma, University of - Biology

• Rensselaer Polytechnic Institute - Biology

• Rutgers University, - Biology

• San Diego, University of - Biology

• Scripps Institution of Oceanography - Physiol. Research. Lab.

• Texas, Arlington, University of - Biology

• Texas, University of - South Western Medical Center, Pulmonary Division

• Texas, Austin, University of - Marine Science Laboratory

• Texas A & M University - Biology

• Texas Woman’s University - Biology

• Toledo, University of - Biology

• Tripler Army Medical Center - Clinical Physiology

• Tulsa University - Biology

• Wellesley College, Mass. - Biology

• Woods Hole Marine Biological Laboratory

International

Australia

• Baker Cardiovascular Research Institute, Melbourne

• Queen Victoria Hospital, Melbourne - Pediatrics

• Melbourne, University of - Zoology

Brazil

• Sao Paulo, University of - Physiology

• Ribeiro Preto Campus, University of Sao Paulo - Physiology

• Rio Claro Campus, University of Sao Paulo - Zoology

• Federal University of Sao Carlos - Biology

Canada

• Acadia University – Biology

• University of Alberta – Biology

• University of British Columbia – Zoology (4 occasions)

• University of Calgary - Biology (3 occasions)

• Dalhousie University - Anatomy, Biology

• McMaster University - Zoology

• Mount Allison University - Biology

• University of Saskatchewan - Physiology

• St. Francis Xavier University - Biology

Denmark

• University of Aarhus - Zoophysiology (4 occasions)

England

• University of East Anglia - Biological Sciences

Hong Kong

• City University of Hong Kong – Biology (2 occassions)

• City University of Hong Kong – Chemistry

• Hong Kong University – Biology

• Education University of Hong Kong - Biology

Mexico

• Universidad Autónoma del Estado de Mexico - Biological Sciences

• Universidad Autónoma del Estado de Mexico - Biotechnology

• Universidad Juárez Autónoma de Tabasco - Aquaculture

Panama

• Smithsonian Tropical Research Institute

Puerto Rico

• University of the Central Caribbean - Department of Physiology

• University of Puerto Rico - Department of Biology

• University of Puerto Rico - Department of Physiology and Biophysics

Japan

• Muroran Institute of Technology - Electrical Engineering

• Muroran Institute of Technology - International Programs

• Yamagata University School of Medicine - Physiology

• Yamagata University Hospital

• Tokyo Metropolitan University - Biology

Scotland

* University of Glasgow, Biodiversity, Animal Health and Comparative Medicine
* University of the West of Scotland, Biology

Taiwan

• National Taiwan University - Zoology

• National Taiwan Normal University - Biology

• Academia Sinica - Institute of Zoology (2 occasions)

Vietnam

• Nong Lam University (Institute of Biotechnology)

• Vietnam International University (Biology)

• Vietnam National University

**5. *Reviewing***

* Reviewing for Journals

|  |  |
| --- | --- |
| • Advances in Physiological Education | • Physiological Zoology |
| • American Journal of Anatomy | • PLOS One |
| • American Journal of Physiology | • Science - articles, book review s |
| • Animal Behaviour | • Journal of Experimental Zoology |
| • Biological Bulletin (Woods Hole) | • Marine Behaviour and Physiology |
| • Canadian Journal of Zoology | • Nature |
| • Ecology | • Natural History |
| • Fieldiana Zoology | • Physiological Reviews |
| • Functional Ecology | • Journal of Morphology |
| • Herpetologica | • Proceedings of the Royal Society B |
| • Journal of Comparative Physiology |  |
| • Journal of Applied Physiology |  |
| • Journal of Experimental Biology |  |

* Reviewing for Funding Agencies

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| --- | --- |
| • NASA | • The Canada Council |
| • National Science Foundation | • Research Corporation |
| - Biology Directorate | • Hudson River Foundation |
| (multiple programs) | • Jefrees Trust |
| - Undergraduate Instrumentation | • Louisiana Board of Regents |
| Program | • Guggenheim Foundation |
| - International Programs | • Mass. Water Resources Board |
| - Science, Tech., Engin. Program | • New Zealand Federal Research |
| (STEP) | Agencies (various) |
| • National Institutes of Health | • Australian Research Council |
| • American Heart Association | • British Federal Research |
| • NATO - Scientific Affairs Division | • Netherlands Council for the Earth and Life Sciences |
| * Fonds de Recerche du Quebec | * National Science Center (Poland) |

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| * National Science and Engineering Research Council (Canada) |  |

* Consulting for Publishers

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| --- | --- |
| • Benjamin/Cummings | • Houghton Mifflin |
| • Blackwell | • Oxford University Press |
| • Cambridge University Press | • Academic Press |
| • Chapman and Hall | • Saunders College Publishing |
| • D. Van Nostrand | • Sinauer Associates |
| • Encyclopedia Britannica | • Times Mirror/Mosby |
| • Harper and Row | • Willard Grant |
| • William C. Brown | • W. H. Freeman |
| • National Geographic Publications | • Iowa State University Press |
| • University of North Texas Press | • Graduate Record Exam |
| • Pearson Publishing | • Prentice-Hall |

### PUBLICATIONS

1. BOOKS (Authored or Co-authored)

|  |  |  |
| --- | --- | --- |
| • 2016 | (11) | **Burggren, W.W.**, Bagatto, B., Brewster, J. and Hester, L. Study Guide for Biological Science. Prentice Hall, Upper Saddle River, New Jersey. 6th. Ed. |
| • 2013 | (10) | **Burggren, W.W.**, Bagatto, B., Brewster, J. and Hester, L. Study Guide for Biological Science. Prentice Hall, Upper Saddle River, New Jersey. 5th. Ed. |
| • 2010 | (9) | -**Burggren, W.W.**, Bagatto, B., Brewster, J. and Hester, L. Study Guide for Biological Science. Prentice Hall, Upper Saddle River, New Jersey. 4th. Ed. |
| • 2008 | (8) | -**Burggren, W.W.**, Bagatto, B., Brewster, J. and Hester, L. Study Guide for Biological Science. Prentice Hall, Upper Saddle River, New Jersey. 3rd. Ed |
| • 2005 | (7) | -**Burggren, W.W.**, Bagatto, B., Brewster, J. and Hester, L. Study Guide for Biological Science. Prentice Hall, Upper Saddle River, New Jersey. 2nd. Ed. |
| • 2002 | (6) | -**Burggren, W.** and Hester, L. Study Techniques for the Sciences. Prentice Hall. Upper Saddle River, New Jersey. |
|  | (5) | -**Burggren, W.W.**, Bagatto, B., Brewster, J. and Hester, L. Study Guide for Biological Science. Prentice Hall, Upper Saddle River, New Jersey. |
| •2001 | (4) | -Randall, D. J., **Burggren, W.W.**, and French, K. Animal Physiology. 5th Edition. W. H. Freeman, New York. |
|  | (3) | -Minor, V.C., Dzialowski, E.D., **Burggren, W.W.**, Goodloe, L. and Guild, N. Study Guide to Accompany Life, the Science of Biology, 6th ed. Sinauer, Sunderland, MA. |
| •1997 | (2) | -Randall, D. J., **Burggren, W.W.**, French, K., and Fernald, R. *Eckert* Animal Physiology. 4th Edition. W. H. Freeman, New York. |
| •1981 | (1) | -Randall, D.J., **Burggren, W.W.**, Haswell, M.S. and Farrell, A.P. The Evolution of Air Breathing in Vertebrates. Cambridge University Press, Cambridge, England. |

2. BOOKS (Edited or Co-edited)

|  |  |  |
| --- | --- | --- |
| * 2018 | (8) | **Burggren, W.** and Dubansky, B. Editors. Development and Environment. Springer, Cham, Switzerland*.* |
| • 2006 | (7) | -Warburton, S., **Burggren, W.W.**, Pelster, B., Reiber, C, and Spicer, J. Comparative Developmental Physiology. Oxford University Press, New York. |
| • 1997 | (6) | -**Burggren, W.W.** and B. Keller. Editors. Development of Cardiovascular Systems: Molecules to Organisms. Cambridge University Press, New York. |
| • 1992 | (5) | -Feder, M.E. and **Burggren, W.W.**, Editors. Environmental Physiology of the Amphibia. University of Chicago Press, Chicago. |
| • 1988 | (4) | -**Burggren, W.W.** and McMahon. B., Editors. Biology of the Land Crabs. Cambridge University Press, New York. |
| • 1987 | (3) | -Feder, M.E., Bennett, A. F., **Burggren, W.W.**, and Huey, R. Editors. New Directions in Physiological Ecology. Cambridge University Press, New York |
|  | (2) | -Bemis, W., **Burggren, W.W.** and Kemp, N., Editors. The Biology and Evolution of Lungfishes. Alan R. Liss, New York. |
| • 1985 | (1) | -Johansen, K. and **Burggren, W.W.**, Editors. Cardiovascular Shunts: Phylogenetic, Ontogenetic and Clinical Aspects. Munksgaard, Copenhagen. |

3. BOOK CHAPTERS

|  |  |  |
| --- | --- | --- |
| • 2018 | (38) | Burggren, W. W. and Dubansky, B. The Nexus of Development and Environment. In: Development and Environment. Editors: Burggren, W. and Dubansky, B. Springer, Cham, Switzerland. |
|  | (37) | Pelster, B. and Burggren, W. W. Responses to Environmental Stressors in Developing Animals: Costs and Benefits of Phenotypic Plasticity. In: Development and Environment. Editors: Burggren, W. and Dubansky, B. Springer, Cham, Switzerland. |
| • 2017 | (36) | Burggren, W.W., Dubansky, B. and Martinez Bautista, N. Cardiovascular Development Of Embryonic And Larval Fishes. In: Fish Physiology. Vol. 35. The Cardiovascular System: Design, Control and Function. Editors: Gamperl, K. and Gillis, T. Academic Press. |
|  | (35) | **Burggren, W.W.** Epigenetics in insects: Mechanisms, phenotypes, and ecological and evolutionary implications. In Advances in Insect Physiology. Vol 53. Editors R. Jurenka and H. Verlinden. Elsevier, New York. |
|  | (34) | **Burggren, W.W.**, Chapman, K., Keller, B., Monticino, M. and Torday, J. Interdisciplinarity In The Biological Sciences. In Handbook of Interdisciplinarity. Eds. Frodeman, R, Mitchum, C and Hollbrook, J.B. Vol II. Oxford University Press. |
| • 2015 | (33) | -Mueller, C., **Burggren, W.W.**, and Tazawa, H. The Physiology of the Avian Embryo. In: Sturkie’s Avian Physiology. Sixth Edition. Ed. Scanes, C.J. Elsevier, New York. Pp.739-766. |
| • 2010 | (32) | -**Burggren, W.W.**, Chapman, K., Keller, B., Monticino, M. and Torday, J. Interdisciplinarity In The Biological Sciences. In Handbook of Interdisciplinarity. Eds. Frodeman, R, Mitchum, C and Hollbrook, J.B. Oxford University Press. |
| • 2009 | (31) | -**Burggren, W.W.** and Pan, T-C.  Chemoreceptive Control of Ventilation in Amphibians and Air-Breathing Fishes.In: Structure, Evolution and Function of the Airway Chemoreceptors in the Vertebrates. Eds. Zaccone, G., Cutz, E., Adriaensen, D., Nurse, C., and Mauceri, A. Science Publishers, Enfield,N.H. |
| • 2008 | (30) | -**Burggren, W.W.** and Bagatto, B. Cardiovascular Anatomy and Physiology of Larval Fishes. In: Fish Larval Physiology. Eds. N. Finn, B.G. Kapoor. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi. |
| • 2007 | (29) | -**Burggren, W.W.** and Reiber, CL. Evolution of Cardiovascular Systems. In: The Endothelium: A Comprehensive Reference. Ed. W. Aird. Cambridge University Press. |
| • 2006 | (28) | -Yoneta, H., Fukazawa, K., Dzialowski, E.M., **Burggren, W.W.**, and Tazawa, H. 2006. Does sequence of exposure to altered ambient temperatures affect the endothermic heart rate response of newly hatched chicks? In: New Insights into Fundamental Physiology and Peri-natal Adaptation of Domestic Fowl. Eds. S.Yahav and B. Tzschentke, Nottingham Univ. Press, UK. P. 15-28. |
|  | (27) | -Fukuoka, S., Khandoker, A.H., Dzialowski, E.M., **Burggren, W.W.**, and Tazawa, H. Development of endothermic heart rate response in emu (*Dromaius novaehollandiae*) embryos. In. New Insights into Fundamental Physiology and Peri-natal Adaptation of Domestic Fowl. Eds. S. Yahav and B. Tzchentke. Nottingham University Press, Nottingham, UK. pp. 29-42. |
|  | (26) | -**Burggren, W.W.** Complexity change during physiological development. In: Comparative Developmental Physiology. Eds: Warburton, S., Burggren, W.W., Pelster, B., Reiber, C, and Spicer, J. Oxford University Press, New York. |
| • 2002 | (25) | -**Burggren, W.W.** Form, Function and the Nature of Adaptation. In: Biological Science, by S. Freeman. Prentice Hall: Englewood Cliffs, New Jersey. |
| • 1998 | (24) | -Wang, T. B., Smits, A. W., and **Burggren, W.W.** Pulmonary function in reptiles. In: Biology of the Reptilia, Vol. 19, Morphology C. C. Gans and A. Gaunt. Editors. pp. 297-374. Society for the Study of Amphibians and Reptiles, St. Louis, MO. |
| • 1997 | (23) | -**Burggren, W.W.** and Keller, B. Why Study Cardiovascular Development? In: Development of Cardiovascular Systems: Molecules to Organisms. Burggren, W.W. and B. Keller. Editors. pp. 1-4. University of Cambridge Press, New York. |
|  | (22) | -**Burggren, W.W.** and Fritsche, R. Amphibian Cardiovascular Development. In: Development of Cardiovascular Systems: Molecules to Organisms. Burggren, W.W. and B. Keller. Editors. pp. 166-182. University of Cambridge Press, New York. |
|  | (21) | -Keller, B. and **Burggren, W.W.** Future Directions in Developmental Cardiovascular Sciences. In: Development of Cardiovascular Systems: Molecules to Organisms. Burggren, W.W. and B. Keller. Editors. pp. 281-286. University of Cambridge Press, New York. |
|  | (20) | -**Burggren, W.W.**, Farrell, A. P. and Lillywhite, H. B. Vertebrate cardiovascular systems. In: Handbook of Comparative Physiology. W. Dantzler, Editor. pp. 215-308. Oxford University Press, Oxford, U.K. |
| • 1995 | (19) | -**Burggren, W.W.** and Territo, P. Early Development of Blood Oxygen Transport. In: Hypoxia and Brain. J. Houston and J. Coates. (eds.) pp: 45-56. Queen City Printer, Burlington, Vermont. |
|  | (18) | -**Burggren, W.W.** Central cardiovascular function in amphibians: qualitative influences of phylogeny, ontogeny and seasonality. In: Mechanisms of Systemic Regulation: Vol. 1 Respiration and Circulation. N. Heisler (ed.). pp. 175-197. Springer-Verlag, Berlin. |
| • 1992 | (17) | -Reiber, C.L., McMahon, B.R. and **Burggren, W.W.** Redistribution of cardiac output in response to hypoxia: a comparison of the freshwater crayfish, *Procambarus clarkii*, and the lobster, *Homarus americanus.* In: Phylogenetic Models in Functional Coupling of the CNS and the Cardiovascular System. Comparative Physiology vol. 11:22-28. R.B. Hill, K. Kuwasawa, B.R. McMahon and T. Kuramoto (eds.). Basel, Karger. |
|  | (16) | -**Burggren, W.W.** Respiratory Metamorphosis during the Water-to-Land Transitions in Developing Vertebrates and Invertebrates. In: The Vertebrate Gas Transport Cascade: Adaptations to Environment and Mode of Life. Editors, E. Bicudo, M. Glass and A. Abe. CRC Press, Boca Raton, Fl. |
|  | (15) | -**Burggren, W.W.** and Just, J.J. Developmental changes in Amphibian physiological systems. In: Environmental Physiology of the Amphibia. Editors, M.E. Feder and W.W. Burggren. University of Chicago Press, Chicago. |
|  | (14) | -**Burggren, W.W.** The Importance of an Ontogenetic Perspective in Physiological Studies: Amphibian Cardiology as a Case Study. In: Physiological Adaptations in Vertebrates: Respiration, Circulation and Metabolism. Editor S.C. Wood, R. Weber, A. Hargens and R., Millard. Dekker, New York. pp. 235-253. |
| • 1991 | (13) | -**Burggren, W.**, McMahon, B., and Powers, D. Blood. In: Comparative Animal Physiology, 4th Edition. Editor C. Ladd Prosser. Wiley, New York. pp. 437-508. |
|  | (12) | -**Burggren, W.** and Roberts, J. Respiration and Metabolism. In: Comparative Animal Physiology, 4th Edition. Editor C. Ladd Prosser. Wiley, New York. pp. 353-435. |
|  | (11) | -**Burggren, W.W.** Does comparative respiratory physiology have a role in evolutionary biology (and vice versa)? In: Comparative Insights into Strategies for Gas Exchange and Metabolism. Editors, A.J. Woakes, M.K. Grieshaber, and C.R Bridges. Cambridge University Press. pp. 1-13. |
| • 1990 | (10) | -**Burggren, W.W.** and Bemis, W.E. Studying physiological evolution: Paradigms and pitfalls. In: Evolutionary Innovations: Patterns and Processes. Editor M.H. Nitecki. Oxford University Press, Oxford. pp. 191-228. |
| • 1989 | (9) | -**Burggren, W.W.** The structure and function of amphibian lungs. In: Comparative Pulmonary Physiology: Current Concepts. Editor S. Wood. Dekker, New York. pp. 153-192. |
| • 1988 | (8) | -**Burggren, W.W.** and McMahon, B.R. Circulation In: Biology of the Land Crabs. Editors W. W. Burggren and B.R. McMahon. Cambridge University Press, New York. pp. 298-332. |
|  | (7) | -McMahon, B.R. and **Burggren, W.W.** Respiration In: Biology of the Land Crabs. Editors W. W. Burggren and B.R. McMahon. Cambridge University Press, New York. pp. 249-297. |
| • 1987 | (6) | -**Burggren, W.W.** Invasive and Non-invasive Methodologies in Physiological Ecology: A Plea for Integration. In: New Directions in Physiological Ecology. Editors, Feder, M.E., Bennett, A. F., Burggren, W.W., and Huey, R. Cambridge University Press, New York. pp. 251-272. |
| • 1986 | (5) | -**Burggren**, **W.W.**, Johansen, K. and McMahon, B.R. Respiration in primitive fishes. In: The Biology of Primitive Fishes. Editors R.E. Foreman, A. Gorbman, J. M. Dodd and R. Olsson. Plenum, New York. pp. 217-252. |
| • 1985 | (4) | -Feder, M.E. and **Burggren, W.W.** The regulation of cutaneous gas exchange in vertebrates. In: Current Topics and Trends: Comparative Physiology and Biochemistry. Vol. A: Respiration, Circulation, Metabolism. Editor R. Gilles. Springer-Verlag, Berlin. pp. 101-113. |
|  | (3) | -**Burggren, W.W.** Hemodynamics and Regulation of Cardiovascular Shunts in Reptiles. In: Cardiovascular Shunts: Phylogenetic, Ontogenetic and Clinical Aspects. Editors K. Johansen and W. Burggren. Munksgaard, Copenhagen. pp 121-142. |
| • 1984 | (2) | -**Burggren, W.W.** Transition of Respiratory Processes during Amphibian Metamorphosis: From Egg to Adult. In: Respiration and Metabolism in Embryonic Vertebrates. Editor R. Seymour. Junk, The Hague. pp. 31-53. |
| • 1980 | (1) | -Johanson, K. and **Burggren, W.W.** Cardiovascular Function in Lower Vertebrates. In: Hearts and Heart-like Organs. Editor G. Bourne. Academic Press, New York. pp. 61-117. |

4. BOOK REVIEWS

|  |  |  |
| --- | --- | --- |
| • 1997 | (2) | -**Burggren, W.W.** Review of “Air Breathing Fishes. Evolution, Diversity and Adaptation by Jeffrey B. Graham. Science. 277:1056-1057. |
| • 1994 | (1) | -**Burggren, W.W.** Review of "Air Breathing Fishes of India" by J.S. Datta Munshi and G.M. Hughes. Copeia 1994.(3) |

5. REFEREED JOURNAL ARTICLES

|  |  |  |
| --- | --- | --- |
| • 2019 | (215) | **Burggren, W.,** Bautista, N. Invited review: Development of acid-base regulation invertebrates. Comparative Biochemistry and Physiology A Molecular and Integrative Physiology. 236:110518. In Press. |
|  | (214) | Bautista, N. and **Burggren, W.** Parental stressor exposure simultanteously conveys both adaptive and maladaptive larval phenotypes through epigenetic inheritance in the zebrafish (*Danio rerio*). Journal of Experimental Biology. In Press. |
|  | (213) | Ho, D. and **Burggren, W.W**. Blood-brain barrier function, cell viability, and gene expression of tight junction-associated proteins in the mouse are disrupted by crude oil, benzo[a]pyrene, and the dispersant Corexit. Compartive Biochemistry and Physiology C. Toxicology and Pharmacology. In Press |
|  | (212) | Pasparakis, C., Grosell, M., Esbaugh, A., **Burggren, W.W.** Physiological effects of DeepWater Horizon oil on fish. Comparative Physiology and Biochemistry. Part C. Toxicology and Pharmacology. In Press. |
|  | (211) | **Burggren, W.W.**, Mendez-Sanchez, J.F., Martínez Bautista, G., Peña, E., Martínez García, R., and Alvarez González, C.A. Developmental changes in oxygen consumption and hypoxia, tolerance in the heat and hypoxia-adapted tabasco line of the Nile tilapia, *Oreochromis niloticus*, with a survey of the metabolic literature for the genus *Oreochromis*. Journal of Fish Biology. doi: 10.1111/jfb.13945. |
|  | (210) | - Perrichon, P., Stieglitz ,J.D., Xu, E.G., Magnuson, J.T., Pasparakis, C., Mager, E.M., Wang, Y.,Schlenk, D., Benetti, D.D., Roberts, A.P., Grosell, M., **Burggren, W.W**. Mahi-mahi *Coryphaena hippurus*) life development: morphological, physiological, behavioral and molecular phenotypes. Developmental Dynamics. doi: 10.1002/dvdy.27. |
|  | (209) | - Velazquez-Rodriguez, A.S., García-Cruz, A, **Burggren, W.** and RodrÍguez-Romero, F.- Physical and chemical variables promote successful nesting in high mountain *Sceloporus* Lizards in Central México. Herpetologica. 75, No. 2, pp. 134-142. |
|  | (208) | - **Burggren, W**. Inadequacy of typical physiological experimental protocols for investigating consequences of stochastic weather events emerging from global warming. American Journal of Physiology. Regulatory, Comparative and Integrative. 316(4):R318-R322 |
|  | (207) | - Bautista, N., Pothini, T., Meng, K. and **Burggren, W.W.** Behavioral consequences of dietary exposure to crude oil extracts in the Siamese fighting fish (*Betta splendens*). Aquatic Toxicology. 207:32-42. |
|  | (206) | - Mendez-Sanchez, J.F. and **Burggren, W.W.** Very high blood oxygen affinity and large bohr shift differentiates the air-breathing siamese fighting fish (*Betta splendens*) from the closely related anabantoid the blue gourami (*Trichopodus* *trichopterus*). Comparative Biochemistry and Physiology – Molecular and Integrative Biology. Comparative Biochemistry and Physiology A Molecular and Integrative Physiology. 29;229:45-51 |
| • 2018 | (205) | - Mendez-Sanchez, J.F. and **Burggren, W.W.**  Hypoxia-induced developmental plasticity of larval growth, gill and labyrinth organ morphometrics in two anabantoid fish: the facultative air-breather Siamese fighting fish (*Betta splendens*) and the obligate air-breather the blue gourami (*Trichopodus trichopterus*). Journal of Morphology. 2018:1-12. DOI:10.1002/jmor.20931 |
|  | (204) | - **Burggren, W.**, Madasu, D., Hawkins, K. and Halbert, M. Marketing via email solicitation by predatory (and legitimate) journals: An evaluation of quality, frequency and relevance. Journal of Librarianship and Scholarly Communication. eP2246 https://doi.org/10.7710/2162‑3309.2246 |
|  | (203) | - Perrichon, P., Mager, E. Pasparakis, C. Stieglitz, J., Benetti, D, Grosell, M. and **Burggren, W.** Combined effects of elevated temperature and Deepwater Horizon oil exposure on the cardiac performance of larval mahi-mahi, *Coryphaena hippurus*. PLOS One. 13(10):e0203949. doi: 10.1371/journal.pone.0203949. |
|  | (202) | - **Burggren, W.** Developmental phenotypic plasticity helps bridge stochastic weather events associated with climate change. Journal of Experimental Biology. doi:10.1242/jeb.16. |
|  | (201) | -Dubansky, B., Verbeck, G., Mach, P., **Burggren, W.W.** Methodology for exposing avian embryos to quantified levels of airborne aromatic compounds associated with crude oil spills. Environmental Toxicology and Pharmacology. [10.1016/j.etap.2018.01.005](https://doi.org/10.1016/j.etap.2018.01.005). |
|  | (200) | -Flores-Santin, J. Antich, M. R., Tazawa, H, **Burggren, W.W.**  Hematology from embryo to adult in the bobwhite quail (*Colinus virginianus*): Differential effects in the adult of clutch, sex and hypoxic incubation. Comparative Biochemistry and Physiology Part A. 218:24-34 |
| • 2017 | (199) | -Tattersal, G and **Burggren, W.** *Xenopus* and the art of oxygen maintenance. Journal of Experimental Biology. 220(22):4084-4087. |
|  | (198) | - Burggren, W. and Elmonoufy, N. Critical developmental windows for morphology and hematology revealed by intermittent and continuous hypoxic incubation in embryos of quail (*Coturnix coturnix*). PLoS ONE 12(9): e0183649. https://doi.org/10.1371/journal.pone.0183649. |
|  | (197) | -Reyna, K. and **Burggren, W.** Altered embryonic development in northern bobwhite quail(*Colinus* *virginianus*) induced by pre-incubation oscillatory thermal stresses mimicking global warming predictions. PLOS One. 12(9): e0184670. doi.org/10.1371/journal.pone.0184670 |
|  | (196) | -Bolin, G., Dubansky, B., **Burggren, W.** Incubation relative humidity influences renal morphological and physiological remodeling in the embryo of the chicken (*Gallus gallus domesticus*). Comparative Biochemistry & Physiology Part A. 204:185-196. |
|  | (195) | -Perrichon, P., Grosell, M. and **Burggren, W.W.** Heart performance determination by visualization in larval fishes: influence of alternative models for heart shape and volume. Frontiers in Physiology – Aquatic Physiology. 82017464. |
|  | (194) | -Mendez-Sanchez, J.F. and **Burggren, W.W**. Cardio-respiratory physiological phenotypic plasticity in developing air breathing anabantid fishes (*Betta splendens* and *Trichopodus trichopterus*). Physiological Reports. e13359. |
|  | (193) | -Perrichon, P., Pasparakis, C., Mager, E., Stieglitz, J., Benetti, D., Grosell, M. and **Burggren, W.** Morphology and cardiac physiology are differentially affected by temperature in developing larvae of the marine fish mahi-mahi (*Coryphaena hippurus*). Biology Open. doi: 10.1242/bio.025692 |
|  | (192) | **-Burggren, W.W.,** Souder, B. and Ho, D. Metabolic rate and hypoxia tolerance are affected by group interactions and sex in the fruit fly (*Drosophila melanogaster*): New data and a literature survey. Biology Open. 2017:6(471-480). |
|  | (191) | -Mueller, C.M., Tazawa, H., and **Burggren, W.W.** Dynamics of acid-base and hematological regulation in day 15 chicken embryos (*Gallus gallus domesticus*) exposed to graded hypercapnia and hypoxia. Journal: Respiratory Physiology & Neurobiology. 239:55-63. |
| • 2016 | (190) | -Crossley II, D.A., **Burggren, W.W.**, Reiber, C.L., Altimiras, J., Rodnick, K.J. Mass transport: Circulatory system with emphasis on non-endothermic species. Comprehensive Physiology. DOI: 10.1002/cphy.c150010. |
|  | (189) | -Khursigara, A.J., Perrichon, P., Bautista, N.M., **Burggren, W.W**., and Esbaugh, A.A. Cardiac function and survival are affected by crude oil in larval red drum, *Sciaenops ocellatus*. Science of the Total Environment. 579:797-804. |
|  | (188) | -Watson, C.M. and **Burggren, W.W.**  Interspecific differences in metabolic rate and metabolic temperature sensitivity create distinct thermal ecological niches in lizards (Plestiodon). PLOS One. Doi.org/10.1371/journal.pone |
|  | (187) | -**Burggren, W.W**., Flores Santin, J. and Rojas, M.Cardio-respiratory development in bird embryos: new insights from a venerable animal model. Revista Brasileira de Zootecnia. 45(11):709-728. |
|  | (186) | -**Burggren, W. W.,** Bautista Martinez, G., Camarillo Coop, S., Márquez, Couturier, G., Páramo Delgadillo, S. and Alvarez González, C.A. Developmental cardiorespiratory physiology of the air breathing tropical gar, *Atractosteus tropicus.* American Journal of Physiology: Regulatory, Integrative and Comparative. 311(4):R689-R701. |
|  | (185) | -Oziolor, E.M., Dubansky, B., **Burggren, W.**  and Matson, C.W. Cross-resistance in Gulf killifish (*Fundulus grandis*) populations resistant to dioxin-like compounds. Aquatic Toxicology. 175:222-231. |
|  | (184) | -**Burggren, W.W.** Epigenetic inheritance and its role in evolutionary biology: Re-evaluation and new perspectives. Biology.  *5*(2), 24; doi:10.3390/biology5020024. |
|  | (183) | -Branum, S., Tazawa, H. and **Burggren, W.W.** Phenotypic developmental plasticity induced by pre-incubation egg storage in chicken embryos (*Gallus gallus domesticus*). Physiological Reports. 4(4). pii: e12712. doi: 10.14814/phy2.12712. |
|  | (182) | -Mueller, C.A, Willis, E. and **Burggren, W.W.** Salt sensitivity of the morphometry of *Artemia* *franciscana* during development: A demonstration of 3-D critical windows. Journal of Experimental Biology. 219:571-581. |
|  | (181) | -Shell, L., **Burggren, W**., Muirhead, D., Nelson, T. and Dzialowski, E. Circulatory changes associated with the closure of the ductus arteriosus in hatching emu (*Dromaius novaehollandiae*). Journal of Comparative Physiology. A. 191: 202-208. |
|  |  |  |
| • 2015 | (180) | **-Burggren, W.,** Dubansky, B., Roberts, A., and Alloy, M**.** Deepwater Horizon oil spill as a case study for interdisciplinary cooperation within developmental biology, environmental sciences and physiology. World Journal of Engineering and Technology. 3:7-23. |
|  | (179) | -Lewallen, M. and **Burggren, W. W.**  Chronic hypoxia and hyperoxia modifies morphology and VEGF concentration of the lungs of the developing chicken (*Gallus gallus* variant *domesticus*). Respiratory Physiology and Neurobiology. 219:85-94. doi: 10.1016/j.resp.2015.08.004. |
|  | (178) | -Kohl, Z. F., Crossley II, D.A., Tazawa, H. and **Burggren, W. W.**  Dynamics of blood viscosity regulation during hypoxic challenges in the chicken embryo (*Gallus* *gallus domesticus*). Comparative Biochemistry and Physiology A.190:1-8. |
|  | (177) | -**Burggren, W. W.**, Mueller,C.A., and Tazawa, H. Hypercapnic thresholds for embryonic acid-base metabolic compensation and hematological regulation during CO2 challenges in layer and broiler chicken strains. Respiratory Physiology and Neurobiology. 215:1-12. |
|  | (176) | -Mueller, C.A., Eme, J., **Burggren, W.W**., Roghair, R.D., Rundle, S.D. Challenges and opportunities in developmental integrative physiology. Comparative Biochemistry and Physiology A.Part A 184 (2015): 113-124 |
|  | (175) | **-Burggren, W.W.** and Mueller, C.A. Developmental critical windows and sensitive periods as 3-D constructs in time and space. (Invited Perspective). Physiological and Biochemical Zoology.  88(2):91-102. |
|  | (174) | -**Burggren, W.W.** Dynamics of epigenetic phenomena: intergenerational and intragenerational phenotype ‘washout’. Journal of Experimental Biology. 218:80-87. |
|  |  |  |
| • 2014 | (173) | -Alvine, T. and **Burggren, W.W**. Renal, metabolic and hematological effects of trans-retinoic acid during critical developmental windows in the embryonic chicken. Journal of Comparative Physiology B. 184(1):107-23. |
|  | (172) | **-Mueller, C.A.,** Crossley II, D.A. and**Burggren, W.W.** The actions of the renin-angiotensin system on cardiovascular and osmoregulatory function in embryonic chickens (Gallus gallus domesticus). Comparative Biochemistry and Physiology A 178, 37-45. |
|  | (171) | -**Burggren, W.W.** and Crews, D. Epigenetics in comparative biology: Why we should pay attention. Integrative and Comparative Biology. 54(1):7-20. |
|  | (170) | -Mueller, C., Tazawa, H. and **Burggren, W.W.** Dynamics of acid-base metabolic compensation and hematological regulation interactions in response to CO2 challenges in embryos of the chicken (*Gallus gallus*), Journal of Comparative Physiology - B. 185:641-649. |
|  | (169) | -Andrewartha, S.J., Tazawa, H. and **Burggren, W.W.** Acute regulation of hematocrit and acid-base balance in chicken embryos in response to severe intrinsic hypercapnic hypoxia. Respiratory Physiology and Neurobiology. 195:1-10. |
|  | (168) | -Blank, T. and **Burggren, W.W.** Hypoxia-induced developmental plasticity of the gills and air-breathing organ of the air-breathing fish blue gourami (*Trichopodus trichopterus).* Journal of Fish Biology. 84(3):808-826. |
|  | (167) | -Mendez-Sanchez,J. F. and **Burggren, W.W.** Environmental modulation of the onset of air-breathing and survival of the Siamese fighting fish *Betta splendens* and the three spot gourami *Trichopodus trichopterus*. Journal of Fish Biology. 84(3):794-807. |
|  | (166) | -**Burggren, W.W.** Epigenetics in Comparative Animal Physiology - or - Lamarck is lookin’ pretty good these days!. Journal of Experimental Biology. 217:682-689. |
|  | (165) | -Hala, D., Huggett, D.B. and **Burggren, W.W.** Environmental stressors and the epigenome. Drug Discovery Today: Technologies. 12:e3-e8. |
|  | (164) | -**Burggren, W.W.**, Christoffels V.M., D.A. Crossley II, S. Enok, A.P. Farrell, M.S. Hedrick, J.W. Hicks, B. Jensen, A.F.M. Moorman, C.A.Mueller, N. Skovgaard, E.W. Taylor and T. Wang. Comparative cardiovascular physiology: future trends, opportunities and challenges. Acta Physiologica Scandinavica. 210(2):257-276. |
|  |  |  |
| • 2013 | (163)  (162) | -Branum, S.R., Yamada-Fisher, M. and **Burggren, W**. Reduced heart rate and cardiac output differentially affect angiogenesis, growth, and development in early chicken embryos (*Gallus domesticus*). Physiological Biochemistry and Zoology. 86(3):370-82.  -Mueller, C. A., **Burggren, W.W.** and Crossley II, D. A.. Angiotensin II and baroreflex control of heart rate in embryonic chickens (*Gallus gallus domesticus*). American Journal of Physiology: Regulatory, Integrative and Comparative Physiology. 305(8):R855-63. |
|  | (161) | -Bolin, G. and **Burggren, W.W.** Metanephric kidney development in the chicken embryo: glomerular numbers, characteristics and perfusion. Comparative Biochemistry and Physiology. A. 166(2):343-350. |
|  | (160) | -Pan, T-C. F. and **Burggren, W.W.** Ontogeny of hypoxic modulation of cardiac performance and its allometry in the African clawed frog *Xenopus laevis*. Comparative Biochemistry and Physiology. 183:123-133. |
|  | (159) | -**Burggren, W.W.** Cardiovascular development and angiogenesis in the early vertebrate embryo. Cardiovascular Engineering and Technology. 4(3):234-245. |
|  | (158) | -Mueller, C.A., Tazawa, H. and **Burggren, W.W.** Dynamics of metabolic compensation and hematological changes in chicken (*Gallus gallus*) embryos exposed to hypercapnia with varying oxygen. Respiratory Physiology and Neurobiology. 185:272-280. |
|  |  |  |
| • 2012 | (157) | -Zhang, H. and **Burggren, W.W.** Hypoxic level and duration differentially affect embryonic organ system development of the chicken (*Gallus gallus*). Poultry Science. 85(6):625-634. |
|  | (156) | -Ho, D. and **Burggren, W.W.** Parental hypoxic exposure confers offspring hypoxia resistance in zebrafish (*Danio rerio*). Journal of Experimental Biology. 215(23):4208-4216. |
|  | (155) | -Tazawa, H., Andrewartha, S.J. and **Burggren, W.W.** Acute regulation of hematocrit and blood acid-base balance during severe hypoxic challenges in late chicken embryos (*Gallus gallus).* Respiratory Physiology and Neurobiology. 184:86-96. |
|  | (154) | -**Burggren, W.W.**, Andrewartha, S.J. and Tazawa, H. Interactions of acid-base balance and hematocrit regulation during environmental respiratory gas challenges in developing chicken embryos (*Gallus gallus*). Respiratory Physiology and Neurobiology. 183 (2012) 135-148. |
|  | (153) | -Andrewartha, S. and **Burggren, W.W.** Transgenerational variation in metabolism and life history traits in response to maternal hypoxia exposure in *Daphnia magna*. Physiological Biochemistry and Zoology. 85(6):625-634. |
|  | (152) | -Gore, M. and **Burggren, W.W.** Cardiac and metabolic physiology of early larval zebrafish (*Danio rerio*) reflects parental swimming stamina. Frontiers in Aquatic Physiology. 3:35 (Online). |
|  | (151) | -Reyna, K. and **Burggren, W.W.** Upper lethal temperatures of northern bobwhite embryos and the thermal properties of their eggs. Poultry Science 91(1): 41-6. |
|  |  |  |
| • 2011 | (150) | -Andrewartha, S.J., Tazawa, H., and **Burggren, W.W.** Hematocrit and blood osmolality in developing chicken embryos (*Gallus gallus*): in vivo and in vitro regulation. Respiratory Physiology and Neurobiology. 179(2-3):142-150. |
|  | (149) | -Andrewartha, S.J., Tazawa, H., **Burggren, W.W.** [Embryonic control of heart rate: Examining developmental patterns and temperature and oxygenation influences using embryonic avian models.](http://www.ncbi.nlm.nih.gov/pubmed/21530689) Respiratory Physiology and Neurobiology. 178(1):84-96. |
|  | (148) | -**Burggren, W.W.** and Reyna, K. Developmental trajectories, critical windows and phenotypic alteration during cardio-respiratory development. Respiratory Physiology and Neurobiology. 178:13-21. |
|  | (147) | -Tazawa, H., Andrewartha, S.J., and **Burggren, W.W.** Development of hematological respiratory variables in late chicken embryos: The relative importance of incubation time and embryo mass. Comparative Biochemistry and Physiology, Part A. 159(3):225-33. |
|  | (146) | -Ho, D., Reed, W.L., and **Burggren, W.W.** Egg yolk environment differentially influences physiological and morphological development of broiler and layer chicken embryos. Journal of Experimental Biology. 214:619-628. |
|  |  |  |
| • 2010 | (145) | -Robinson, G.E., Banks, J.A., Padilla, D.K., **Burggren, W.W.**, Cohen, C.S., Delwiche, C.F., Funk, V., Hoekstra, H.E., Jarvis, E.D., Johnson, L.J., Martindale, M.Q., Martinez del Rio, C., Medina, M., Salt, D.E., Sinha, S., Specht, C.S, Strange, K., Strassmann, J.E., Swalla, B.J., and Tomanek, L.Empowering 21st century biology. Biosciences. 60(11):923-930. |
|  | (144) | -Pan, T-C. F. and **Burggren, W.W.** Onset and early development of hypoxic ventilatory responses and branchial neuroepithelial cells in *Xenopus laevis*. Comparative Biochemistry and Physiology. 157:382-391-. |
|  | (143) | -Evans, D.H., Axelsson, M. Beltz, B. **Burggren, W.**, Castellini, M., Clements, K.D., Crockett, L., Gilmour, K.M., Henry, R.P., Hirose, S.,Ip. A., Londraville, R., Lucu, C., Poertner, H.O., Summers, A. and Wright, P. [Frontiers in aquatic physiology - grand challenge.](http://www.frontiersin.org/physiology/aquaticphysiology/paper/10.3389/fphys.2010.00006/) Frontiers in Physiology. 18 May 2010. |
|  | (142) | -Blossman-Myer, B. and **Burggren, W.W.** The silk cocoon of the silkworm, *Bombyx mori:* micro structure and transmural diffusion of oxygen and water vapor. Comparative Biochemistry and Physiology. 155(2):259-63. |
|  | (141) | -Blossman-Myer, B. and **Burggren, W.W.** Metabolic allometry during development and metamorphosis of the silkworm, *Bombyx mori*: Analyses, patterns and mechanisms. Physiological Biochemistry and Zoology. 83(2):215-231. |
|  | (140) | -Ho, D and **Burggren, W.W.** Epigenetics and transgenerational transfer: a physiological perspective. Journal of Experimental Biology. 213:3-16. |
|  |  |  |
| • 2009 | (139) | -**Burggren, W.W.** Implementation of the National Science Foundation’s 'broader impacts': Efficiency considerations and alternative approaches. Social Epistemology. 23(3-4):221-237. |
|  | (138) | -**Burggren, W.W.** and Blank, T. Physiological study of larval fishes: challenges and opportunities. Scientia Marina. 2009:99-110. |
|  | (137) | -Crossley, D III and **Burggren, W.W.** Development of cardiac form and function in ectothermic sauropsids. Journal of Morphology. 270(11):1400-1412. |
|  | (136) | -Fernández-Mongil, M., Venza, C., Rivera, A., Lasalde-Dominicci, J.A., **Burggren, W.** and Rojas, L.V. Triiodothyronine (T3) action on locomotor behavior during metamorphosis of the bullfrog *Rana catesbeiana*. International Journal of Developmental Biology. 53: 101-108. |
|  |  |  |
| • 2008 | (135) | -Khorrami, S., Tazawa, H., and **Burggren, W.** ‘Blood-doping’ effects on hematocrit regulation and oxygen consumption in late-state chicken embryos (*Gallus gallus*). Journal of Experimental Biology. 211 (6):883-9. |
|  |  |  |
| • 2007 | (134) | -Fisher, S.A. and **Burggren, W.W.** Role of hypoxia in the evolution and development of the cardiovascular system. Antioxidants and Redox Signaling. 9(9):1339-52. |
|  | (133) | -Perry, S and **Burggren, W.** Why respiratory biology? The meaning and significance of respiration and its integrative study. Integrative and Comparative Biology. 47(4):506-509. |
|  | (132) | -**Burggren, W.W.** and Warburton, S.  Amphibians as animal models in physiological studies. Institute for Laboratory Animal Research Journal. 48(3):260-269. |
|  | (131) | -Yoneta, H., Dzialowski, E.M., **Burggren, W.W.**, and Tazawa, H. Endothermic heart rate response in broiler and White Leghorn chicks (*Gallus gallus domesticus*) during the first two days of post-hatch life. Comparative Biochemistry and Physiology. A. 147(2):529-535. |
|  |  |  |
| • 2006 | (130) | -Dzialowski, E. M., **Burggren, W.W.**, Komoro, T. and Tazawa, H. Development of endothermic metabolic response in embryos and hatchlings of the emu (*Dromaius novaehollandiae*). Respiratory Physiology and Neurobiology. 155:286-292. |
|  | (129) | -Bagatto, B and **Burggren, W.** A three-dimensional functional assessment of heart and vessel development in the larva of the zebrafish (*Danio rerio)*. Physiological Biochemistry and Zoology. 79(1):194-201. |
|  |  |  |
| • 2005 | (128) | -**Burggren, W.W.** Developing animals flout prominent assumptions of ecological physiology. Comparative Biochemistry and Physiology. A. 141(4):430-439. |
|  | (127) | -**Burggren, W.W.** and Monticino, M.G. Assessing Physiological Complexity. Journal of Experimental Biology. 208:3221-3232. |
|  | (126) | -Chan, T. and **Burggren, W.W.** Hypoxic incubation creates differential morphological effects during specific developmental critical windows in the embryo of the chicken (*Gallus gallus*). Respiratory Physiology and Neurobiology. 145:251-263. |
|  | (125) | -**Burggren, W.W.** and Warburton, S.J. Comparative developmental physiology: An interdisciplinary convergence. Annual Reviews of Physiology. 67:203-223. |
|  |  |  |
| • 2004 | (124) | -Moriya, K., Akiyama, R., Dzialowski, E. M., **Burggren, W.W.** and Tazawa, H. Development of heart rate circadian rhythms in chicks. Avian and Poultry Biology Reviews. 15: 211-218. |
|  | (123) | -Tazawa, H., Chiba, Y., Khandoker, A. H., Dzialowski, E. M. and **Burggren, W.W.** Early development of thermoregulatory competence in chickens: responses of heart rate and oxygen uptake to altered ambient temperatures. Avian and Poultry Biology Reviews. 15:166-176. |
|  | (122) | -**Burggren, W.W.** and Vitalis, T.Z. The interplay of cutaneous water loss, gas exchange and blood flow in the toad, *Bufo woodhousei*: Adaptations in a terrestrially-adapted amphibian. Journal of Experimental Biology. 208:105-112. |
|  | (121) | -**Burggren, W.W.**, Khorrami, S., Pinder, A. and Sun, T. Body, eye and chorioallantoic vessel growth are not dependent upon cardiac output levels in day 3-4 chicken embryos. American Journal of Physiology: Regulatory and Integrative Physiology: 287(6):R1399-1406. |
|  | (120) | -**Burggren, W.W.** What is the purpose of the embryonic heart beat? or How facts can ultimately prevail over physiological dogma. Physiological And Biochemical Zoology. 77:333-345. |
|  | (119) | -Black, J. and **Burggren, W.W.** Acclimation to hypothermic incubation in developing chicken embryos (*Gallus domesticus*): I. Developmental effects and chronic and acute metabolic adjustments. Journal of Experimental Biology. 207:1543-1552. |
|  | (118) | -Black, J. and **Burggren, W.W.** Acclimation to hypothermic incubation in developing chicken embryos (Gallus domesticus): II. Hematological and blood O2 transport. Journal of Experimental Biology. 207:1553-1561. |
|  | (117) | -Khandoker, A.H., Fukazawa, K., Dzialowski, E.M., **Burggren, W.W.** and Tazawa, H. Maturation of the homeothermic response of heart rate to altered ambient temperature in developing chick hatchlings (*Gallus gallus domesticus*). American Journal of Physiology: Regulatory and Integrative Physiology. 286: R129-R137. |
|  |  |  |
| • 2003 | (116) | -Khandoker, A. H., Dizalowski, E. M., **Burggren, W.W.** and Tazawa, H. Cardiac rhythms of late pre-pipped and pipped chick embryos exposed to altered oxygen environments, Comparative Biochemistry and Physiology. A 136:289-299. |
|  | (115) | -**Burggren, W.W.**, Crossley, D III, Rogowitz, G. and Thompson, D. Clutch effects explain heart rate variation in embryonic frogs (cave coqui, Eleutherodactylus cooki). Physiological and Biochemical Zoology 76(5):672-678. |
|  | (114) | -Crossley II, D., Bagatto, B., Dzialowski, E and **Burggren, W.** Maturation of cardiovascular control mechanisms in the embryonic emu (*Dromiceius novaehollandiae*). Journal of Experimental Biology. 206(15):2703-2710. |
|  | (113) | -Spicer, J. I. and **Burggren, W.W.** Development of Physiological Regulatory Systems: Altering the Timing of Crucial Events. Zoology (formerly Zoology - Analysis of Complex Systems): 106:91-99. |
|  | (112) | -Tamura, A., Akiyama, R., Chiba, Y. Moriya, K., Dzialowski, W.M., **Burggren, W.** and Tazawa, H. Heart rate responses to cooling in emu hatchlings. Comparative Biochemistry and Physiology. Part A 134:829-838. |
|  | (111) | -Crossley, DA, II, **Burggren, W.W.** and Altimiras, J. Cardiovascular regulation during hypoxia in embryos of the domestic chicken *Gallus gallus*. American Journal of Physiology: Regulatory, Integrative and Comparative Physiology. 284, 219-226. |
|  |  |  |
| • 2002 | (110) | -**Burggren, W.** and Crossley, D. A. II. Comparative cardiovascular development: improving the conceptual framework. Comparative Biochemistry and Physiology. A 132:661-674. |
|  | (109) | -Moriya, K., Kato, K. Matsumura, M. Dzialowski, E. **Burggren, W.W**. and Tazawa, H. Cardiac rhythms in developing emu hatchlings. Comparative Biochemistry and Physiology A. 131(4):787-795. |
|  | (108) | -Xu, X., Meiler, S. E., Zhong, T. P., Mohideen, M., Crossley, D. A., **Burggren, W.** and Fishman, M. Cardiomyopathy in zebrafish due to mutation in an alternatively spliced exon of titin. Nature Genetics, 30(1). |
|  | (107) | -Kato, K., Moriya, K., Dzialowski, E., **Burggren, W.W.** and Tazawa, H. Cardiac rhythms in prenatal and perinatal emu embryos. Comparative Biochemistry and Physiology A 131(4):775-785. |
|  | (106) | -Dzialowski, E.M., von Plettenberg, D., Elmonoufy, N. and **Burggren, W.W.** Chronic hypoxia effects on the physiology and morphology of developing chicken embryos. Comparative Biochemistry and Physiology. 131(4):713-24. |
|  |  |  |
| • 2001 | (105) | -Bagatto, B., Pelster, B. and **Burggren, W.W.** Growth and metabolism in larval zebrafish: Effects of swim training. The Journal of Experimental Biology. 204:4335-4343. |
|  |  |  |
| • 2000 | (104) | -**Burggren, W.W.**, Warburton, S. J. and Slivkoff, M.D. Interruption of cardiac output does not affect short term growth and metabolism in day 3 and 4 chick embryos. The Journal of Experimental Biology. 203, 3831-3838. |
|  | (103) | -Bagatto, B., Crossley, D. and **Burggren, W.** Physiological variability in neonatal armadillo quadruplets: within and between litter differences. The Journal of Experimental Biology. 203(11):1733-1740. |
|  | (102) | -**Burggren, W.W.** Developmental physiology, animal models, and the August Krogh principle. Zoology-Analysis of Complex Systems 102(2-3): 148-156. |
|  | (101) | -Moriya, K., Pearson, J. T., **Burggren, W.W.**, Ar, A. and Tazawa, H. Continuous measurements of instantaneous heart rate and its fluctuations before and after hatching in chickens. Journal of Experimental Biology. 203:895-903. |
|  | (100) | -Smits, A.W., **Burggren, W.W.** and Oliveras, D. Developmental changes in *in vivo* cardiac performance in the moth *Manduca sexta*. Journal of Experimental Biology. 203(2):369-378. |
|  |  |  |
| • 1999 | (99) | -Tazawa, H., **Burggren, W.**, and Ar, A. Introduction: On the significance of cardiac rhythms. Comparative Biochemistry and Physiology. 124A:367-368. |
|  | (98) | -**Burggren, W.W.** Genetic, environmental and maternal influences on embryonic cardiac rhythms. Comparative Biochemistry and Physiology. 124A:423-427. |
|  | (97) | -Akiyama, R., Mitsubayashi, H., Tazawa, H. and **Burggren, W.** Heart rate responses to altered ambient oxygen in early (day 3-9) chick embryos in the intact egg. Journal of Comparative Physiology. 169:85-92. |
|  | (96) | -Barrionuevo, W. R. and **Burggren, W.W.** O2 consumption and heart rate in developing zebrafish (*Danio rerio*): influence of temperature and ambient O2. Am. J. Physiol. 276:R505-R513. |
|  |  |  |
| • 1998 | (95) | -**Burggren, W.W.** Studying Physiological Development: Past, Present and Future. Biological Bulletin of the National Taiwan Normal University. 33(2):71-84. |
|  |  |  |
|  | (94) | -Territo, P. And **Burggren, W.W.** Cardio-respiratory ontogeny during chronic carbon monoxide induced hypoxemia in the clawed frog *Xenopus laevis*. Journal of Experimental Biology. 201 (9):1461-1472. |
|  |  |  |
| • 1997 | (93) | -Jia, X.X. and **Burggren, W.W.** Developmental changes in chemoreceptive control of gill ventilation in larval bullfrogs (*Rana catesbeiana*). I. Reflex ventilatory responses to ambient hyperoxia, hypoxia and NaCN. Journal of Experimental Biology. 200:2229-2236. |
|  | (92) | -Jia, X.X. and **Burggren, W.W.** Developmental changes in chemoreceptive control of gill ventilation in larval bullfrogs (*Rana catesbeiana*). II. Site of O2-sensitive chemoreceptors. Journal of Experimental Biology. 200:2237-2248. |
|  | (91) | -Reiber, C.L., McMahon, B.R. and **Burggren, W.W.** Cardiovascular functions in two macruran decapod crustaceans (*Procambarus clarkiiI* and *Homarus americanus*) during periods of inactivity, tail flexon and cardiorespiratory pauses. Journal of Experimental Biology. 200:1103-1113. |
|  | (90) | -**Burggren, W.W.** Identifying and evaluating patterns in cardio-respiratory physiology. American Zoologist. 37:109-115. |
|  |  |  |
| • 1996 | (89) | -Fritsche, R. and **Burggren, W.W.** Developmental responses to hypoxia in larvae of the frog Xenopus laevis. American Journal of Physiology. 271:R912-R917. |
|  | (88) | -Pelster, B. and **Burggren, W.W.** Disruption of hemoglobin oxygen transport does not impact oxygen-dependent physiological processes in developing embryos of zebrafish (*Danio rerio*). Circulation Research 79:358-362. |
|  |  |  |
| • 1995 | (87) | -Hou, P-C. L. And **Burggren, W.W.** Blood pressures and heart rate during larval development in the anuran amphibian *Xenopus laevis*. Amer. J. Physiol. 269:R1120-R1125. |
|  | (86) | -Hou, P-C. L. And **Burggren, W.W.** Cardiac output and peripheral resistance during larval development in the anuran amphibian *Xenopus laevis*. Amer. J. Physiol. 269:R1126-R1132. |
|  | (85) | -Hastings, D and **Burggren, W. W.** Developmental changes in oxygen consumption regulation in larvae of the South African clawed frog *Xenopus laevis*. Journal of Experimental Biology. 198:2465-2475. |
|  | (84) | -**Burggren, W.W.** and Fritsche, R. Cardiovascular measurements in animals in the milligram body mass range. Brazilian Journal of Medical and Biological Research. 28:1291-1305. |
|  | (83) | -Wang, T., **Burggren, W.** and Nobrega, E. Metabolic, ventilatory and acid-base responses associated with specific dynamic action in the toad, *Bufo marinus*. Physiological Zoology. 68(2):192-205. |
|  |  |  |
| • 1994 | (82) | -Howe, R. S., **Burggren, W.W.** and Warburton, S. J. Fixed patterns of bradycardia during late embryonic development in domestic fowl with *C* locus pleiotropic mutations. American Journal of Physiology. 268:H56-H60. |
|  | (81) | -**Burggren, W.W.** and Infantino, R.L. Jr. The respiratory transition from water to air breathing during amphibian metamorphosis. American Zoologist. 34:238-246. |
|  | (80) | -**Burggren, W.W.** and Warburton, S. Patterns of form and function in developing hearts: Contributions from non-mammalian vertebrates. Cardioscience 5(3):183-191. |
|  | (79) | -Tazawa, H, Watanabe, W. and **Burggren, W.** Embryonic heart rate in altricial birds, the pigeon (*Columba domestica*) and the bank swallow (*Riparia riparia*). Physiological Zoology. 67:1448-1460. |
|  | (78) | -**Burggren, W.W.**, Tazawa, H. and Thompson, D. Intraspecific variability in avian embryonic heart rates: Potential genetic and maternal environment influences. Israel Journal of Zoology. 40:351-362. |
|  |  |  |
| • 1993 | (77) | -Pelster, B., **Burggren**, **W.W.**, Petrou, S. and Wahlqvist, I. Developmental changes in the acetylcholine influence on heart muscle of *Rana catesbiana*: *In situ* and *in vitro* effects. Journal of Experimental Zoology. 267:1-8. |
|  | (76) | -**Burggren, W.W.** Moreira, G.S. and Santos, M. C. F. Specific dynamic action and the metabolism of the brachyuran land cabs *Ocypode quadrate* (Fabricus, 1787), *Goniopsis cruentata* (Latreille, 1803) and *Cardisoma guanhumi* Latreille, 1825. Journal of Experimental Marine Biology and Ecology. 169(1993) 117-130. |
|  |  |  |
| • 1992 | (75) | -**Burggren, W.W.** Respiration and circulation in land crabs: Novel variations on the marine design. American Zoologist. 32:417-427. |
|  | (74) | -**Burggren, W.W.**, Bicudo, J.E., Glass, M.L. and Abe, A.S. Development of blood pressure and cardiac reflexes in the frog *Pseudis paradoxsus.* American Journal of Physiology. 263:R602-R608. |
|  | (73) | -**Burggren, W.W.** and Bemis, W.E. Metabolism and ram gill ventilation in juvenile paddlefish, *Polyodon spathula* (Chondrostei: Polyodontidae). Physiological Zoology. 65:515-539. |
|  |  |  |
| • 1991 | (72) | -McMahon, B.R., **Burggren, W.W.**, Pinder, A.W., and Wheatly, M.G. Air exposure and physiological compensation in a tropical intertidal chiton, *Chiton stokesii* (Mollusca: Polyplacophora). Physiological Zoology. 64(3):728-748. |
|  | (71) | -**Burggren, W.W.** and Pinder, A.W. Ontogeny of Cardiovascular and Respiratory Physiology in Lower Vertebrates. Annual Reviews of Physiology 53:107-135. |
|  | (70) | -Pelster, B. and **Burggren, W.W.** Central arterial hemodynamics in larval bullfrogs (*Rana catesbeiana)*: developmental and seasonal influences. American Journal of Physiology 260:R240-R246. |
|  |  |  |
| • 1990 | (69) | -**Burggren, W.W.**, Infantino, R.L. and Townsend, D.L. Developmental changes in cardiac and metabolic physiology of the direct-developing tropical frog *Eleutherodactylus coqui*. Journal of Experimental Biology. 152:129-147. |
|  | (68) | -**Burggren**, **W.W.**, Pinder, A.W., MCMahon, B.R., Doyle, M. and Wheatly, M.G. Heart rate and hemolymph pressure responses to hemolymph volume changes in the land crab *Cardisoma guanhumi*: Evidence for 'baroreflex' function. Physiological Zoology. 63:167-181. |
|  |  |  |
| • 1989 | (67) | -Hou, P.-C. L. and **Burggren, W.W.** Interaction of allometry and development in the mouse *Mus musculus*; heart rate and hematology. Respiration Physiology 78:265-280. |
|  | (66) | -West, N.H., Smits, A.W. and **Burggren, W.W.** Factors terminating nonventilatory periods in the turtle, *Chelydra serpentina*. Respiration Physiology 77:337-350. |
|  | (65) | -**Burggren, W.W.**, Smits, A.W. and Evans, B. Arterial oxygen homeostasis during diving in the turtle *Cheldoina longicollis.* Physiological Zoology. 62:668-686. |
|  |  |  |
| • 1988 | (64) | -**Burggren, W.W.** Role of the central circulation in regulation of cutaneous gas exchange. American Zoologist 28:985-998. |
|  | (63) | -**Burggren, W.W.** Cardiac design in lower vertebrates: what can phylogeny reveal about ontogeny? Experentia. 44:919-929. |
|  | (62) | -**Burggren, W.W.** Cardiovascular responses to diving and their relation to lung and blood oxygen stores in vertebrates. Canadian Journal of Zololgy. 66:20-28. |
|  |  |  |
| • 1987 | (61) | -McMahon, B.R. and **Burggren, W.W.** Respiratory physiology of intestinal air breathing in the teleost fish *Misgurnus anguillicaudatus*. Journal of Experimental Biology. 133:371-394. |
|  | (60) | -**Burggren, W.W.**, Dupre, R. K. and Wood, S. C. Allometry of red cell oxygen binding and hematology in larvae of the tiger salamander, *Ambystoma tigrinum*. Respiration Physiology. 70:73-84. |
|  | (59) | -**Burggren, W.W.** and Doyle, M. E. Ontogeny of regulation of gill and lung ventilation in the bullfrog, *Rana catesbeiana*. Respiration Physiology. 66:279-291. |
|  | (57) | -**Burggren, W.W.** Form and function in reptilian circulations. American Zoologist. 27:5-19. |
|  |  |  |
| • 1986 | (57) | -**Burggren, W.W.** and Doyle, M. E. The action of acetylcholine upon heart rate changes markedly with development in bullfrogs. Journal of Experimental Zoology. 240:137-140. |
|  | (56) | -**Burggren, W.** and Johansen, K. Circulation and respiration in lungfishes. Journal of Morphology 190. Supplement 1:217-236. |
|  | (55) | -Pinder, A.W. and **Burggren, W.W.** Ventilation and partitioning of oxygen uptake in the frog *Rana pipiens*: Effects of hypoxia and activity. Journal of Experimental Biology. 126:453-468. |
|  | (54) | -Smits, A.W., West, N.H. and **Burggren, W.W.** Pulmonary fluid balance following pulmocutaneous baroreceptor denervation in the toad. Journal of Applied Physiology. 61:331-337. |
|  | (53) | -**Burggren, W.W.** and Doyle, M.E. Ontogeny of heart rate regulation in the bullfrog, *Rana catesbeiana*. American Journal of Physiology. 251:R231-239. |
|  | (52) | -**Burggren, W.W.** and Feder, M.E. Effect of experimental ventilation of the skin on cutaneous gas exchange in the bullfrog. Journal of Experimental Biology. 121:445-450. |
|  | (51) | -Wheatly, M.G., McMahon, B.R., **Burggren, W.W.** and Pinder, A.W. A rotating respirometer to monitor voluntary activity and associated exchange of respiratory gases in the land hermit crab (*Coenobita compressus* - H. Milne Edwards). Journal of Experimental Biology. 119:85-101. |
|  | (50) | -Wheatly, M.G., McMahon, B.R., **Burggren, W.W.** and Pinder, A.W. Haemolymph acid-base, electrolyte and blood gas status during sustained voluntary activity in the land hermit crab (*Coenobita compressus* - H. Milne Edwards). Journal of Experimental Biology. 125:225-244. |
|  |  |  |
| • 1985 | (49) | -Feder, M.E. and **Burggren, W.W.** Cutaneous gas exchange in vertebrates: Design, patterns, control and implications. Biological Reviews. 60:1-45. |
|  | (48) | -Feder, M.E. and **Burggren, W.W.** Skin Breathing in Vertebrates. Scientific American. 253(5):126-143. |
|  | (47) | -**Burggren, W.W.** Gas exchange, metabolism and 'ventilation' in gelatinous frog egg masses. Physiological Zoology 58:503-514. |
|  | (46) | -**Burggren, W.W.**, Pinder, A.W., McMahon, B.R. Wheatly, M. G. and Doyle, M. Ventilation, circulation and their interactions in the land crab, *Cardisoma guanhumi*. Journal of Experimental Biology 117:133-154. |
|  |  |  |
| • 1984 | (45) | -Johansen,K. and **Burggren, W.W.** Venous return and cardiac filling in varanid lizards. Journal of Experimental Biology 113:389-400. |
|  | (44) | -West, N.H. and **Burggren, W.W.** Factors influencing pulmonary and cutaneous arterial blood flow in the toad, *Bufo marinus*. American Journal of Physiology 247:R884-R894. |
|  | (43) | -**Burggren, W.W.** and Moalli, R. 'Active' regulation of cutaneous gas exchange by capillary recruitment in amphibians: experimental evidence and a revised model for skin respiration. Respiration Physiology 55:379-392. |
|  | (42) | -Wheatly, M.G., **Burggren, W.W.** and McMahon, B.R. The effects of temperature and water availability on ion and acid-base balance in hemolymph of the land hermit crab *Coenobita clypeatus*. Biological Bulletin 166:427-445. |
|  |  |  |
| • 1983 | (41) | -**Burggren, W.W.**, Feder, M.E. and Pinder, A.W. Temperature and the balance between aerial and aquatic respiration in larva of *Rana berlandieri* and *Rana catesbeiana*. Physiological Zoology 56: 263-273. |
|  | (40) | -West, N.H. and **Burggren, W.W.** Reflex interactions between (aerial and aquatic gas exchange organs in the larval bullfrog. American Journal of Physiology 244(6): R770-R777. |
|  | (39) | -**Burggren,** **W.W.** and McMahon, B.R. An analysis of scaphognathite pumping performance in the crayfish *Orconectes virilis*: Compensatory changes to acute and chronic hypoxic exposure. Physiological Zoology 56(3): 309-318. |
|  | (38) | -Quinn, D. and **Burggren, W.W**. Lactate production, tissue distribution and elimination following exhaustive exercise in larval and adult bullfrogs *Rana catesbeiana*. Physiological Zoology 56(4): 597-613. |
|  | (37) | -**Burggren, W.W.** and Mwalukoma, A. Respiration during chronic hypoxia and hyperoxia in larval and adult bullfrogs (*Rana catesbeiana*). I. Morphological responses of lungs, skin and gills. Journal of Experimental Biology 105: 191-203. |
|  | (36) | -Pinder, A. and **Burggren, W.W.** Respiration during chronic hypoxia and hyperoxia in larval and adult bullfrogs (*Rana catesbeiana*). II. Changes in respiratory properties of whole blood. Journal of Experimental Biology 105: 205-213. |
|  |  |  |
| • 1982 | (35) | -Sacca, R. and **Burggren, W.W.** Oxygen partitioning between the skin, gills and lungs of the air-breathing reedfish, *Calamoicthys calabaricus*. Journal of Experimental Biology 97: 179-186. |
|  | (34) | -Wood, S.C., Hoyt, R.W. and **Burggren, W.W.** Control of hemoglobin function in salamanders (*Ambystoma tigrinum*). Molecular Physiology. 2(1982): 263-272. |
|  | (33) | -**Burggren, W.W.** and Johansen, K. Ventricular hemodynamics in the monitor lizard, *Varanus exanthematicus*: Pulmonary and systemic pressure separation. Journal of Experimental Biology 96: 343-354. |
|  | (32) | -West, N.H. and **Burggren, W.W.** Respiratory response to steady- state aquatic hypoxia and hyperoxia in the bullfrog tadpole. Respiration Physiology 47: 165-176. |
|  | (31) | -**Burggren, W.W.** and West, N.H. Changing respiratory importance of the gills, skin and lungs during metamorphosis in the bullfrog, *Rana catesbiana*. Respiration Physiology 47: 151-164. |
|  | (30) | -**Burggren, W.W.** Pulmonary plasma filtration in the turtle: A wet vertebrate lung? Science 215: 77-78. |
|  | (29) | -**Burggren, W.W.** 'Air Gulping' improves blood oxygen transport during aquatic hypoxia in the goldfish, *Carassius auratus*. Physiological Zoology 55(4): 327-334. |
|  |  |  |
| • 1981 | (28) | -Glass, M., **Burggren, W.W.** and Johansen, K. Pulmonary diffusing capacity of the bullfrog *Rana catesbeiana*. Acta Scandinavica Physiologica 113: 485-490. |
|  | (27) | -**Burggren, W.W.** and Wood, S.C. Respiration and acid-base balance in the tiger salamander, *Ambystoma tigrinum*: Influence of temperature acclimation and metamorphosis. Journal of Comparative Physiology 144: 241-246. |
|  | (26) | -**Burggren, W.W.** and McMahon, B.R. Oxygen uptake during environmental temperature change in hermit crabs: adaptation to subtidal, intertidal and supratidal habitats. Physiological Zoology 54: 325-333. |
|  | (25) | -**Burggren, W.W.** and McMahon, B.R. Hemolymph oxygen transport, acid-base status and hydromineral regulation during dehydration in three terrestrial crabs, *Cardisoma*, *Birgus* and *Coenobita*. Journal of Experimental Biology 218: 53-64. |
|  | (24) | -McMahon, B.R. and **Burggren, W.W.** Acid-base balance following acclimation to temperature change in land crabs. Journal of Experimental Zoology 218: 45-52. |
|  | (23) | -Cole, R. and **Burggren, W.W.** The contribution of the respiratory papulae and tube feet to oxygen uptake in the sea star, *Asterias forbesi* (Desor). Marine Biology Letters 2(1981): 279-287. |
|  |  |  |
| • 1980 | (22) | -**Burggren, W.W.** and Cameron, J.N. Anaerobic metabolism, gas exchange and acid-base balance during hypoxic exposure in the channel catfish, *Ictalurus punctatus*. Journal of Experimental Zoology 213:405-416. |
|  |  |  |
| • 1979 | (21) | -McMahon, B.R. and **Burggren, W.W.** Respiration and adaptation to the terrestrial habitat in the terrestrial hermit crab, *Coenobita clypeatus*. Journal of Experimental Biology 79: 265-281. |
|  | (20) | -**Burggren, W.W.** and Shelton, G. Gas exchange and transport during intermittent breathing in chelonian reptiles. Journal of Experimental Biology 82: 75-92. |
|  | (19) | -**Burggren, W.W.** Bimodal gas exchange during variation in environmental oxygen and carbon dioxide in the air breathing fish *Trichogaster trichopterus*. Journal of Experimental Biology 82:197-214. |
|  | (18) | -**Burggren, W.W.** and Haswell, M.S. Aerial CO2 excretion in the obligate air breathing fish, *Trichogaster trichopterus*: A role for carbonic anhydrase. Journal of Experimental Biology 82: 215-226. |
|  | (17) | -**Burggren, W.W.**, Dunn, J. and Barnard, K. Branchial circulation and gill morphometrics in the sturgeon *Acipenser transmontanus*, an ancient chondrosteian fish. Canadian Journal of Zoology 57: 2160-2170. |
|  |  |  |
| • 1978 | (16) | -**Burggren, W.W.** Gill ventilation in the sturgeon, *Acipenser transmontanus*: Unusual adaptations for bottom dwelling. Respiration Physiology 34: 153-170. |
|  | (15) | -**Burggren, W.W.** and Randall, D. Oxygen uptake and transport during hypoxic exposure in the sturgeon *Acipenser transmontanus*. Respiration Physiology 34: 171-184. |
|  | (14) | -Glass, M., **Burggren, W.W.** and Johansen, K. Ventilation in an aquatic and a terrestrial chelonian reptile. Journal of Experimental Biology 72: 165-179. |
|  | (13) | -**Burggren, W.W.** Influence of intermittent breathing on ventricular depolarization patterns in chelonian reptiles. Journal of Physiology (London) 278: 349-364. |
|  | (12) | -**Burggren, W.W.**, Glass, M. and Johansen, K. Intrapulmonary variation of gas partial pressures and ventilation inequalities in chelonian reptiles. Journal of Comparative Physiology 126: 203-209. |
|  |  |  |
| • 1977 | (11) | -**Burggren, W.W.** The pulmonary circulation of the chelonian reptile; morphology, pharmacology and haemodynamics. Journal of Comparative Physiology B. 116: 303-324. |
|  | (10) | -**Burggren, W.W.**, Hahn, C.E.W. and Foex, P. Properties of blood oxygen transport in the turtle *Pseudemys scripta* and the tortoise *Testudo graeca*: Effects of temperature, CO2 and pH. Respiration Physiology 31: 39-50. |
|  | (9) | -Johansen, K., **Burggren, W.W.** and Glass, M. Pulmonary stretch receptors regulate heart rate and pulmonary blood flow in the turtle *Pseudemys scripta*. Comparative Biochemistry and Physiology 58A: 185-191. |
|  | (8) | -**Burggren, W.W.** Circulation during intermittent lung ventilation in the garter snake *Thamnophis*. Canadian Journal of Zoology 55 (10): 1, 720-725. |
|  | (7) | -**Burggren, W.W.**, Glass, M., and Johansen, K. Pulmonary ventilation: perfusion relationships in terrestrial and aquatic chelonian reptiles. Canadian Journal of Zoology 55(12): 2,024-2,034. |
|  |  |  |
| • 1976 | (6) | -Shelton, G. and **Burggren, W.W**. Cardiovascular dynamics of the Chelonia during apnoea and lung ventilation. Journal of Experimental Biology 64: 323-343. |
|  | (5) | -**Burggren, W.W.** The persistence of a patent ductus arteriosus in an adult specimen of the tortoise *Testudo graeca*. Copeia 2:405-407. |
|  |  |  |
| • 1975 | (4) | -**Burggren, W.W.** A quantitative analysis of ventilation tachycardia and its control in two chelonians *Pseudemys scripta* and *Testudo graeca*. Journal of Experimental Biology 63: 367-380. |
|  | (3) | -**Burggren, W.W.** Oxygen consumption as a function of body size in a terrestrial hermit crab *Coenobita* (Decapoda, Paguridea). Crustaceana 28(3): 314-316. |
|  |  |  |
| • 1974 | (2) | -**Burggren, W.W**, McMahon, B.R. and Costerton, J. W. Branchial water and blood flow patterns and the structure of the gill of the crayfish *Procambarus clarkii*. Canadian Journal of Zoology 52(12): 1511-1518. |
|  | (1) | -McMahon, B.R., **Burggren, W.W.** and Wilkens, J.L. Respiratory responses to long-term hypoxic stress in the crayfish *Orconectes virilis*. Journal of Experimental Biology 60: 195-206. |
|  |  |  |