**ENVIRONMENT, DEVELOPMENT, AND PHYSIOLOGY: A SYNTHESIS**

**Editors**

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1. **INTRODUCTION**
	* Current Trends and Perspectives in Environmental Developmental Physiology

(Benjamin Dubansky, Warren Burggren, University of North Texas, USA)

1. **EXPERIMENTAL APPROACHES**
	* Section Introduction (1 page)
	* Ch #: The Opportunities and Limitations of Laboratory versus Field Approaches

(Martin Grossel, University of Miami, USA)

* + Ch #: Adverse Outcome Pathways and Systems Integration

(Aaron Roberts, University of North Texas)

* + Ch #: Multivariate Experimental Designs in Environmental Developmental Physiology
	+ Ch #: Emerging Data Bases and Data Management Plans

(Author Needed)

* + Ch #: Case Study: Research Consortia and the Art of Collaboration

(Author Needed)

1. **MULTIPLE ENVIRONMENTAL STRESSORS, THEIR INTERACTIONS, AND THE COMPLEX RESPONSES THEY EVOKE**
	* Section Introduction (1 page)
	* Ch #: Multiple Stressor Interactions

(Fernando Galvez, Louisiana State University, USA)

* + Ch #: Multiple System Interactions

(Sylvia Branum, University of North Texas, USA)

* + Ch #: Integrated Responses from the Molecular to the Behavioral Level

(Andrew Whitehead, University of California, Davis, USA)

* + Ch #: Case Study: Developmental Physiology at High Altitude

(Bill Milsom, University of British Colombia, Canada)

1. **PLASTICITY IN DEVELOPMENTAL TIME AND SPACE**
	* Section Introduction (1 page)
	* Ch #: Active and Passive Responses to the Environment in Developing Animals: Costs and Benefits

(Gordon R. Ultsch, University of Florida, USA)

* + Ch #: Epigenetics in Environmental Developmental Physiology

(David Cruz, University of Texas, Austin, USA)

* + Ch #: Developmental Windows

(Casey Mueller, McMaster University, Canada)

* + Ch #: Developmental Plasticity and Heterokairy

(John Spicer, Plymouth University, UK)

* + Ch #: Case Study: Larval Development in Fishes.

(Collin Brauner, University of British Colombia, Canada)

1. **DEVELOPMENTAL CHALLENGES**
	* Section Introduction (1 page)
	* Ch #: The Interaction of Environment and Chronological and Developmental Time

(Author Needed)

* + Ch #: The Implications of the Ontogeny of Immunity

(Charles D. Rice, Clemson University, USA)

* + Ch #: The Impacts of Individual Fitness and Reproductive Success and Failure on Populations

(Keith R. Cooper, Rutgers University, New York, USA)

* + Ch #: The Long List of Emerging Challenges

(Daniel Schlenk, University of California, Riverside, USA)

* + Ch #: Toxicity in Aquatic Environments – The Cocktail Effect

(Duane Huggett, University of North Texas, USA)

* + Ch #: Case Study: The 2010 Gulf Oil Spill

(John Incardona, NOAA – Seattle, USA)

1. **HUMAN HEALTH IMPACTS**
	* Section Introduction (1 page)
	* Ch #: The Embryo and It’s Environment – *In utero* Toxicity

(Author Needed)

* + Ch #: Developmental Neurotoxicology in Children

(Author Needed)

* + Ch #: Transgenerational Transfer of the Response to Environmental Stress

(Rachel Yehuda, Icahn School of Medicine at Mount Sinai Hospital, New York, USA)

* + Ch #: Case Study: Prenatal Exposure to PCBs and Dioxins

(Reiko Kishi, Hokkaido University, Japan)

1. **A SYNTHESIS**