**NASCE Annual Report 2011**

The inaugural meeting of the North American Society for Comparative Endocrinology (NASCE2011) was held in the Michigan League at the University of Michigan, Ann Arbor, July 13-16, 2011. The NASCE2011 conference had ~300 attendees, with 239 abstracts submitted. Also, the 7th International Symposium on Amphibian and Reptilian Endocrinology and Neurobiology (ISAREN2011) was held in Ann Arbor two days before NASCE2011 (July 11-13, 2011). The ISAREN2011 conference had ~100 attendees, with 68 abstracts submitted. The two conferences overlapped on July 13, with a joint ISAREN/NASCE plenary lecture (the opening lecture of NASCE2011) presented by Professor Louis Guillette of the Medical College of South Carolina. The majority of attendees to ISAREN2011 stayed for NASCE2011. Accepted abstracts for the two conferences were published in the online, open access journal **Frontiers in Endocrinology**.

TheNASCE is an interdisciplinary scientific organization dedicated to the study of comparative, evolutionary, ecological and model systems endocrinology, and with a goal to increase the visibility and cohesiveness of the field of comparative endocrinology within North America. It was founded in 2010 by Professors Carlos Arámburo (Mexico), Robert Denver (USA) and Vance Trudeau (Canada). Members of the NASCE conduct basic research in diverse areas of the life sciences, such as the development of alternative animal model systems for discovery of novel hormones and hormone-signaling pathways; the discovery of new pharmaceuticals to treat human disease; the design of hormonally-based strategies for pest control; the development of sensitive, representative and high-throughput endocrine-screening assays for endocrine disrupting chemicals (EDCs); the analysis of the impact of global climatic change on animal populations; the elucidation of pathways and mechanisms of evolution through the study of endocrine genes and structures; and the development of more efficient means for the production of animal protein to feed the world’s growing human population. The NASCE is distinguished from other professional societies in North America in that it serves scientists who, in addition to conducting research on biomedically important species like rodents and nonhuman primates, as part of their profession study diverse species including nonmammalian animal model organisms and wild species.

The annual meetings of the NASCE and its official journal, *General and Comparative Endocrinology,* to provide essential forums for the communication and exchange of discoveries and ideas in the field of comparative endocrinology. The NASCE will affiliate with the International Federation of Comparative Endocrine Societies (IFCES) at the next International Congress on Comparative Endocrinology to be held in Barcelona, Spain July 2013. The NASCE also maintains close ties with similar societies in Europe (European Society of Comparative Endocrinologists) and Asia (Asia and Oceania Society for Comparative Endocrinology; Japan Society for Comparative Endocrinology). Meetings of the NASCE will be held every other year, with the second meeting planned for May 22-24, 2013 at the Universidad Nacional Autónoma de México (UNAM), Campus UNAM-Juriquilla, Querétaro, México. The meeting will be hosted by Prof. Carlos Arámburo.

The NASCE2011 conference had seven plenary lectures, twenty symposia, and two poster sessions held in the Michigan League Ballroom (a venue featured in the recent George Clooney film “The Ides of March”). Plenary lecturers included: **Louis Guillette, Jr.** Professor, Medical University of South Carolina and Hollings Marine Laboratory, SC, U.S.A. *“Scrambled genes and ovaries: environmental contaminants and the developing gonad”;* **Carmen Clapp** Professor, National University of Mexico, Queretaro, Mexico *“Prolactin: new functions for an old hormone”;* **Michael O’Connor** Professor, University of Minnesota, MN, U.S.A. *“Vesicle mediated secretion of ecdysone from the Drosophila prothoracic gland”;* **Tony Williams** Professor, Simon Fraser University, BC, Canada *“Hormones, life-history, and phenotypic variation”* **; Vincent Laudet** Professor, Ecole Normale Supérieure de Lyon, France *“Origin and evolution of metamorphosis and thyroid hormones”;* **Elizabeth Adkins-Regan** Professor, Cornell University, Ithaca, New York, U.S.A. *“Hormonal organization and activation: evolutionary implications and questions”;* and **Robert Millar** Professor, University of Edinburgh, Scotland *“The evolution and function of GnRH and GnRH-like ligands and receptors: a model of biomedical translation of comparative endocrinology”.*

The NASCE2011 symposia covered a broad spectrum of topics of interest to comparative endocrinologists:

S1. Endocrine disruption: Impacts on wildlife

S2. Insulin/IGF signaling in longevity regulation: New insights from animal models

S3. Tick, tock, setting the clock: Hormones and biological rhythms

S4. Endocrine-immune system interactions

S5. Evolution of polypeptide hormones and their receptors

S6. Endocrine control of growth, body size and allometric scaling

S7. Sex determination and differentiation (cosponsored by ISAREN and NASCE)

S8. Hormone action in neural development and plasticity

S9. Extreme endocrinology: Physiological and behavioral adaptation to extreme environments

S10. Iodothyronine actions throughout the life cycle

S11. Nuclear hormone receptors: evolution and roles in development and physiology

S12. Neuroendocrine control of reproduction

S13. Ion and water balance

S14. Coping with environmental change: adaptive roles for neuroendocrine stress pathways

S15. Ectohormones, environmental chemicals and their perception

S16. Advances in comparative neuroendocrinology

S17. Hormones and behavior

S18. Feeding and metabolism

S19. Regulatory pathways controlling gonadal development and gamete maturation

In addition, there was a special symposium held on the last day to commemorate the 50th anniversary of the journal *General and Comparative Endocrinology*. The final plenary lecture presented by Robert Millar was part of the anniversary celebration. The special symposium was sponsored by Elsevier and the Division of Comparative Endocrinology (DCE), Society for Integrative and Comparative Biology (SICB).

There were also four panel discussions: “Career opportunities and survival strategies for new scientists”, “Publishing in Elsevier journals” and two panels on funding opportunities in comparative endocrinology organized by representatives from the National Science Foundation (NSF) of the USA and the National Science and Engineering Research Council (NSERC) of Canada.

Three technical workshops offered attendees opportunities to enhance their repertoire of research tools:

W1. Model systems and emerging technologies for endocrine disrupter research and screening

W2. Proteopedia and other tools for easily accessing structural biological information

W3. Genomic tools and applications in comparative endocrinology

**Forty travel awards were given to trainees attending NASCE2011 and ISAREN2011. There were eleven Trainee Best Paper Awards awarded at NASCE2011. The Best Poster Awards for Masters Students/Undergraduates were given to** David Irwin**,** University of Guelph, Canada **(1st Prize), Pamela Navarrete-Ramirez,** Universidad Nacional Autónoma de México **(2nd Prize),** [**Lisa Jung**](http://www.mcdb.lsa.umich.edu/labs/denver/NASCE/jung.pdf)**,** University of Colorado, USA **(Honorable Mention),** Amanda Carew**,** University of Victoria, Canada (**Honorable Mention**) and Cinthya Cordoba-Manilla, Universidad Nacional Autónoma de México, **Honorable Mention). The Best Poster Awards for PhD Students were given to** [**Tim Breton**](http://www.mcdb.lsa.umich.edu/labs/denver/NASCE/breton.pdf)**,** University of New Hampshire, USA **(1st Prize)** andAmanda L. Herberger, University of Buffalo, USA **(Honorable Mention). The Best Poster Awards for Postdoctoral Fellows were awarded to** [**Jason Breves**](http://www.mcdb.lsa.umich.edu/labs/denver/NASCE/breves.pdf)**,** University of Massachusetts, USA **(1st Prize)** and [**Liesbeth Badisco**](http://www.mcdb.lsa.umich.edu/labs/denver/NASCE/badisco.pdf)**, University of Belgium (Honorable Mention). The Best Oral Presentation Awards for all Trainees went to** [**Ben Dantzer**](http://www.mcdb.lsa.umich.edu/labs/denver/NASCE/dantzer.pdf)**,** Michigan State University, USA **(1st Prize)**[**Erin McEvoy**](http://www.mcdb.lsa.umich.edu/labs/denver/NASCE/mcevoy.pdf)**,** Williamete University, USA **(2nd Prize)** and[**Melissa Cui**](http://www.mcdb.lsa.umich.edu/labs/denver/NASCE/cui.pdf)**,** University of Michigan, USA **(Honorable Mention).**

The NASCE2011 program, book of abstracts, and other information can be accessed from the conference website: <http://www.mcdb.lsa.umich.edu/labs/denver/NASCE/NASCE2011.php>.

## The ISAREN developed from a satellite symposium of the Conference of European Comparative Endocrinology held in Germany in 1988. The first International Symposium on Amphibian Endocrinology (ISAE) was organized by Prof. Sakae Kikuyama at Waseda University in Tokyo, Japan in 1992. During the second ISAE meeting held in Boulder, Colorado in 1994, the ISAE scientific advisory committee decided to include neurobiology and reptiles in the symposium. The third meeting was held in Camerino, Italy for the first time under the name ISAREN. The ISAREN has been held approximately every two years and has rotated among North America, Asia and Europe. Other successful symposia were held at Jeju Island, South Korea (4th - 2003), the University of California, Berkeley (5th – 2007), and Berlin, Germany (6th – 2009). ISAREN2011 was held as a satellite of NASCE2011, and at the conference the ISAREN Scientific Advisory Committee decided that future ISAREN meetings should occur every 2-4 years, and should be scheduled to coincide with a major comparative endocrinology conference so as to maintain attendance and to provide attendees greater value for their travel and time. The next ISAREN (8th) will be held in at the International Conference Center, National Institute for Basic Biology, Okazaki, Japan in November, 2014 and will be organized by Prof. Taisen Iguchi. The 8th ISAREN will be held in conjunction with the annual meeting of the Japan Society of Comparative Endocrinology (dates to be announced).

At the ISAREN2011 in Ann Arbor there were three plenary lectures: **Barbara Demeneix,**

Professor, Museum National d’Histoire Naturelle Paris, France “*Thyroid hormone signaling during development in Xenopus laevis*.”; **Kazuyoshi Tsutsui,** Professor, Waseda University, Tokyo, Japan “*Identification, mode of action and functional significance of 7alpha-hydroxypregnenolone, a new key regulator of amphibian locomotion*.” and **Louis Guillette, Jr.** (Joint ISAREN and NASCE). A poster session, and seven topical oral sessions focused on diverse topics in amphibian and reptilian endocrinology and neurobiology:

S1. 100 years since Gudernatsch: Thyroid hormone and amphibian metamorphosis

S2. Neurobiology of social signaling

S3. Neuroendocrinology

S4. Reproduction

S5. Adaptive features of the HPI/HPA axis and endocrine stress response in amphibians and reptiles

S6. Endocrine disruption

S7. Current topics in amphibian and reptilian endocrinology and neurobiology

There was also a late breaking workshop on “Methods for Captive Amphibian Husbandry and Breeding” organized by Vance Trudeau. The program, book of abstracts, and other information can be accessed from the conference website: <http://www.mcdb.lsa.umich.edu/labs/denver/ISAREN/>.

A special issue of General and Comparative Endocrinology was published with thirty four articles contributed by attendees at NASCE 2011 (23 articles) and ISAREN 2011 (11 articles). **Plenary speakers** were invited to submit an original review or mini-review article. NASCE2011 **Invited symposium/oral session speakers** were invited to submit an original mini-review or a regular research article. All articles were peer reviewed. The topics covered represent the diversity of areas of interest among comparative endocrinologists.

NASCE Membership 2011: 296 members

NASCE Finances 2011

Account balance: $11497.51

These are funds remaining from the NASCE 2011 conference and will be held in a University of Michigan account. When the society incorporates and receives tax exempt status the funds will be transferred to a society bank account.