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**UNH-COLSA Sponsored  
Satellite Workshop**

**Title:**

**Reproductive Endocrine System in Agnathans and Protochordates**

**In Honor of Hiroshi Kawauchi**

*May 29<sup>th</sup> and 30<sup>th</sup>, 2005*

*University of New Hampshire*

Organizers of the Satellite workshop are:

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Honorary Chair: Professor Howard Bern

**AGENDA FOR WORKSHOP  
University of New Hampshire**

**Saturday, May 28, 2005**

Hagfish Trip: Leave at noon from dock in Portsmouth, New Hampshire

**Sunday, May 29, 2005—Spaulding Life Science Bldg, Rm 120**

**8:00 A.M.** Coffee and Set up

**8:45 A.M. Welcome and Introduction**

Stacia A. Sower

William R. Trumble, Dean of the College of Life Sciences and  
Agriculture, University of New Hampshire

**PITUITARY HORMONES—Introduction: Howard Bern, Honorary Chair**

Chair: Masumi Nozaki

- 9: 00 am** *Hiroshi Kawauchi:* Twenty Years In Identifying Lamprey  
Gonadotropin
- 9:20 am** *K. Uchida, Masumi Nozaki:* Adenohypophysis in the Lamprey: Its  
Development, Morphology, Functions and Evolution
- 9:40 am:** *John Youson, J.A. Heinig, S.A. Sower, H. Kawauchi, F.W. Keeley:*  
Expression of POM and POC genes in a parasitic  
and a nonparasitic lamprey: relationship to sexual maturation
- 10:00 am:** *Aki Takahashi:* Molecular Evolution of POMC with Special  
Reference to Specialization in Lamprey

**10: 20 am:** Coffee Break

Chair: Robert Does

- 10:40 am:** *Y. Takei, A. Kawakoshi, S. Hydodo:* Identification of an ancestral  
molecule of the natriuretic peptide family in cyclostomes
- 11:00 am:** *Shunsuke Moriyama, M. Oda, A. Takahashi, S.A. Sower, H. Kawauchi:*  
Lamprey growth hormone gene and its evolutionary implications
- 11:20 am:** *Masumi Nozaki, M. Miki, T. Shimotani, K. Uchida, H. Kawauchi, S.A.  
Sower:* Immunohistochemical detection of gonadotropin-like  
material in the hagfish pituitary gland
- 11:40 am:** Open Discussion
- 12:00 pm:** LUNCH

**PROTOCHORDATES and OTHER INVERTEBRATES**

Chair: Stacia Sower

- 1:20 pm** *Kaoru Kubokawa, T. Mizuta:* Reproductive behavior and endocrine  
function in amphioxus, *Branchiostoma belcheri*.
- 1:40 pm** *Motoyuki Tsuda, T. Kusakabe, Y. Kitajima, I. Shimada, M. Ohkuma:* Light  
regulates a biological clock for reproduction of ascidians signaling from  
photoreceptor to GnRH receptors

- 2:00 pm** *Pei-San Tsai*: Gonadotropin-releasing hormone systems in a marine mollusk, *Aplysia californica*
- 2:20 pm** *K. Tsutsui, T. Osugi, K. Ukena, S. Moriyama, H. Kawauchi, S.A. Sower*: Molecular evolution of the RF-amide peptide family
- 2:40 pm** *Kiyoshi Terakado*: GnRH neurogenesis in the dorsal strand of ascidian *Halocynthia roretzi*
- 3:00 pm** *H. Minakata, E. Iwakoshi-Ukena, K. Ukena, K. Takuwa-Kuroda, A. Kanda*: A GnRH-like peptide from *Octopus vulgaris*
- 3:20 pm** **Break & POSTER SESSION**
- 3:40 pm Open Discussion for further study, methods, and collaboration
- 5:00 pm Open Bar (wine & beer)--Huddleston
- 6:00 pm Banquet-Huddleston

## Monday, May 30, 2005

### Neuroendocrine-GnRH

Chair: Ishwar Parhar

- 9:00 am** *Nancy Sherwood, J.A. Tello, B.A. Adams, J.E. Rivier*: GnRH peptides and receptors in tunicates: Genes, expression and functions
- 9:20 am** *Stacia Sower*: Molecular evolution of GnRH and GnRH receptors in lampreys
- 9:40 am** *Scott Kavanaugh, M. Nozaki, S.A Sower*: Characterization of gonadotropin-releasing hormone (GnRH) in the Atlantic hagfish *Myxine glutinosa*
- 9:55 am *Matt Silver, S.A. Sower*: Functional Characterization of the lamprey type II GnRH receptor
- 10:10 am** *Ishwar Parhar*: GnRH molecules and receptors: ontogeny and the control of the pituitary
- 10:30 am **BREAK**

### Steroids and Gametogenesis

Chair: Stacia Sower

- 10:40 am *Sandy Scott*: Strategies for identification of novel steroids in lamprey species
- 11:00 am *Mickie Powell, SI Kavanaugh, SA Sower*: Identification of a functional corpus luteum in the Atlantic hagfish, *Myxine glutinosa*
- 11:20 am *M.B. Bryan, S.Scott, I. Cerny, B.A. Young, SS. Yun, W. Li*: Unusual 15 alpha hydroxylated sex steroids in lampreys
- 11:35 am *Mihael Freamat*: Identification of Gonadotropin Receptor in Sea Lamprey
- 11:50 am *Cierieszko Dabrowski, A. Cierieszko, J. Rinchard*: Effects of chemical and environmental sterilants on sea lamprey sperm fertilizing ability
- 12:10 am *Chun C.-Z., Chen Maria, Chen T.T*: Disruption of Heart, Blood Vessel and Red Blood Cell Development by the E-Peptide of Trout Pro-IGF-I in Fish Embryos
- 12:25 -1:10 **LUNCH**

5/11/05

1:49 PM

1:10 to 3:00

Discussion for further study, methods, and collaboration

**3:00**

**Final remarks-Hiroshi Kawauchi and Howard Bern**