

Symposium on *Adaptations of Heart Function to Stressful Conditions:*  
*A Tribute to Docent Dr. Hans Gesser*

June 28-29<sup>th</sup>, 2011

at Zoophysiology, Department of Biological Sciences, Aarhus University



## Tuesday June 28th

AM Arrival to Aarhus University, Zoophysiology, Building 1131

11.30 *Lunch (Mathematic canteen)*

### ***Lectures in Matematical lecture hall D1, Building 1530***

12.30 Bill Driedzic – *Travels with Hans*

12.55 Tadeu Rantin - *Calcium regulation of heart contractility in Octopus*

13.20 *Coffee*

14.00 Plenary Lecture by docent Hans Gesser:  
*The challenged vertebrate heart: Findings and unsolved questions*

15.00 *Reception sponsored by Department of Biological Sciences*

18.00 *Dinner at “Den Rustikke” for the invited speakers (<http://denrustikke.dk/>)*



**Wednesday June 29th**

***Lectures in Matematical lecture hall D1, Building 1530***

- 09.00 Holly Shiels - *Excitation-contraction coupling in fish heart*
- 09.20 Gina Galli - *Excitation-contraction coupling in the reptilian heart*
- 09.40 Leif Hove Madsen - *Regulation of spontaneous and triggered calcium release in the human atrial myocytes*
- 10.00 Bruno Tota - *Cardiac contractility, non-uniformity and integration*
- 10.20 Jordi Altimiras - *Eight legs and three hearts make an interesting combination*
- 10.40 *Coffee*
- 11.00 Augusto S Abe – *History of Comparative Physiology in Brazil: connection to Zoophysiology at AU*
- 11.20 Angela Fago – *Myoglobin, nitric oxide and the control of myocardial function*
- 11.40 Nini Skovgaard - *Hydrogen sulfide in fish gills*
- 12.00 Hans Erik Bøtker – *Cardioprotection in clinical practice and aspects of metabolic mechanisms underlying preconditioning*
- 12.20 *Lunch (Mathematic canteen)*
- 13.10 Marko Vendelin - *Diffusion Obstacles for Adenine Nucleotides in Heart Muscle Cells*
- 13.30 Rikke Birkedal - *Metabolic Regulation in Trout Cardiomyocytes*
- 13.50 Ken Rodnick - *Microvascular and Biochemical Compensation during ventricular enlargement in rainbow trout*
- 14.10 Ole Bækgaard - *The function of excitable tissue in the high potassium environment of exercise - lessons from skeletal muscle*
- 14.30 *Coffee*
- 14.50 Jonathan Stecyk - *Linkage of cardiac energetics to performance of the anoxic turtle heart*
- 15.10 Donald C Jackson - *Lung collapse in submerged freshwater turtles*
- 15.30 Jim W Hicks - *Functional role of R-L shunting in crocodilians: lessons from phenotypic manipulations*
- 15.50 Cleo Leite - *The South American rattlesnake – New possibilities on researching the cardiac shunt*
- 16.10 Goran E Nilsson - *Surviving anoxia on tranquilizers and alcohol*
- 16.30 *Poster session at unit of Zoophysiology (Building 1131) accompanied with ample availability of beer*
- 18.00 *Dinner at Zoophysiology (Building 1131) for all attendants of the symposium*

## HANS GESSER

Born on June 3rd, 1942. Swedish citizen

1969-1974 Assistant teacher and stipendiate at University of Gothenburg, Sweden. 1974 (Ph.d) at University of Gothenburg, Sweden Fil. Dr.

1975 Associate Professor at Department of Zoophysiology, Aarhus University

1981-82 Head of Institute of Biology, Aarhus University

1983 visiting scientist at Mount Desert Island Marine Biological station, USA

1984,86 &87 visiting scientist at Mount Allison University, USA

1987 visiting scientist at University of Bergen, Norway

1989 Docent at Zoophysiology, Department of Biological Sciences, Aarhus University

1993 visiting scientist at Marine Biological Station Plymouth, England

1995 & 96 visiting scientist at Federal University of Sao Carlos, Brazil.

2011 Emeritus at Zoophysiology, Department of Biological Sciences

### International service

Journals: *Acta Physiologica Scandinavica*, *American Journal of Physiology*, *BMC physiology*, *Canadian Journal of Zoology*, *Comparative Biochemistry and Physiology*, *Journal of Experimental Biology*, *Journal of Comparative Physiology*, *Fish Physiology and Biochemistry*, *Physiological and Biochemical Zoology*, *Aquatic Toxicology*.

**Grant proposals:** Academy of Finland, Förderung der wissenschaftlichen Forschung in Österreich, National Institute of Health, USA, National Research Council Canada, Natural Environment Research Council (UK)

**Committees:** Member of committees evaluating doctoral dissertations (Denmark, Finland, Norway and Sweden) and for academic positions (Canada, Denmark, Estonia).

**Teaching and supervision:** Teaching of various courses within Muscle physiology, Circulation, Osmoregulation, Hormones, Membrane structure and function.

Supervisor for 28 MSc and 4 Phd students (Leif Hove Madsen, Tore Hartmund, Johannes Overgaard and Rikke Birkedal).

78 peer-reviewed articles and chapters in international journals and books.

### Selected Publications:

Gesser H. & Poupa O. (1983). Acidosis and cardiac muscle contractility: comparative aspects. *Comp. Biochem. Physiol.* 76A, 559-566.

Driedzic W.R. & Gesser H. (1994). Energy metabolism and contractility in ectothermic vertebrate hearts: hypoxia, acidosis, and low temperature. *Physiol. Rev.* 74, 221-258.

Hartmund T. & Gesser H. (1996) Cardiac force and energy rich phosphates under metabolic inhibition in four ectothermic vertebrates. *Am. J. Physiol.* 40, R946-954

Overgaard J, Gesser H, Wang T. (2007) Tribute to P. L. Lutz: cardiac performance and cardiovascular regulation during anoxia/hypoxia in freshwater turtles. *J Exp Biol.* 210:1687-99.