



Danish Cardiovascular Research Academy

PhD-Course: Cardiovascular signalling mechanisms

**to be held at the Victor Albeck Building, University of Aarhus, Aarhus, Denmark.
16-20 June 2003**

Aim and content. This course will provide an overview of the latest results concerning the most important signalling pathways in the cardiovascular system, with emphasis on the vascular system. The study will deal with aspects of transmembrane signalling both at the receptor level and at the effector level, i.e. ion channels and second messenger systems. Time will also be devoted to the regulation of cardiovascular growth and its relation to cardiovascular function. Another central issue concerns intercellular communication (endothelial-endothelial, muscle-muscle, or endothelial-muscle), a novel topic which clearly plays a key role in both cardiac and vascular function.

The course, which will last five days, will be based on lectures (three each morning) and on group exercises each afternoon. The group exercises will be based on articles selected by each lecturer. All articles, together with questions for each article, will be sent to all participants prior to the course. The group exercises will involve plenary presentation of the articles by participants, and discussion of the questions.

A faculty of 15 experts will be involved in teaching the course, not only by giving lectures but also by their active participation in the group exercises and discussion. As far as possible, all lecturers will be present for the whole of the course, providing maximum possibility for interaction.

Director. Professor, dr. med. Michael Mulvany, University of Aarhus

Co-organizer. Professor, dr. med. Niels-Henrik Holstein-Rathlou, University of Copenhagen

Course secretary: Inger Marie Bro (imb@farm.au.dk)

Programme

Guest coordinator: Prof. Ulrich Pohl, Munich

Monday. Receptors (chairman: Prof. Ole Skott)

Receptor types in the cardiovascular system (Prof. Michael Mulvany, Aarhus)

Molecular structure of G protein coupled receptors (Prof. Ulrik Gether, Copenhagen)

Experimental approaches to receptor identification (Prof. Ian McGrath, Glasgow)

Group exercise

Evening social arrangement

Tuesday. Second messengers in cardiovascular system (Prof. Niels-Henrik Holstein-Rathlou)

Calcium and smooth muscle contractility (Prof. Christian Aalkjær, Department of Physiology, University of Aarhus)

Phosphoinositides and other lipid second messengers and cardiovascular function (Dr. Jacqueline Ohanian, Manchester, England)

Regulation of cardiovascular contractility by cyclic nucleotides (Dr. Ulf Simonsen, Aarhus)

Group exercise

Wednesday. Ion channels (chairman: Holger Nilsson)

Ca²⁺ channels in the vasculature (Prof. O. Skøtt, Odense)

K⁺ channels in the vasculature (Rudolf Schubert, Rostock, Germany)

Channels involved in pulse propagation in the heart (Prof. Juan Tamargo, Madrid, Spain)

Group exercise

Thursday. Signalling of importance for cardiovascular cell growth (chairman: Prof. Michael Mulvany)

Intracellular signaling in smooth muscle cell growth (Prof. Alan D. Hughes, London, England)

Signaling involved in remodelling of the heart (Prof. Stig Haunsøe, Copenhagen)

Remodelling of the vasculature (Prof. Ed. van Bavel, Amsterdam)

Group exercise

Course dinner downtown

Friday. Intercellular communication (chairman: Prof. Christian Aalkjær)

Gap junctions in vascular signalling (Prof. Ulrich Pohl, Munich, Germany)

Conducted vascular responses (Prof. Niels-Henrik Holstein-Rathlou, Copenhagen)

Gap junctions in impulse propagation in the heart (Prof. Michael Christiansen, Copenhagen)

Group exercise

Final discussion, evaluation, concluding remarks



Danish Cardiovascular Research Academy



PhD-Course: Cardiovascular signalling mechanisms

Victor Albeck Building, University of Aarhus, Aarhus, Denmark. 16-20 June 2003

Registration

I should like to participate in the above course.

Name _____

When did you start your PhD-programme? _____

Faculty at which you are enrolled as a PhD. _____

Address _____

_____ e-mail _____

Tel. _____ Fax _____

Supervisor _____

Address _____

e-mail _____

Please provide a brief background for your interest in this course.

Course fee: DKK 5000. No fee for registered DaCRA PhD-students.

Signature _____ Date _____

NB. DaCRA will forward this form to your PhD-administration for their confirmation.
Please return this form to the course secretary, Inger Marie Bro or the course director, Prof. Michael J. Mulvany
Department of Pharmacology
University of Aarhus
8000 Aarhus C, Denmark
Tel +45 8942 1726, Fax +45 8612 8804, imb@farm.au.dk