

Courses in Special Medical Topics

Pathophysiology of Heart Ischemia-Reperfusion

Course no.: 2007-5-10

Aim and content: The aim is to present and discuss with the participants some of the latest developments in the laboratory and clinical research within the area of acute heart ischemia and reperfusion. Treatment of the acute coronary thrombosis has undergone major improvements over the last decade, particularly due to the widespread introduction of the Percutaneous Coronary Intervention to reestablish the blood flow. However, significant challenges remain to improve the viability and function of the reperfused myocardium. This course will discuss the latest developments in laboratory research and its clinical applications towards this goal. The topics will include basic pathophysiology of ischemic myocardium, cellular basis of reperfusion injury, central role of mitochondria, key signaling pathways determining cell survival, special problems in diabetic patients, modern research technology and clinical perspective on the state of the field.

Participants: PhD students, clinicians and others with interest in research or practical clinical work involving acute heart ischemia-reperfusion.

Form: Lectures by invited experts, student project presentations and discussions. The students will have a unique opportunity to discuss their own projects with international experts in an informal workshop format.

Language: English

ECTS- credits: 1

Course director: Marek Treiman, Associate Prof., Dept. of Medical Physiology, E-mail: M.Treiman@mfi.ku.dk. Tel. +45-3532 7510.

Teachers: J. Vinten-Johansen, Cardiothoracic Research Laboratory, Emory University, USA; A. Halestrap, Dept. of Biochemistry, University of Bristol, UK; D.J. Hausenloy, The Hatter Institute, London, UK; T. Larsen, Dept. of Medical Physiology, Tromsø, Norway; T. Engstrøm, Dept. of Cardiology, Rigshospitalet, Copenhagen; and others.

Date: 10 – 11 September 2007, 9 a.m. to 5 p.m. Please check DACRA's and Faculty of Health Sciences' web sites for the final program and day schedules (www.dacra.dk; <http://sundphd.ku.dk/kurser/nyhedskurser/>)

Place: Copenhagen, The Panum Institute or Rigshospitalet. Please see web sites for the final information.

Total course fee: DKK 4,000 of which the operating costs amount to DKK 700.

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DACRA and Faculty of Health Sciences PhD Course
Pathophysiology of Heart Ischemia-Reperfusion 2007
VENUE: The Panum Institute, Blegdamsvej 3, 2200 N Copenhagen
PROGRAM of MAIN TALKS
(Student presentations not detailed)

	Monday, September 10th	Tuesday, September 11th
8.50 -9.00	Welcome address/Treiman, Copenhagen	9 – 9.45
9 - 9.45	Cardiac ischemia- reperfusion – basic pathophysiology and experimental models / Vinten-Johansen , Atlanta	Signaling pathways in heart ischemia-reperfusion injury and in mechanisms of protection / Hausenloy , London
10 - 10.45	Reperfusion injury – the problem and prospects for solution / Vinten-Johansen	PKC isoforms: roles in cardiac ischemia – reperfusion and therapeutic perspectives / Mochly-Rosen , Stanford
11 – 11.45	Mitochondria: a refresher / Halestrap , Bristol	Ischemia-reperfusion injury and diabetes – influence of cardiac metabolism / Larsen , Tromsø
12 -13.30	Lunch “Glaskantinen”	Lunch “Glaskantinen”
13.30 – 14.15	Mitochondria: role in reperfusion injury and in possible interventions / Halestrap	Ischemic cardiomyopathy - experimental and clinical aspects of pathophysiology, diagnosis and treatment/ Bøtker , Århus
14.30 – 15.15	Cardioprotection in the clinical setting of acute myocardial infarction / Engstrøm , Copenhagen	SPECT - Indications in chronic heart disease / Johansen , Odense
15.30 – 16.00	Coffee break	Coffee break
16.00 – 16.45	Cardiac MRI for evaluation of ischemic heart disease/ Fritz Hansen , Copenhagen	Student presentations General discussion
Evening 19.00	Dinner - Faculty and Organizers	