Secher’s
BUSY LAB
Always room for another experiment

Introduction to the symposium
Henning Bay Nielsen and Lars Nybo – “The scientific Octopus”
Michael Jense - “Why is an anaesthesiologist interested in exercise physiology” – transfer of knowledge and integration-understanding of Human Cardiovascular Physiology

The Brain – “Master and slave to the Cardiovascular system”
Jens Mitchell – “CV Regulation and the importance of Central Command”

Lars Nybo/MH Notes – the exercise challenge to cerebral blood flow
Johannes Vestinkbodt + Woulker Waring: “Orthostatic intolerance – relation to cerebral blood flow and vasoregulation”

15.30-16.00: Coffee break

Part 2 16.00-17.30
The Heart – the central machinery
Morten Hvødsgaard Nielsen – “The importance of maintaining arterial blood pressure in central hemodynamics”

The exercise challenge to cerebral blood flow
Lars Nybo and Henning Bay Nielsen
Cerebral heat balance during exercise

- Heat release via jugular venous blood
- Heat release via other mechanisms
- Storage

Control vs. Hyperthermia

Nybo et al. J Physiol 2002;545:697-704
Relation between brain temperature (as indexed by the venous blood temperature) and the perception of fatigue.

Central fatigue and motor performance?

Oxygen delivery to the brain and the importance of the cerebral mitochondrial PO2.

Modified from Rasmussen et al. 2006.

Implications for rowing?!!
Conclusions

Exercise in the heat and maximal exercise are major challenges to CBF with implications for cerebral heat balance and oxygenation.

Walking is usually low intensity exercise - but walking into Sechers lab will markedly increase the intensity of your scientific career and opportunity for exploring individual or integrated cardiovascular phenomena.