

NIMBioS Investigative Workshop:

Modeling Renal Hemodynamics

Monday, August 1

8:15–8:45am	Breakfast
8:45–9:15am	Welcome by NIMBioS and organizers
9:15–9:30am	Brief introduction by participants
9:30–10:10am	Lecture by Will Cupples (Simon Fraser University) <i>Distributed autoregulation of renal blood flow</i>
10:10–10:40am	Coffee break
10:40–11:20am	Lecture by Scott Thomson (University of California at San Diego Medical Center) <i>Is there chronic TGF and does it matter?</i>
11:25–12:05pm	Lecture by Rodger Loutzenhiser (University of Calgary) <i>Studies on the renal myogenic response and the determinants of its kinetic features</i>
12:05–1:40pm	Lunch
1:40–2:20pm	Lecture by Anil Bidani (Loyola University Medical Center) <i>Renal autoregulation and hypertensive injury</i>
2:20–3:30pm	Breakout discussion groups 1. Normal renal physiology (leader: Darwin Bell, Medical University of South Carolina) 2. Renal pathophysiology (leader: Karen Griffin, Loyola University Medical Center)
3:30–4:00pm	Coffee break
4:00–5:00pm	Reports of discussion groups (by Bell and Griffin) and round-table discussion (Moderator: Harold Layton, Duke University)
5:00–7:30pm	Dinner and poster session

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Tuesday, August 2

8:15–9:00am	Breakfast
9:00–9:40pm	Lecture by Anita Layton (Duke University) <i>Modeling the myogenic response of the afferent arteriole</i>
9:45–10:25am	Lecture by Harold Layton (Duke University) <i>Nephron coupling: insight from modeling and physiological implications</i>
10:25–11:00am	Coffee break
11:00–11:40am	Lecture by Niels-Henrik Holstein Rathlou (University of Copenhagen) <i>Synchronization phenomena in the renal microcirculation</i>
11:45–12:25am	Lecture by Donald Marsh (Brown University) <i>Nephron dynamics on the renal vascular network</i>
12:25–2:00pm	Lunch
2:00–3:10pm	Breakout discussion groups 1. Modeling normal renal physiology (leader: William Arendshorst, University of North Carolina at Chapel Hill) 2. Renal pathophysiology (leader: Leon Moore, SUNY Stony Brook)
3:10–3:45pm	Coffee break
3:45–4:45pm	Reports of discussion groups (by Arendshorst and Moore) and round-table discussion (Moderator: Randall Thomas, Université Paris-Sud)

Wednesday, August 2

8:15–9:00am	Breakfast
9:00–9:10am	Opening remarks
9:10–10:10am	Breakout groups to write summary reports (leaders Tim Secomb, University of Arizona, and Aurélie Edwards, Tufts University)
10:10–10:40am	Coffee break
10:40–11:10am	Report on modeling normal renal physiology (Secomb)
11:10–11:40am	Report on modeling renal pathophysiology (Edwards)
11:40am	Closing remarks
Afterwards	Box lunch and Bye!