

## Ion channels in physiology, disease and as drug targets

<b>Description</b>	The objective of the course is to introduce participants into the research field of ion channels, with a special focus on electrophysiology-based techniques. Besides giving introductory lectures by experts about the state-of-the-art in ion channel research, the program of the course encompasses journal clubs and sufficient time for the trainees to gather hands-on experience in electrophysiology experiments in the context of ion channels.
<b>Eligibility</b>	Participants must have a Master degree in biology/chemistry/physics with an interest in transport physiology.
<b>Course structure</b>	Lectures, Journal Clubs, demonstrations, experimental work
<b>Assessment</b>	Participation to all activities.
<b>Dates</b>	29. - 30. October 2015
<b>Credits</b>	1 ECTS
<b>Facilitators</b>	Dr. Jean-Sébastien Rougier and Prof. Hugues Abriel University of Bern, Department of Clinical Research (DCR)
<b>Location</b>	University of Bern, Department of Clinical Research (DCR) and Institute of Biochemistry and Molecular Medicine (IBMM)
<b>Registration</b>	send an Email to <a href="mailto:martin.weisstanner@dkf.unibe.ch">martin.weisstanner@dkf.unibe.ch</a> Deadline: <u>June 30</u>
<b>No of places</b>	Maximum # of accepted students: 8. Priority will be given to researchers (PhD students and Postdocs) from NCCR TransCure laboratories and with little experience in electrophysiology studies.

## Programme - TransCure course "Ion channels in physiology, disease, and as drug targets" - October 29/30, 2015

Speaker	Oct 29th - 1st half day	Lecture title	Location
Abriel Hugues, Prof. Dr., Department of Clinical Research, UniBE	08.30 h	Welcome and introduction	MEM*, floor H, room 813
Rossier Bernard, Prof. Dr., Department of Pharmacology and Toxicology, UniL	08.40 h	ENaC and the control of our internal environment: a darwinian perspective	MEM*, floor H, room 813
Egger Marcel, Prof. Dr., Department of Physiology, UniBE	09.20 h	Ca <sup>2+</sup> release channels in cardiac cells - their role in physiology and cardiac disease	MEM*, floor H, room 813
	10.00 h	Coffee break	MEM*
Nevian Thomas, Prof. Dr., Department of Physiology, UniBE	10.20 h	Dendritic patch clamp recordings for studying dendritic channelopathies	MEM*, floor H, room 813
Kellenberger Stephan, PD Dr., Department of Pharmacology and Toxicology, UniL	11.00 h	Molecular analysis of acid-sensing ion channel activation and desensitization	MEM*, floor H, room 813
Rougier Jean-Sébastien, Dr., Department of Clinical Research, UniBE	11.40h	Diseases caused by ion channel dysfunction: channelopathies	MEM*, floor H, room 813
	12.20 h	Lunch	Stella**
	<b>Oct 29th - 2nd half day</b>	<b>Journal Clubs</b>	<b>Location</b>
	14.00 h	Journal Club 1 (Kellenberger) / Journal Club 2 (Nevian)	MEM*, floor H, rooms 811/812
	15.15 h	Coffee break	MEM*
	15.40 h	Journal Club 3 (Rougier) / Journal Club 4 (Egger)	MEM*, floor H, rooms 811/812
	17.00 h	Cheese and Meat Plate	MEM*
	<b>Oct 30th - 1st half day</b>	<b>Practical Work</b>	<b>Location</b>
Lüscher Benjamin, Dr., Institute of Biochemistry and Molecular Medicine, UniBE	09.00 h	Practical Work	IBMM***, 2nd floor
	10.00 h	Coffee break	
	10.20 h	Practical Work	
	12.30 h	Lunch	Stella**
	<b>Oct 30th - 2nd half day</b>	<b>Practical Work</b>	<b>Location</b>
Rougier Jean-Sébastien, Dr., Department of Clinical Research, UniBE	13.30 h	Practical Work	MEM* G818
	15.00 h	Coffee break	MEM*
	15.20 h	Practical Work	MEM* G818
	16.30 h	End	

MEM\* = Maurice E. Müller-Haus, Murtenstrasse 35, 3010 Bern

Stella\*\* = Restaurant Stella, Wirtschaftsgebäude, Inselspital

IBMM\*\*\* = Institute of Biochemistry and Molecular Medicine, Bühlstrasse 28, 3012 Bern