



Exploring Neural Systems
and Behaviour with Light
and Optogenetics

September 26 – 27, 2013

MacEwan Hall
University of Calgary
Calgary, Alberta

Symposium Program

Thursday, September 26, 2013

11:30 am	Registration Opens	
	Lunch / Poster Hanging	MacEwan Hall Foyer
1:00 – 1:15 pm	Symposium Opening	MacEwan Hall A
	<ul style="list-style-type: none">● Dr. Grant McIntyre, Executive Director, Campus Alberta Neuroscience● Dr. Edward McCauley, Vice President (Research), University of Calgary● Dr. Jaideep S. Bains, Co-Chair, Symposium Organizing Committee	
1:15 – 2:00 pm	Optogenetic Identification of a REM Sleep Modulatory Circuit in the Hypothalamus	
	<ul style="list-style-type: none">● Dr. Antoine Adamantidis, Assistant Professor, McGill University● <i>Session Chair:</i> Dr. Jaideep S. Bains, Co-Chair, Symposium Organizing Committee	
2:00 – 2:45 pm	A generalizable method for construction of single-chain light-inducible proteins	
	<ul style="list-style-type: none">● Dr. Michael Lin, Principal Investigator, Stanford University● <i>Session Chair:</i> Dr. Jaideep S. Bains, Co-Chair, Symposium Organizing Committee	
2:45 – 3:15 pm	Refreshment Break / Poster Viewing	MacEwan Hall Foyer
3:15 – 4:00 pm	New tools for single cell optogenetics deep within the brain	
	<ul style="list-style-type: none">● Dr. Yves De Koninck, Professor, Université Laval● <i>Session Chair:</i> Dr. Patrick Whelan, Co-Chair, Symposium Organizing Committee	
4:00 – 4:45 pm	Probing Mechanisms of Motor Control with Optogenetics	
	<ul style="list-style-type: none">● Dr. Anatol Kreitzer, Associate Investigator, Gladstone Institutes● <i>Session Chair:</i> Dr. Patrick Whelan, Co-Chair, Symposium Organizing Committee	
4:45 – 5:00 pm	Day One Wrap Up	
	<ul style="list-style-type: none">● Dr. Samuel Weiss, Chair, Campus Alberta Neuroscience● Dr. Patrick Whelan, Co-Chair, Symposium Organizing Committee	
5:00 – 6:30 pm	Reception / Poster Viewing	MacEwan Hall B Foyer
7:00 – 9:00 pm	Dinner	MacEwan Hall B

Symposium Program continued

Friday, September 27, 2013

7:30 – 8:30 am	Breakfast and Registration	MacEwan Hall Foyer
8:30 – 8:35 am	Morning Greetings	MacEwan Hall A
	<ul style="list-style-type: none"> ● Dr. Aaron Gruber, Symposium Organizing Committee 	
8:35 – 10:05 am	Local Presenters (15 minutes each)	MacEwan Hall A
	<ul style="list-style-type: none"> ● <i>Session Chair:</i> Dr. Robert Campbell, Symposium Organizing Committee 	
8:35 – 8:50 am	1. Hypothalamic CRH neurons as integrative hubs for adaptive and visceral responses to stress	
	<ul style="list-style-type: none"> ● Tamás Füzési, University of Calgary 	
8:50 – 9:05 am	2. Enlightening activity dependent pattern formation in the somatosensory cortex	
	<ul style="list-style-type: none"> ● Maurice Needham, University of Lethbridge 	
9:05 – 9:20 am	3. All optical electrophysiology with voltage indicators based on a red fluorescent protein	
	<ul style="list-style-type: none"> ● Ahmed Abdelfattah, University of Alberta 	
9:20 – 9:35 am	4. Optogenetic control of ventilation	
	<ul style="list-style-type: none"> ● Silvia Pagliardini, University of Alberta 	
9:35 – 9:50 am	5. Tonic, activity independent, blood flow control by astrocytes	
	<ul style="list-style-type: none"> ● Grant Gordon, University of Calgary 	
9:50 – 10:05 am	Q&A	
10:05 – 10:15 am	Room change	
10:15 – 11:15 am	Workshops	
	1. Applying Optogenetics and Examining Neural Circuits and Behaviour	MacEwan Hall A
	<ul style="list-style-type: none"> ● Antoine Adamantidis & Anatol Kreitzer ● <i>Session Chairs:</i> Patrick Whelan & Aaron Gruber 	
	2. Optogenetic and Imaging Tools	MacEwan Hall B
	<ul style="list-style-type: none"> ● Michael Lin & Yves De Koninck ● <i>Session Chairs:</i> Jaideep Bains & Robert Campbell 	
11:15 – 11:45 am	Break	
11:45 am – 12:45 pm	Workshops (Repeated)	
	1. Applying Optogenetics and Examining Neural Circuits and Behaviour	MacEwan Hall A
	<ul style="list-style-type: none"> ● Antoine Adamantidis & Anatol Kreitzer ● <i>Session Chairs:</i> Jaideep Bains & Robert Campbell 	
	2. Optogenetic and Imaging Tools	MacEwan Hall B
	<ul style="list-style-type: none"> ● Michael Lin & Yves De Koninck ● <i>Session Chairs:</i> Patrick Whelan & Aaron Gruber 	
12:45 – 1:00 pm	Symposium Closing	MacEwan Hall A MacEwan Hall B
	<ul style="list-style-type: none"> ● Dr. Jaideep S. Bains, Symposium Co-Chair ● Dr. Patrick Whelan, Symposium Co-Chair 	
1:00 pm	Buses depart for Edmonton / Lethbridge	