



2017 SYMPOSIUM

NEUROTECHNOLOGY
for Discovery and Translation

OCTOBER 26-27, 2017

PROGRAM



Campus Alberta
Neuroscience

10:00AM	Buses Arrive from Edmonton and Lethbridge	
10:00AM	Registration	WILDROSE BALLROOM FOYER
11:00 – 11:15AM	Welcome	WILDROSE BALLROOM
	Honourable Brandy Payne , Associate Minister of Health Lisa Poole , Alzheimer Society of Calgary Grant McIntyre , Executive Director, Campus Alberta Neuroscience	
11:15AM – 12:15PM	Keynote Address	WILDROSE BALLROOM
	Computer models help us understand healthy brain function and disease Randy McIntosh , Rotman Research Institute, Baycrest Centre, University of Toronto CHAIR: Katherine Aitchison , University of Alberta	
12:15 – 1:15PM	Lunch	WILDROSE BALLROOM & FOYER
	DEMONSTRATION (12:35 – 1:05PM IN BARCLAY'S LOUNGE) Open Science, Big Data and Brain-CODE Elizabeth Theriault , Vice-President Research and Informatics, Ontario Brain Institute Ken Evans , President and CEO, Indoc Research Moyez Dharsee , CIO and Director of Informatics, Indoc Research	
1:15 – 2:45PM	SESSION 1	WILDROSE BALLROOM
	Innovative Tools for Depression Research CHAIR: Glen Baker , University of Alberta Bipolar disorder: Biology, serum biomarkers, and opportunities to improve patient management Dayan Goodenowe , Prodrome Sciences Inc. Patient engagement in tool development – the most important tool of all? Erin Michalak , University of British Columbia; Network Lead, CREST.BD Genes associated with anhedonia: A new analysis in a large clinical trial (GENDEP) Hong-Yan (Sandy) Ren , University of Alberta	
2:45 – 3:15PM	Refreshment Break	WILDROSE BALLROOM FOYER

3:15 – 4:45PM

SESSION 2A

WILDROSE BALLROOM

**Assessing Brain Health with
New Technologies**

CHAIR: **Aaron Gruber**, University of Lethbridge

Capturing brain dynamics with oscillators
and deep learning

Irina Rish, IBM

Decoding information processing in the brain

Aaron Gruber, University of Lethbridge

Leveraging big data and advanced analytics for
epidemiology and precision medicine in epilepsy

Colin Josephson, University of Calgary

SESSION 2B

BARCLAY'S LOUNGE

PANEL DISCUSSION

**Moving toward a common language between
people with lived experience and researchers**

MODERATOR: **Brad Necyk**, University of Alberta

PANELISTS:

Keith Dobson, University of Calgary

Sara Lapsley, Clinical Counsellor with BC Mental Health and
Substance Use Services; Peer Researcher, CREST.BD

Kaj Korvela, Organization for Bipolar Affective Disorders
Society

Seating is limited for Session 2B

4:45 – 5:00PM

WILDROSE BALLROOM

**Comments on Connecting Research, Technology
and Lived Experience for Neuroscience Impact**

Keith Sharkey, Interim Director, Hotchkiss Brain Institute

5:00 – 7:00PM

**Poster Sessions
and Reception**

WILLOW ROOM & WILDROSE
BALLROOM FOYER

SESSION A

Even-numbered posters: 5:00 – 6:00PM

SESSION B

Odd-numbered posters: 6:00 – 7:00PM

See the registration desk for more information

7:00PM

Symposium Dinner

WILDROSE BALLROOM

8:00 – 9:00AM

Breakfast

WILDROSE BALLROOM & FOYER

9:00 – 9:15AM

Opening Remarks

WILDROSE BALLROOM

9:15 – 10:45AM

SESSION 3

WILDROSE BALLROOM

Processing and Pathology in Brain Circuits

CHAIR: **Grant Gordon**, University of Calgary

Event triggered imaging of mesoscale functional connectivity in mouse brain

Tim Murphy, University of British Columbia

Engineering optically activated pannexin channels

Roger Thompson, University of Calgary

Tissue clearing for 3D imaging of the nervous system

Jonathan Epp, University of Calgary

10:45 – 11:15AM

Refreshment Break

WILDROSE BALLROOM FOYER

11:15AM – 12:00PM

SESSION 4

WILDROSE BALLROOM

Trainee 3-Minute Thesis Presentations

CHAIR: **Nikita Burke**, University of Calgary

Chris Duszynski, University of Calgary

James Bell, University of Alberta

Cynthia Kahl, University of Calgary

Farhia Haque, University of Alberta

Prince Ozogbuda, University of Calgary

Jeffrey Sawalha, University of Alberta

Hannah Scott, University of Lethbridge

Tazrina Alrazi, University of Calgary

Trevor Barss, University of Alberta

Pierre Wijdenes, University of Calgary

Zemina Meghji, University of Alberta

Zahra Ofoghi, University of Calgary

FRIDAY, OCTOBER 27, 2017

12:00 – 1:00PM

Lunch

WILDROSE BALLROOM & FOYER

DEMONSTRATION

(12:15 – 12:45PM IN MILLENNIUM TOWER, ROOMS 1 & 2)

Open Science, Big Data and Brain-CODE

Elizabeth Theriault, Vice-President Research and Informatics,
Ontario Brain Institute

Ken Evans, President and CEO, Indoc Research

Moyez Dharsee, CIO and Director of Informatics, Indoc
Research

1:00 – 2:30PM

SESSION 5

WILDROSE BALLROOM

Motor Control and Rehabilitation

CHAIR: **Craig Chapman**, University of Alberta

Use of robotic technology to quantify brain function
and dysfunction

Stephen Scott, Queen's University

Gazing into the future of upper limb rehabilitation:
The relevance of outcome measurement (Part 1)

Jacqueline Hebert, University of Alberta

Gazing into the future of upper limb rehabilitation:
The relevance of outcome measurement (Part 2)

Patrick Pilarski, University of Alberta

2:30 – 2:45PM

Poster Awards and Closing Remarks

WILDROSE BALLROOM

3:00PM

Buses Depart to Edmonton and Lethbridge

SOUTH OF HOTEL LOBBY
ENTRANCE

For more details, visit

albertaneuro.ca/symposium2017

MAIN SYMPOSIUM

Katherine Aitchison

University of Alberta

Nikita Burke

University of Calgary

Craig Chapman

University of Alberta

Grant Gordon

University of Calgary

Aaron Gruber

University of Lethbridge

**DEPRESSION AND
LIVED EXPERIENCE SESSIONS**

Glen Baker

University of Alberta

Andrew Bulloch

University of Calgary

Terezia Farkas

Lived Experience Lead, Canadian Depression Research
and Intervention Network, Alberta Hub

Andrew Greenshaw

University of Alberta

Kaj Korvela

Organization for Bipolar Affective Disorders Society

Brad Nocyk

University of Alberta

Scott B. Patten

University of Calgary

THANK YOU

TO OUR 2017 SYMPOSIUM SPONSORS



University of
Lethbridge



**Canadian Centre for
Behavioural Neuroscience**



THE MATHISON CENTRE
for MENTAL HEALTH RESEARCH & EDUCATION



UNIVERSITY OF ALBERTA
FACULTY OF MEDICINE & DENTISTRY
Department of Psychiatry

For more details, visit

albertaneuro.ca/symposium2017