



Campus Alberta
Neuroscience

SUCCESSSES in NEUROSCIENCE

Online Expo 2023

**Healthy Brains
Across the Lifespan**

February 8, 2023

#SiN2023

Sponsored by **gairdner**
LES PRIX CANADA GAIRDNER AWARDS

On Behalf of Campus Alberta Neuroscience, we welcome you to the 2023 Successes in Neuroscience symposium.

Successes in Neuroscience is a celebration of neuroscience research and innovation across Alberta. In our third offering of this exciting event, we continue to focus on sharing cutting edge research ideas with all Albertans. During the Mental Health in Children and Youth session, learn how mental disorders arise and can be identified in youth. Psychedelics, Cannabis, and the brain session will share emerging uses of these drugs for brain health. Discussion in the Advancements in Alzheimer's and Dementia session will explore innovations from lab to bedside for patient care. Finally, Neuropreneurs will show how work from the labs can lead to companies and directly reach the public. Sessions will include presentations and panel discussions that give everyone the opportunity to learn and ask questions. Join us to celebrate the new and exciting endeavors in neuroscience research with some of the nation's leading innovators!

Thank you to the Advisors for this event

Dr. David Park

University of Calgary

Dr. Douglas Zochodne

University of Alberta

Dr. Robert Sutherland

University of Lethbridge

AGENDA

Wednesday, February 8th, 2023

10:00 – 10:05 AM

Opening Remarks

Dr. Svenja Espenhahn – Executive Director, Campus Alberta
Neuroscience

10:05 – 11:20 PM

Session 1:

Mental Health in Children and Youth

Dr. David Nicholas – University of Calgary

Dr. Jean Addington – University of Calgary

Dr. Robbin Gibb – University of Lethbridge

Question and Answer Period

11:20 – 11:30 PM

Networking & Refreshments Break

11:30 – 12:45 PM

Session 2:

Psychedelics, Cannabis, and the Brain

Dr. Chelsea Matisz – University of Lethbridge

Dr. Erika Harding – University of Calgary

Dr. Pierre Chue – University of Alberta

Question and Answer Period

12:45 – 1:00 PM

Networking & Refreshments Break

AGENDA

Wednesday, February 8th, 2023

1:00 – 2:15 PM

Session 3: **Advances in Alzheimer's and Dementia**

Dr. Satyuabrata Kar – University of Alberta

Dr. Athan Zovoilis – University of Lethbridge

Ms. Laura Vogelsang – University of Lethbridge

Question and Answer Period

2:15 – 2:30 PM

Networking & Refreshments Break

2:30 – 3:45 PM

Session 3: **Neuropreneurs**

Dr. Tuan Trang – AphioTx

Dr. Ty McKinney – 8Bit Cortex

Dr. Wee Yong – AnthoBio Inc

Question and Answer Period

3:45 – 3:50 PM

Closing Remarks

Dr. Robert Sutherland – Chair, Campus Alberta Neuroscience Advisory Committee

Meet the Moderator



Alan Nursall - Moderator

TELUS World of Science Edmonton

Alan Nursall is the President and CEO of the TELUS World of Science – Edmonton. He joined TWOSE in January 2014 following a 24-year career at Science North in Ontario and six years running his own science communication company.

Alan helped launch Science North in 1984 and served as Science Director from 1999- 2007, responsible for the science experience at Science North and its companion facility, Dynamic Earth. He started NEXT Exhibits, Inc., in 2007, creating exhibits, shows, and other experiences for science centres and museums across North America and beyond.

Nursall returned to his hometown of Edmonton in 2014 to join TWOSE where he initiated and led the Aurora Project, a \$42-million renovation and expansion of the entire science centre.

He is currently Board of Directors Chair for the Giant Screen Cinema Association. He also currently serves on the Board of Directors of the Canadian Association of Science Centres, from whom he also received a Career Achievement Award in 2022.

For 20 years, he hosted a weekly science segment called The Alan Nursall Experience on Discovery Canada's national science and technology show, Daily Planet

Speaker Biographies



Dr. David Nicholas, PhD, RSW

University of Calgary

Dr. David Nicholas, PhD, RSW, joined the Faculty of Social Work in the Central and Northern Alberta Region as an Associate Professor in 2008. He has a background in psychosocial outcome and intervention research related to children, youth and families affected by illness and disability. Dr. Nicholas brings expertise in qualitative and mixed method research approaches. He brings an extensive clinical and administrative background in the fields of social work and health and disability.



Dr. Jean Addington, PhD

University of Calgary

Dr. Jean Addington is Professor of Psychiatry at the University of Calgary in Alberta, Canada. Dr. Addington holds the Novartis Chair for Schizophrenia Research at the University of Calgary. She is a Fellow of the Royal Society of Canada (RSC) as well as a Fellow of the Canadian Academy of Health Sciences (CAHS).



Dr. Robbin Gibb, PhD

University of Lethbridge

Dr. Robbin Gibb has a bachelor's degree in Chemistry and a Master's and PhD in Neuroscience, all from the University of Lethbridge where she is currently a Professor in the Department of Neuroscience. Her research is focused on 1. how prenatal and preconception experience influence brain development and 2. how to improve outcomes for kindergarten children by enhancing early literacy, executive function and self-regulation, and motor skills in preschool children. She has published more than 70 peer-reviewed journal articles, 13 book chapters, and edited two books: one on brain development and the second, on second language acquisition in children. She is a mother of 2 and a grandmother of 7.

Speaker Biographies



Dr. Chelsea Matisz, PhD

University of Lethbridge

Dr. Matisz is currently working on a project that combines interests of immunology, neurobiology, and parasitology. Under the supervision of Dr. Aaron Gruber, she explores the impact of *Toxoplasma gondii* infection on the rodent host. This protozoan parasite can infect a wide variety of warm-blooded animals—including birds, mammals, and humans—whereupon it can form chronic infections as a cyst in the central nervous system of its host.



Dr. Erika Harding, PhD

University of Calgary

Dr. Harding is a postdoctoral researcher in the labs of Dr. Tuan Trang and Dr. Gerald Zamponi at the University of Calgary. Her postdoctoral work aims to define mechanisms and pathways of opioid and cannabinoid analgesia



Dr. Pierre Chue, MD

University of Alberta

Dr. Chue is a Professor in the Department of Psychiatry, Faculty of Medicine and Dentistry and Adjunct Academic Colleague, Faculty of Pharmacy & Pharmaceutical Science, at the University of Alberta; Consulting Psychiatrist, Acute Care & Community, Addictions and Mental Health, for Alberta Health Services; and Consulting Psychiatrist with Telemental Health Services for the Province of Alberta. Dr. Chue is a full-time clinician-researcher with the Division of Community Psychiatry and was involved in the development of the Assertive Community, Mental Health Crisis, and Intensive Community Transitions Teams in Alberta.

Speaker Biographies



Dr. Satyabrata Kar, PhD

University of Alberta

Dr. Kar's laboratory works on two complementary research projects. The first project is designed to address the underlying cause of neurodegeneration in the brain of Alzheimer's disease (AD) patients. The second project is aimed to study the role of insulin-like growth factors (IGFs) in the normal brain and their implications in AD pathology. The overall objective of these two projects is to establish the cause of the preferential vulnerability of neurons in AD and to determine how these neurons could be protected.



Dr. Athan Zovoilis, MD

University of Lethbridge

Dr. Athan Zovoilis is the Canada Research Chair in RNA Bioinformatics and Genomics based at the University of Lethbridge. He is the director of the Southern Alberta Genome Sciences Center and Academic Lead of the Alberta Bioinformatics Network. His work focuses on dissecting the role of non-coding RNAs in cellular response to stress, developing (EPI-) genome and (EPI-) transcriptome sequencing, bioinformatics and AI pipelines for studying the noncoding genome.



Ms. Laura Vogelsang, PhD(c), RN

University of Lethbridge

Laura is a registered nurse and Assistant Professor at the University of Lethbridge. She presently serves as the President of the Canadian Association of Medical Surgical Nurses. Her teaching and research interests include digital health, healthy aging, and nursing education. Laura is also active on social media co-running the nursing education page @nurseitlikeyoumeanit on Instagram

Speaker Biographies



Dr. Tuan Trang, PhD

University of Calgary, AphioTx

Dr. Trang is a Professor at the University of Calgary, Director of the Alberta Pain Research Network, and lead of the Spinal Cord, Nerve Injury, and Pain (SCNIP) NeuroTeam. His team is committed to unlocking the causes of chronic pain at the level of genes, cells, and circuits. Dr. Trang is also the CEO and co-founder of AphioTx, which is developing safe and effective treatments for opioid use disorder and dependence.



Dr. Ty McKinney, PhD

8-Bit Cortex, Branch Out Neurological Foundation

Dr. McKinney completed his BSc at the University of Alberta, with a research focus on hippocampal neurophysiology working with Dr. Clayton Dickson before completing his PhD at the University of Utah on brainwave technology in psychological assessment. He co-founded 8-Bit Cortex to adapt his research into gamifying corporate burnout risk assessments and improving workplace wellness for everyone. As the Research Director for Branch Out Neurological Foundation, Dr. McKinney promotes the impact of innovative brain health research and shares this insight with the community. When not thinking about the brain, Ty can be found exploring nature, enjoying craft beer, or connecting with the growing Alberta tech ecosystem.





Dr. Wee Yong, PhD

University of Calgary, AnthoBio Inc

Dr. Wee Yong is a Professor at the University of Calgary and director of the Alberta Multiple Sclerosis Network. He is an elected fellow of both the Canadian Academy of Health Sciences and the Royal Society of Canada. Dr. Yong received the 2017 Allyn Taylor International Prize in Medicine for 'transformational discoveries in MS'.

Thanks



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Campus Alberta Neuroscience would like to thank you for attending Successes in Neuroscience!

We also would like to thank our supporting schools

