Welcome to Dami Bamidele-Abegunde who join ACHRI as an Administrative Coordinator. Dami has extensive knowledge and experience in administration, data management, project and team organization, along with a background in public health. With seven years of experience as an education administrator, overseeing operations and fostering effective communication within a school environment, she is enthusiastic about supporting the operations of the ACHRI team. Beyond work, she finds joy in the world of music, spending quality time with her sons, and exploring new places.
Welcome to Dr. Masoumeh Dehghanimoghadam who joins ACHRI as a Data Analyst. Masoumeh is a skilled data analytics professional. She has a PhD in Physics and has expertise in various programming languages for data analysis, machine learning, and data visualization. She has collaborated on machine learning projects, managed large datasets, and optimized parameters for accurate predictions. She also has experience conducting clinical brain studies in psychiatric hospitals. She loves outdoor sports, particularly climbing and mountaineering. She is thrilled to be part of ACHRI's data analytics team.

NEW PUBLICATION

A collaborative effort led by ACHRI members Dr. Wendy Dean & Dr. Myriam Hemberger published in Nature Communications highlights the placenta as a significant source of developmental heart disorders.

Congenital heart defects (CHDs) are by far the most common type of birth defect in humans, but despite this prevalence, the causes of CHDs often remain unknown.

In this study, the team used innovative mouse genetic tools to show that the placenta likely constitutes a frequent cause of CHDs. Moreover, they could link the occurrence of heart defects to abnormalities in one particular placental cell type, specifically those cells that face the maternal blood, a layer that is highly analogous in mouse and human placenta s. These insights will greatly enhance our understanding of the vast number of unexplained CHD cases.

This work involved many ACHRI trainees and investigators, including lead author Dr. Bethany Radford, as well as international collaborators Dr. Henry Sucov (Medical University of South Carolina, Charleston) and Dr. Yaacov Barak (Magee Women’s Research Institute, Pittsburgh). This work was supported primarily by the 2018 Magee Research Prize sponsored by the Magee Women’s Research Institute and the Richard K. Mellon Foundation. Read more.
NEW PUBLICATION

A new publication in eBioMedicine by the Lancet, led by ACHRI researchers, Drs. Ning Cheng and Ray Turner and ACHRI Trainee, Abdulrahman Abushiabah, in collaboration with Dr. Kartikeya Murari at the School of Engineering, provides evidence of a promising therapeutic target for autism.

Presently, there is no cure for the core symptoms of autism spectrum disorder (autism), though a dysregulation of a kinase enzyme pathway (ERK) in the brain has been reported in animal models of autism and is thought to be critical in the development of the disorder.

To test this, the team studied the effect of a selective inhibitor of the ERK pathway in a mouse model. This inhibitor is currently tested in clinical trials for a neurodevelopmental condition called neurofibromatosis 1, and so far has demonstrated good safety profile. The study found that treating juvenile mice with this inhibitor reduced core alterations in sociability, vocalization and repetitive behaviour, and reversed atypical EEG signals. Additionally, analysis showed that the treatment did not affect weight gain, locomotion, or neuronal density in the brain, of which are side effects that may be of concern when considering this type of therapeutic approach.

The findings provide further support that the ERK pathway is critically involved in the pathophysiology of autism and supports that targeting this pathway using a clinically relevant inhibitor could be a new approach for treating autism. Read more.

NEW PUBLICATION

A new study in JAMA Pediatrics, led by Dr. Sheri Madigan with ACHRI Member Dr. Brae Anne McArthur and ACHRI trainees, Jackson Hewitt, Paola Pador, Dr. Joanne Park, and Celeste Holy explores longitudinal changes in depression and anxiety in children and adolescents from before to during the COVID-19 pandemic. The systematic review and meta-analysis, representing over 40,000 children, found a significant increase in depression symptoms during the COVID-19 pandemic, particularly among female individuals and those from relatively higher income backgrounds. Similarly, anxiety symptoms increased slightly during the pandemic for children and adolescents from relatively higher income backgrounds. The burden of
Congratulations to our ACHRI Member, Dr. Nicole Culos-Reed who has been named a Killam Annual Professor. Dr. Culos-Reed's research has had a profound impact on cancer control in Canada and she is internationally recognized for her research demonstrating the role of exercise in enhancing quality of life for individuals living with and beyond cancer.

She is deeply committed to developing methods for best practice and translating knowledge into action to make physical activity part of the standard of care for cancer survivors internationally. She is director of the Health & Wellness Lab and the Thrive Centre, which is the only university-based volunteer-run free fitness centre for those living with cancer. Read more.

NEW FUNDING FOR TREATMENT OF NEUROLOGICAL DISORDERS

Congratulations to ACHRI members, Drs. Deborah Kurrasch, Julia Jacobs-LeVan, Pierre LeVan and Guang Yang who are among an interdisciplinary team receiving a $12M from the New Frontiers in Research Fund to improve patient care by developing neuronal reprogramming as a customizable strategy for the treatment of neurological disorders.

The team will be reactivating a latent brain repair pathway that exists in regenerative species, like fish, that has been lost over time. The group will establish a cross-cutting platform to promote patient engagement and establish clinical advisory panels to accelerate the speed of clinical translation, increase transparency and enhance relevance of the research. Read more.

2023 OWERKO CENTRE CONFERENCE
2023 Owerko Centre Conference: Neurodiversity and Intersectionality
Tuesday, May 30, 2023
9 am - 4:45 pm
Health Sciences Centre, Foothills Campus

Speakers:

- Dr. Laura Graham Holmes (The City University of New York)
- Dr. Kristen Gillespie-Lynch (The City University of New York) & Dr. TC Waisman (Autism Training Academy)
- Grant Bruno, PhD Student (University of Alberta)
- Dr. Meredith Maroney (University of Calgary)

Program
Register by May 22

LET THE MUSIC MOVE YOU
Let the music move you at CRESCENDO, presented by Safeway, on June 17 at Arts Commons Jack Singer Concert Hall.

This unforgettable evening will have you singing and dancing along to the music of Neil Diamond, Prince, Eagles, P!NK, The Beatles and more. CRESCENDO is a high-energy stage show with powerful storytelling in support of youth mental health resources and research, you’ll be moved and inspired.

Tickets are on sale now, use promo code UCalgary to save 10%.

SAVE THE DATE - WCHRI ANNUAL RESEARCH DAY

The Women and Children's Health Research Institute (WCHRI) will host its annual Research Day on Wednesday, October 18, 2023. This year, the format returns to an in-person event. Registration will open at the beginning of July.

Dr. Bernard Thébaud will be the keynote speaker. Thébaud is a senior scientist of the Regenerative Medicine Program at the Ottawa Hospital Research Institute, a clinician-scientist in the field of stem-cell/regenerative medicine and a practicing neonatologist.

SURVEY: CSM GRANT DEVELOPMENT OFFICE

CSM Grant Development Office is carrying out a survey to better understand the needs of CSM researchers when it comes to research and grant development.

All CSM faculty and research support staff are encouraged to complete 10 min survey.

There will be a draw for prizes throughout the period that the survey is open.

HSA APPLICATIONS + IRISS

UCalgary and AHS have partnered to improve efficiency, transparency, and accountability for research teams looking to utilize AHS facilities or resources to support their studies.

As of April 1, 2023, the previous HSA Questionnaire (SharePoint form) has been decommissioned and all applications outside the Edmonton zone will now be submitted directly within IRISS.

By integrating the AHS request application with IRISS, this new guided process will pull select content directly from your ethics application to reduce the administrative burden of filling out duplicate information.
ACHRITA would like to thank the following outgoing executives for their time and contributions to their roles.

- **EDI Co-Director - Munawar Soomro** is a general physician, epidemiologist and currently a postdoctoral fellow in Dr. Deborah Dewey’s lab. His research focuses on the health effects of endocrine disrupting chemicals (EDCs), including the environmental and occupational exposures on human health, particularly during the pregnancy and early childhood.

- **General Member - Reza Aghanoori** is a Postdoctoral Scholar Dr. Guang Yang’s lab at the Department of Medical Genetics. He studies translational regulation of brain in autism and rare neurodevelopmental disorders and hopes to propose therapeutic options for these disorders.

- **Education Co-Director - Joanna Keough** is a second-year MSc student in the Leaders in Medicine program in Dr. Adam Kirton’s lab. Her research explores pediatric brain-computer interfaces and the mechanism and impact of user fatigue.

- **Social Co-Director - Tahsin Rahit** is a fourth-year PhD Candidate in Dr. Maja Tarailo-Graovac’s lab. He is in the Biochemistry & Molecular Biology program with a Bioinformatics specialization. Coming from computer science background, Tahsin is applying his expertise in Machine Learning to identifying genetic modifiers from whole genome sequencing data.

- **General Member - Sharon Hou** is a postdoctoral scholar at CSM. Her research focuses on exploring the social and cultural factors that shape child development and health. She has a special interest in the study of migrant groups, acculturation, and cultural characteristics in relation to child and family outcomes.

**CSM SUMMER STUDENT PROGRAM**

The [CSM institutes](#) are pleased to offer a compelling Summer Student Program with a series of workshops, a mentorship program, a journal club, and other opportunities.
Regardless of where you get your funding, all students are welcome to participate online until August 2023.

**ACHRI Supervisors:** Please ask your students to register here: [Summer Student Registration](#)

Questions or suggestions? Email summer.research@ucalgary.ca

**POSTDOC MINGLER**

Postdocs are invited to meet the new Assistant Dean of Postdoctoral Research (ADR), the Grant & Fellowship Development Support Team and one another at the Postdoc Mingler.

Wednesday, May 31, 2023
12 - 2 pm
[Register](#)
Snacks provided.

Meet Your Grant Development Office Team:

- Julia Jacobs-LeVan – Assistant Dean of Postdoctoral Research
- Jenna Slobozian – Manager Grant Development Office
- Vienna Doenni – Fellowship Development Officer

Questions? vdoenni@ucalgary.ca

**ACHRITA WORKSHOP SERIES**

ACHRITA is holding workshops monthly on topics relevant to ACHRI trainees and postdocs.

Any topics you’d like to see covered? Email: ACHRITA@ucalgary.ca
TRAINEE REGISTRATION

ACHRI supervisors: Please encourage your trainees to register in order to receive the newsletter, updates and access to funding and workshops.

FUNDING OPPORTUNITIES

Sanofi Innovation Awards - North America
This initiative is a multi-institutional partnership program designed to support collaborations with academic investigators to accelerate innovative early stage, disease-relevant research towards the clinic. With this program, Sanofi aims to fund cutting-edge translational research that can contribute to our early-stage pipeline and ultimately benefit patients.
Deadline: Monday, May 29, 2023 (pre-proposal deadline)
Email: carmen.rieder@ucalgary.ca

Canada Biomedical Research Fund and Biosciences Research Infrastructure Fund - Stage 2
This opportunity supports: (1) Partnered, applied research in the biomanufacturing and life sciences sector to accelerate the translation of discoveries into products and services, (2) Partnered talent development to provide skills and training to drive innovation and growth in Canada’s biomanufacturing industry and (3) Research infrastructure to support Canada’s biosciences research needs.
Deadline: Thursday, June 1, 2023 (NOI)
Details

Arthritis Society Canada Clinician Investigator Award
This is a salary award intended to provide new clinician investigators to demonstrate their ability to initiate and carry out independent research of clear relevance to arthritis. Candidate must be a certified rheumatologist and a CRA member.
Deadline: Monday, June 26, 2023
Details

Diabetes Canada - End Diabetes Awards
This program supports research projects that enhance our understanding of diabetes and its prevention, treatment, management, and cure.
Deadline: Friday, June 30, 2023
Details

Alberta Innovates Accelerating Innovations into CarE (AICE) - Concepts Program
This program serves to accelerate early-stage health research and innovation that demonstrates high commercial potential in priority areas of precision health.
Deadline: Tuesday, July 11, 2023
Details

Catalyst Grant: NWHRI: Innovation Fund - Biomedical Discovery Grants
This opportunity supports basic science and/or other types of preclinical studies that have the potential to make significant advancements in women's health. Projects are expected to involve cells, tissues, body parts, and/or biomarkers. Studies focused on female technology are also eligible.

**Deadline:** Friday, July 14, 2023 (RSO Internal)

**Details**

**Catalyst Grant: SPOR Innovative Clinical Trials (iCT)**
This funding opportunity provides seed funding for the development of research collaborations across disciplines, including collaborations with Person's with Lived Experience, and to develop novel research perspectives in early research stages in preparation for larger SPOR iCT multi-year grants or operating grant applications.

**Deadline:** Friday, July 14, 2023 (RSO Internal)

**Details**

**TRANSCAN-3: Translational Research on Cancer Epigenetics**
This opportunity aims to improve the efficacy of current detection, diagnosis, prognosis and treatment of cancers, through the development of novel approaches based on a better understanding of cancer epigenetics.

**Deadline:** Friday, July 21, 2023 (pre-proposal deadline)

**Details**

**Pre-announcement: National Pediatric Rare Disease Clinical Trials and Treatment Network**
This opportunity will catalyze the creation of a clinical National Pediatric Rare Disease Clinical Trials and Treatment Network to streamline rare disease clinical research across the country and to facilitate the collaboration between researchers across pillars, people with lived and living experience, health care providers, industry, policy and regulatory bodies.

**Deadline:** Fall 2023 (Program Launch - Summer 2023)

**Details**

**Alberta Innovates Partnership for Research and Innovation in the Health System (PRIHS) 8 - Digital Health**
This program is designed to align the expertise of researchers to create new knowledge with the evidence needs of health providers. The program provides opportunities for researchers and clinicians to implement promising solutions that address priority health system challenges in collaboration with Strategic Clinical Networks (SCNs) and Integrated Provincial Programs.

**Deadline:** Wednesday, October 25, 2023

**Details**

**EVENTS AND SEMINARS**

**Research & Community Engagement Seminar**
**Inclusion...Still. Understandings, Assumptions, and Some Other Possibilities**
Tuesday, May 23, 2023
12 - 1 pm  
Dr. Nancy Spencer  
Register

**Pediatric Grand Rounds**  
"Combined Arms" - Pediatric Ocular Traumatology in the Modern Era  
Wednesday, May 24, 2023  
8:30 - 9:30 am  
Dr. Michael Kryshtalskyj  
Register

**Navigating Partnered Research Series**  
Growing Your Community Partnership  
Thursday, May 25, 2023  
2:30 - 3:30 pm  
Register

**HBI Seminar Series**  
Microbiome Interactions with the Nervous System in Health & Disease  
Friday, May 26, 2023  
12 - 1 pm  
Dr. Elaine Hsiao  
HSC Theatre 1  
Lunch available, trainees are welcome to connect with Dr. Hsiao post-talk  
To register email: alyona.danilov@ucalgary.ca

**Child Health and Wellness Seminar**  
Explainable AI in Health Data Science: Examples from Medical Image Analysis and Beyond  
Monday, May 29, 2023  
8:30 - 9:30 am  
Dr. Matthias Wilms  
Register

**Owerko Centre Conference**  
Neurodiversity and Intersectionality  
Tuesday, May 30, 2023  
Health Sciences Centre, Foothills Campus  
Program  
Register by Monday, May 22, 2023

**Owerko Neurodevelopmental Clinical Rounds**  
The Use of Transcranial Magnetic Stimulation for Neuromodulation for Developmental and Neuropsychiatric Conditions in Children  
Wednesday, June 7, 2023  
12 - 1 pm
For all events visit the ACHRI calendar.

SEND US YOUR NEWS!

Please send research discoveries, publications, and partnerships to Fiona Mackenzie at r4k@ucalgary.ca

Visit us:
research4kids.ucalgary.ca

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