iNeuron

New Frontiers in Research Fund
Fonds Nouvelles frontières en recherche

Welcome to the Team iNeuron Winter Newsletter!

As we kick-off the new year, we are excited to celebrate the achievements of our team and share opportunities to engage with our initiatives. This edition highlights our scientific advancements, upcoming events, and new resources designed to support our community.

See you soon! Team iNeuron Annual Symposium

Kickstart 2025 with Inspiration and Collaboration!

Our much-anticipated Annual Symposium takes place this January, bringing the iNeuron community together for scientific updates, meaningful discussions, and networking opportunities. Here's a glimpse at some of the highlights:

Law, Governance, and Bioethics Panel: *Accessible and Affordable Advanced Therapies: Contexts, Challenges, and Opportunities.* Explore critical issues shaping the future of advanced therapies.

ABLE Session: *Get to Know Us.* Connect with the ABLE team in engaging conversations that strengthen our community bonds.

Keynote Presentation: Dr. Ravi Menon, lead of the NFRF project TRIDANT, will present his groundbreaking research and share his vision for the future of advanced therapies.

We are excited for this great opportunity to connect and contribute!

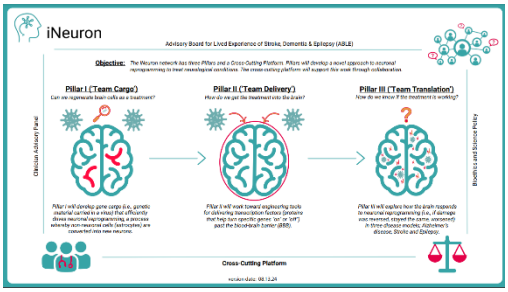
To share exciting news in our future newsletters, please email your stories to kirsten.fleming@sri.utoronto.ca

New Tools on the iNeuron Intranet

Our private intranet page is your go-to resource for essential documents and updates. Whether you're preparing for a presentation or looking for team guidelines, everything you need is just a login away.

Action Required: Please review the intranet and ensure you're familiar with its resources. If you have additional documents to share, send them to Kirsten Fleming to include.

ABLE Resources: Enhancing Accessibility and Collaboration



The ABLE team has curated tools to support inclusivity and effective communication. You can find all these resources on the website intranet.

Tip Sheet: Practical advice for presenting research to diverse audiences.

iNeuron Guidebook: A dynamic resource detailing team goals, pillar aims, PI expertise, and a glossary of scientific terms in plain language.

Infographic: A visual overview of iNeuron's pillars, ideal for orienting audiences at the start of presentations.

Reminder: Use the infographic in your symposium presentations for consistency and clarity.

Get Involved: Join ABLE's General Involvement Program

able.
Advisory Board for Lived Experience of Stroke, Epilepsy & Dementia (ABLE)

The ABLE team invites researchers and trainees to participate in the General Involvement Program, fostering collaboration with our lived experience team. This initiative builds stronger relationships through mutual learning and shared experiences.

Interested? Sign up here to join future events and activities.

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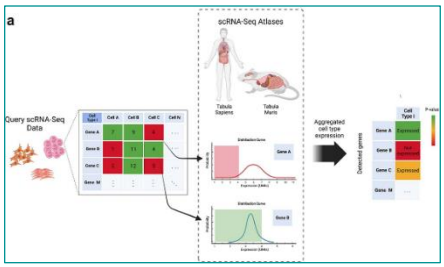

Research Spotlight: Single-Cell Gene Expression with scGeneXpress.

Dr. Antonio Del Sol's latest publication features the innovative tool scGeneXpress, which enhances the detection of expressed genes in single-cell RNA sequencing data. This tool is pivotal for iNeuron's cell engineering efforts, enabling precise identification of transcription factors critical for cellular conversion. Congratulations to Dr. Del Sol and the team on this significant advancement!

Research Spotlight: Examining NEUROG2-lineage and associated-gene expression in organoids

Dr. Carol Schuurmans' latest publication sheds light on the dual role of NEUROG2 in gene expression during cortical development. The study reveals that NEUROG2 simultaneously activates and represses distinct gene expression programs, playing a crucial role in regulating neuronal differentiation and migration. This balance is essential for maintaining neuronal progenitor populations while guiding their differentiation.
Key findings:

- NEUROG1 and NEUROG2 are most highly expressed in basal neural progenitor cells, NEUROG1-derived lineages predominate early and NEUROG2 lineages later.
- NEUROG2 is necessary and sufficient to directly transactivate known target genes (NEUROD1, EOMES, RND2)
- Neurog2 similarly induces Col3a1 & Ppp1r17 in murine P19 cells, consistent with a conservation of NEUROG2 function across mammalian species.

Congratulations Dr. Schuurmans on this significant contribution to our understanding of cortical development!

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Celebrating Our Achievements

- **Dr. Magdalena Götz**

Congratulations to Dr. Götz on receiving the Bavarian Order of Merit! Her groundbreaking work in neuronal reprogramming and neural stem cell research continues to inspire.

- **Dr. Derrick Gibbings**

  Kudos to Dr. Gibbings for his appointment as Interim Associate Vice-President, Research Support and Infrastructure at the University of Ottawa. Connect with him on LinkedIn to learn more about this exciting role.

- **Dr. Isabelle Aubert**

Dr. Aubert participated in the 6th Annual Gene Therapy for CNS Summit, presenting her pioneering work on gene delivery to the brain using focused ultrasound.

- **Dr. Deborah Kurrasch**

  Join us in celebrating Dr. Deborah Kurrasch for her outstanding achievement of being named one of Canada's Top 100 Most Powerful Women for 2024. This prestigious recognition highlights her exceptional leadership, visionary contributions, and profound impact on her field. Congratulations, Dr. Kurrasch, on this well-deserved honor!

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- **Dr Guang Yang**

We are thrilled to celebrate Dr. Yang on the remarkable achievement of renewing his Tier 2 Canada Research Chair in Gene Regulation in Brain Development, awarded by the Natural Sciences and Engineering Research Council of Canada.

- **Dr Kullervo Hynynen**

We are proud to announce that Dr. Hynynen has been elected to the prestigious American Institute for Medical and Biological Engineering (AIMBE) College of Fellows. This esteemed recognition is one of the highest honors in medical and biological engineering, celebrating his groundbreaking contributions to the development of focused ultrasound technology. This achievement underscores Dr. Hynynen's impactful career and pioneering efforts in driving healthcare innovation. Congratulations on this well-deserved honor!

- **Dr Stefan Stricker**

Congratulations to Dr. Stricker for being recognized as Reprogramming Star #15 by the Cellular Reprogramming Flagship Series! This well-deserved honour highlights his outstanding contributions to the field. Be sure to check out his inspiring story here!

Thank you for your ongoing dedication and contributions. Together, we are advancing the frontiers of science and making impactful progress. Here's to a productive and inspiring 2025!

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