

Photo: Cortical Neurons
By: Cecília Rocha

“There is no scientific study more vital to man than the study of his own brain. Our entire view of the universe depends on it.”

Francis Crick (1916 - 2004) was an English molecular biologist, biophysicist, and neuroscientist. He was pivotal in deciphering the helical structure of the DNA molecule.

Outreach & Training Corner

Video:

- Arabic Video.

Check out The Neuro's EDDU's newest video in February to learn about the work being done with iPSC technology and our training initiatives to assist other scientists in their research. All our activities are developed under the principles of open science and aim to accelerate drug discovery, improving the lives of people with neurological diseases. This benefits patients not only in Canada but around the world.

Thanks to Aeshah, Nathalia, Doris, and Tom for making this possible!

EDDU on Social Media:

- Check out The Neuro's EDDU social medias, we have thrilling new posts planned for 2024. To start the year, the new video **"We work at the Neuro's EDDU"** is available, [click here](#) to watch and share it! Congratulations to Anna, Taylor, Doris and, everyone involved.

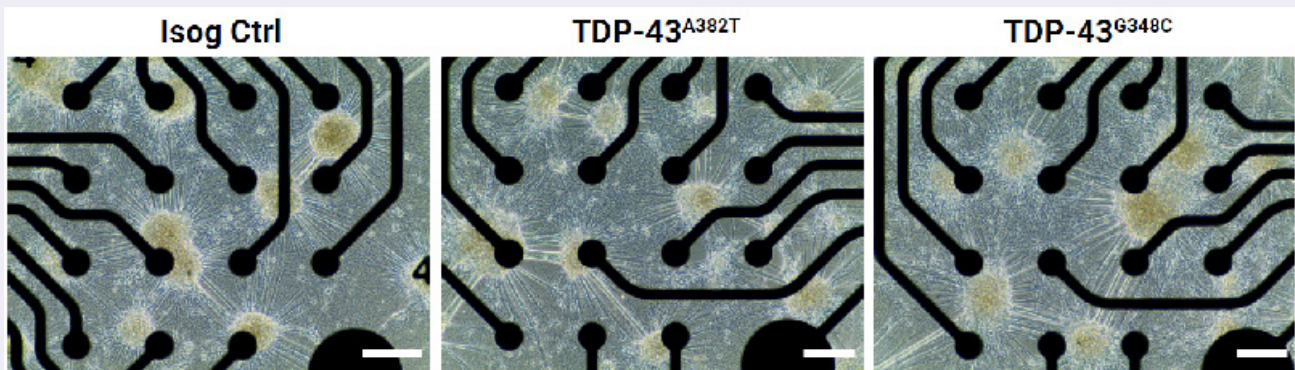
If you have fresh images, innovative ideas, or are interested in being featured in one of our videos, please reach out to Doris or Paula. We welcome your contributions and look forward to connecting with you!

What's New - Publications

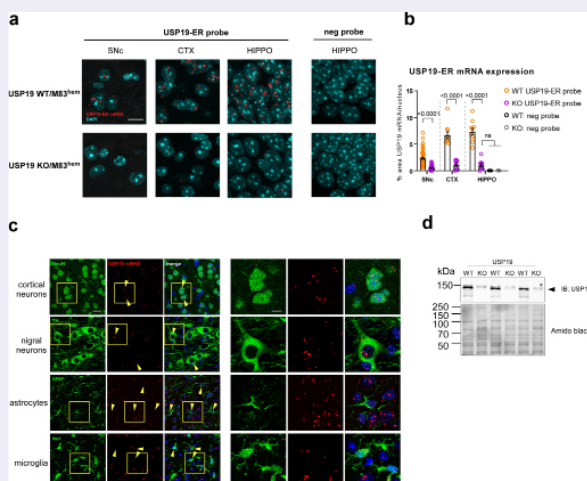
● Sarah Lépine, Angela Nauleau-Javaudin, Eric Deneault, Carol X.-Q. Chen, Narges Abdian, Anna Krystina Franco-Flores, Ghazal Haghi, María José Castellanos-Montiel, Gilles Maussion, Mathilde Chaineau, Thomas M. Durcan.

Congrats to Sarah on the recent acceptance of her paper in iScience, you can see the preprint [here](#) and the publication will be highlighted in our next newsletter

[Homozygous ALS-linked mutations in TARDBP/TDP-43 lead to hypoactivity and synaptic abnormalities in human iPSC-derived motor neurons](#)



● Lenka Schorova, Nathalie Bedard, Anouar Khayachi, Hung-Hsiang Ho, Joao Bolivar-Pedroso, Julie Huynh, Mikaela Piccirelli, Yifei Wang, Marie Plourde, Wen Luo, Esther del Cid-Pellitero, Irina Shlaifer, María José Castellanos-Montiel, Ziqi Yu, Dulce Valeria Carrillo Valenzuela, María Lacalle-Aurioles, Anita Kriz, Yihong Ye, Thomas M. Durcan and Simon S. Wing.



[USP19 deubiquitinase inactivation regulates \$\alpha\$ -synuclein ubiquitination and inhibits accumulation of Lewy body-like aggregates in mice](#)

Congratulations on the great work!

Félicitations!

What's New - Publications

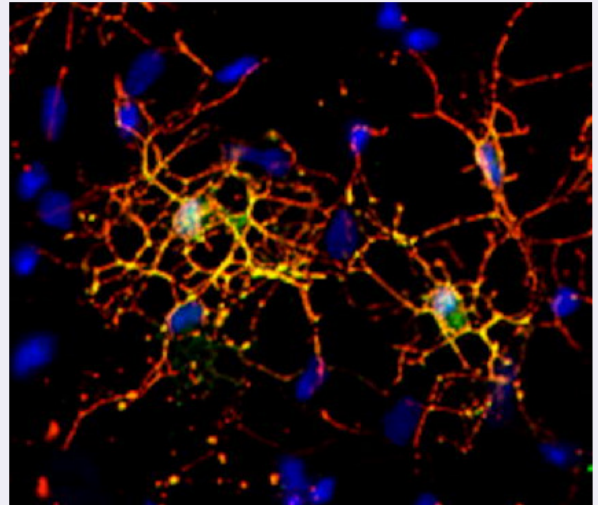
Here are the recent preprints in which team members participated.

- Valerio E.C. Piscopo, Alexandra Chapleau, Gabriela J. Blaszczyk, Julien Sirois, Zhipeng You, Vincent Soubannier, Geneviève Bernard, Jack P. Antel, Thomas M. Durcan.

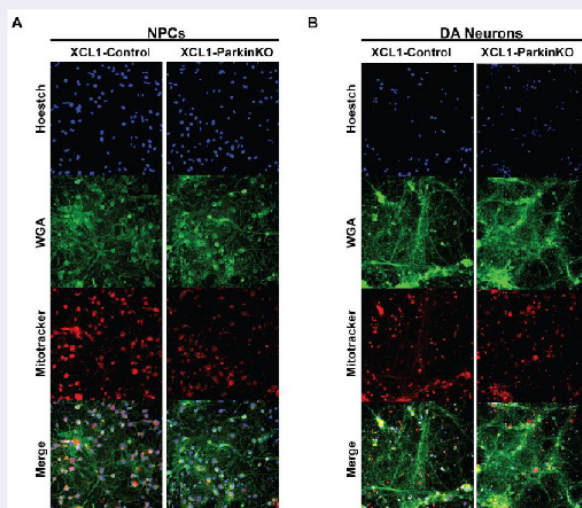
[The Use of a SOX10 Reporter Towards Ameliorating Oligodendrocyte Lineage Differentiation from Human Induced Pluripotent Stem Cells.](#)

is now published in BioRxiv!

Congrats to everyone involved!
Félicitations!



- Rhalea A. Thomas, Eddie Cai, Wolfgang Reintsch, Chanshau Han, Sneha Shinde, Roxanne Larivière, Andrea Krahn, Carol X.Q. Chen, Emmanuelle Nguyen-Renou, Eric Deneault, Zhipeng You, Thomas M. Durcan, Edward A. Fon.



[A deep learning convolutional neural network distinguishes neuronal models of Parkinson's disease from matched controls](#)

Congratulations on the great work!
Félicitations!

What's New - Publications

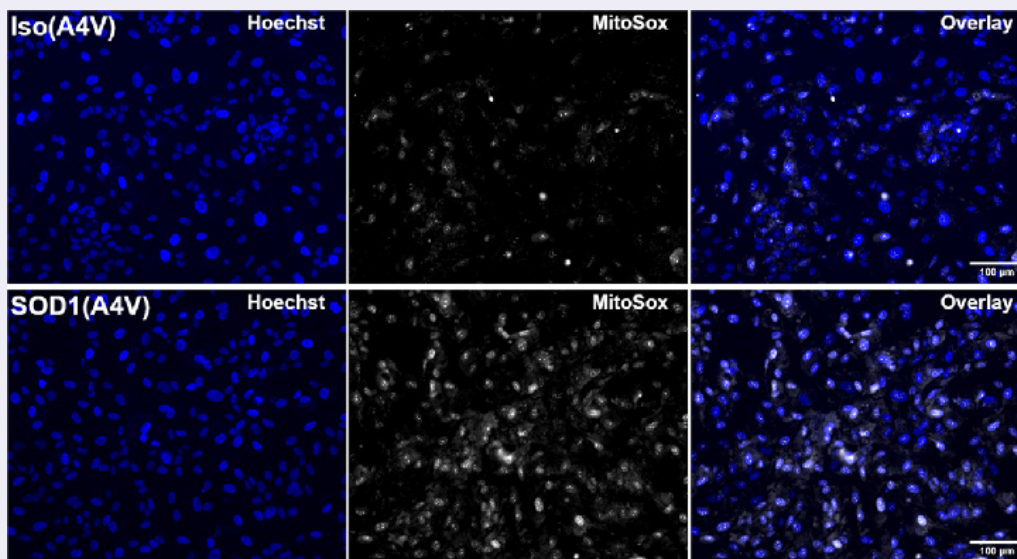
- Vincent Soubannier, Mathilde Chaineau, Lale Gursu, Sarah Lepine, David Kalaydjian, Ghazal Haghi, Guy Rouleau, Thomas M. Durcan, Stefano Stifani.

[Early nuclear phenotypes and reactive transformation in human iPSC-derived astrocytes from ALS patients with SOD1 mutations](#)

is now published in BioRxiv!

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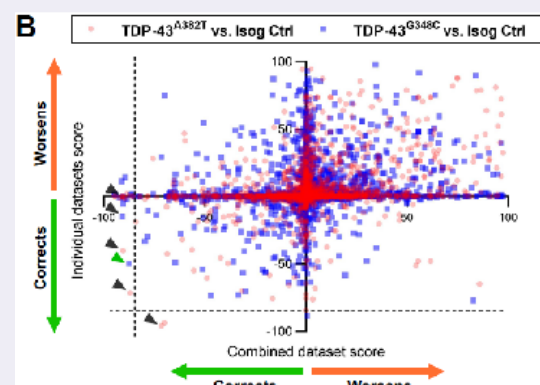
- Sarah Lépine, Gilles Maussion, Alexandria Schneider, Angela Nauleau-Javaudin, María José Castellanos-Montiel, Georgina Jiménez Ambriz, Dan Spiegelman, Narges Abdian, Anna Krystina Franco-Flores, Ghazal Haghi, Lale Gursu, Mathilde Chaineau, Thomas Durcan

[Transcriptome-based screening in TARDBP/TDP-43 knock-in motor neurons identifies the NEDD8-activating enzyme inhibitor MLN4924](#)

is now published in BioRxiv!

Congrats to everyone involved!

Félicitations!



What's New - Events

FEBRUARY

- **Open Science Internal Awards 2024**

Offered by The Tanenbaum Open Science Institute, the award recognizes Neuro researchers and trainees who apply Open Science practices in their work, inspiring peers and fostering collaboration.

The application deadline is 10 a.m., February 9, 2024. [Click here](#) for details.

- **iPSC Seminar**

Thursday, February 08th at 2 pm

"Modeling neurodevelopmental disorders using patient-derived cortical brain organoids" with Robert T. Fremeau, Ph.D., Co-founder, and Chief Scientific Officer at BrainStorm Therapeutics in San Diego, USA.

To register, [click here](#).

- **BRaIN Seminar: Investigating the effects of spaceflight on the human brain**

Wednesday, February 14th at 10:30 am

Dr. Giuseppe Iaria will present groundbreaking research and share his findings on the effects of space travel on the most complex organ in our bodies: the brain.

For online registration, please email brain@muhc.mcgill.ca and for presential [click here](#) to register.

- **NEURO Epilepsy Lecture Series: Memory Networks in Temporal Lobe Epilepsy**

Thursday, February 15th at 4 pm

The 2023-2024 Neuro Epilepsy Lecture Series will include four lectures covering hot topics in basic and clinical epilepsy research. Speakers will include distinguished leaders and rising stars, with the goal of bridging basic research and clinical perspectives.

To register, [click here](#).

- **The Killam Seminar Series: Microfluidic tools for studying cell-cell interactions**

Tuesday, February 20th at 4 pm.

For more information, [click here](#).

What's New - Events

MARCH

- **Herbert Jasper Lecture: Brain Processes for Evaluating & Learning from Rewards**

Tuesday, March 12th at 4 pm

For more information, [click here](#).

- **Sarah's thesis defense**

On March 22th you are all invited to support Sarah for her thesis defense.

The details will be shared soon!

- **George Karpati Lecture - Mitochondrial Medicine: from Mechanisms to Treatments**

Tuesday, March 26th at 4 pm

For more information, [click here](#).

APRIL

- **Dorothy J Killam Lecture: Complex Pattern Recognition: Are Two Half-Brains Better Than One?**

Tuesday, April 9th at 4 pm

For more information, [click here](#).

Open Science Office Hours

Open Science Office Hours (OSOH) is an initiative led by Neuro trainees, supported by the McConnell Foundation and Tanenbaum Open Science Institute.

The OSOH organizes events, provide one-on-one support, and curate resources to make it easy for neuroscience researchers at all levels to integrate Open Science practices in their work.

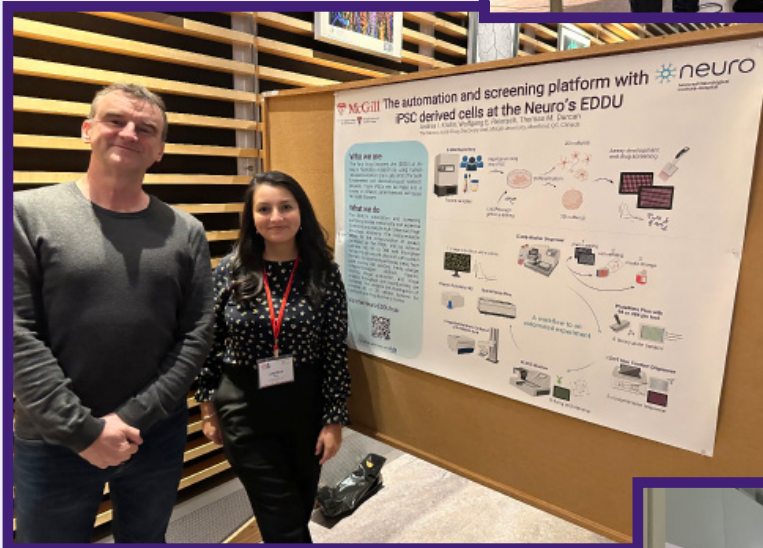
Visit their website to learn more and check out the events calendar.

[Click here!](#)

What's New - EDDU on the road

Congratulations to Taylor Goldsmith, Wolfgang Reintsch, Andrea Krahn, and Julien Sirois for their poster presentations, in collaboration with Nicolas Ferry in the Canadian Network of Scientific Platforms Meeting.

And a special congratulations to Andrea and Wolfgang for winning a best poster prize.



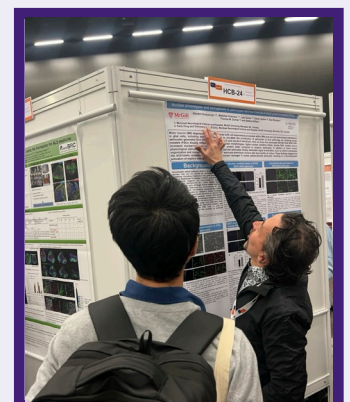
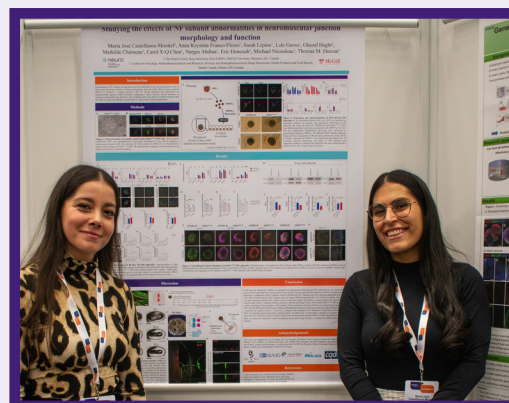
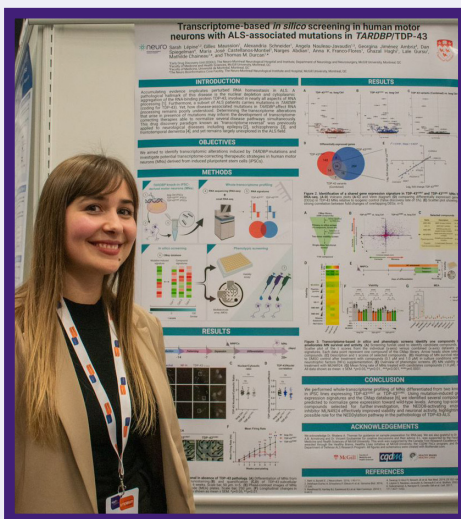
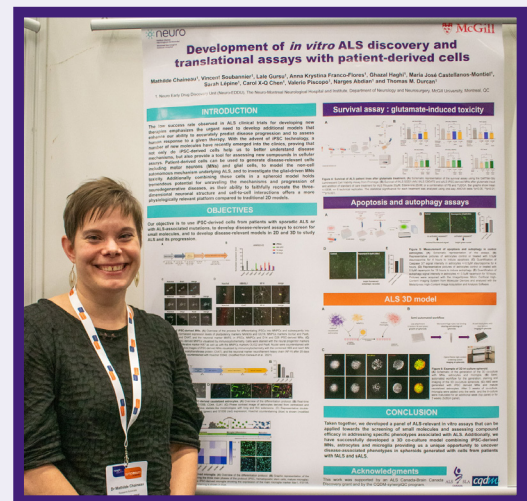
What's New - EDDU on the road

The EDDU was at the ALS/MND symposium in Basel, Switzerland.

We are very happy to extend our congratulations to the following team members for their poster presentations!

- Maria Jose Castellanos Montiel and Anna Kristyna Franco Flores: "Studying the effects of NF subunit abnormalities in neuromuscular junction morphology and function"
- Mathilde Chaineau: "Development of in vitro ALS discovery and translational assays with patient-derived cells"
- Sarah Lépine: "Transcriptome-based in silico screening in human motor neurons with ALS-associated mutations in TARDBP/TDP-43"
- Vincent Soubannier: "Early nuclear phenotypes and reactive transformation in human iPSC-derived astrocytes from ALS patients with SOD1 mutations"

To catch a glimpse of their adventures at the conference, hop over to our [Instagram](#) and check out the video!

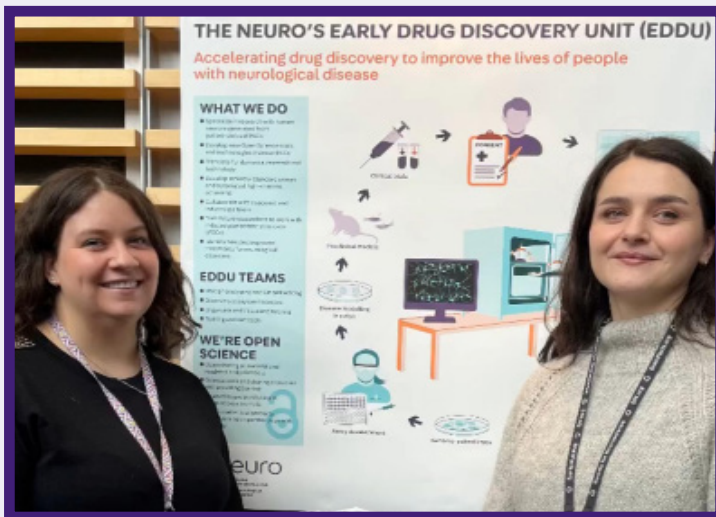


What's New - EDDU on the road

On January 17th, the Neuro's EDDU was delighted to participate in the Core Platforms & Research Centres Day hosted by the McGill Faculty of Medicine and Health Sciences.

Our team had the opportunity to discuss our work with fellow participants during this event.

Don't miss the chance to watch the presentation by the director of Neuro's EDDU, Thomas Durcan, on our [Instagram](#)



The Neuro's EDDU was delighted to participate in the visit of MP Lloyd Longfield, Chair for the Standing Committee on Science and Research, with his wife Barb, in Montreal, last month at the Neuro.

This visit provided a wonderful opportunity to showcase the impactful work we undertake with the support of Brain Canada.



Collaborate with our Newsletter!

- Please, send your contributions (feedback, suggestions, pictures, announcements, etc.) to neuroeddu.mni@mcgill.ca



Connect with us!

- [Instagram](#)
- [LinkedIn](#)
- [EDDU Hub](#)

[March is Brain Health Awareness Month](#)
[Check out the information on:](#)

<https://www.brainlove.ca/>

[Parkinson Awareness Month is on April](#)

[To learn more go to:](#)

<https://www.parkinson.ca/>

Next issue will come in May!
Happy Winter



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