



Contribution ID: 7

Type: **Hands-on session**

## BigBrain data processing with CBRAIN

*Monday 27 October 2025 13:30 (1h 30m)*

CBRAIN is a web portal that provides seamless access to high-performance computing clusters, and is a component of the NeuroHub ecosystem of neuroinformatics tools. This hands-on, interactive tutorial will cover the main functionalities of CBRAIN for the processing and management of data, illustrate them on BigBrain data, and demonstrate their interaction. Practical examples using scientific tools, such as Hippunifold and Cell Detection, in CBRAIN will be covered along with how to access BigBrain-related datasets in various repositories.

### Expected learning outcomes:

In this tutorial participants will learn how to access and use CBRAIN to access and process BigBrain data on HPC resources through an easy-to-use web portal. Specific topics covered will include:

- Working with data and files in CBRAIN
- Finding BigBrain datasets
- Processing BigBrain datasets with scientific tools Hippunifold and Cell Detection
- Exploring and working with processing results
- Downloading and sharing the results

### Preparations & Equipment:

- Laptop (Windows, Mac or Linux)
- NeuroHub or CBRAIN account Participants who do not already have a NeuroHub or CBRAIN account can obtain one in advance of the training session by registering at <https://portal.neurohub.ca> and selecting 'Request Account'.

### Speaker: Bryan Caron

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Bryan Caron is leader of the CBRAIN platform and Co-Principal Investigator and Director, Operations and Development of the NeuroHub project, a core facility platform of McGill University's Healthy Brains, Healthy Lives initiative. Prior to leading CBRAIN and NeuroHub, Bryan was a Research Scientist, Adjunct Professor and Director, Business Operations of the McGill High Performance Computing Centre. Bryan has over 25 years of experience in high performance computing and data intensive science.

**Presenter:** Dr CARON, Bryan (NeuroHub, McGill University)

**Session Classification:** Hands-on Session 2