THE KAVLI FOUNDATION

Evolving strategies and program development

Perspectives from The Kavli Foundation

HRA MEMBER'S MEETING FALL 2023

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Science Program Officer

The Kavli Foundation

Vision: Advance science for the benefit of humanity

Goal: Catalyze innovation and stimulate basic research in astrophysics, nanoscience, & neuroscience.

Guiding Principles

- Partner to Advance Science
- Take the Long View
- Be Adventurous
- Act Globally
- Embrace Diversity

Neuroscience Program: Open Data in Neuroscience

- Critical to promote accessibility, reproducibility and transparency of research
- Facilitates collaboration
- Multiplies impact by enabling data reuse
- Increases return on investment

- **Accelerates scientific discovery**

Vast quantities of data are being generated by neuroscientists, with great effort and expense to make data open.
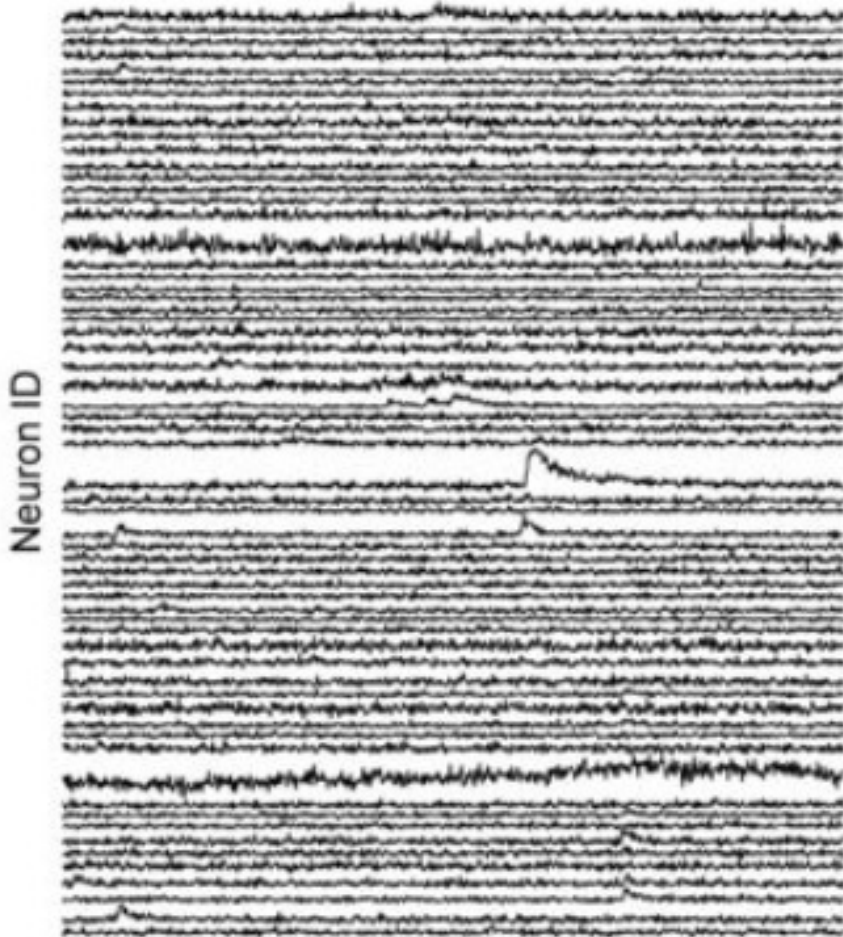
The Problem:

Neuroscience has unique challenges that block effective data sharing and data reuse.

Approach:

- Support projects to make it easier for scientists to standardize and share data
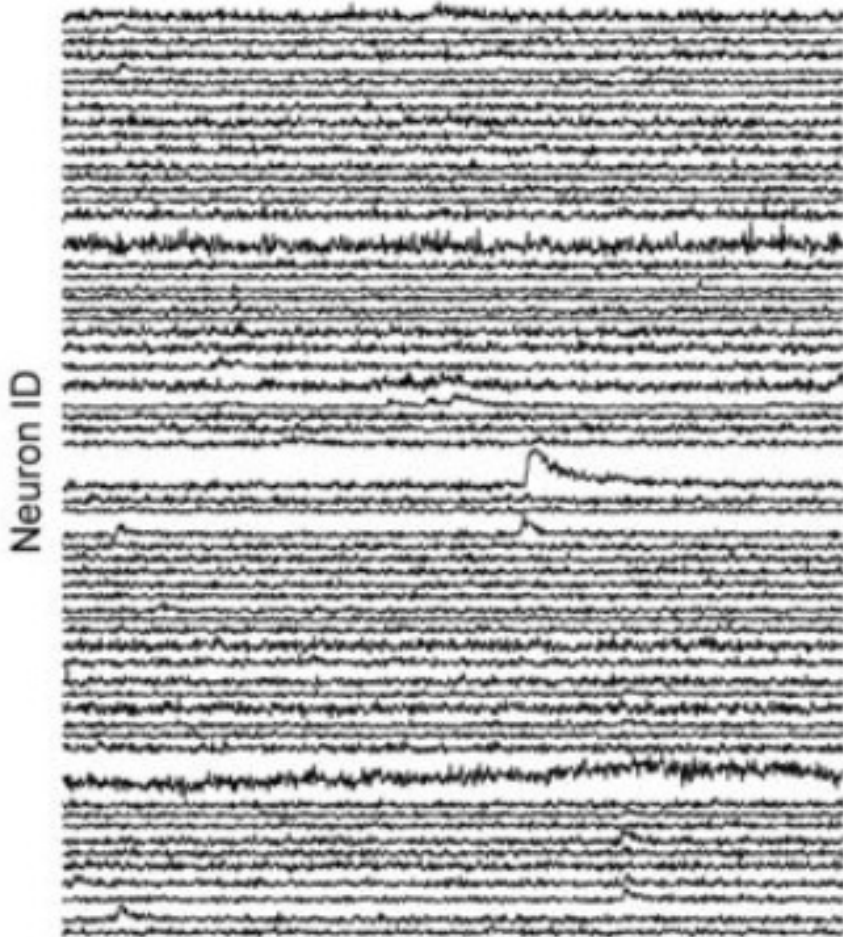
Neurodata Without Borders (NWB)

Opportunity: Breakdown barriers in data sharing and enable brain research worldwide

In 2014, The Kavli Foundation partnered with others to develop NWB as a data standard for cellular neurophysiology.

Neurodata Without Borders (NWB)

Main Activities:

- Meeting/hackathon support
- Software development projects
- Seed grant program for individual labs to adopt NWB

Indicators of Success:

- NIH support for NWB adoption, sustainability and data archive
- 400 available NWB open datasets
- Grantee feedback

New Leadership

Program Evaluation

Resource Allocation

Community Feedback

Factors that inform Future Program Design

1. Review current landscape

What changed since we began supporting NWB data standard?

2. Review problem statement

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What aspects of the problem persist?

What are alternative or complementary approaches?

3. Review strategic guidance and new information

Mission — Are we advancing science in a way consistent with our founder's vision?

Goals — What opportunities can we create to stimulate basic research in neuroscience?

Guiding Principles — What guiding principles can we leverage?

New Information — How can we balance stakeholder needs and requirements while maximizing impact?

4. Develop new approaches and opportunities

Software

Support projects to make it easier for scientists to standardize and share data

Research

Launch new funding opportunities to maximize novel use and discovery from open data.

NWB GUIDE: An intuitive app to convert data

"Ultimately the most useful tools for promoting adoption of NWB will be excellent web-based interfaces that require minimal programming expertise.

Not everyone is equally computer savvy, but everyone generates data files. There needs to be an interface that acknowledges the diversity of expertise."

- NWB Seed Grant Recipient

NWB Graphical User Interface for Data Entry
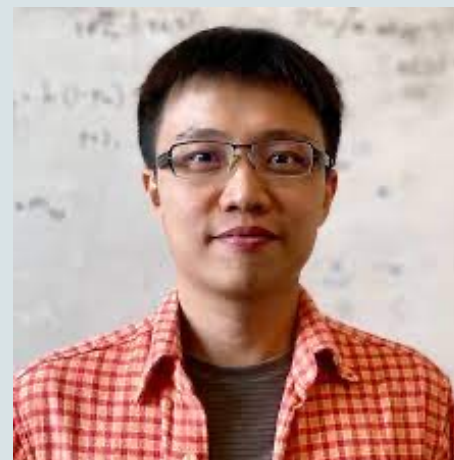
NeuroData Discovery Grants

Hackathon participants were eligible to apply for a one-year award aimed at generating new discoveries from reanalysis of publicly available datasets in the NWB format.

IBR **2023**

11th IBRO World Congress of Neuroscience

GRANADA

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