OUR VISION:
EASY-TO-USE SOLUTIONS FOR ARCHIVING, ANNOTATING AND COMBINING DATA FROM MOLECULAR AND CELLULAR NEUROSCIENCE

NFDI Neuroscience
THE PROBLEM: LACK OF STANDARDS FOR DATA AND METADATA FORMATS AND DATA PROCESSING STEPS
AIMS:

- SPECIFY DATA AND METADATA FORMATS AND PREPROCESSING STEPS
- EVALUATE AVAILABLE REPOSITORIES
- MAKE EXISTING TOOLS FROM OTHER AREAS USABLE FOR MOL & CELL NEUROSCIENCE
- COMMUNITY BUILDING AND MAINTAINING IN MOLECULAR AND CELLULAR NEUROSCIENCES
- PROVIDE SUPPORT FOR LABS AND COLLABORATIVE INITIATIVES
- MAKE DATA SHARING EASIER
- BUILD UP A CURRÍCULUM FOR (UNDER)GRADUATE TEACHING
- PUBLIC OUTREACH TO LAYMEN
USE CASE: SHARING OF SINGLE OR TWO PHOTON IMAGING DATA

What is data quality?
• Data readable and usable
• Meta-data correct and complete
• Automated and community based validation
USE CASE: MAKING MICROSCOPY DATA COMPATIBLE WITH THE DATALAD PORTAL
USE CASE: MANAGEMENT OF COMBINED PHYSIOLOGICAL AND BEHAVIORAL DATA

Physiological data
- Single unit electrophysiology
- Assemblies recording
- Dynamic connectivity

Behavioral data
- Psychophysics
- Video data
- Learning performance

Domain-specific metadata

Local institution
- RDM strategies supporting scientific exchange

World-wide community
- RDM strategies supporting GSP and FAIR responsibilities
- Connecting local and global software strategies
- Open-data and repository strategies

Increasing Complexity in Combined multimodal data sets

NFDI Neuroscience
USE CASE: SUPPORT FOR NEW CRC OR RTG INITIATIVES IN THE MOLECULAR & CELLULAR NEUROSCIENCES

- RDM plan?
- RDM strategy?
- Common data repository?
- Data publications?
- Graduate education in RDM?
HOW CAN YOU JOIN US?

• CONTRIBUTE YOUR SPECIFIC USE CASES, TRY OUT SOLUTIONS DEVELOPED BY NFDI NEURO

• BRING IN YOUR HOME-MADE WORKFLOW TO SHARE WITH THE COMMUNITY

• HELP US TO DEFINE AND MONITOR CRITERIA FOR DATA QUALITY

• SHARE WITH US YOUR TEACHING CONCEPTS ON RDM STRATEGIES AND MEASURES

• SEND US A LETTER OF COMMITMENT

PARTICIPANTS WELCOME!
THE LIN AS LEAD PARTNER

- MAJOR PILLAR OF MAGDEBURG NEUROSCIENCE CENTER CBBS
- RICH EXPERIENCE IN MOLECULAR AND CELLULAR NEUROSCIENCE COMBINED WITH BEHAVIOURAL AND IMAGING STUDIES IN ANIMALS AND HUMANS
- COMBINATORIAL NEUROIMAGING FACILITY AS HUB FOR CELLULAR IMAGING DATA GENERATION AND MANAGEMENT
- ESTABLISHED COLLABORATIONS WITH MICROSCOPY IMAGING CENTERS

Contact: seidenc@lin-magdeburg.de, pavol.bauer@lin-magdeburg.de