

# Week of 9/6 Deliverables

Claritrons team

# Project overview

- CLARITY analysis pipeline
  - Using lightsheet microscopy data
    - Register brains to reference atlas
    - Cell counting/detection/segmentation
    - Tractography
    - Graph estimation

# Claritrons' Goals

- ✓ Background reading/Literature review on CLARITY
  - DoD: List of papers with short summaries on key points

# What We Did

- Background literature reading

1. [Advanced CLARITY for rapid and high-resolution imaging of intact tissues](#)
2. [Wiring and Molecular features of Prefrontal Ensembles Representing Distinct Experiences](#)
3. [Structural and molecular interrogation of intact biological systems](#)
4. [A Manual Segmentation Tool for Three-Dimensional Neuron Datasets](#)
5. [Automated Neuron Tracing Methods: An Updated Account](#)
6. [Automated scalable segmentation of neurons from multispectral images](#)
7. [Deformably Registering and Annotating Whole CLARITY Brains to an Atlas via LDDMM](#)
8. [Large-scale automated identification of mouse brain cells in confocal light sheet images](#)
9. [Mapping of Brain Activity by Automated Volume Analysis of Immediate Early Genes](#)

# Paper summaries

- For longer paper summaries see [here](#)

# Vikram's goals for next week

- Committed
  - Literature review
    - Tractography
      - DoD: Bibliography with list of relevant papers + summary (1 paragraph)
  - Software survey
    - Tractography
      - DoD: List of software tools with functionality and brief description (<1 paragraph)
- Reach
  - Test out software from software survey (contingent upon access to The Boss)

# Srivathsa's goals for next week

- Committed
  - Literature review
    - Cell Counting/Detection
      - DoD: Bibliography with list of relevant papers + summary (1 paragraph)
  - Software survey
    - Cell Counting/Detection
      - DoD: List of software tools with functionality and brief description (<1 paragraph)
- Reach
  - Test out software from software survey (contingent upon access to The Boss)

# Jason's goals for next week

- Committed
  - Literature review
    - Connectomics
      - DoD: Bibliography with list of relevant papers + summary (1 paragraph)
  - Software survey
    - Connectomics
      - DoD: Bibliography with list of relevant papers + summary (1 paragraph)
- Reach
  - Test out software from software survey (contingent upon access to The Boss)