

# Center for Integrative Brain Research – Nino Ramirez

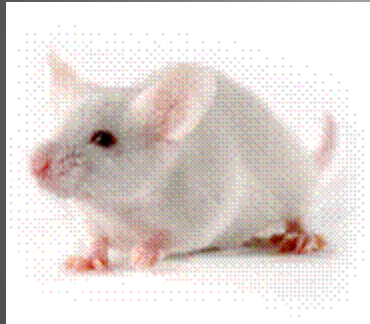
Alena Kantor

# Primary Tasks

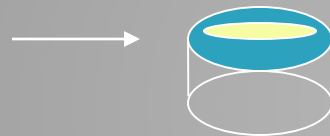
- ▶ Organotypic Slice Preparation, Culture, and Recordings
- ▶ Genotyping
- ▶ Making Artificial Cerebrospinal (ACSF) and other solutions
- ▶ Observing
  - Slicing
  - Patching
  - Recording

# Organotypic Slicing– How it Works

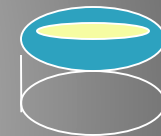
Slice preparation at postnatal day 5 (P5)



Group 1 (Control)



14 Days in vitro (DIV)

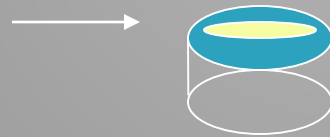


recordings

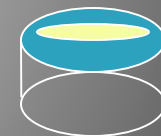
No treatment



Group 2



14 Days in vitro (DIV)



recordings

drug treatment





(B)

C

C

25 Thy1 marker

Pre-24c

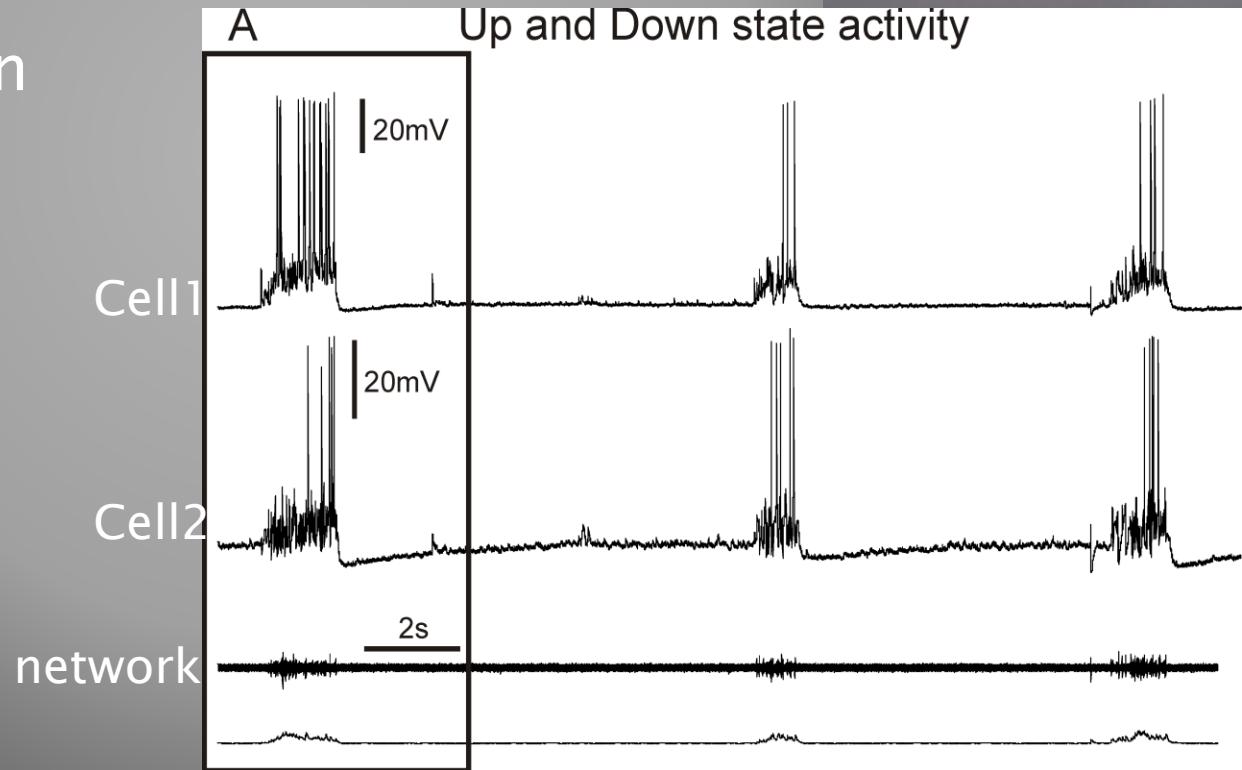
C

C

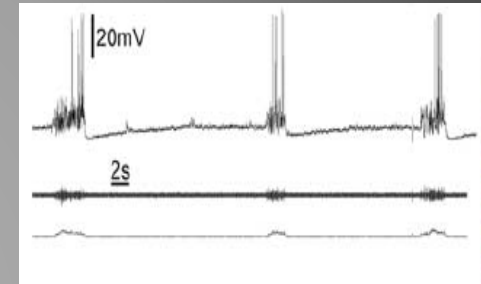
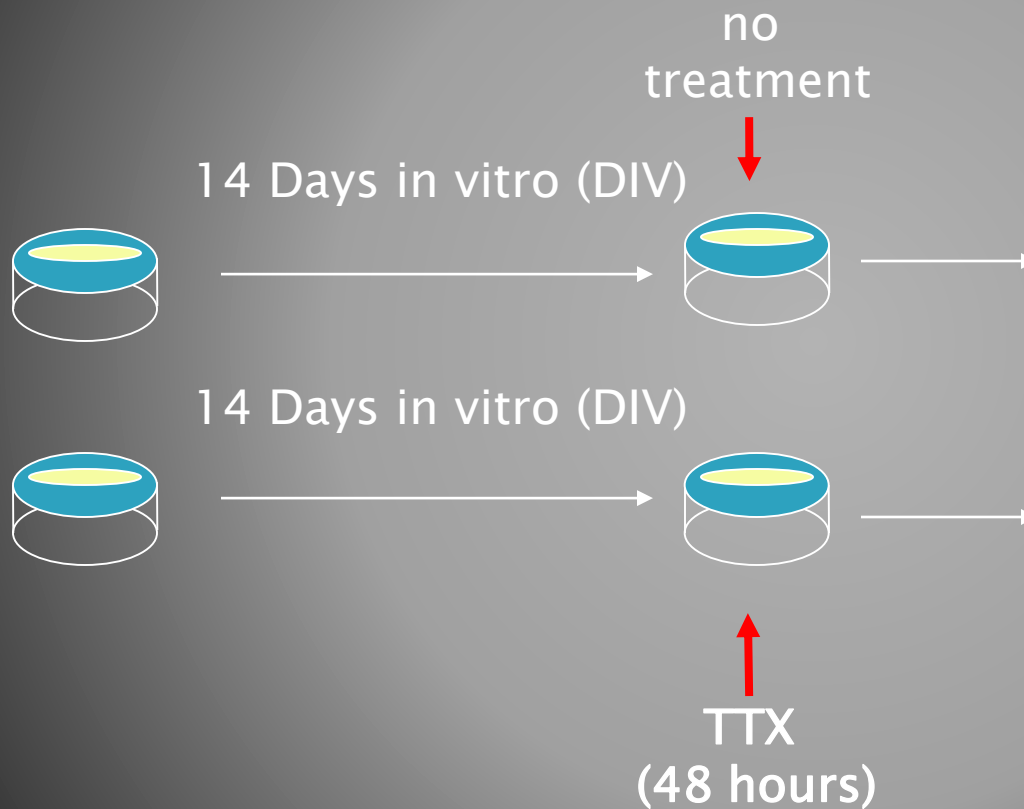
C

# Culture and Recordings

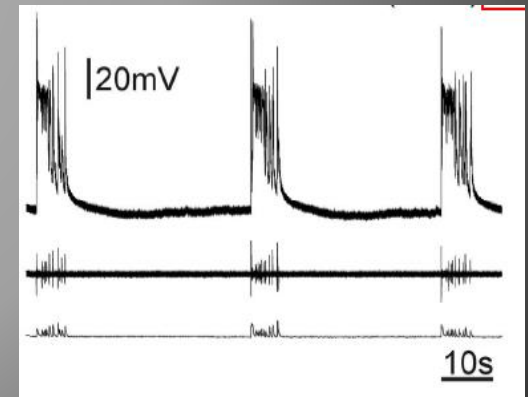
- ▶ Culture
  - Culture Medium
  - Sterilization
  - Some infection
- ▶ Recordings



# Change of Network Activity By Drug Treatments



recordings



recordings



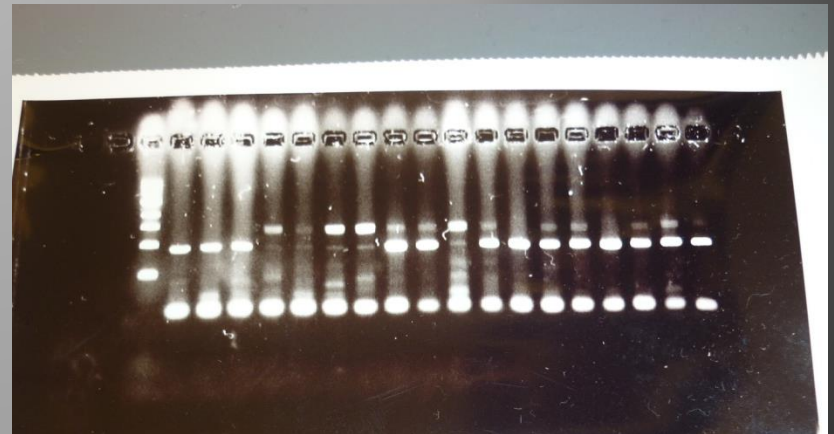
# Genotyping

## ▶ Purpose

- Determine particular genotype (Het, Mutant, Wildtype)
- Used with analyzing data

## ▶ Technique

- Tail-Clipping
- DNA Extraction
- PCR Reaction
- Gel Electrophoresis
- Analysis



# Acknowledgements

- ▶ Summer neuroscience program
- ▶ Researchers in the lab
- ▶ Nino
- ▶ Maggie and Suk-Lin

Thank you!

