

Sarai Diaz



Rollins Research Center Rm. 5087

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## Experience

Staff Research Specialist, Traynelis/Yuan Lab, Department of Pharmacology, Atlanta, GA June 2021 - Present

- Primarily in charge of organizing and performing behavioral experiments for multiple projects, including; Elevated Zero Maze, Locomotor, Rotarod, Sociability Interactions and Electroshock Therapy, PTZ seizure test
- Involved in multiple projects focused on evaluating NMDAR subunit selective compounds and transgenic mice hosting disease associated GRIN variants
- Perform weekly genotyping and sequencing of multiple mouse lines
- Mouse husbandry and daily maintenance of multiple mouse lines
- Lab maintenance; manage experimental lab protocols, making buffers and solutions, drug preparation, buying lab supplies
- Mouse perfusions, brain slicing and mounting, immunofluorescent staining and imaging, Golgi staining and imaging
- Voltage-clamped xenopus laevis oocyte recordings
- DNA mutagenesis and RNA synthesis
- AES 2023

Staff Research Associate, Baraban Lab, Neurological Surgery Department, San Francisco, CA July 2019 – February 2020  
Supervisor: Colleen Carpenter, PhD

- Lab maintenance; making buffers, tricaine stocks, zebrafish embryo solution, organize lab inventory, maintain clean and safe lab environment
- Provided daily maintenance of CRISPR/Cas9 and transgenic zebrafish
- Performed weekly genotyping and sequencing to characterize zebrafish lines
- Zebrafish husbandry
- Taught incoming students zebra fish maintenance and experimental and maintenance protocols
- Mice perfusions, brain slicing and mounting, immunofluorescent staining

Lab Technician Volunteer, Isacoff Lab, Molecular and Cell Biology Department, Berkeley, CA June 2017 –June 2019  
Supervisors: Amy Winans, Ph.D.

- Performed weekly cloning to create valopA mutant zebrafish
- Performed a lot of PCRs, gel purification and mini preps
- Aided in zebrafish microinjection and husbandry
- Maintained tissue culture cell lines



## Education

Bachelor of Arts: Molecular and Cell Biology: Neurobiology August 2018

University of California Berkeley, Berkeley, CA

High School Diploma May 2013

Technology High School, Rohnert Park, CA

Relevant Coursework: Introduction to Neurobiology, Circuits, Systems and Behavioral Neuroscience, Organic Chemistry, General Biology, Physics, Neuroanatomy, Biochemistry, Genetics, Genomics and Cell Biology

## Skills

Molecular biology: RNA synthesis, PCR, gel purification, bacterial transformation, mini preps, Gibson assembly, and primer design, immunohistochemistry staining and imaging

Zebrafish techniques: husbandry, genotyping, basic training in single-cell injections

Tissue culture: basic tissue culture skills

Performed in laboratory classes: Nissl staining, mounting slides, Column chromatography, thin layer chromatography, nuclear magnetic resonance, dissections, gel electrophoresis, micro-pipetting, acid/base titration

Programming experience: Familiar with MATLAB and Python, NeuroLucida

## Volunteer Experience

Cognitive Science Student Association Outreach Volunteer, Berkeley, CA 2016

- Taught a neuroscience course to a class of fifth graders through the anatomy of human and sheep brains

Instructional Technician, Behavioral Science Department, Santa Rosa, CA 2015

- Established and directed activities, reviewed activities and assignments
- Administrative duties

CALServes Mentor, Wright Charter School, Santa Rosa, CA 2015 - 2016

- Directed college readiness activities and taught English to middle school students



## References

Hongjie Yuan, MD, PhD

Associate Professor, Department of Pharmacology and Chemical Biology

Deputy Director, CFREV

Emory University, Atlanta

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Scott C. Baraban, PhD.

Professor, Neurological Surgery

William K. Bowes Jr. Endowed Chair

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Colleen Carpenter, PhD.

Post-doctoral Fellow in the Baraban Lab

University of California, San Francisco

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Amy Winans, PhD.

Post-doctoral Fellow in the Isacoff Lab

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Francisco Figueroa, BS

Lab Manager of the Baraban Lab

University of California, San Francisco

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## Publications

1. Tang W, Beckley JT, Zhang J, Song R, Xu Y, Kim S, Quirk MC, Robichaud AJ, Diaz ES, Myers SJ, Doherty JJ, Ackley MA, Traynelis SF, **Yuan H.** (2023) [Novel neuroactive steroids as positive allosteric modulators of NMDA receptors: mechanism, site of action, and rescue pharmacology on GRIN variants associated with neurological conditions.](#) *Cell Mol Life Sci.* 2023 Jan 16;80(2):42.