Sidney Aki

Ph.D. Student at the University of Colorado, Boulder

EDUCATION

University of California, San Diego, La Jolla, CA — B.S. 2021

University of Colorado, Boulder, CO — Ph.D. 2025

EXPERIENCE

- T32 Sleep and Circadian Scientist, CU Boulder — 2023 — Present
  - Research Objective 1: Use Suvorexant to alleviate the sleep fragmentation phenotype seen in mice during nicotine abstinence.
  - Research Objective 2: Does consolidating sleep during the nicotine abstinence phase with Suvorexant improve other symptoms of nicotine withdrawal such as somatic signs, anxiety-like symptoms, contextual fear conditioning.
- Female nicotine sleep project; CU Boulder – 2021 – Present
  - Research Objective: Using EEG/EMG, examine how female mice sleep architecture is altered during the nicotine abstinence phase.
  - Results: Female, similar to males, experience a sleep fragmentation
  - phenotype during abstinence. The sleep fragmentation phenotype was much more robust in females and can be characterized as NREM fragmentation.
  - Presented data at Society for Neuroscience (2022, 2023), IBG Mini conference (2022, 2023), MAC Sleep Retreat (2023)
- Organizing Committee Member - 5th Annual University of Colorado Sleep and Circadian Summer School
  - Collaborated with Dr. Kenneth Wright to coordinate a summer school conference at CU Boulder, hosting R25 undergraduate scholars and T32 principal investigators.
  - Responsibilities included inviting students and faculty, scheduling lectures and workshops, and managing event logistics to ensure a successful program.
- Undergraduate Research Assistant, Salk Institute, Panda Lab, San Diego, CA — 2018 — 2021
  - Research Objective: Investigate how a Time-Restricted-Feeding diet (16:8) can alleviate locomotor function in Drosophila with a neuromuscular degenerative mutation.
  - Presented data in lab meetings via PowerPoint.
- Neural Data Science Research Project, UC San Diego — Summer 2020
  - Direct Mentor: Dr. Ashley Juavinett
  - Title: "*Analysis of Gene Expression and Neuronal Projections in Parkinson's Disease-related Regions and Genes*"
  - Use Python and open-source data from the Allen Brain Atlas to investigate differential gene expression in the Substantia Nigra, Ventral Tegmental Area, Globus Pallidus Externa
  - Outcome: Awarded *Best Neural Data Science Project*
- McNair Mentor, CU Boulder — 2021 — 2023
  - Met bi-monthly with a CU Boulder undergraduate with the purpose of providing guidance and encouragement into the biomedical graduate field.

- o Outcomes: Leen Abbas finished her masters in IPHY in 2024 and is now pursuing a MD/Ph.D.
- Teaching Assistant, CU Boulder — 2021 — 2023
  - o Direct two undergraduate Human Physiology lab sections per semester. Each lab contained 16 students and endured for four hours. Lectured, answered/posed questions and interacted with undergraduates.
- Neurology Medical Fellowship, Genoa, Italy — Summer 2022
  - o Serve as a medical scribe for a neurosurgeon and neurologist at San Martino Hospital.

Presentations

- Chinese Neuroscience Society 2024 – Poster Presentation
  - o *"Investigating the effects of Suvorexant in Female C57BL/6J mice undergoing nicotine withdrawal"*
- Society for Neuroscience 2022 – Poster Presentation
  - o *"The effects of nicotine withdrawal on sleep in female C57BL/6J mice"*
- Society for Neuroscience 2023 – Poster Presentation
  - o *"The effects of nicotine withdrawal on sleep in female C57BL/6J mice"*
- Institute of Behavioral Genetics Mini-Conference: Poster presentation 2022, 2023
  - o *"The effects of nicotine withdrawal on sleep in female C57BL/6J mice"*
- Invited lecturer at MAC Sleep Retreat 2023
  - o *"The effect of Nicotine Administration and Abstinence on Sleep – Examining Sex differences in C57BL/6J mice"*
- Invited speaker at Hilltop High School 2021, 2022 (Alma Mater)
  - o Speak to current high school students about my experience navigating higher academia, entering a Ph.D. program as a Hispanic student.

PUBLICATIONS

- Reinvigoration of a Diversity, Equity, and Inclusion Committee at the Institute for Behavioral Genetics: Student-driven Progress; *Behav Genet* 54, 24–33 (2024)
  - o https://doi.org/10.1007/s10519-023-10149-8

AWARDS

- CU Boulder Sleep & Circadian Summer School – Best Presentation Award 2024
- Integrative Physiology Travel Award 2024
- CU Boulder Graduate Student Travel Award 2024
- NIDA Travel Award 2022
- CU Boulder Graduate School Travel Award 2022
- CU Boulder Graduate School Diversity Scholarship 2021
- Best Neural Data Science Project 2020
- UCSD Provost Honors 2019, 2020, 2021
- Sunshine Brooks Scholarship 2017 — 2021