

RAKSHITA BALAJI

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EDUCATION

University of Maryland, College Park Class of 2023
Major: Physiology & Neurobiology
Honors College: Gemstone 4-Year Independent Research Program

RESEARCH EXPERIENCE

Undergraduate Researcher
Caras Lab **Spring 2020 – Present**
Working under Dr. Melissa Caras in laboratory of perceptual learning and neural plasticity at the University of Maryland, College Park. Studying auditory perception pathways in Mongolian gerbil models using various lab techniques, including wireless electrophysiology recordings, histology, and behavioral experimentation.

High School/ Summer Paid Intern
Keller Laboratory of Sensory Perception **Fall 2018 – Summer 2019**
Completed internship under Dr. Asaf Keller at the University of Maryland, Baltimore, School of Medicine over the 2018-2019 academic year and worked as a paid intern over summer 2019. Conducted independent research project titled, “*The Brains Behind the Addiction: Opioid Abuse and its Neurobiological Implications*” during academic year through Howard County Intern/Mentor program, and presented at the Howard County Student Learning Conference at Johns Hopkins Applied Physics Laboratory.
Laboratory research conducted on the effects of perinatal opioid exposure on adolescent mice.

COMMUNITY INVOLVEMENT

International Youth Neuroscience Association **Summer 2018 – Present**
Volunteer on international team of high school and undergraduate/graduate students working together to connect high school students to opportunities in pre-undergraduate neuroscience education, increasing access to neuroscience education for interested students through club chapters at national and international secondary schools.

EMPLOYMENT EXPERIENCE

GSE Systems, Temp. Systems Engineer Intern **Summer 2019**
Configured schematics for energy equipment simulations, organized data, noted discrepancies between customer-modeled schematics and manufactured graphics, inspected and edited graphics.

Columbia Association, Tennis Desk Attendant **Winter-Summer, 2018**
Provided customer service, helped members of local communities find sports programs and booked time for play on indoor and outdoor tennis courts under Columbia Association, oversaw and organized activity at tennis clubs.

EXTRACURRICULAR ACTIVITIES

UMD Honors Ambassadors **Fall 2019 - Present**
Serving as a representative of the Honors College at UMD College Park for prospective students and their family members, speaking on student panels to answer questions regarding the Honors College and UMD, connecting current and prospective students with opportunities throughout respective Honors College programs.

UMD Rising Researchers **Fall 2019 - Present**
Introducing high school students to the realm of scholarly research, writing teaching modules and presenting at different Maryland high schools, speaking with students about opportunities in the research field and how to get involved.

UMD Treble Choir **Fall 2019 - Present**
Singing in the treble chorus at UMD.

LABORATORY EXPERIENCE/ SKILLS

Handling: Care for laboratory mice and gerbils
Minianalysis: Electrophysiology data analysis
ClampFIT: Electrophysiology data analysis
GraphPad Prism: Graphical representations of data

AnyMAZE: Rodent behavioral data analysis
Stereotaxic Wireless EEG Implant Survival Surgery:
Implantation to run tests in awake, behaving rodents