

Travis Baker Laboratory

Cognitive Neuroscience, Decision-making, Substance use disorders: My laboratory currently consists of 4 predoctoral and 2 postdoctoral fellows, 2 full-time research staff, and a regular cohort of rotating undergraduate internship students. Since joining Rutgers in 2016, I have been directly involved in mentoring many extremely talented students (8 undergraduate students), including trainees with backgrounds in neuroscience, psychology, and clinical science. And in that time, I have successfully served as mentor on training fellowships awarded to my undergraduate and graduate student trainees (e.g., RISE at Rutgers, a nationally acclaimed summer research program for outstanding undergraduates from diverse backgrounds; Minority Biomedical Research Support [MBRS] Program, NIDA Summer Research Internship Program). Students and staff under my direct mentorship have gone on to top-tier graduate and medical programs (New Jersey Medical School, Princeton, University of Pennsylvania) and to competitive research positions including National Institutes for Drug Abuse. I feel confident that I will be able to mentor future Beckman Scholars in the same way I mentored these prior trainees. Under my supervision, student will learn a solid background in cognitive neuroscience methods (e.g. electroencephalography, functional and structural magnetic resonance imaging, and non-invasive brain stimulation), clinical research, and professional development. Students in my lab will get hands on experience with conducting cutting-edge research in clinical cognitive neuroscience, including data acquisition and analysis, clinical and participant management, and weekly readings and discussions about current topics in cognitive neuroscience.

During the 15-month program, I plan to serve as a mentor for the Beckman scholar during the summer (40h/week) and 10h/week during the academic year, and during this time, provide guidance, oversight, and encouragement. I will continuously provide feedback regarding their mentorship contract, progress, and experience, and meet in person or communicate regularly with my mentee to review their progress and help them work toward identified goals.

Overall, I plan to maintain confidentiality of our relationship. It is my responsibility to effectively pass along the knowledge and experiences I have acquired throughout my academic training, and encourage rigor, honesty, and integrity among future scientists, and increase public support for science. In all my mentoring experiences, I aim to influence, motivate, and inspire students and future researchers through an integrated and holistic approach to scientific investigations. With that in mind, I strive to facilitate the appreciation for cognitive science, provide fundamental knowledge and tools applicable to students' pedagogical career, and to invite students to utilize their life experiences when learning. In the laboratory, I am a firm believer in active learning, and try to maintain a very lively and interactive lab. To me, learning how to do science is about presenting theories, concepts, and empirical material to students in a way that they can integrate this information into their own learning and personal experience. In my cognitive neuroscience lab, we use an inquiry-based curriculum, centering on the principle that all students (regardless of their level) should do science themselves. Doing science entails defining a psychological problem or question, addressing the problem through experimentation, and interpreting the findings. An inquiry-based curriculum offers many opportunities for active learning, creating an atmosphere in which students must take responsibility for their learning. I believe this would ensure relevancy and promote higher-order thinking that encourages deep and creative approaches to learning the subject at hand. In sum, through a holistic approach to mentoring, I aim to cater for the differing learning needs and styles of all students to maximize opportunities for learning, and I look forward to future opportunities.