Faculty member or graduate student
Dr. Susan Sangha

Description of research area
Clinical disorders arising from maladaptive emotion regulation present a large burden on society worldwide. Many of these disorders show comorbidity, for example, addiction with anxiety disorders. Even though there has been much research on reward and fear processing, the majority of studies have been conducted in parallel, investigating the circuitries separately. If we hope to understand and treat comorbid disorders resulting from maladaptive emotion regulation we need to increase our efforts in investigating how these circuitries integrate their functions to influence behavior. This is the focus of the Sangha Lab. We have developed a novel behavioral paradigm explicitly designed to assess reward, fear and safety cue learning together in order to investigate the multiple circuitries that regulate these learning processes. Using a combination of behavioral, electrophysiological and pharmacological techniques, we track biological changes in the rat brain as it is learning about reward, fear, and safety signals.

Description of undergraduate participation
Assisting with training rat behavior and analyzing videos; handling rats

Research setting
Behavioral neuroscience lab investigating rat behaviors, such as reward seeking and fear behaviors. In this project, pharmacological agents will also be administered to determine their effects on memory.

Number of assistants needed
4-5

Contact information
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Additional comments
A minimum of 2 credits (6 hours/week) is required. Preference given to those who can commit 3 credits (9 hours/week). Freshmen and sophomores are highly encouraged to apply