Fall 2020
(Blackboard Collaborate; 4-5PM)
Sep. 14—Student Research Presentation – Taylor Keding
Sep. 21—Student Research Presentation – Sue Yi
Sept. 28—Student Research Presentation – Anjani Chakrala
Oct. 5—Student Research Presentation – Charlene Rivera-Bonet
Oct. 12—Student Research Presentation – Marisa Ross
Oct. 19—Diversity topic
Oct. 26—SfN – No class
Nov. 2—Diversity topic
Subgroup 301: COVID 19: How is the coronavirus affecting my brain?
Faculty leader: Cara Westmark, Student TA leaders: TBD, satisfies ETHICS
Nov. 9 —Subgroup 1, 1st talk
Nov. 16—Subgroup 1, 2nd talk
Nov. 23—Subgroup 1, 3rd talk
Within the first 6 months of 2019, a 30 kB single-stranded RNA virus spread across the globe, shut down national economies, and affected over 7.5 million people killing over 420,000. This topic will explore the effects of SARS-CoV-2 from a neuroscience perspective. Specifically, based on student preference, we can discuss molecular & cellular effects on neurons, immunological effects on the brain (the cytokine storm), the neuropathology of COVID-19, the psychological impact of COVID-19, or neurological disease-specific effects.

Subgroup 302: Role of astrocytes in neurodegeneration
Faculty leaders: Mariana Pehar/Marcelo Vargas, Student TA leaders: TBD
Nov. 30—Subgroup 2, 1st talk
Dec. 7—Subgroup 3, 2nd talk
Dec. 14—Subgroup 3, 3rd talk
Astrocytes are key regulators of CNS homeostasis and respond to CNS damage, such as trauma, infection, ischemia and neurodegenerative diseases through a process referred to as astrogliosis. Astrogliosis is a complex remodeling of astrocyte biology and most likely represents a continuum of potential phenotypes that affect neuronal function and survival in an injury-specific manner. Both, beneficial and harmful effects have been attributed to reactive astrocytes. The objective of this subgroup is to explore the potential role of astrocytes in neurodegeneration.
(Possible subgroup meeting time/day: 4-6 T)

Spring 2021
(Blackboard Collaborate; 4-5PM)
Jan. 25—Student Research Presentation –
Feb. 1—Student Research Presentation –
Feb. 8—Student Research Presentation –
Feb. 15—Student Research Presentation –
Subgroup 301: Multi-modal Imaging of Human Brain Development
Faculty leader: Doug Dean, Student TA leaders: Marissa DiPiero and Olivia Surgent, satisfies ETHICS
Feb. 22—Subgroup 1, 1st talk
Mar. 1—Subgroup 1, 2nd talk
Mar. 8—Subgroup 1, 3rd talk
The use of non-invasive neuroimaging tools in early infancy has great potential for uncovering processes underlying developmental milestones in both brain anatomy and associated behaviors. Obtaining an understanding of such mechanisms can provide important insights into explaining and detecting developmental phenomenon. Furthermore, these neuroimaging tools may not only aid in the earlier detection of neurodevelopmental and psychiatric disorders, but also be used to monitor the efficacy of targeted or therapeutic treatments. This subgroup proposes to explore the capabilities and pitfalls of multiple non-invasive neuroimaging technologies that can be harnessed to study human brain development during its most critical period.
Mar. 15—Spring Recess; no seminar
**Subgroup 302: Medication Assisted Exposure Therapy: Erasing Conditioned Fear.**
Faculty leader: Brendon Nacewicz, Student TA leader: Nakul Aggarwal, satisfies ETHICS
Mar. 22—Subgroup 2, 1st talk
Mar. 29—Subgroup 2, 2nd talk
Apr. 5—Subgroup 2, 3rd talk
*Over the past 2 decades, a new model has emerged in which fear conditioning becomes labile upon recall, and a protein synthesis-dependent remodeling is necessary to reconsolidate the memory trace. The pathway has now been mapped to include NMDA receptors and prion-like activation of synapse-specific protein synthesis. Clinical application is growing using experimental and currently-used medications to accelerate psychiatric treatment of anxiety and post-traumatic stress.*

**Subgroup 303: Mind-body matters: Mechanisms of reciprocal interaction between emotion and inflammation**
Faculty leader: Melissa Rosenkranz, Student TA leaders: TBD, satisfies ETHICS
Apr. 12—Subgroup 3, 1st talk
Apr. 19—Subgroup 3, 2nd talk
April 26—Subgroup 3, 3rd talk
*In this sub-group, we will begin with an overview of the animal and human evidence demonstrating bi-directional effects of emotion on inflammation in the body and vice versa. We will then cover the biochemical and neural mechanisms through which these interactions occur, methods for measurement of these mechanisms, and their clinical relevance and utility in intervention.*