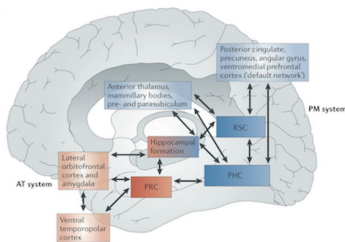


# MEMOLAB @ BOSTON COLLEGE

In the **Memory Modulation Lab**, we use the tools of cognitive neuroscience to answer questions about memory and the brain.



Our research incorporates a combination of methods, including **fMRI** (multivariate pattern analysis, functional connectivity, high-resolution imaging, etc.) and **EEG** (time-frequency analysis, event related potentials, etc.). We use these tools to understand the roles of different brain regions during memory formation and retrieval.

## Meet the lab

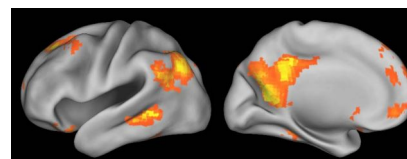


Maureen Ritchey, PhD *Director*  
Rose Cooper, PhD *Postdoc*  
Paula Brooks *Visiting PhD student*

Helen Schmidt *Lab Manager*  
Rosalie Samide *PhD student*  
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## Key research questions

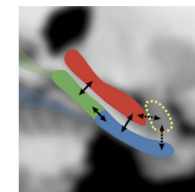
### How does the brain make and maintain memories?



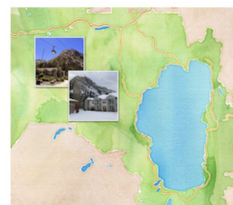
We use neuroimaging techniques like fMRI and EEG to characterize interacting brain networks involved in memory function, including encoding, consolidation, and retrieval.

### How do emotional experiences modulate learning and retention?

The emotional significance of an event is crucial to determining what we remember and what we forget. We investigate how emotional arousal affects the durability of memories, and how emotion regulation strategies impact the retrieval of emotional memories.



### How does the context of an individual moment shape its representation in memory?



Episodic context– i.e., where and when something happened– helps to organize our memories and can serve as a powerful memory cue. We are currently investigating the effects of contextual binding (i.e., relating contextual information to items in memory) and reinstatement on episodic memory retrieval.

## Find out more

Find out more about us, our papers, and lab news at:

www.the **MEMOLAB**.org

Contact: [thememolab@bc.edu](mailto:thememolab@bc.edu)