

# **Annabelle Singer**

**Assistant Professor, Biomedical Engineering at Georgia Tech College of Engineering**  
Atlanta, GA, US

Annabelle Singer researches to understand how neural activity produces memories and spurs the brain's immune system.

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## **Biography**

Annabelle Singer is an Assistant Professor in the Coulter Department of Biomedical Engineering at Georgia Tech and Emory University. The central goal of Dr. Singer's research program is to understand how neural activity produces memories and spurs the brain's immune system. Dr. Singer's research integrates innovative behavioral, electrophysiological, and computational methods to identify and restore failures in neural activity that lead to memory impairment. Dr. Singer has established and continues to develop a new therapeutic approach to Alzheimer's disease, novel forms of non-invasive stimulation, and new ways to manipulate the brain's immune system. Additionally, using non-invasive approaches, she is translating her discoveries from rodents to develop radically new ways to treat diseases that affect memory in humans. Dr. Singer completed a post-doctoral fellowship in Ed Boyden's Synthetic Neurobiology Group at MIT and she received her Ph.D. in Neuroscience from UCSF, performing research in the laboratory of Loren Frank.

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## **Areas of Expertise**

Alzheimer's Disease, Virtual Reality, Optogenetics, Learning & Memory, Neural Coding & Decoding, Computational Neuroscience, Neural Stimulation, Neuroengineering, Animal Models of Disease

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## **Affiliations**

Center for Neural Engineering

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## **Education**

**MIT Synthetic Neurobiology Group**  
Post Doctoral Fellowship

**University of California, San Francisco**  
Ph.D. Neuroscience

**Wesleyan University**  
B.A.

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