



*School of Education
Colloquium Series*

**Learning and the Brain:
Contributions of
Neuroscience to Education**

**December 5
1:25–2:25 pm
Willard Hall 207**

featuring
**Rachel Romeo
McGovern Institute for
Brain Research
MIT**

Neuroscience Approaches to Alleviating the Academic “Achievement Gap”

Children from lower socioeconomic backgrounds arrive at school already years behind their more affluent peers in many cognitive and academic domains, and these achievement gaps often widen. What factors contribute to these disparities, and how can educational neuroscience help to level the playing field? In this talk, Rachel Romeo will present research on the neural mechanisms by which variation in children’s early experiences contributes to their linguistic and cognitive development. She will then present ongoing projects examining how socioeconomic differences during development may produce environmental interactions in the cognitive and neural phenotypes of specific learning disabilities. Finally, she will discuss how socioeconomic variation in treatment response, both in terms of behavioral change and neuroplasticity, can shed light on choosing the most appropriate intervention for each child.

About Rachel Romeo

Rachel Romeo, PhD, CCC-SLP is a research fellow in the Translational Postdoctoral Training Program in Neurodevelopment at Boston Children’s Hospital and the Massachusetts Institute of Technology (MIT). Her work combines methods from the fields of developmental psychology, cognitive neuroscience, education, and speech-language pathology to approach questions of how children’s early experiences impact their linguistic, cognitive, and neural development. One of her primary aims is to better understand the mechanisms underlying socioeconomic disparities in academic achievement and how neuroscience-informed interventions can help close the achievement gap.

She attained a PhD in Speech and Hearing Bioscience and Technology from Harvard University, an MS in Language Sciences from University College London, a BA in Psychology and Linguistics from the University of Pennsylvania. She completed her clinical training as a Speech-Language Pathologist at the MGH Institute of Health Professions.