

The Brain's Connectivity Networks in Disease and Recovery

June 29

Tuesday, 12:30pm

Online Webinar

For Researchers



Speaker:

Amy Kuceyeski, Ph.D.

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in Radiology
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Host: Glen Prusky, Ph.D.

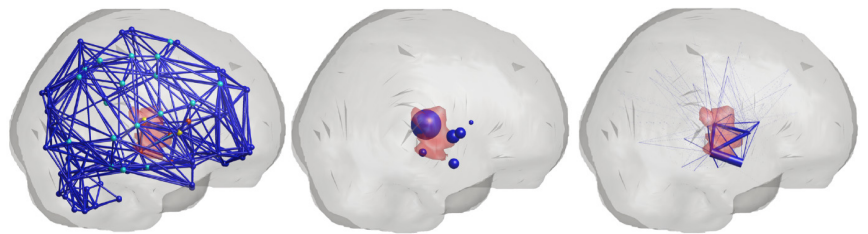
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Abstract

Amy Kuceyeski is the PI of the Computational Connectomics (CoCo) Lab at WCM. Her lab focuses on using quantitative methods, including machine learning, applied to MRI-based measures of brain connectivity networks to understand the mysteries of the human brain. One major interest of our lab is in uncovering connectome-based mechanisms of impairment and recovery after neurological injury or disease, including traumatic brain injury, multiple sclerosis and stroke. If we can understand brain-behavior relationships, we may be able to develop accurate diagnostics, prognostics and individualized therapeutics that can boost recovery after neurological disease or injury.



1. A. Kuceyeski, A., Maruta, J., Relkin, N., and Raj, A. (2013) **The Network Modification (NeMo) Tool: elucidating the effect of white matter integrity changes on cortical and subcortical structural connectivity.** *Brain Connectivity*, 3(5), p 451-63. PMC3796322.
2. Olafson ER, Jamison KW, Sweeney EM, Liu H, Wang D, Bruss J, Boes A, Kuceyeski A. **Functional connectome reorganization relates to post-stroke motor recovery and structural disruption.** *bioRxiv*. January 2021. doi:10.1101/2021.05.27.445834
3. Tozlu C, Jamison K, Gu Z, Gauthier SA, Kuceyeski A. **Estimated connectivity networks outperform observed connectivity networks when classifying people with multiple sclerosis into disability groups.** *bioRxiv*. January 2021:2021.06.07.447376. doi:10.1101/2021.06.07.447376.