

June 20, Casey Greene, Deep Learning: What is it Good for?



Deep learning methods have shown substantial promise across many tasks, including some relevant to biomedicine. I'll chat about some examples of how these algorithms can be used as well as the challenges that I expect us to face as we start using these on a massive scale. Also, as deep learning methods proliferate in the biomedical sciences, I expect that we will need to reconsider how we discuss reproducibility in computational research. I'll touch on a couple steps towards these objectives, but substantially more work will be needed.

[Session details...](#)

BIO:

Dr. Casey Greene is an Assistant Professor of [Systems Pharmacology and Translational Therapeutics](#) in the [Perelman School of Medicine at the University of Pennsylvania](#). Dr. Greene's lab develops deep learning methods that integrate distinct large-scale datasets to extract the rich and intrinsic information embedded in such integrated data. This approach reveals underlying principles of an organism's genetics, its environment, and its response to that environment. Extracting this key contextual information reveals where the data's context doesn't fit existing models and raises the questions that a complete collection of publicly available data indicates researchers should be asking. In addition to developing deep learning methods for extracting context, a core mission of his lab is bringing these capabilities into every molecular biology lab. Before starting the Integrative Genomics Lab in 2012, he earned his Ph.D. for his study of gene-gene interactions in the field of computational genetics from Dartmouth College in 2009 and moved to the Lewis-Sigler Institute for Integrative Genomics at Princeton University where he worked as a postdoctoral fellow from 2009-2012. The overarching theme of his work has been the development and evaluation of methods that acknowledge the emergent complexity of biological systems.

SUMMARY:

Topic: Deep Learning: What Is It Good For?

Speaker: Casey Greene, Ph.D., Assistant Professor of Pharmacology, University of Pennsylvania, Perelman School of Medicine

Date: Wednesday, June 20, 2018

Time: 11 AM – 12 PM ET

Room: 7E030

WebEx: <https://cbiit.webex.com/cbiit/onstage/g.php?MTID=ecc6be42f6ce7417bb97aa4ffba916093>

Event Number: 735 389 625

Event Password: \$Peakerseries18

You are invited to listen to Dr. Greene's presentation in the NCI Shady Grove Building on Medical Center Drive or via WebEx. **Dr. Greene will present remotely via WebEx.**

Presentation: A screencast of the presentation will be available for viewing after the event on the [NCI CBIIT Speaker Series YouTube Playlist](#) 

About the NCI CBIIT Speaker Series:

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