

BHI Technical and Educational Lecture Series

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Lecture schedule

<https://www.embs.org/bhi/lectures/>

The Digital Physiome: Wearables for Early Disease Detection

Dr. Jessilyn Dunn

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Abstract: Digital health is rapidly expanding due to surging healthcare costs, deteriorating health outcomes, and the growing prevalence and accessibility of mobile health and wearable technologies. Recent technological advancements make it possible to closely and continuously monitor individuals using multiple measurement modalities in real time. We are collecting and integrating such wearables data with clinical information to gain a more precise understanding of health and disease and develop actionable, predictive health models for improving cardiometabolic and infectious respiratory disease outcomes. We are simultaneously developing open source data science and machine learning tools for the digital health community, including the Digital Biomarker Discovery Pipeline (DBDP), to facilitate the use of mobile device data in healthcare.

Biosketch: Dr. Jessilyn Dunn is Assistant Professor of Biomedical Engineering and Biostatistics & Bioinformatics at Duke University, and Director of the BIG IDEAs Laboratory whose goal is to detect, treat, and prevent chronic and acute diseases through digital health innovation. She is PI of the CovIdentify study to detect and monitor COVID-19 using mobile health technologies, and PI of a Chan Zuckerberg Initiative grant to develop the DBDP, an open-source software platform for digital biomarker development. Dr. Dunn was an NIH Big Data to Knowledge (BD2K) Postdoctoral Fellow at Stanford and an NSF Graduate Research Fellow at Georgia Tech and Emory, as well as a visiting scholar at the CDC. Her work has been internationally recognized with media coverage from the NIH Director's Blog to Wired, Time.

Talk recording:

https://pitt.zoom.us/rec/share/W5EVvghj0yRXIGNhHSVdtodI3zv8_-p4ZhzV5FVzH8n-VjgtOcEeTa9oCLHS7lUp.XIKzycjnPg--cgl