



## DEPARTMENT OF GENETICS & HUMAN GENETICS INSTITUTE OF NEW JERSEY

## RESEARCH SEMINAR

## "Understanding polygenic risk from the lens of a learning healthcare system"



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The wealth of insights from genome-wide association studies has led to increased interest in the potential clinical applications of polygenic risk scores. Here, biobanks provide a novel opportunity to examine polygenic effects in real-world healthcare settings and to investigate across hundreds to thousands of traits. In this paper, I will describe the development of the Colorado Center for Personalized Medicine, a large institutional biobank with a robust and scalable return-of-results program. I will then discuss how we have utilized this new resource to study the potential, as well as the pitfalls, of polygenic scoring, particularly across the spectrum of human genetic diversity.