PUBLIC HEALTH RELEVANCE

The underlying mechanisms of many of humanity's most challenging diseases are linked to specific and oftentimes complex alterations to an individual's genome. This project will develop computational resources and tools for discovering one type of common yet powerful genomic variation, known as structural variation, and for associating specific structural variants with disease. The analytical tools and resources we develop will be broadly applicable to studies of the genomic mechanisms of disease, towards the ultimate goal of improving human health.