

**Name of Submitter:** Huei-Chen Lee

**Submitter Email:** [leehueichen@niehs.nih.gov](mailto:leehueichen@niehs.nih.gov)

## **From Mendelian Genetics to Polygenic Traits**

A polygenic trait is a characteristic, such as height or skin color, that is influenced by two or more genes. As we've gotten better at identifying regions of the human genome that are associated with disease and at analyzing complicated genomic data, we've learned that the genetic component of many of the most important health conditions of our time — cancer, heart disease, diabetes — are due to the effects of multiple genes. Hence, polygenic, or many genes. This has been a fascinating area of study, as scientists have begun to study these conditions and realized that the ways that we have of predicting risks for polygenic traits have tremendous potential for improving human health.

### **Presentation Target:**

High School

### **Presenter(s):**

1. Huei-Chen Lee, K-12 Science Education Program Manager, NIEHS