Drugs & Genetics: Why Do Some People Respond to Drugs Differently than Others?

Abstract
In a survey conducted from 2007 to 2010, the U.S. Centers for Disease Control and Prevention reported that about 49% of people in the United States had taken at least one prescription drug during the past month, and about 22% of people had taken three or more prescription drugs. People are prescribed drugs all the time, but prescriptions can be dangerous because people can have different responses to drugs. These responses largely have to do with genetic mutations. Why are some genetic mutations associated with a different response to a drug? In this science project, you will explore an online drug and genetics database to identify how a genetic mutation can be associated with how a person's body processes, and responds to, a certain drug.

Objective
Determine why some gene mutations cause people to respond differently to a drug.