

Intensive Study in Lab Research in Microbiology
Grades 10th-11th

Metabolism is the group of chemical transformations that each cell performs to grow and divide. Biologists are able to learn how these reactions occur by obtaining a snap shot of all the intermediates that accumulate under a certain condition, a technique known as metabolomics. By using metabolomics we can also identify potential effectors, toxic compounds to enzymes, or bottlenecks that influence carbon distribution and cell growth. Defining metabolic profiles can help biologists design genetic strategies to either cure diseases, relief cells from toxic compounds, or improve platforms for biotechnology. Mentees will learn how to collect samples, extract metabolites, and interpret data from environmental bacterial strains.