

A Case Study on the Metabolic Disease Phenylketonuria: A Tool Used to Introduce Students to the Role of Genetics and Molecular Biology in the Development of Disease

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A two part case study was developed in order to teach students in an introductory biology lab about the role of molecular biology and genetics in disease. In this case study, the disease Phenylketonuria (PKU) was used as a model. Results from our analysis suggest that more than 60% of the students felt that the case study helped them to understand the role of genetics and molecular biology in disease. While students understood questions about the symptoms and molecular biology of PKU, only 33% correctly answered questions about the genetics of the disease. Thus the case will be altered to place additional emphasis on the genetics of PKU.