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The Synthesis and Characterization of a Peptide Hemoglobin Ligand

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Poster Presentation P6

THE SYNTHESIS AND CHARACTERIZATION OF A PEPTIDIC HEMOGLOBIN LIGAND

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Sickle Cell Disease is a genetically inherited blood disorder that leads to the aggregation of hemoglobin molecules in the absence of oxygen. This aggregation leads to the formation of the characteristic sickled shape of the red blood cells. There are currently few treatments for this disorder, with the only cure being a risky bone marrow transplant. My research is focused on constructing a peptide that binds to sickle cell hemoglobin, preventing its aggregation. After constructing the peptide, I will couple it to a fluorescent molecule so that I can study the characteristics of the binding interaction.