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*BSc (Hons) Pharmacology*

**Measuring free and bound drug and target in blood samples**

A part of the human body's immune system is the complement system, which is mostly responsible for preventing infection but also causes inflammation at times of disease. In some diseases, overactivation of the complement system can prove fatal due to excessive inflammation and tissue damage. Eculizumab is a drug that was approved to inhibit the complement system in such cases. However, even small amounts of complement that escape the drug can be dangerous. I will develop and test new methods that can detect free complement that is not blocked by the drug. I will also compare the accuracy of the assay with current clinical tests which are quite insensitive. My work will help refine the testing process for how effectively this drug is blocking complement in patients.

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