

Abstract Submitted
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Predicting Allostery Wiring Diagrams within Motor Proteins RIINA TEHVER, Denison University — Motor proteins are intricate molecular machines that make use of allostery as a basis of their function. Fundamental questions in trying to understand the operational mechanism of the motors is, therefore, how allostery communicated is within the proteins, what are the pathways that transmit allosteric signals, how to model and predict them. We have proposed a normal-mode analysis based perturbation model that predicts the pathways based on the structure and chemical composition of the molecules. We use the model to investigate allosteric pathways (allostery wiring diagrams) within motor proteins myosin V and VI.

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