INTEGRATING BIOINFORMATICS WITH BIOSENSORS TO SINGLE OUT ANTIANGIOGENIC SMALL CHEMICAL COMPOUND

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Background

My research field is angiogenesis in contest of vascular endothelial growth factor.

Objectives

My research activities address angiogenesis in contest of vascular endothelial growth factor-vascular endothelial growth factor 2 pathway and its inhibition through the study of related glycans. I also study prediction of sugar-protein interaction in p17-heparin pathway.

Methodologies

Study of computational methods such as Molecular Docking and Molecular Dynamics. I also study the same interaction using functional methods such as Surface Plasmon Resonance.

Expected Results and Impact

My project aims at developing a multidisciplinary approach incorporating computational, biochemical and functional methods to study a relevant sugar-protein interaction involved in a angiogenesis process that is fundamental for cancer progression.