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Robert H. Lurie Comprehensive Cancer Center of Northwestern University

Lurie Cancer Center's Basic Research Seminar Series

Local Volume Fraction, Packing Domains, Scaling Properties, and Electrostatic Interactions of Chromatin

Tuesday, November 7, 2023

11:00 a.m.- 12:00 p.m. CT

Baldwin Auditorium, 1st Floor

Robert H. Lurie Medical Research Center

303 E. Superior St., Chicago, IL

The focus of our research is in the molecular modeling of biointerphases. Our work is aimed at the fundamental understanding of the properties of complex molecular systems that encompass problems at the interface between medicine, biology, chemistry, physics and materials science. Our group concentrates on the development and application of theoretical approaches that enable the study of the systems of interest at the molecular level. The results of these studies are then used in the design of optimal materials that interact with biological environments. Most of our projects are carried out in close collaboration with experimental collaborators. Our theoretical work has the dual purpose of: 1) the fundamental understanding of what are the molecular factors that determine the properties and behavior of the interactions between biological environments and synthetic systems, and 2) the ability to predict in a quantitative way experimental systems in order to use the theoretical approaches as a device tool for the engineer of new materials, such as biocompatible materials and drug carriers.



Igal Szleifer, PhD

Christina Enroth-Cugell Professor, Biomedical Engineering
Professor of Chemistry

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