ASRC - City College of New York Seminar in Biochemistry, Biophysics & Biodesign

SEMINAR LOCATION:

ASRC Main Auditorium 85 St. Nicholas Terrace

For non-CUNY attendees, advance registration is required; please contact Hyacinth Camillieri at <u>hcamillieri@gc.cuny.edu</u>

THE SEMINAR WILL ALSO BE AVAILABLE VIA ZOOM:

Click here for Zoom link

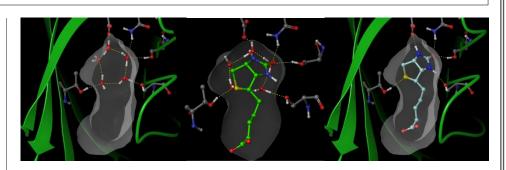
Meeting ID: 916 3796 4386 Passcode: asrc+ccny

HOST: Kevin Gardner kgardner@gc.cuny.edu

FOR MORE INFORMATION, CONTACT: Lauren Gohara Igohara@ccny.cuny.edu (212) 650-8803

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Wednesday, February 21, 2024 Coffee & tea 11:30 AM Seminar 12:00-1:00 PM

Thomas Kurtzman

Professor, Department of Chemistry Lehman College, New York, NY

How can water structure and thermodynamics inform lead drug discovery and design?

ABSTRACT Water plays an instrumental role in the recognition between small molecule drugs and their biomolecular targets. When a drug is unbound, the structure and thermodynamics of water in the binding site reveal information that can be used to inform the discovery of lead drug compounds and their subsequent rational optimization. We will discuss how computer simulations and statistical mechanical liquid state theory can be used to map out the properties of water on the surface of proteins and how these 'maps' may be used to improve modern drug discovery and optimization efforts.