

College of Pharmacy cordially invites you to attend the faculty research seminar

Computational Drug Design Methods: Bridging Theory and Practice with Real-World Case Studies

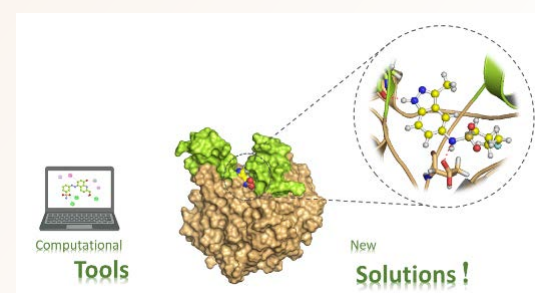
Monday, 7 October, 2024

1:00 pm - 2:00 pm

Ibn Al-Bitar Building (106),
G.CL.08/09



(To attend online)



Speaker

Dr. Nizar Ali Ahmed Al-Shar'i

Professor, Medicinal Chemistry and
Computer-Aided Drug Design
Department of Pharmaceutical
Sciences
College of Pharmacy, Qatar
University

This presentation will highlight the role of computer-aided drug design (CADD) in modern drug discovery. It will cover key techniques, including structure-based and ligand-based design, as well as molecular dynamics, while briefly addressing challenges like model accuracy and data quality. Real-world case studies will demonstrate CADD's practical impact, highlighting how it accelerates drug development and reduces failure rates. The presentation will also look ahead to future advancements, including the growing role of AI-driven approaches in drug design.

Dr. Nizar Al-Shar'i earned his BS Pharm in 2001 and MPharm in Medicinal Chemistry in 2007 from the faculty of Pharmacy at Jordan University of Science and Technology (JUST). In 2013, he completed his PhD in Medicinal Chemistry and Computer-Aided Drug Design (CADD) at the University of Strathclyde, UK, before returning to JUST, where he progressed to full professor in 2023.

Dr. Al-Shar'i's research expertise lies in Computer-Aided Drug Design (CADD) and Molecular Dynamics (MD) Simulations, with a strong focus on designing novel anticancer compounds targeting enzymes such as glyoxalase-I and TOPK, as well as developing anti-mycobacterial agents. His research integrates experimental and computational approaches, offering deeper insights into drug discovery processes. He has published over 50 peer-reviewed articles and holds two U.S. patents, marking considerable contributions to the field.

In addition to his research, Dr. Al-Shar'i has over a decade of teaching experience in medicinal chemistry and drug design across undergraduate and postgraduate levels. His dedication to education and research was recognized with the Distinguished University Professor Award at JUST in 2022. He has also supervised many master's students, guiding them in their drug design projects. Throughout his career, Dr. Al-Shar'i has held various leadership positions, including Assistant Dean and Vice Dean for Accreditation and Quality Assurance, and has chaired several key committees focused on academic quality and strategic planning.

Mission

To prepare our students to provide optimal pharmaceutical care and advance health care outcomes, to promote research and scholarly activity, and to serve as a pharmacy resource for Qatar, the Middle East and the world.

Vision

Advancing healthcare in Qatar and the world through excellence and innovation in pharmacy education, research and service.

