



The Department of Chemistry Presents:

Dr. Hudson Beyzavi
Kalsec

**Title: From Molecular Design to Real-World
Impact: A Journey from Academia to Industry**

Molecular design provides a powerful foundation for addressing challenges across human health, sustainability, and nutrition. This seminar will trace a scientific journey that began with the synthesis and study of chlorophyll- and heme-inspired molecules for biomedical applications and green catalysis. It will then explore research on metal-organic frameworks and bio-inspired materials for molecular recognition, catalysis, and carbon dioxide conversion, followed by the development of molecular imaging agents for cancer and neurological disorders.

The presentation will also highlight the evolution of an independent academic research program spanning medicinal chemistry, molecular imaging, nanomaterials, and drug discovery. The second part of the seminar will examine how these scientific principles translate into industrial innovation, including plant-based foods, functional proteins and carbohydrates, natural colors, flavors, and food-protection technologies.

Selected examples will illustrate how a scientific concept progresses from molecular design and laboratory discovery to formulation, scale-up, manufacturing, and commercialization. The seminar will conclude with perspectives on the similarities and differences between academic and industrial research, the transition between these environments, and the skills scientists need to create meaningful impact beyond the laboratory.

Monday, September 21, 2026 at 4:00 PM

1260 Chemistry