

# AMGEN

## LECTURE SERIES

### Biotechnology and Drug Development

*Join us for this unique event*

**October - November 2021**  
**Thursdays 1.00 to 3.00 pm**

This 12 lecture series is presented by Amgen scientists, in partnership with the School of Pharmacy and Bouvé College of Health Sciences Dean's office. It will provide participants with an overview of the drug development process, as well as the biotechnology industry and potential career paths.

PLEASE REGISTER AT THE LINK BELOW, TO RECEIVE REMINDERS FOR ALL LECTURES AND TO BE ELIGIBLE TO RECEIVE A BADGE FROM NORTHEASTERN.

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**Attendees of the 12 lecture series will be eligible to earn a Badge if they attend 75% or more.**

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# SCHEDULE

Date	Time	Topic	Title	Author	Description
7-Oct	1pm	Holistic overview of drug development process	<i>Life of a Drug</i>	Rahul Sangodkar	We will survey the landscape of the issues and activities involved over the full lifecycle of drug development.
	2pm	Target Identification & Validation	<i>Target Identification &amp; Validation</i>	John Ferbas	This lecture will cover the selection and validation of drug targets that serve as the basis for therapeutic development
14-Oct	1pm	Overview of Drug Modalities	<i>Drug Discovery at Amgen: A Multi-Modality Approach</i>	Sreekanth Suravajjala	We will introduce Amgen's broad toolkit of drug modalities and describe how we choose the "right" modality for drug discovery, focusing on biologic medicines.
	2pm	Process Development	<i>Process Development from Clinic to Approval</i>	Jennifer Litowski	This lecture highlights the process development work to develop a drug, from clinical to commercial manufacturing.
21-Oct	1pm	Devices	<i>Combination Product Development</i>	Calvin Clark	An overview of the combination product development process at Amgen and how the drug delivery device development process aligns to the drug development process. Including a deeper dive into how we establish device feasibility early in development with a focus on subcutaneous drug delivery devices.
	2pm	Oncology	<i>Targeting Cures: Discovery Biology and Oncology Drug Development</i>	Julie Bailis	
28-Oct	1pm	Small Molecule Continuous Manufacturing	<i>The role of continuous manufacturing to advance Amgen's synthetic portfolio</i>	Matt Beaver	Two themes drive Amgen's approach to the development and implementation of CM across the synthetic portfolio: 1) 'flow chemistry' as an enabling technology and 2) integrated processing designed to deliver a significantly reduced manufacturing footprint. Presented herein are case studies of continuous manufacturing production-scale synthesis of chemical matter across Amgen's synthetic portfolio.
	2pm	Raw Materials Supply Chains	<i>Raw Material Selection and Control for Manufacturing Pharmaceuticals</i>	Susan Burke	This lecture focuses on the importance of having a robust raw material control strategy to ensure manufacturing process performance and to achieve a consistent product target profile. The elements of a raw material strategy will be reviewed, including the application of data analytics to monitor raw
4-Nov	1pm	Drug Safety and Pharmacovigilance	<i>Drug Safety: An Industry Perspective</i>	Oluwadamilola Ogunyankin	A look at drug safety at Amgen, how it is implemented in the drug development process of its products and the continuous safety monitoring of Amgen products after launch into the market with a focus on patient safety.
	2pm	Product and Process Modeling	<i>Modeling of Processes, Products and Devices for Drug Development &amp; Manufacturing</i>	Pablo Rolandi	This lecture shares a diverse set of examples of the application of mathematical models to the design, analysis and optimization of processes, products, and devices. The case studies span product attributes, drug substance, drug product and medical device applications, with a strong focus on innovation across synthetic and biologic drug modalities.
11-Nov	1pm	Data Analytics in Biopharma Operations	<i>Digital Transformation in Biopharmaceutical Operations</i>	Tony Wang	This lecture will describe the underlying regulatory, technological, and business factors driving digital transformation in biopharmaceutical operations. A review of technologies and methodologies used as part of digital transformation will be presented. A series of case studies describing applications will then be reviewed to understand how digital transformation looks in practice. A forward-looking perspective on industry trends and advances will also be discussed.
	2pm	Biotech hiring trends & panel discussion	<i>Careers in Biotech</i>	Jessica Smith	During our final session, we will discuss the current hiring trends in the biotech industry, followed by a panel discussion, introducing a diverse group of Amgen scientists.

Lectures will be presented live online.  
Recording is not allowed.