



VLAB

The Future of Drug Discovery

Is Generative AI the Next Breakthrough in Drug Design?

New drugs have revolutionized healthcare, with over 200 novel therapeutics gaining FDA approval over the past five years. One key aspect to product success has been – and will continue to be – finding the right drug to bring into development, as up to 85% of new synthetic chemical compounds fail to reach the market. Traditionally, drug candidates have been vetted using a process called high-throughput screening (HTS), where thousands of drug candidates are evaluated through their reactivity with specific biological targets. The hit rate of HTS, however, can be quite low, with some estimates at significantly less than 0.01 percent.

Generative AI promises to transform drug discovery through new approaches to identifying drug candidates. By leveraging recent innovations in AI, companies have mined databases to discover new drug-target interactions or design novel compounds. These revolutionary advances are accelerating the development of treatments for cancers and other complex diseases, improving patient outcomes and reducing healthcare costs. For both startups and established companies, this represents an unprecedented opportunity to reshape the future of drug development.

Featuring pharmaceutical executives, biotech entrepreneurs, and AI innovators, our event panel will explore whether AI is truly a breakthrough in drug discovery, and how it can address long-standing challenges in the industry.

- What are the key approaches to using Generative AI to invent new drug candidates?
- What challenges and limitations remain in AI-driven drug discovery?
- How can startups navigate FDA evaluation of AI-driven drug discovery approaches?
- How are pharmaceutical companies and startups collaborating to accelerate AI-driven innovation around drug discoveries?

Join us on March 20 to peer into the future of drug discovery.

Moderator

Aaron Arvey, Ph.D.
Head of Computational Discovery
Third Rock Ventures

Panelists

Petrina Kamy, Ph.D.
VP & Global Head of AI Platforms
Insilico Medicine

Venkatesh Mysore, Ph.D.
CTO and Co-Founder
Aikium

David Solow-Cordero, Ph.D.
Associate Director
High Throughput Screening Knowledge
Center & Innovative Medicine
Accelerator (IMA), Stanford University

Lu Wang, Ph.D.
Investment Director
Foothill Ventures

Thursday, March 20, 2025

6:30 pm – 9:00 pm

6:30 pm:
Reception and networking
7:30 pm:
Panel discussion (with Q&A)

SVB Experience Center
532 Market Street
San Francisco, CA 94104

Purchase tickets here: 

<https://vlab.org/events/future-of-drug-discovery/>

