



**October 2nd- 3rd, 2024 | Boston, MA**

**Confirmed and Invited Speakers:**

- **Pavan Choksi**, Partner, **Arkitekt Ventures**
- **Wade Davis**, VP of Computational Sciences, **Moderna**
- **Mehdi Sarmady**, Head of Genomic & Data Science, **Spark Therapeutics**
- **Lakshmi Kattuppurathu**, Associate Director Computational Biology & Data Science, **Lexicon Pharma**
- **Asma Kasuba**, Senior Director, Global Development, Data Science, **Johnson & Johnson**
- **Georgia McGaughey**, VP Data and Computational Sciences, **Vertex Pharmaceuticals**
- **Anastasia Christianson**, SVP Digital, Global Health AI, ML, Analytics, and Data, **Pfizer**
- **Ami Lakdawala**, Head of AI Product, **GSK**

| AI in Pharma Summit 2024   October 2nd                       |   |
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| 8:00 AM  | Breakfast and Registration  |
| 9:00 AM  | Chair's Opening Remarks   |
| Delivering True Value : The AI Revolution in 2024 and Beyond |   |
| 9:10 AM  | <b>Presentation - Amplifying Industry Disruption with AI</b> <ul style="list-style-type: none"><li>- Review real success stories behind AI in Pharma and examine case studies where AI has had transformational impact on the R&amp;D cycle</li><li>- Explore how AI technologies can be used to diversify drug candidate pipelines</li><li>- Discuss how AI can be deployed to drive innovative research and deep-dive into how this speeds up R&amp;D processes</li></ul> |

**9:35 AM Keynote Panel Discussion with Open Q&A - Accelerating the Progression and Expanding the Scope of AI: What This Means for Pharma and Big Tech**

*2023 saw AI dominate the biopharma industry and also the transition of Big Tech into biopharma. 2024 is no different. The AI-based drug discovery space will evolve from such industry movement, raising new questions about how industries will intersect and help accelerate the applications of AI throughout the R&D cycle.*

- How can / should the success of AI implementation within R&D be defined?
- What will the future landscape of AI in R&D look like with the involvement of 'Big Tech'?
- How can large model deployment by 'Big Tech' be utilised by pharma for R&D?
- How can new AI tools be effectively blended with profound and in depth understanding of drug discovery and development?
- How can internal and external barriers be transcended when managing and integrating cross-functional teams in drug development projects?

**10:20 AM Fireside Chat Discussion- The Road to Partnership**

Details To Be Announced

**10:50 AM Morning Refreshments and Networking Break**

**Next-Generation of Innovation: AI's Value Proposition in Pharmaceutical R&D**

**Track One:** Strategic AI Use Cases in early-stage R&D and their Tangible Impacts

**Track Two:** Overcoming Clinical Challenges to Accelerate Clinical Timelines

**11:40 AM Presentation - Gaining Value From AI-Fuelled Target Identification and HIT Validation Optimisation**

- Learn how AI can streamline the process of candidate molecule and drug target identification
- Discuss how AI can be deployed to drive innovative research within target identification
- Explore examples of real world benefits gained from optimising this technology

**11:40 AM Presentation - Boosting Patient Enrollment and Stratification in Clinical Trials**

- Engage with real-world examples showcasing successful implementation of AI, ML and LLM in clinical enrollment and stratification
- Understand how these technologies not only enhance operational efficiency but also contribute to cost savings, resource optimisation and improved outcomes
- Discuss strategies to overcome challenges associated with the implementation of AI in these processes

**12:05 PM Presentation - ML Tools to Shape the Future of Protein Design & Molecular Modelling**

- Explore how the field of AI-assisted protein design is expanding
- Discover how deep learning and language models can help improve protein design
- Evaluate how the future of protein design and molecular modelling is co-evolving with AI-based tools

**12:05 to 12:55 PM - Accelerating Clinical Timelines with AI: The Wider Opportunities and Challenges**

*Get your ideas and discussion points ready! Contribute your thoughts and ideas and share your experience during this interactive session and trigger new discussions by raising your pressing questions in this open forum. Discussion leaders will guide the conversation and share their initial insights before passing over the microphone to you!*

- *If the only answer to accelerating clinical timelines is AI then what is the question?*
- How can AI support the formation of a more robust, safer and more streamlined clinical research environment?
- Please share successful examples of AI strategies that your organisation has imposed to shorten and improve clinical timelines. What were the critical success factors and how can these insights be more broadly applied?
- *What specific concerns do you have about incorporating AI into the clinical development process?*

**12:30 PM - Presentation - AI-Designed Therapeutics for Novel Targets**

- Examine how AI can be used to target novel targets and overcome the associated challenges
- Explore how the druggable spectrum is being expanded through the use of AI
- Discuss how an AI-approach to novel target identification has the potential to unlock difficult-to-drug targets

**12:55 PM Lunch**

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|---|---|
| <p><b>2:00 PM Presentation - Deriving Insights from Large Language Models</b></p> <ul style="list-style-type: none"> <li>- Evaluate the transformational applications of LLMs in transforming existing pharma workflows</li> <li>- Deep-dive into examples of strategic application of LLMs and the insights and wider value derived from this model deployment</li> <li>- Explore the deployment of LLMs within R&amp;D and strategies to overcome data accessibility challenges</li> </ul>  | <p><b>2:00 to 2:50 PM Open Discussion Forum - Navigating the Investment Landscape and Challenges in Start-Up Ventures</b></p> <p><i>Come together with fellow start-up founders, seasoned investors and industry experts for a dedicated networking session. Explore how your organisation can navigate the current investment landscape, exchange perspectives about overcoming challenges associated with start-up ventures and foster valuable connections with like-minded peers.</i></p> |
| <p><b>2:25 PM Presentation - The Rising Star: Generative AI in Pharmaceutical R&amp;D</b></p> <ul style="list-style-type: none"> <li>- Assess the growth of generative AI in R&amp;D and learn how generative AI can be integrated into R&amp;D for strategic use cases in efficient generation, identification, and optimisation of small molecules and biologics</li> <li>- Deep-dive into real use examples of application and the customisation of generative models for specific datasets</li> <li>- Explore how deep learning and generative models can be utilised to accelerate prediction, optimisation and both protein and small molecule design and streamline the candidate selection process</li> </ul> |   |
| <p><b>2:50 PM Afternoon Refreshments and Networking Break</b></p>   |   |
| <p><b>Preparing For a Data-Fuelled Future</b></p>   |   |
| <p><b>3:30 PM Presentation - Information TBA</b></p> <p><b>CAS, American Chemical Society</b></p>   |   |
| <p><b>3:55 PM Presentation - Complex Data in Drug Discovery</b></p> <ul style="list-style-type: none"> <li>- Explore the challenges in handling large volumes of diverse data sets</li> <li>- Evaluate strategies for optimising data storage and retrieval systems</li> <li>- Discuss how it can be ensured that data sets remain useful and accessible for ongoing research</li> </ul>  |   |

**4:20 PM Panel Discussion with Open Q&A - Expanding the Data-Fuelled Future of Pharma**

*Each stage of the drug discovery process generates large datasets that insights are then derived from to support downstream research and guide decision making. As the industry prepares for a data-fuelled future, new challenges are presented by the need for larger, cohesive, and higher quality datasets in AI/ML modelling within the pharmaceutical industry.*

- How can data collection be optimised to construct sufficiently large and unfragmented datasets for effective training of LLM and ML models?
- How can organisations adapt to build the necessary ecosystem for capturing data, and what approaches can be taken to modify legacy infrastructure for future needs?
- In what ways can cross-industry collaboration be fostered to encourage collaboration, break down barriers and enhance data sharing?
- What strategies can be deployed to ensure data integrity by removing bias and noise from datasets?
- What will the data-fuelled future of pharma look like?

**5:05 PM Chair's Closing Remarks**

**End of Day One**

**AI in Pharma Summit 2024 | October 3rd**

**8:00 AM Breakfast and Registration**

**9:00 AM Chair's Opening Remarks**

**Managing Regulatory Impacts and Overcoming AI Challenges to Accelerate Timelines**

**9:10 AM Keynote Presentation - Data-Driven Feedback Loop: Utilising Late Stage R&D AI Learnings to Drive Earlier R&D Success**

- Explore how AI clinical learnings can be used to leverage earlier R&D success
- Deep-dive into real-world examples of how these insights have optimised cost savings, resource allocation across R&D and ultimately increased success rates in clinical trials
- Evaluate the evolving landscape of AI in clinical research and its potential impact to reshape the future of the rest of the pharmaceutical R&D cycle

**9:35 AM Keynote Panel Discussion with Open Q&A - Regulatory Challenges in AI-Driven Pharmaceuticals: A Realistic Approach to Navigation**

*AI conversation entered the political sphere in 2023 with the White House declaring an executive order for the development of a regulatory program for the use of AI in Pharma. Questions have been raised about how this and FDA regulation will impact the next horizon of clinical research as AI capabilities seek to improve safety, efficacy and efficiency and enhance clinical execution.*

- How does the regulatory bottleneck impact AI-generated drugs?
- How can we assess the feasibility of applying this regulatory framework to AI-generated drugs?
- In what ways can we anticipate the impact of the White House Executive Order and FDA regulations on the future evolution of AI capabilities within R&D?
- What strategies can be employed to address data privacy and security concerns within clinical data, ensuring compliance with evolving regulations?
- How can it be ensured that ethical and responsible AI practices are implemented across the pharmaceutical industry?

### **10:45 AM Morning Refreshment and Networking Break**

### **Driving Investment and Business Development in 2024 and Beyond**

#### **11:45 AM Start-up Spotlight Presentation with Panel Question Session -**

Engage with start-up organisations as they present their new AI approaches to the panel. Learn not only about these exciting new projects but understand the different perspectives of investors and project managers from across the pharmaceutical and Big Tech sector as the panel deep-dive into an extensive question and answer session. Learn what questions need to be considered and answered in order to grow your AI projects.

Ten minute presentation followed by fifteen minutes of questioning from panel and audience.

Further details to follow.

#### **12: 10 AM Start-up Spotlight Presentation with Panel Question Session -**

Further details to follow.

#### **12:35 PM Panel Discussion with Open Q&A - Sustaining Growth in 2024 and Beyond: Investing in AI for Both the Short and Long Term**

*Against a backdrop of unprecedented technological advancement, organisations are increasingly looking for further ways to leverage AI to enhance efficiency, reduce costs and accelerate innovation within R&D. This rapidly evolving landscape presents a unique opportunity for investment and strategic growth in 2024 and beyond.*

- To what extent can the ROI of AI be measured and how are these metrics used to determine business and resource investment decisions?
- By sharing a success story, what lessons can be learnt from this financial and

resource redistribution victory?

- How can AI company growth be sustained in 2024 and beyond?
- How does the expansion of R&D pipelines within AI and generative AI companies influence partnership dynamics with pharmaceutical companies?
- What will the importance of partnership be for the future of AI-driven R&D in both the short and long-term?

**1:20 PM Chair's Closing Remarks**

**End of AI in Pharma Summit 2024**