

## AI in Pharma 2023: Target Identification Agenda

7th in the Series  
Wednesday, April 5th | Bay Area

### Chair's Opening Remarks

Name, Title, [Company](#)

### Keynote Presentation: Defining a Target in Drug Discovery

- Discuss what properties make a good target
- Explore how AI can be employed to not only increase the number of new targets, but the druggable quality of targets
- Identify the most efficacious methods for screening novel targets

Wade Davis, VP Computational Sciences, [Moderna](#)

### Keynote Panel Discussion: What Are the Greatest Challenges and Opportunities of Using AI in Target Identification Today?

*The use of AI in Target Identification holds the potential to accelerate the identification of novel targets, and ultimately deliver drugs to patients sooner. This panel will discuss the greatest limitations and promises of leveraging AI in the target identification stage.*

- What phase are we in now?
- What are some examples of the greatest AI-led outcomes in target identification to date?
- What are the main challenges preventing the adoption of AI in target identification?
- How is the use of AI in target identification advancing our understanding of biology?
- Are we seeing the payoff?

Wade Davis, VP Computational Sciences, [Moderna](#)

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Morning Refreshments

## Hype, Proof and Trust

### Case Study: Moving the Needle for Target Identification: Aria Pharmaceutical's SYMPHONY Platform

- An overview of how Aria Pharmaceuticals are utilizing AI in the target identification phase,
- Deep dive into how the AI-powered SYMPHONY platform is decoding biology and enhancing our understanding of molecular mechanisms of disease,
- An example of a novel target identified using SYMPHONY.

Aaron Daugherty, VP, Discovery, [Aria Pharmaceuticals](#)

### Case Study: AI to identify druggable TCR's.

Subha Madhavan, VP, Head of Clinical AI/ML, Early Clinical Development, [Pfizer](#).

### Panel: How Can We Overcome the Hype and Cultural Challenges Compromising the Integration of AI Techniques in Target Identification?

*With many "hype" AI companies arising, how do we locate the "read deal" data science players rather than the companies that use AI as marketing to cash in? In addition, how do we encourage a cultural shift to support the use of AI across biotech and pharma? This panel explores the knock-on effect that these "hype" companies have on trust in AI methods and the ways we can encourage the uptake of an AI-positive culture on an organizational level.*

- What are the main hype, trust and cultural issues within AI?
- How can we increase cultural confidence that AI methods can translate into outcomes and ensure continued investments?
- What can be done on an organizational level to bridge the social gap between data scientists and traditional medicinal biologists/chemists?
- How do we encourage a shift in cultural awareness to increase AI support and adoption by traditional roles in pharma?
- The promise of AI is vast, but how can we make sure we are being realistic about what AI can and cannot do for the drug discovery process?

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## Lunch

### Roundtables

#### Panel and Open Q&A: Women in AI - Closing the Gender Gap

*The imbalanced ratio of men to women in AI and data science, on a systemic level is undeniable. This discussion deep dives into the duty that we have as an industry, to address and close the gender gap in AI and Data Science.*

- Why is there an underrepresentation of women in AI and data science?
- How can we empower and encourage more young women to pursue data-led jobs?
- How does the underrepresentation of women disadvantage companies and their workers?
- Who are some of the most influential women in the space?
- What can we do as an industry to better support women in AI and ensure equal opportunities in the workplace?

#### Model Interpretability and Techniques: What Strategies Will Best Help Us Identify the Next Target?

*This discussion centers around the negative impacts of unexplainable AI models, and offers an opportunity for attendees to share the best techniques to overcome this.*

- How are “black boxes” holding us back?
- Are black boxes preventing pharma leadership from buying into AI and rolling it out over the R&D process?
- How essential is good “data hygiene” in producing beneficial and interpretable models?
- What techniques can enable us to achieve fully explainable AI models?

#### What Are The Benefits and Challenges of Large-Scale, Pre-Competitive Data Sharing on the Public Domain?

*This roundtable involves discussion surrounding pre-competitive data sharing to benefit the use of AI models in the drug discovery process.*

- How does the US research culture compare to different countries and how can we overcome the challenges it presents?
- Why may some companies be unwilling to share data?
- How do collaborations benefit the drug discovery process?
- How could a government-led strategy in data sharing benefit R&D?

[Recursion/Melloddy/The Open Targets Consortium](#)

### Afternoon Break

**Case Study: Maze Therapeutics - The Promise of Harnessing AI in Target Identification**

- Discover how Maze Therapeutics are identifying and prioritizing genetically validated drug targets,
- Identify how Maze Therapeutics leverage the COMPASS platform to provide insights into the therapeutic window and tolerability of potential biomarkers,
- Understand how the use of AI has positively impacted their diverse pipeline.

**Matthew Brauer**, VP, Data Science, [Maze Therapeutics](#)

### **Case Study/Presentation (Neuroma) - TBC**

**Name**, Title, [Company](#)

### **Panel Discussion: Future Prospects - Will We Ever Move Towards Fully Automated Target Identification?**

*In this session, the panel will discuss what the future holds for target identification, more specifically, the potential for target identification to be fully automated.*

- How does our current understanding of AI-led decision making limit our potential to fully automate TI?
- Do we have the resources to make target identification automated?
- What will the next AI breakthrough in TI most likely be?
- Where can we expect target identification to be in 5 years time?

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### **Chair's Closing Remarks**

**End of AI in Pharma 2023 Day 1**