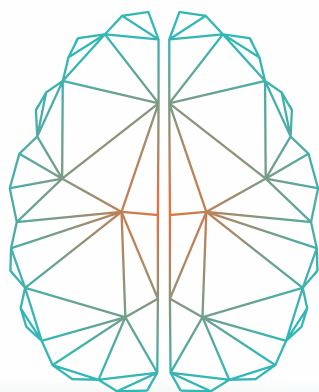


February 24-26, 2020 | San Diego, USA

ai-drugdiscovery.com

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AI-ML

DRUG DISCOVERY & DEVELOPMENT

**Discover Pragmatic Case Studies of AI & Machine Learning
Driving the Efficiency & Accuracy of R&D Processes
from Target Discovery to Phase II Clinical Trials**

Expert Speakers Include:



Daniel Bozinov
Senior Director, Head
of ECD Informatics
Genentech



Sandor Szalma
Senior Director
- Biomedical
Informatics &
Global Head of
Computational
Biology Biomedical
Informatics
Takeda



Liling Warren
Associate Director,
Lead Translational
Statistics
**Teva
Pharmaceuticals**



Marcin Grotthuss
Computational
Biologist
**The Broad Institute
of MIT & Harvard**



Birgit Schoeberl
Global Head of
Modeling, Simulation
& Pharmacokinetics
Sciences
Novartis

“ The AI-ML summit was fantastic. The information I got was beyond expectation. The case sharing was informative and enlightening. The speaker's cases answered some questions that I had before the meeting and inspired me to explore AI in my own work ”

Sammy Cui, Senior Research Associate, Unilever

UNDERSTAND YOUR DATA, KNOW YOUR PROBLEM, PREDICT THE ANSWER

Welcome to the *AI-ML: Drug Discovery & Development Summit 2020*

R&D Processes for the Future: Accurate, Efficient & Cost-Effective

The *AI-ML: Drug Discovery and Development Summit* is the industry's definitive guide to translating the wealth of tech available to successful implementation of a working and practically effective drug discovery and development platform. With 3 days of real-world case studies, the AI-ML Summit will provide the roadmap to augmented R&D decision making with reduced failure rates, increased speed and improved margins.

This year's summit will cover:

- Target, pathway and molecule selection – identifying which will treat individual disease indications better
- Predictive preclinical models – knowing from the beginning how drug candidates will react when administered to in vivo and in vitro models
- Identification of the patients who will react best to the treatment with minimal side effects for a guaranteed successful clinical trial

Join 80+ like-minded peers to overhaul R&D and reflect on the lessons learned from the successes and mistakes made from a year of implementation and utilization.

Walk away with a blueprint for more accurate, more efficient and more effective R&D processes.

Hear what previous attendees have to say

“Exceptionally focused meeting joining high level strategic thinking with meaningful technical detail. Excellent slate of attendees and speakers, and in particular an amazing density of productive interstitial and after-hours networking.”

Ari Allyn-Feuer, Principal Data Scientist, GSK

“We need to transfer our conversation around ‘AI’ from the domain of hype into the domain of science and engineering. Our knowledge of complex biological systems is still rudimentary and it is exciting to realize how much we need to learn yet.”

Michael Kremliovsky, Director, Medical Devices & eHealth, Bayer

Five Unmissable Highlights

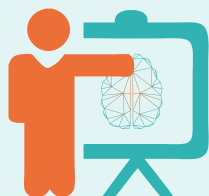
1. The dust has settled and the hype subsided, but what have we learned from the first round of implementation and utilization of machine learning in R&D processes? Experts from **MIT, Novartis** and **Takeda** will be helping us cast a critical eye on the success and failures of the past year to discover what we can learn from the mistakes made and invest in the right tech instead of relying on trial and error.

2. Access real-world case studies from **Teva** and **Recursion Pharmaceuticals** on how to augment early stage R&D for **increased efficiency and accuracy**. From novel target selection to cell line development and bioreactor prediction, we'll be covering the application of ML technologies to the earliest stages of drug development.

3. Transform your translational research with predictive analytics and augmented intelligence. **Teva Pharmaceuticals** and **Novartis** will show you how to harness the data available to make better decisions earlier: from early biomarker identification to in vivo and in vitro model selection – give your drug its best shot in the clinic with predictive analytics and razor sharp precision.

4. Explore how solutions applied at later stage clinical development can be adapted with applications of ML technologies to clinical trials phase I to III. Delve into specific examples of phase I augmentation with **Novartis**. Discuss the application of tech, augmented manufacturing and RWE to clinical trials to ultimately cut process times and make life easier for the most important people in this industry – the patients.

5. Reimagine the future of AI and ML in drug discovery and development: Hear why **Stanford, Genentech** and the **ATOM Consortium** believe the future is bright (and why personalized and predictive medicine are right around the corner). The possibilities are endless if the right technological solutions are applied to the industry's specific problems.



MEET THE EXPERTS



Daniel Bozinov
Senior Director
Head of ECD
Informatics
Genentech



Tudor Oprea
Professor -
Medicine & Chief
of Translational
Informatics Division
& Internal Medicine
**University of New
Mexico**



Shruthi Bharadwaj
Scientist
Novartis



Sandor Szalma
Senior Director
- Biomedical
Informatics &
Global Head of
Computational
Biology Biomedical
Informatics
Takeda



Deirdre Olynick
ATOM, Director
- Business
Development &
Operations
**University of
California, San
Francisco**



Bowen Liu
Candidate, Pande
Group
**Stanford
University**



Liling Warren
Associate Director,
Lead Translational
Statistics
**Teva
Pharmaceuticals**



Marcin Grotthuss
Computational
Biologist
**The Broad
Institute of MIT &
Harvard**



Lina Nilsson
Senior Director
- Data Science
Product
**Recursion
Pharmaceuticals**



Huanyu Zhou
Senior Director &
Head Translational
& Non-clinical
Statistics
**Teva
Pharmaceuticals**



Birgit Schoeberl
Global Head
of Modeling,
Simulation &
Pharmacokinetics
Sciences
Novartis



Andrew Weber
Research Director
ATOM Consortium



Brandon Allgood
Chief Technology
Officer
Numerate



Marc Bailly
Associate Principal
Scientist
Merck



**Gerald Higgins
M.D. P.h.D.**
Research Professor
of Computational
Medicine and
Bioinformatics
**University of
Michigan**



Kelly Myers
Chief Technology
Officer
FH Foundation



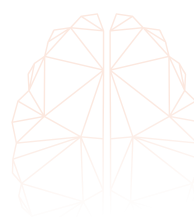
Alex Aronov Senior
Director & Head
of Data Science,
Data Strategy &
Solutions
**Vertex
Pharmaceuticals**



Guido Lanza
President & Chief
Executive Officer
Numerate



Ronald Dorenbos
Associate Director,
Materials &
Innovation
Takeda



CONFERENCE DAY ONE

25 FEBRUARY, 2020

8.00 Registration and Welcome Coffee

9.00 Chair's Opening Remarks

A Reflection of the Previous Year: Implementation and Utilization of Machine Learning in R&D Processes

9.10 Panel: The Good, the Bad and the Ugly

- A review of the previous 2 years of tech implementation, the mistakes made, and lessons learned
- The future of AI – deep learning, NLU and quantum computing



Birgit Schoeberl
Global Head of
Modeling, Simulation
& Pharmacokinetics
Sciences
Novartis



Tudor Oprea
Professor – Medicine
& Chief of Translational
Informatics Division &
Internal Medicine
**University of New
Mexico**



Lina Nilsson
Senior Director – Data
Science Product
**Recursion
Pharmaceuticals**



Alex Aronov Senior
Director & Head of Data
Science, Data Strategy
& Solutions
**Vertex
Pharmaceuticals**

9.50 Panel: Big Data, Big Deal?

- Tactics to overcome the data generation bottleneck
- Sharing is caring: making data universally accessible



Deirdre Olynick
ATOM, Director –
Business Development
& Operations
**University of
California, San
Francisco**



Sandor Szalma
Senior Director –
Biomedical Informatics
& Global Head of
Computational Biology
Biomedical Informatics
Takeda



Shruthi Bharadwaj
Scientist
Novartis



Marc Bailly
Associate Principal
Scientist
Merck



10.30 Speed Networking

Establish meaningful business connections at a rapid rate. Efficiency at its finest

11.00 Morning Networking Break



11.30 Speed Learning: Roundtable discussions like you've never seen them before

Uncover the story behind four technological advancements from target discovery to phase II clinical trials in one quick-fire session. Each table will be hosted by leading specialist who will share the secrets of their most high-impact strategy; you then get the opportunity to question the host before moving on to your next table.

12.30 Lunch Networking Break

Augmentation of Early Stage R&D for Increased Efficiency and Accuracy

13.30 Are we there yet? The Use of AI in Target and Drug Discovery

Tudor Oprea
Professor –
Medicine & Chief
of Translational
Informatics Division &
Internal Medicine
**University of New
Mexico**

- Addressing the hype cycle, and current expectations related to deployment of AI/ML in early drug discovery
- How knowledge-based classification of proteins, combined with exhaustive annotations of drug-target-disease associations can inform and contextualize the decision-making process with respect to target selection
- The importance of in-depth domain expertise with respect to the development, interpretation and deployment of AI/ML models (XGBoost, MetaPath and 17 different types of “big” data) in target discovery for Type 2 Diabetes, Alzheimer's disease and Autophagy

**Gerald Higgins M.D.
P.hD.**

Research Professor of Computational Medicine and Bioinformatics
University of Michigan

14.00 Discovery Without Data: Novel Target Selection

- Deep learning in pharmacogenomics for novel drug discovery and patient stratification
- How to overcome the data gap and provide the ML programming with the knowledge necessary to make new discoveries



14.30 Themed Networking Afternoon Break

Finding the right solution for your specific challenge can be like finding a needle in a haystack – especially when there are a wealth of options available. AI-ML 2020 is the forum to facilitate these conversations and marry problems with solutions. Our themed networking meetings will allow industry and solution providers to find matches made in heaven.



14.30 Poster Session

Join us in the exhibition hall for a browse of our poster submissions - ranging from early stage target discovery to clinical trial design. Don't forget to grab a coffee and discuss with your colleagues!

Huanyu Zhou

Senior Director & Head Translational & Non-clinical Statistics
Teva Pharmaceuticals

15.30 Case Study: Cell Line Development and Bioreactor Prediction

- Establish which vectors impact anti-bodies and predict how they will affect the final product
- Generate the right biologics at an early stage to scale up to the right protein or antibody for specific patients

Marcin Grotthuss

Computational Biologist
The Broad Institute of MIT & Harvard

16.00 Protein Prediction for Small Molecules and Assays

- Identify the right medication from and the reasons why that medication is the ideal candidate based on genome and pathway analysis
- How to teach your program so the machine can find possible connections with your knowledge as a foundation

16.10 Q&A Panel



Huanyu Zhou

Senior Director & Head Translational & Non-clinical Statistics
Teva Pharmaceuticals



Marcin Grotthuss

Computational Biologist
The Broad Institute of MIT & Harvard



Gerald Higgins M.D. P.hD.

Research Professor of Computational Medicine and Bioinformatics
University of Michigan



Tudor Oprea

Professor - Medicine & Chief of Translational Informatics Division & Internal Medicine
University of New Mexico



17.00 Poster Session & Drinks Reception

Constructive conversations over cocktails and canapés to the backdrop of posters

CONFERENCE DAY TWO

26 FEBRUARY, 2020



8.00 Women in Tech Breakfast

The trail-blazers breaking glass ceilings and the up-and-comers meet to map out the future of empowering women into STEM technology careers.

8.55 Chair's Opening Remarks

Transforming Translational Research with Predictive Analytics and Augmented Intelligence

Liling Warren

Associate Director,
Lead Translational
Statistics
**Teva
Pharmaceuticals**

9.00 Case Study: Biomarker Identification

- Consider the benefits of medical imaging at the preclinical stage as an alternative to traditional biomarkers
- Push biomarker identification to preclinical stages and utilize the data produced to refine them for the

Birgit Schoeberl

Global Head of
Modeling, Simulation
& Pharmacokinetics
Sciences
Novartis

9.30 Case Study: In Vivo and In Vitro Model Selection

- Predict the best characteristics for in vivo and in vitro models through analysis of previous reactions to similar compounds

Andrew Weber

Research Director
ATOM Consortium

10.00 A Scalable Platform for Generative Lead Optimization of De Novo Molecules

- Discovery of Potent, Selective Aurora Kinase Inhibitors with Favorable Secondary Pharmacology
- Generative networks for optimization of chemical structure in high performance compute workflows

10.30 Q&A Panel



Andrew Weber

Research Director
ATOM Consortium



Birgit Schoeberl

Global Head of Modeling,
Simulation & Pharmacokinetics
Sciences
Novartis



Liling Warren

Associate Director, Lead
Translational Statistics
Teva Pharmaceuticals

11.00 Morning Networking Break

11.30 Wrap Up Roundtables: 10 tables, 10 problems, 10 solutions. Ready, set, resolve!

- Design a plan to source and identify new helpful data sets
- Create a data management system
- Design a business plan for implementation of AI/ML technologies across the pharma value chain
- Create a model for the identification of novel targets
- Create a model for the accurate and efficient identification of targets
- Design a process to identify biomarkers at the preclinical stage for use in clinical trials
- Augment the selection of in-vitro and in-vivo models
- Design a ML system for phase I clinical trials
- Translate current ML systems to application in phase II and III clinical trials
- Translate current ML systems to applications using RWE available



12.30 Lunch Break

Journey to the Future: From Faster Processes to Personalized and Predictive Medicine

13.30 Panel: Know the Present, Predict the Future

- Augment processes with machine learning utilizing the research, preclinical and clinical data available
- Consider the potential of personalized medicine and the technology required to make early predictions of the “ideal” patient for both clinical trial and treatment



Shruthi Bharadwaj
Scientist
Novartis

14.10 Case Study: AI and Machine Learning Approaches in Clinical Trials

- Utilize AI and machine learning approaches to mine and find clinically significant insights in increasing clinical trial data
- Tackle the “big data” issues faced by pharma - find and implement the best solutions for clinical trial data

Kelly Myers
Chief Technology
Officer
FH Foundation

14.40 Case Study: Machine Learning Model to Identify Undiagnosed Individuals with a Specific Disease or Condition

- Accelerate early diagnosis and timely intervention for individuals with familial hypercholesterolaemia by applying machine learning to large health-care encounter datasets
- Increase early diagnosis and intervention for “silent” disease

15.10 Q&A Panel



15.30 Chair's Closing Remarks



15.40 Networking Coffee to Stay or Go

16.00 End of Summit

“This Summit provided fantastic opportunities to network with people and to discuss with them about the emerging AI application in the pharmaceutical industry”

**Jiajie Xiao, Drug Discovery Data Scientist,
GlaxoSmithKline**

WORKSHOP DAY

24 FEBRUARY 2020

Workshop

13:00pm – 16:00pm

Integration of Machine Learning Across the Value Chain

Machine learning has many faces and applications - there is real potential to transform the pharma value chain. But changing established processes in a traditional industry can be an uphill struggle. This workshop will provide the blueprint for successful translation of technologies from early stage R&D to later stage commercial - as well as guidelines to pick the right tech for your specific problems.

- Marry specific problems with a solution instead of a type of technology
- How to select which platform is right for each department
- Translate successful applications to work in later stage clinical trials



Ronald Dorenbos
Associate Director,
Materials &
Innovation
Takeda

As Head of Innovation Management and Scouting and as a member of Takeda's Digital Strategy team Ronald helps Takeda with its technology and innovation strategy. Earlier, at the Life Science division of PA Consulting, Ronald led projects for some of the world's top 10 pharmaceutical companies that included projects around strategy, commercialization and digital health and at his company BioFrontline he provided management, strategy and commercial advice to life sciences companies in the US, Europe and Asia.

After obtaining MAs in Biotechnology and Molecular Biology and a PhD in Pharmaceutical Biology at the University Medical Center Groningen in the Netherlands Ronald spent six years at Harvard studying Parkinson's, Schizophrenia and the genetics of aggressive behavior, before making the transition to industry. As a consultant Ronald got involved in projects related to artificial intelligence and he has been following the field over the last 10 years. He is frequently invited to deliver presentations and keynotes related to AI in Pharma and Healthcare and has presented at numerous events internationally. He is also the founder of the LinkedIn groups 'AI - Artificial Intelligence', 'Small Molecules', 'Boston Biotech' and 'Golden Triangle Biotech' that serve over 10,000 members.

“I approached the conference from the perspective of applied research in the academic setting. This was very helpful in clarifying challenges and opportunities in this space as it relates to our existing and potential future partners. Also, very knowledgeable and enjoyable people to meet.”

James Ciuca, Development Officer for Commercialization, Carnegie Mellon University, Center for Machine Learning and Health

Marry your Solution to Pharma's Specific Problems

Be the answer to the industry's questions by showcasing your value in a new light.

WHY SPONSOR?

Why the AI-ML Summit?

The 3rd **AI-ML Drug Discovery & Development Summit** is the fastest route to in-depth discussions with organizations prioritizing the augmentation of R&D processes. AI-ML provides an unrivalled opportunity for your brand, your message and your reputation to be showcased in front of the leading minds looking to implement your solutions for their problems.

Who do I get to meet?

Gathering stakeholders and key opinion leaders, AI-ML is the ultimate opportunity to position yourself as an expert in front of **100+ drug developers**. Elevate your company's standing and influence the future of AI and ML in pharma.

What can AI-ML do for you?

Boost your brand; **Engage** industry decision makers;

Demonstrate thought leadership

We understand each business is different, so we'll work with you to build a bespoke partnership opportunity to fulfil your 2020 business objectives.

Previous partners have benefitted from:

- Panel participation
- Dedicated presentations
- Leading roundtable discussions
- Tailored branding

How is AI-ML different?

At this year's AI-ML Summit, you can expect:

A HIGHER CALIBRE OF CONVERSATIONS: with over 10 hours of networking you'll have more opportunities than ever for significant discussions with your key prospects

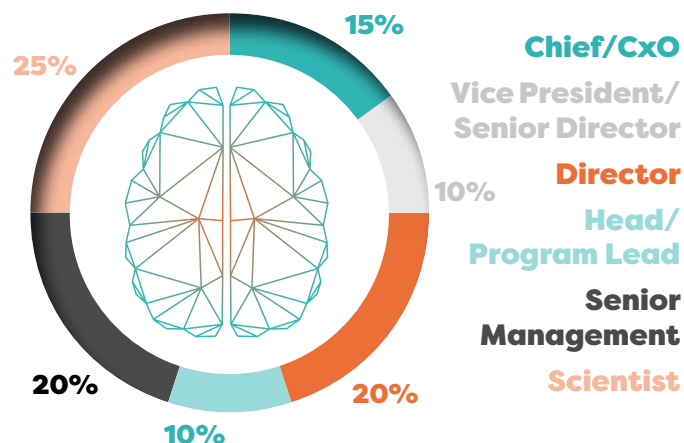
DEDICATED ICEBREAKER SESSIONS FROM THE START:

starting a conversation is never easy, so let us start them for you

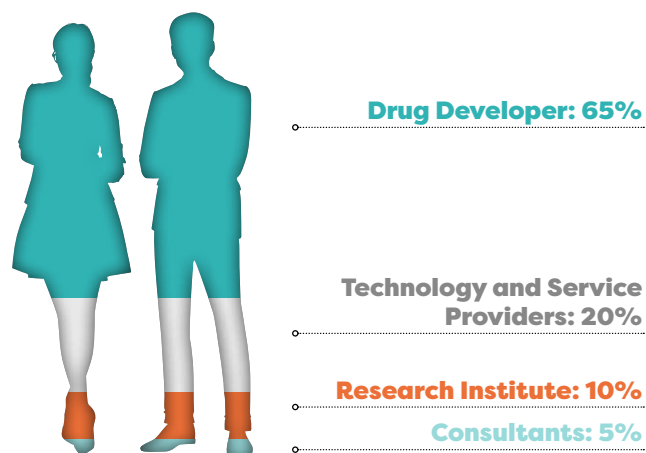
INTERACTIVE SESSIONS AS STANDARD: engage your audience in solution focused exchanges at this year's panel discussions, speed learning roundtables and poster session

Maximize your return on investment at the only conference to go beyond the hype and marry pharma problems with technological solutions.

DELEGATE SENIORITY BREAKDOWN



AUDIENCE BY INDUSTRY



*Based on market research and previous events' statistics

“This event had a strong representation from Pharma and the companies involved in using AI in drug discovery. It had the proper bend towards technical information that kept us interested and was informative for the attendees.”

Timothy Dockins, Chief Operating Officer, Spektron Systems, LLC.

GET INVOLVED



Matt Ashman
Partnership Manager
Tel: (+1) 415 735 3289
Email: sponsor@hansonwade.com

READY TO REGISTER?

3 EASY WAYS TO BOOK


www.ai-drugdiscovery.com/register


Tel: (+1) 415 735 3289


Email: register@hansonwade.com

TOP 3 REASONS TO ATTEND

- 1 Real-world case studies that will cut through the hype and provide you with pragmatic takeaways for seamless implementation of AI-ML applications back at the office
- 2 A diverse speaker faculty with varied experiences and backgrounds – the only opportunity to get the academic, technology and industry KOLs in the same room
- 3 8 hours of productive networking to have the right conversations to further your work and refine your R&D processes

SECURE YOUR PLACE

Industry Pricing	Register & Pay before November 22 2019	Standard Prices
Conference + 1 Workshop	\$2,498 (Save \$700)	\$3,098 (Save \$100)
Conference Only	\$1,999 (Save \$600)	\$2,599
Workshops (Each)	\$599	

Vendor Pricing	Register & Pay before November 22 2019	Standard Prices
Conference + 1 Workshop	\$3,098 (Save \$700)	\$3,698 (Save \$100)
Conference Only	\$2,599 (Save \$600)	\$3,199

Academic Pricing	Register & Pay before November 22 2019	Standard Prices
Conference + 1 Workshop	\$1,598 (Save \$700)	\$2,198 (Save \$100)
Conference Only	\$1,199 (Save \$600)	\$2,599
Workshops (Each)	\$499	

Team Discounts*

- 10% discount – 3 delegates
- 15% discount – 4 delegates
- 20% discount – 5 or more delegates

Please note that discounts are only valid when three or more delegates from one company book and pay at the same time. Discounts cannot be used in conjunction with any other offer or discount. Only one discount offer may be applied to the current pricing rate.

Contact:
register@hansonwade.com



VENUE

DoubleTree by Hilton Hotel San Diego
Mission Valley

For further information or assistance, please visit
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