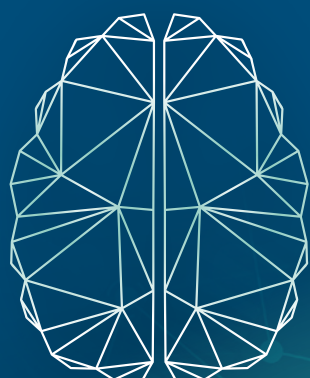


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ai-clinicaldevelopment.com



AI-ML

CLINICAL DEVELOPMENT

**Optimize When & How to Practically
Apply AI & Machine Learning to Improve
the Efficiency, Patient Recruitment,
Design & Outcomes of Clinical Trials**

Expert Speaker Faculty Includes:



Bin Li
Director,
Computational
Biology
Takeda



Peter V. Henstock
AI strategy & Machine
Learning Technical
Lead
Pfizer



Rasmus Hogrefe
Head of Virtual
Clinical Trials
LEO Innovation Lab



Kyle Holen
Head, Development
Design Center
AbbVie



Basker Gummadi
Director, Technology &
Innovation
Celgene



Dipen Sangurdekar
Director, Data Science
Bluebird Bio

“This was a great meeting. Finally companies are starting to share some successful AI applications use cases”

Previous Attendee, Berg, AI-ML Clinical Development Summit 2018

Welcome to the 2nd AI-ML Clinical Development Summit

Optimize When & How to Practically Apply AI & Machine Learning to Improve the Efficiency, Patient Recruitment, Design and Outcomes of Clinical Trials

Designed with leading AI and R&D experts & containing real world use cases of AI in action, this year's meeting tackles both the critical scientific and technical challenges, as well as identifying opportunities, of implementing AI and ML to optimize your clinical development.

This is a critical time for drug developers to make more data-driven decisions that lead to improved efficacy, safety and approval outcomes. At the **2nd AI-ML: Clinical Development Summit 2019** you will learn when, strategically, it is the right time to invest and apply AI to transform your clinical trial success.

Join AI, data, clinical development and pharmacovigilance experts across large pharma and biotech to discover how to **technically integrate and apply AI algorithms to enhance trial design, improve patient selection and retention and achieve more precise pharmacovigilance studies.**

Grasp how AI will fundamentally change the paradigm of clinical trial execution and identify key areas where AI can positively impact your drug development decision making.

Hear what previous attendees have to say

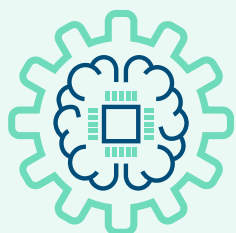
“AI-ML Clinical Development 2018 was a successful summit for me as an upcoming biopharmaceutical research professional. They ensured all participants were engaged in discussions and candid about their challenges *and* triumphs. There were useful lessons and insights I learnt from each speaker.”

Aditya Kulkarni, Lantern Pharma

“Great conference set-up and organization, excellent for networking and creating new collaborations”

Yahui Tian, Boehringer Ingelheim

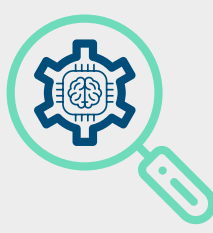
5 Reasons to Attend in 2019



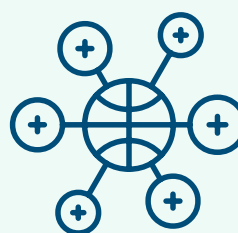
Harness machine learning to find the right patient, for the right medication at the right dose; the drive towards precision medicine with **MIT** and **Cloud Pharmaceuticals**



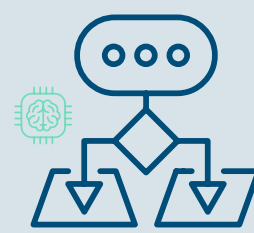
Discover the emerging applications of AI in streamlining **pharmacovigilance** to improve **drug safety** outcomes with **Geron Pharmaceuticals** and **Sanofi**



Explore how AI is being pursued in designing **decentralised trails** and **digitization** in clinical trials with **Leo Innovation Lab** and **Merck**



Drive the use of AI in Computational Pathology to develop the next generation of machine learning algorithms for predicting clinical outcomes with **BMS** and **AbbVie**



Learn how to manage and pioneer the shift to AI. Understand how one can objectively quantify the ROI from an AI initiative with **Pfizer** and **Cheisi Pharmaceuticals**

YOUR EXPERT SPEAKERS



Kyle Holen
Head, Development
Design Center
AbbVie



Leonardo Rodrigues
Senior Director, AI &
Machine Learning
Berg



Dipen Sangurdekar
Director, Data
Science
Bluebird Bio



George Lee
Digital Pathology
Informatics Lead &
Data Scientist
Bristol-Myers Squibb



Omar Aimer
Pharmacovigilance
& Drug Safety
Specialist
Brunel-Sanofi



Basker Gummadi
Director, Technology
& Innovation
Celgene



Ameya Phadke
Digital Health
& Technology
Transactions Lead
Chiesi Pharmaceuticals



Ed Addison
CEO
Cloud Pharmaceuticals



Israel Gutierrez
Vice President
Pharmacovigilance
& Drug Safety
Geron Pharmaceuticals



Rasmus Hogreffe
Head of Virtual
Clinical Trials
LEO Innovation Lab



Qasim Bukhari
Postdoctoral
Research Associate
Massachusetts Institute of Technology



Ahmed Abdeen Hamed
Senior Applied
Computer Scientist
& Quantum
Computing Lead
Merck



Mark Michalski
Executive Director
MGH & BWH Center for Clinical Data Science



Peter V. Henstock
AI Strategy &
Machine Learning
Technical Lead
Pfizer



Gregoire Versmee
Senior Manager,
Medical Informatics
Pfizer



Hari Singhal
Lead Data Scientist
Roche



X'avia Chan
Clinical Research
Associate
Stanford University



Bin Li
Director of
Computational
Biology
Takeda

CONFERENCE DAY 1

WEDNESDAY 18TH SEPTEMBER 2019

08.30 Coffee & Registration

09.00 Chair's Opening Remarks

LEVERAGING AI TO DESIGN THE RIGHT CLINICAL TRIAL FOR YOUR DRUG, PRECISELY

Clinical failure is often due to poor trial design. The following 5 sessions look at how you can use AI to find the best outcomes for the patients and the clinical trial itself, looking at methodologies to enroll the appropriate patients for drug studies and assessing the evolving application of AI in the pursuit of precision medicine. From optimizing AI for site selection through to data driven protocol design, targeted patient stratification and identifying the right tools to provide unbiased pipelines.

Kyle Holen
Head, Development
Design Center
AbbVie

09.10 Unlocking the Potential of Machine Learning (ML) in Clinical Development

- ML for selecting sites for clinical trials
- ML to predict patient drop-outs over a range of patient demographics to raise patient retention
- ML for predicting risk for protocol amendments

Ed Addison
CEO
**Cloud
Pharmaceuticals**

09.40 Using AI & Data Science to Rapidly Discover Precision Medicines by Analyzing Failed Phase 3 Trial Data

- This presentation will look at methods in AI and Data Science for segmenting patient populations to find successful drugs
- Using / leveraging AI to enroll trials for precision medicines, and reduce enrollment time
- Phase 3 trials fail for many reasons - Sometimes they could be successful drugs for segmented patient populations

Qasim Bukhari
Postdoctoral
Research Associate
**Massachusetts
Institute of
Technology**

10.10 Using ML to Develop Personalized Medicine for Psychiatric Patients

- Finding the right patient, for the right medication at the right dose
- Developing analytical tools for application in neuroscience, both imaging and non-imaging data
- Machine learning tools to work with clinical psychiatry data and successfully predict the personalized treatment response outcome for psychiatric patients
- Tools to provide unbiased pipelines and reproducible data from site to site

10.40 Morning Refreshments & Speed Networking

George Lee
Digital Pathology
Informatics Lead &
Data Scientist
**Bristol-Myers
Squibb**

11.40 Use of AI in Computational Pathology for Patient Stratification

- Deep Learning for improving quality of pathology data in clinical trials
- How we are developing the next generation of machine learning and feature engineering algorithms to predict clinical outcomes in cancer?
- Identifying and quantifying different cells within tumor models and predicting treatment efficacy

Leonardo Rodrigues
Senior Director, AI &
Machine Learning
Berg

12.10 Using Probability-Based AI to Augment Clinical Development

- How is the Healthcare field embracing AI?
- How to develop a new AI system to attend current challenges?
- Case study of how AI was used to stratify patients and understanding the outcomes of clinical trials

12.40 Networking lunch

EXECUTING THE INNOVATIONS: WHY, WHEN & HOW TO IMPLEMENT AI INTO YOUR CLINICAL DEVELOPMENT PIPELINES

In these sessions we look at how to innovate in a more open, collaborative, cost effective and timely manner. These sessions look at mapping out the implementation of AI into clinical development, the practical adoption and technical implementation of AI. Critically this section looks at understanding why, when and how to implement AI into your clinical development pipeline: executing the innovations.

Peter V. Henstock
AI strategy &
Machine Learning
Technical Lead
Pfizer

13.40 Infrastructures, People Structures, & Problem Structures: Managing the Shift to AI

- Challenges in leveraging AI in pharma
- Why AI will fundamentally change the paradigms
- Overview of key areas where AI can be a driving force
- Choices between internal and external solutions
- Overcoming change management, from the bottom up

Moderator:
Ameya Phadke
Digital Health
& Technology
Transactions Lead
Chiesi
Pharmaceuticals

14.10 Panel Discussion: How Do You Build a Business Case Behind an AI Platform?

- Where does it pay-off and where does it not?
- When does it make sense to implement AI-ML?
- Why we need to build, validate and apply predictive models earlier using preclinical or early-stage clinical trial data
- How does one objectively quantify the ROI from an AI-ML initiative?
- How much does it cost to “pay to play”? What investments are needed upfront and on an ongoing basis to maximize chances of ROI from an AI-ML initiative?



Basker Gummadi
Director, Technology
& Innovation
Celgene

14.40 Combining Blockchain, Machine learning & Process Automation to Optimize the Future of Clinical Development

- How can blockchain and machine learning deliver real value and speed up drug development?
- How can we serve our patients better and increase transparency in clinical trials?
- What is the ideal technical architecture?
 - Ethereum, Hyperledger or something else
 - Public vs Private blockchain
 - Performance and scalability
- Which use cases deliver value for Pharmacovigilance, Drug Safety and Supply chain?
- How can AI enable the future of clinical trials?

15.10 Networking Break

15.40 Roundtable Discussions

Our breakout roundtables will allow you to have more intimate discussions with AI and pharma leaders around some of the hottest topics in the field. Discover multiple perspectives on these key issues, so that you can learn from your fellow experts in the audience. Drive your own learning, crowd-source ideas and get inspired. Immerse yourself in the following discussions:

1. Defining the Right Problems That AI Can Successfully Support

2. Scaling Machine Learning for Practical Use in Clinical Trials

16.40 Chair's Closing Remarks

16.50 End of Day One

CONFERENCE DAY 2

THURSDAY 19TH SEPTEMBER 2019

08.00 Coffee & Registration

08.30 Chair's Opening Remarks

DATA DRIVEN CLINICAL DECISIONS: MAXIMIZING THE VALUE OF DATA FOR MORE EFFICIENT & SIGNIFICANT RESEARCH

Undoubtedly we need to be making data-driven decisions. At the core of hindering clinical development is messy and biased data. To revolutionize our clinical development, we need data-driven decisions that start with clean and valuable data. These sessions look at current efforts involved in generating methodical and comprehensive data sets and the challenge of validating ML generated results. They also look at integrating various data types to develop biomarker approaches for clinical studies.

Hari Singhal
Lead Data Scientist
Roche

08.40 Harnessing Machine Learning & Artificial Intelligence for Biomedical Research

- Challenges in integrating machine learning and artificial intelligence for biomedical research. Semi-automating the process of features engineering and discovery of ML models in life sciences
- Using ML algorithms to illuminate estrogen signaling in breast tumorigenesis and guide novel drug development
- Integrating multimodal data types in clinical trials for oncology biomarker development

Dipen Sangurdekar
Director, Data Science
Bluebird Bio

09.10 Data Integration & Machine Learning for Gene Therapy Translational Research

- Analysis of clinical trial derived data to identify correlates of improved outcomes
- Characterization of gene therapy drug products to compare manufacturing processes
- Tools and data models for integrative analysis of clinical and omics data

Bin Li
Director of Computational Biology
Takeda

09.40 How Machine Learning Derived Drug-Sensitivity Models Can Help Clinical Proof-Of-Concept Studies

- Build machine learning models for drug-sensitivity as early as possible, to help infer a drug's MOA, stratifying patients, and select the right indications
- Model validation using independent testing datasets is critical
- Translational research linking pre-clinical and clinical efforts
- Method evaluations and selecting the right modeling and biomarker approaches for clinical studies

Mark Michalski
Executive Director
MGH & BWH Center for Clinical Data Science

10.10 Translating Machine Learning Solutions in the Clinical Practice

- Overview of advances in machine learning and their potential impact on healthcare
- Exploration of the challenges and approaches to translating this technology for practical use

10.40 Morning Refreshments

AI FOR SITE SELECTION, DECENTRALISED TRIALS & CONNECTED CLINICAL TRIALS

Increasingly, the role of wearables are becoming more and more critical in streamlining clinical development, this section of the agenda looks at the benefits and challenges of leveraging data from wearable devices and how we are using the power of AI in the joint digitization and optimization of clinical trials.

Rasmus Hogrefe
Head of Virtual Clinical Trials
LEO Innovation Lab

11.10 Case Study: How AI Is Being Harnesses in Designing Decentralised Trials

- The digitalization of Clinical trials
- Exploring telemedicine in Clinical trials
- Digital patient tools in Dermatology
- Real-World-Data in clinical trials
- How can we use the power of AI to optimize Clinical development?

Gregoire Versmee Senior Manager, Medical Informatics Pfizer	11.40 Implementing Digital & Wearables Devices in Clinical Trials: A Collaborative Process • Benefits and challenges of leveraging data from wearable devices: are we finally getting "real-world" data? • Implementing digital devices in clinical trials require a strong collaboration between clinicians, data manager, data scientists, vendor and patients • How can we effectively collaborate across diverse teams and partner cross-functionally? • How to translate proof-of-concept to production-ready implementations of AI-ML pipelines
Ahmed Abdeen Hamed Senior Applied Computer Scientist & Quantum Computing Lead Merck	12.10 Design & Optimization of Machine Learning Algorithms for Predicting Data-Driven Decisions in Clinical Development • Network algorithms for mining social media for adverse side effect • Network algorithms for ranking social media users based on contribution vs fame and truth vs misinformation

12.40 Networking Lunch

AI-ML FOR STREAMLINING PHARMACOVIGILANCE PROCESSES

As global regulatory requirements evolve, and the volume and variety of pharmacovigilance (PV) data increases exponentially, PV operational teams are faced with a collective pressure to improve quality and patient safety with minimal costs. Here we look at how the industry is pushing towards new technologies to obtain a faster, more accurate and secure approach to PV processes. Automation in this field promises to drastically cut costs. These sessions look to explore how the use of AI can be used to support execution of PV activities and drive down costs, whilst staying compliant.

Israel Gutierrez VP Pharmacovigilance & Drug Safety Geron Pharmaceuticals	13.40 Exploring the Emerging Pharmacovigilance Applications of AI & Machine Learning • Priorities of Pharmacovigilance at different stages of the product life-cycle • Challenges and opportunities in PV lifecycle management and how to implement AI • How AI tools can be used to automate manual reporting tasks and translate unstructured documents • AI for quality assurance, follow up processing and faster reporting
X'avia Chan Clinical Research Associate Stanford University	14.10 Is it Possible to have AI-ML Circumvent the Bottlenecks in Clinical Trial Management? • Exploring Patient enrollment challenges: Consolidate and structure EHRs, AI for automated clinical trial matching • Pharmacovigilance via virtual monitoring, AI could streamline by using virtual assistant that enforces behavioural changes in patients; facial recognition to track medication adherence • Safety monitoring; All the AEs could be either automatic and/or enter in real time by the treating physician. With the virtual assistant, all the subsequent cycle delay or treatment • Modifications could be automatically adjusted accordingly
Omar Aimer Pharmacovigilance & drug safety specialist Brunel-Sanofi	14.40 Using Artificial Intelligence to optimize PV workload • AI to improve speed and security of adverse event case processing • How AI will allow early detection of potential drug-related side effects • How can we guarantee regulatory compliance using these tools? • Using AI to facilitate organizational design and standardize data
	15.10 Chair's Closing Remarks
	15.20 End of Day Two & Close of AI-ML Clinical Development Summit 2019

PARTNERSHIP OPPORTUNITIES

WHO WILL YOU MEET?



60+
ATTENDEES



6+
HOURS OF DEDICATED
NETWORKING



2
ROUND-TABLES



Benefit from Market Intelligence

Hear how and where pharmaceutical giants are looking to adopt and apply AI, enabling you to match your solutions accordingly.



Position Yourself as an Industry Thought Leader

Pharma doors are now open to the idea of integrating AI programs. At this juncture it is crucial to stand out from the crowd. Demonstrate your expertise through podium presentations, moderating panel discussions or directing interactive round-tables.



Raise Brand Awareness

Benefit from pre- and post-conference exposure to our AI community and increase market share through unique branding formats.



Meet & Network with Industry Pioneers

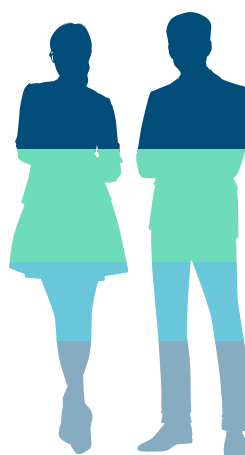
With a room full of drug developers looking to see how they can effectively apply AI solutions, meet prospective clients during speed networking breaks, 1-2-1 meetings and more informal networking receptions.



Generate Commercial Collaborations

Make sure your hottest prospects are in the room and part of the discussion, by having a wish-list of your choice contacted in advance of the event.

Audience Seniority*



C-level & VP: 30%

Director & Head: 34%

Manager & Lead: 12%

Other (data scientists, senior engineers etc): 24%

*Based on 2018's attendance statistics

BECOME A COMMERCIAL PARTNER



Harriet Menzel

Partnerships Director

E: partner@ai-clinicaldevelopment.com

T: +1 617 455 4188

HEAR WHAT ATTENDEES SAY ABOUT THE AI-ML SERIES

“Thank you for hosting the event. The quality of speakers was very high, particularly the key scientists at significant pharma companies. I appreciated the diversity of company sizes as well - startups, mid sized companies, and large pharma.

Really great event! ”

Daanish Jamal
GreatPoint Ventures

“The AI-ML summit was fantastic. The information I got was beyond expectation. The case sharing was informative and enlightening. The speakers’ 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

“This was a great meeting. Finally companies are starting to share some successful AI applications use cases ”

Previous Attendee, Berg,
AI-ML Clinical Development
Summit 2018

“It is a very informative conference which captures most of the frontier AI actions in this industry. ”

Yiwen Huang
R2.ai

“I had a really good opportunity to interact with every participant at this conference. The "Discuss" sessions and the Speed Networking were an essential component of this meeting. 10/10 would recommend. ”

Tudor Oprea, Professor,
UNM School of Medicine

“The meeting allows ample opportunities for networking and discussions. The speakers were active in a wide range of research areas. ”

Randal R. Ketchem, Vice President of
Molecular Design, **Just Biotherapeutics**

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Feb 2020, USA

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ai-clinicaldevelopment.com/take-part/register/

- 1 Network with AI-ML thought leaders to share, learn & collaborate in a valiant effort to improve the efficiency, patient recruitment, design & outcomes of clinical trials
- 2 Discover algorithms & models accelerating data-driven decisions that lead to predictions of clinical outcomes & more efficient clinical results
- 3 Overcome technical & strategic challenges of implementing AI-ML & be part of the conversations transforming the field as we unlock the potential of ML

Team Discounts*

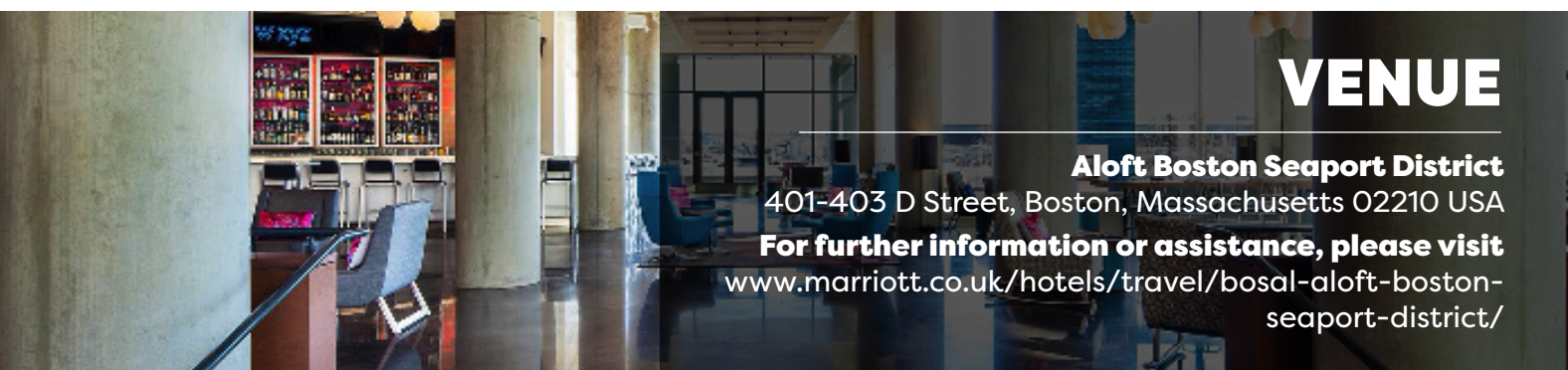
- 10% discount - 2 delegates
- 15% discount - 3 delegates
- 20% discount - 4+ delegates

Please note that discounts are only valid when three or more delegates from one company book and pay at the same time.

Contact: register@hansonwade.com

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Standard Pricing	Register & Pay before Friday, June 7 2019	Standard Pricing
2 Day Conference	\$2,299 (Save \$600)	\$2,899



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