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AI in Pharma

DECEMBER 4-5, 2018 | BOSTON, MA

BOSTON SEAPORT WORLD TRADE CENTER

Part of Third Annual

aiworld®
CONFERENCE & EXPO

DECEMBER 3-5, 2018
BOSTON, MA
Boston Seaport World
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PRESENT A POSTER
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Cambridge Innovation Institute encourages AI World attendees to gain further exposure by presenting their work in the poster sessions. Posters will be seen by our international delegation, representing leaders from top AI leaders from research, finance, hospitals, robotics, manufacturing, hospitality, telecommunications, retail, energy, pharmaceutical, biotech, academic, government institutions and more!

To secure a poster board and inclusion in the conference materials, your abstract must be submitted, approved and your registration paid in full by October 28, 2018.

Please see **AIWorld.com/Posters** for more information.

Note: Posters should be portrait orientation, with maximum dimensions of 36 inches wide (3 feet) x 48 inches high (4 feet).

* We reserve the right to publish your poster title and abstract in various marketing materials and products.

Poster inquiries: jring@AIWorld.com

AIWorld.com/Pharma-AI

Recommended Pre-Conference Events

MORNING AI World Executive Summit

Hosted by
IDC — ANALYZE THE FUTURE

Is your business ready for harnessing AI and intelligent technologies? How will AI impact your customers, partners, and employees? These big questions and many more are on the minds of business leaders, CEOs, CMOs, CDOs, and CIOs. The AI World Executive Summit provides business executives with a strategic look at the state of the practice in enterprise AI across multiple vertical industries, including Healthcare and Financial Services.

AFTERNOON SEMINAR: AI in Personalized Medicine and Digital Health

Seminar Chairperson: Kamal Jethwani, MD, Senior Director, Connected Health Innovation, Partners HealthCare, Assistant Professor, Harvard Medical School

Personalized Medicine: A Vision for Research and Education

Dimitris Bertsimas, PhD, Operations Research Center and Sloan School of Management, MIT

Medicine as taught in medical schools and as practiced today is not personalized. We present a research program to develop an algorithmic theory of personalized medicine applied to the major human diseases. Using electronic medical records and genomic data and in collaboration with major medical centers and medical doctors, we present our ongoing efforts to develop algorithms that propose personalized treatments for individual patients that suffer from these diseases. The new personalized medicine methods are based on new cutting-edge Machine Learning algorithms that use modern optimization methods and improve upon classical approaches. We report on our work on diabetes, obesity and cardiovascular disease. We further discuss the implications of our work on the education of the next generation of doctors.

Machine Learning Based Patient Subgroup Identification for Precision Medicine

Jie Cheng, PhD, Associate Director, Data & Statistical Sciences, Abbvie

Central to precision medicine is the ability to effectively identify patient subgroups that are likely to benefit from a certain treatment. However, due to multiple testing, subgroup identification is well known for its tendency to produce spurious results if not done with extreme care. In this talk, we will present a machine learning based patient subgroup identification approach and demonstrate its effectiveness using randomized clinical trial datasets.

Digital Health: The Use of Machine Learning and Deep Learning Techniques to Identify Patients and to Personalise Interventions

Kamal Jethwani, MD, Senior Director, Connected Health Innovation, Partners HealthCare, Assistant Professor, Harvard Medical School

The enormous amounts of data our healthcare systems hold can powerfully assist us in understanding which patients need help, and what type of help. AI can unlock this power by helping us stratify patients based on their risk for poor health outcomes, and connecting them to interventions that would be most meaningful to them. Learn about risk stratification, digital biomarkers, and strategies to design engaging digital health tools using AI.

AI-Enabled Digital Biomarker Development

Wei-Yi Cheng, PhD, Senior Data Scientist, Roche

Digitalization has enabled innovative ways to understand neurological diseases. Smartphone-based remote monitoring poses as a potential solution to provide long-term, objective assessment of gait and mobility in patients with motor disorders such as Parkinson's Disease. Using Deep Learning, we successfully translated the sensor data collected by mobile phones into meaningful mobility information. We will also discuss some other potential applications of Deep Learning to help drug development.

Introducing New Standards for Patient Care: The Role of AI in Precision Oncology

Amélie Boichard, PharmD, PhD, Project Scientist, Center for Personalized Cancer Therapy, UCSD Moores Cancer Center

The development of high-throughput molecular analyses and specifically targeted anti-cancer drugs leads to new expectations for cancer patients that can now receive personalized and optimized treatment options, potentially demonstrating favourable outcomes. Big data are a major driver in the development of Precision Oncology, and efficient analysis methods are needed to transform numerous information sources into actionable knowledge. Integrating algorithmic-generated techniques into decision-making will soon advance the standard-of-care in oncology practice.

Reduction of High-Dimensional Genomic RNA-seq Data to Lower Dimensional Latent Space by Deep Learning

Shanrong Zhao, PhD, Director, Computational Biology, Pfizer

Biology is complex, consisting of multiple nonlinear and often redundant connections among genes, and when a specific pathway aberration occurs, the downstream response to the perturbation is captured in the transcriptome. The VAE (Variational autoencoder) and GANs (Generative Adversarial Networks) can discover nonlinear explanatory features and have emerged as powerful deep leaning methods for reduction of high-dimensional RNA-seq data into lower dimensional latent space.

Interactive Panel Discussion: AI in Personalized Medicine and Digital Health

Panelists:
Amélie Boichard, PharmD, PhD, Project Scientist, Center for Personalized Cancer Therapy, UCSD Moores Cancer Center
Jie Cheng, PhD, Associate Director, Data & Statistical Sciences, Abbvie
Dimitris Bertsimas, PhD, Operations Research Center and Sloan School of Management, MIT

Breakout Roundtable Discussions

Join AI World speakers and moderators in lively table topic discussions covering a variety of critical AI business and technology topics. An informal, small group format allows participants to meet potential collaborators, share examples from their own work, vet ideas with peers, and be part of a group problem-solving endeavor.

AIWorld.com/Pre-Conference-Events

AI in Pharma
DECEMBER 4-5, 2018

Investment and the application of AI in the pharmaceutical industry is rapidly gaining momentum. We bring together CEOs, CIOs, CTOs and Global AI, IT and Informatics Experts from leading pharmaceutical and technology companies to give strategic and visionary talks based on use cases throughout the drug development pipeline.

DAY 2 | TUESDAY, DECEMBER 4

Track Chair: Peter Henstock, PhD, AI & Machine Learning Lead, Pfizer

1:15 ProtaBank: AI and Machine Learning for Protein Engineering. Where's the Data?

Barry Olafson, PhD, CEO, Protabit LLC

1:40 The Potential for Advanced Analytics in the Pharmaceutical Industry

Michael Ringel, PhD, Senior Partner and Managing Director, Boston Consulting Group (BCG)

2:00 CO-PRESENTATION: Artificial Intelligence Accelerants in Oncology Informatics

- Tom Plasterer, PhD, US Cross-Science Director, R&D Information, AstraZeneca
- Jonathan Dry, PhD, Director of Bioinformatics, Oncology, AstraZeneca

2:20 Why Is the Pharmaceutical Industry Finding AI so Difficult?

Peter Henstock, PhD, AI & Machine Learning Lead, Pfizer

2:40 Data Store: Making All Data Machine Learnable at NIBR

John R. Walker, Head of Core Data and Analytics, NIBR Informatics, Novartis

3:00 Refreshment Break in the Exhibit Hall with Poster Viewing

3:45 FEATURED PRESENTATION: Integrating AI Workflows in Drug Discovery

John Baldoni, PhD, Senior Vice President, In silico Drug Discovery, GlaxoSmithKline

4:05 How Models in Drug Discovery can Leverage Deep-Learning: Predictins and More

Eric Neumann, PhD, CEO & Founder, Aidaka

4:25 PANEL: The Use of AI to Disrupt Drug Discovery: How to Reduce Time and Costs and Increase Throughput

Moderator: Alex Zhavoronkov, PhD, Founder, Insilico Medicine
Panelists: Mark Davies, Vice President, Biomedical Informatics, Benevolent AI
- Jim Brase, CTO & Interim Co-Lead, ATOM and Deputy Associate Director for Computation, Lawrence Livermore National Laboratory
- Slava Akmaev, PhD, Senior Vice President & Chief Analytics Officer, BERG
- Eric Neumann, PhD, CEO & Founder, Aidaka
- Ed Addison, CEO, Cloud Pharmaceuticals

DAY 3 | WEDNESDAY, DECEMBER 5

Track Chair: Dany De Grave, Senior Director, Innovation Programs and External Networks, Sanofi

2:00 Artificial Intelligence for the Clinical Study Report

Madhavi Gidh-Jain, PhD, Senior Director, Head Medical Writing, Clinical Documentation, Sanofi

2:25 Strategy and Application of AI in Closing the Loop from Clinical Trials to Discovery Biology

Carolyn Cho, PhD, Director, Immunology Therapeutic Area Pharmacometrics Lead, Merck

2:45 Generating a Business Case for Innovation: How Can AI Enable the Future of Clinical Trials?

Basker Gummadi, Digital Innovation Lead, Bayer

3:05 Refreshment Break in the Exhibit Hall - Last Chance for Viewing

3:40 PANEL: Can AI & ML Make Clinical Trials Faster, More Effective and Patient Centric?

Moderator: Sara Holoubek, CEO, Luminary Labs
Panelists: Ted Slater, Global Head, Scientific AI & Analytics, Cray
- Balazs Flink, MD, Clinical Trial Analytics Lead, R&D Business Insights and Analytics, Bristol-Myers Squibb
- Chris Bouton, PhD, CEO, Vyasa

4:20 Exploring New Ways of Working in Regulatory: Sanofi's Proof of Concept Pilot

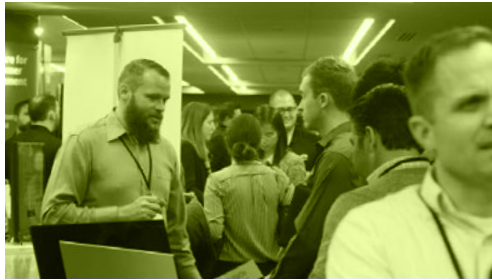*Dany De Grave, Senior Director, Innovation Programs and External Networks, Sanofi*

4:40 The Use of AI in Real World Evidence at Sanofi

Cliona Molony, PhD, Head of Advanced Analytics, Real World Evidence & Clinical Outcomes, Sanofi

Sponsor & Exhibitor Opportunities

INTEGRATED MARKETING SPONSORSHIP PACKAGES

AI World Conference & Expo offers a variety of proven and cost-effective integrated marketing sponsorship packages to help meet your branding, go-to-market and lead generation goals. A presence at AI World is a clear investment in the success of your business and allows you access to:

Branding:
Brand and position your company as a market leader

Thought Leadership:
Receive a strategic platform to communicate your vision of AI

Sponsorship & Exhibit Space:
Participate as an exhibitor and showcase your products, services and solutions

Lead Generation:
Meet and connect with thousands of pre-qualified buyers and key influencers, and receive top quality sales leads

Private Meetings:
Set up private meetings and develop strategic relationships and partnerships with existing and new business partners

Public Relations:
Meet with press and analysts from around the world

Education:
Educate your customers, prospective clients, partners and company members about your company's products, services and solutions

Networking:
Network with peers, industry leaders and prospective new clients and partners

Competitive Differentiation:
Extend your visibility and competitive differentiation by participating as a sponsor

Attendee List Access:
Receive valuable conference and expo attendee list

Networking Opportunities

AI World 2018 features 10+ hours of dedicated high-impact networking time with conference and expo attendees, including:

• AI World Global Expo (December 4-5)

• AI Startup Pavilion

• Two (2) AI Strategy & Technology Solutions Theaters open to all conference and expo attendees

• Special Networking Events including Networking Continental Breakfasts, Conference Luncheons, Evening Networking Receptions and more!

Coming to Boston
AI in Pharma

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AI World Conference and Expo is focused on the state of the practice of artificial intelligence in the enterprise. The 3-day conference and expo are designed for business and technology executives who want to learn about innovative implementations of AI in the enterprise.

Enterprise organizations face conflicting priorities. Where do they turn to cut through the hype and determine how to prioritize AI strategies and technologies for their business? AI World is organized around this singular goal, enabling business leaders to learn how to use AI to build a competitive advantage, drive new business models and opportunities, reduce operational costs and accelerate their innovation efforts.

HOTEL & TRAVEL

Experience Boston

As one of the most historic cities in the United States, Boston offers unforgettable adventure with exceptional food, sporting events, music venues, and beautiful parks. Beyond its deep history, Boston is home to numerous universities and colleges which continue to attract scholars, scientists, philosophers and writers who shape its evolving culture. Attend AI World Conference & Expo, located on Boston's historic waterfront, to experience this modern, innovative city and its deep roots. With so many fascinating sights and points of interest, the toughest choice will be which one to experience first!

CONFERENCE VENUE:
Seaport World Trade Center
200 Seaport Boulevard
Boston, MA 02210

HOST HOTEL:
Seaport Hotel
One Seaport Lane
Boston, MA 02210
1-877-SEAPORT (1-877-732-7678)

Discounted Room Rate: $239, not including tax or fees

**Discounted Room Rate
Cut-off Date:** November 5, 2018

For more information, visit: AIWorld.com/venue