September 18-19, 2017 // Hyatt Regency San Francisco Airport // San Francisco, California

ARTIFICIAL INTELLIGENCE INNOVATION SUMMIT

Learn How the Life Science and Healthcare Communities Are Embracing Disruptive Technology and Deep Learning to Accelerate the Advancement of Patient Care, Drug Development and Medical Device Innovation

FEATURED PROGRAM SPEAKERS AND THEMES

Harness Emerging Technologies to Optimize Innovation Strategies
Robert Boland
JOHNSON & JOHNSON

Advance Healthcare Through Machine Learning and the Cloud
Aashima Gupta
GOOGLE

Integrate Deep Learning to Streamline Drug Development
Alex Zhavoronkov, Ph.D.
BIGGERONTOLOGY RESEARCH FOUNDATION

Establish Patient Risk Stratification Through Artificial Intelligence Systems
Ajay Gupta, MBA
HEALTH SOLUTIONS RESEARCH, INC.

Facilitate Innovation While Maintaining Regulatory Compliance
Jon Wilkinson, J.D.
IBM WATSON HEALTH

Use Artificial Intelligence Systems to Build a Living Hospital
Iain Hennessy, M.D.
ALDER HEY CHILDREN’S HOSPITAL

Explore the Foundation of Specialty Clinical Innovation in Healthcare
Christine Sawicki, Rph, MBA, LSSM
CVS HEALTH

Use Machine Learning to Predict and Prevent Patient Death
Vishal Nangalia, M.D.
ROYAL FREE LONDON NHS FOUNDATION

Determine System Update Schedules to Better Support Drug Discovery
Valery Polyakov, Ph.D.
NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH

Illuminate the Druggable Genome Through Artificial Intelligence
Tudor Oprea, M.D., Ph.D.
UNIVERSITY OF NEW MEXICO

MEDIA PARTNERS
Dear Colleague,

From nascent start-ups to the tech titans of the valley, Artificial Intelligence platforms are now ready to add significant value in healthcare and life science verticals. It has taken years of testing, coding and product development but we are now on the cusp of a new wave in technology. Join us at the only AI focused meeting to properly select and integrate the right technologies into your health system or life science organization.

While applications, systems and platforms have been developed to transform clinical trial and healthcare innovation, there has not been a standard for benchmarking in AI’s actual execution. Communities and peers will be learning and evaluating at ExL's premier Artificial Intelligence Innovation Summit. We will explore other shared challenges:

› How to navigate HIPAA and ensure patient privacy through AI tools;
› What’s the organizational discipline required to scale AI’s capabilities across multiple clinical trials, sites and health systems?
› Navigating the complex implementation process of AI systems into an already-complex business structure
› We’re on the cusp and this is exciting, but is AI actually “ready” for the market?

At the only healthcare and life science-focused Artificial Intelligence Innovation Summit, our diverse speaking faculty from accredited hospitals and leaders such as Google and IBM will provide key insights into the ethical standards of AI; explore the realistic steps to achieve successful AI execution; define the regulatory boundaries and limitations; review the necessary metrics to measure the success and efficacy of the AI system; and examine case studies on industry vertical use.

Attendees will walk away with a greater understanding of the capabilities of AI and how to implement the platforms at their own organization. We look forward to welcoming you to San Francisco this fall!

Sincerely,

Mercy Lister
Conference Production Director
ExL Events, a division of Questex, LLC

WHO SHOULD ATTEND

This conference is designed for representatives from pharmaceutical, medical device, health systems and biotechnology companies with responsibilities in the following areas:

› Artificial Intelligence
› Data Science/Management
› Commercial/Clinical Innovation
› Bioinformatics
› IT
› Computational Systems
› Advanced Analytics
› Healthcare Diagnostics
› Modeling Platforms
› Machine Learning
› Drug Development
› Deep Learning
› Medical Imaging
› Clinical Research/Development
› Genomic Profiling
› Personalized Medicine
› Business Development
› Strategic Partnerships
› Innovation
› Automated Intelligence

This conference is also of interest to:

› Artificial Intelligence Engineers
› Deep/Machine Learning Services
› Consultants
› Data Architect Vendors
› Software Providers

VENUE INFORMATION

Hyatt Regency San Francisco Airport
1333 Bayshore Highway
Burlingame, CA 94010

To make reservations, please call 1-888-421-1442 or 402-592-6464 and request the negotiated rate for ExL's September Meetings. The group rate is available until August 28, 2017. Please book your room early, as rooms available at this rate are limited.

*Sponsorship and exhibition opportunities

Do you want to spread the word about your organization’s solutions and services to potential clients who will be attending this event? Take advantage of the opportunity to exhibit, underwrite an educational session, host a networking event or distribute promotional items to attendees. ExL Events will work closely with you to customize a package that will suit all of your needs.
**DEVELOP ARTIFICIAL INTELLIGENCE SOLUTIONS FOR PRECISION MEDICINE: FROM DATA CREATION AND PROCESSING TO ANALYSIS AND APPLICATION**

Artificial intelligence is now recognized as a powerful tool for enhancing healthcare. Innovations in the area of machine learning, specifically deep architectures, are starting to provide the ability to analyze large volumes of medical data for better insights into diseases and treatment options. However, this field is in its infancy and is continuously evolving. There exists significant variability in the definitions and in the understanding of terms, leading to fragmentation in the field and difficulty in comparing meaningful data across the various players. Progress has been driven by enhanced computational capabilities, the maturation of techniques and the variety of companies that are now key stakeholders. The lack of standard guidance, along with diversity in the platforms and applications, creates practical challenges for professionals attempting to implement and use these solutions for their enterprise.

This workshop will explore:

- Case studies covering problems with, solutions for, and the implementation and execution of AI technology, including the following:
  - Imaging phenotype and predictive analytics for precision medicine
  - Quantitative biomarkers for screening, early diagnosis and outcome prediction
  - Accuracy and precision related to data creation, aggregation and curation
  - Compatibility of data sources and their combination for the creation of compliant digital archives
  - Development of algorithms, predictive analytics and statistical analyses
  - Technical advances that improve the power and efficiency in clinical research, clinical trials and clinical practice
  - Application to medical diagnosis and prognosis, as well as predictive and personalized medicine

**Mark Punyanitya, Founder, Image Analysis Lab, Columbia University Medical Center**

*This session contains a 30-minute networking break.*

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**Case Study: Johnson & Johnson's Innovations Throughout the Digital Consumer Care Path, from AI to IoT and Beyond**

- Understand the concept of the digital consumer from the healthcare perspective

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**President and Chief Executive Officer, Ajay Gupta, MBA,**

**Health Solutions Research, Inc.**

**Chairperson's Opening Remarks**

- Harness emerging trends in wearables, AI and IoT to better optimize your innovation strategies
- Optimize data-driven wearable, AI and IoT strategies to improve the consumer experience

**Robert Boland, Associate Director, Emerging Science and Innovation Strategy, Johnson & Johnson**

**Networking Break**

**Advance Healthcare Through Machine Learning and the Cloud**

- Review how enterprises are harnessing the power of machine learning through the cloud to advance scientific breakthroughs
- Analyze case studies and trending applications that can be integrated into your own organization

**Aashima Gupta, Global Head, Healthcare Solutions, Google**

**Adherence Challenges and Opportunities with Regulatory Obligations While Utilizing Technological Enhancements in Life Sciences Industry**

- Analyze relevant regulatory frameworks that govern workflow and reporting obligations in the life sciences industry, with a core focus on pharmaceutical product safety
- Correlate the optimum use of artificial intelligence and technological enhancements with the compliance of regulations
- Discuss process refinements and judicious use of available enhancements to transform work in the life sciences industry

**Sameer Thapar, PharmD, Assistant Professor, Drug Safety and Pharmacovigilance, Rutgers University**
Monday, September 18, 2017 // Day One

5:30 Assess Model Quality, the Need for Rapid Automated Model Updates and Distributed Computing
› Examine how Profile-QSAR obtains unprecedentedly accurate predictions of IC50 values for targets of interest
› Determine how frequently models needed to be updated to better support drug discovery projects 6:15 Day One Concludes

Tuesday, September 19, 2017 // Day Two

8:00 Continental Breakfast
8:45 Chairperson’s Recap of Day One
Ajay Gupta, MBA, President and Chief Executive Officer, HEALTH SOLUTIONS RESEARCH, INC.
9:00 KEYNOTE: Facilitate Innovation While Achieving Regulatory Compliance in Healthcare
› Implement a cutting-edge health data strategy while maintaining compliance with complex privacy and security regulatory frameworks
› Identify the compliance challenges arising from the use of big data sets, the development of analytics and the implementation of machine learning
› Understand the value of achieving positive public perception and patient buy-in concerning health data use
Jonathan Wilkinson, J.D., Privacy Officer, IBM WATSON HEALTH
9:45 Outline Challenges and Opportunities in Today’s Evolving Healthcare Landscape to Explore the Foundation of Specialty Clinical Innovation
› Introduce disruptive technology to increase clinical outcomes and improve patient care
› Review innovation performance and impact to measure its true successes within an organization
› Gain a more profound patient population understanding that is converted back into the care continuum through artificial intelligence systems
Christine Sawicki, Rph, MBA, LSSMB, Director, Specialty Clinical Innovation and Program Development, CVS HEALTH
10:30 Networking Break
11:00 Illuminate the Druggable Genome to Aggregate, Integrate and Prioritize Proteins for Biological and Translational Applications Through Machine Learning
› Discuss the human proteome in light of the therapeutic Target Development Levels (TDLs)
› Highlight the knowledge deficit regarding the poorly described proteins based on fractional publication counts
› Declare the target selection process as pre-competitive knowledge
Tudor Oprea, M.D., Ph.D., Chief Translational Informatics Division, Department of Internal Medicine, UNIVERSITY OF NEW MEXICO
11:45 Use Machine Learning to Predict and Prevent Patient Death
› Challenge preconceptions of medical diagnostics through the mortality of normality
› Predict patient mortality using existing routine data
› Deploy advanced machine learning algorithms to optimize innovation cross-functionally
Vishal Nangalia, M.D., Clinician Entrepreneur, ROYAL FREE LONDON NHS FOUNDATION
12:30 Luncheon
1:30 Applications of Generative Adversarial Networks to Drug Discovery and Biomarker Development
› Use adversarial and variational autoencoders for generating new molecular structures
› Promote GANs use for the analysis of incomplete multimodal data sets
› Review applications of deep learning to cross-species biomarker development
Alex Zhavoronkov, Ph.D., Chief Science Officer, BIOGERONTOLOGY RESEARCH FOUNDATION
2:15 Shape Machine Learning and Computer Vision to Improve Health
› Define deep learning to understand its true capabilities under the umbrella of AI
› Explore case studies to understand deep learning solutions in drug development
› Identify the cross-functional, internal and external stakeholders to streamline collaboration processes
Saravan Krishnamoorthy, M.D., Medical Director, BRISTOL-MYERS
3:00 Chairperson’s Closing Remarks
Ajay Gupta, MBA, President and Chief Executive Officer, HEALTH SOLUTIONS RESEARCH, INC.
3:15 Conference Concludes

“ExL Events never disappoints! They provide a collaborative environment.”
—Chief Operating Officer, AVOCA GROUP
**TERMS AND CONDITIONS:** By registering for an ExL Events ("ExL") event, you agree to the following set of terms and conditions listed below:

**REGISTRATION FEE:** The fee includes the conference, all program materials, and designated continental breakfasts, lunches and refreshments.

**PAYMENT:** Make checks payable to ExL Events and write C932 on your check. You may also use Visa, MasterCard, Discover or American Express. Payments must be received in full by the conference date. Any discount applied cannot be combined with any other offer and must be paid in full at the time of order. Parties must be employed by the same organization and register simultaneously to realize group discount pricing options.

**Please Note:** There will be an administrative charge of $300 to substitute, exchange and/or replace attendance badges with a colleague within five business days of any ExL conference.

**CANCELLATION AND REFUND POLICY:** If you cancel your registration for an upcoming ExL event, the following policies apply, derived from the Start Date of the event:

- **Four weeks or more:** A full refund (minus a $295 processing fee) or a voucher to another ExL event valid for 12 months from the voucher issue date.
- **Less than four weeks:** A voucher to another ExL event valid for 12 months from the voucher issue date.
- **Five days or less:** A voucher (minus a $395 processing and documentation fee) to another ExL event valid for 12 months from the voucher issue date.

To receive a refund or voucher, please email cancel@exlevents.com or fax your request to 253 663 7224.

**CREDIT VOUCHERS:** Credit vouchers are valid for 12 months from date of issue. Credit vouchers are valid toward one (1) ExL event of equal or lesser value. If the full amount of said voucher is not used at time of registration, any remaining balance is not applicable now or in the future. Once a credit voucher has been applied toward a future event, changes cannot be made. In the event of cancellation on the attendees' behalf, the credit voucher will no longer be valid.

ExL Events does not and is not obligated to provide a credit voucher to registered attendee(s) who do not attend the event they registered for unless written notice of intent to cancel is received and confirmed prior to the commencement of the event.

**SUBSTITUTION CHARGES:** There will be an administrative charge of $300 to substitute, exchange and/or replace attendee badges with a colleague occurring within five business days of the conference.

ExL Events reserves the right to cancel any conference it deems necessary and will not be responsible for airfare, hotel or any other expenses incurred by registrants.

ExL Events' liability is limited to the conference registration fee in the event of a cancellation and does not include changes in program date, content, speakers and/or venue.

*The opinions of ExL's conference speakers do not necessarily reflect those of the companies they represent, nor ExL Events.*

**GROUP DISCOUNT PROGRAM**

Offers may not be combined. Early bird rates do not apply. To find out more about how you can take advantage of these group discounts, please call 201 871 0474.

**SAVE 25%** per person when registering four

Register three people and receive a fourth registration free. All four registrations must be completed together.

**SAVE 15% per person when registering three**

Can only send three? You can still save 15% off every registration.

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**REGISTRATION FEES**

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YES! Register me for this conference!

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I'm interested in marketing opportunities at this event.
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CONFERENCE CODE: C932

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