EXPLORE

11 TRACKS, 3 SYMPOSIA,
1 INVESTOR CONFERENCE
6 TECHNICAL WORKSHOPS

DIGITAL FOUNDATIONS & DATA ECOSYSTEMS

- Data Platforms & Storage Infrastructure
- Data Management
- Software Applications & Services
- Cloud for AI/ML & Modern Data Science
- Pharmaceutical R&D Informatics

AI-DRIVEN DISCOVERY, DESIGN & DEVELOPMENT

- Generative AI
- AI for Drug Discovery & Development
- AI for Oncology, Precision Medicine & Health
- S1: Generative AI Tools Symposium
- S2: AI for Biologics Symposium

INTEGRATED ANALYTICS, BIOINFORMATICS & KNOWLEDGE INTELLIGENCE

- Data Science & Analytics Technologies
- Bioinformatics
- S3: Knowledge Graphs Symposium

INTELLIGENT LAB SYSTEMS, ROBOTICS & TRANSLATIONAL INFRASTRUCTURE

- AI-Powered Robotics & Intelligent Lab Automation *New!*
- Pharmaceutical R&D Informatics

Bio-IT World VENTURE, INNOVATION & PARTNERING CONFERENCE

6 TECHNICAL WORKSHOPS

Organized by Cambridge HEALTHTECH Institute

EXPERIENCE THE POWER AND NECESSITY OF COLLABORATION

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25th ANNUAL

CONVERGING SCIENCE AND IT TO ADVANCE PRECISION MEDICINE

Bio-IT World CONFERENCE & EXPO

MAY 19-21, 2026 | BOSTON, MA + VIRTUAL

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2,900+ ATTENDEES

200+ TECHNOLOGY AND SCIENTIFIC PRESENTATIONS

150+ INDUSTRY-LEADING SPONSORS AND EXHIBITORS

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TUESDAY, MAY 19

Bio-IT World VENTURE, INNOVATION & PARTNERING CONFERENCE 35

WEDNESDAY, MAY 20 – THURSDAY, MAY 21

2026 CONFERENCE TRACKS 12

- DATA PLATFORMS & STORAGE INFRASTRUCTURE
- DATA MANAGEMENT
- SOFTWARE APPLICATIONS & SERVICES
- CLOUD FOR AI/ML & MODERN DATA SCIENCE
- GENERATIVE AI
- AI FOR DRUG DISCOVERY & DEVELOPMENT
- AI FOR ONCOLOGY, PRECISION MEDICINE & HEALTH
- DATA SCIENCE & ANALYTICS TECHNOLOGIES
- BIOINFORMATICS
- AI-POWERED ROBOTICS & INTELLIGENT LAB AUTOMATION
- PHARMACEUTICAL R&D INFORMATICS

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WELCOME

DEAR COLLEAGUE,

For 25 years, the Bio-IT World community has pushed the boundaries of what's possible in data, AI, and digital transformation across life sciences and healthcare. Together, we've advanced conversations on FAIR data, cloud and HPC, multimodal analytics, digital health, and the rise of generative and agentic AI. We've watched breakthroughs move from concept to implementation that are reshaping R&D, accelerating discovery, and improving outcomes for patients and organizations worldwide.

In 2026, we celebrate the 25th Annual Bio-IT World Conference & Expo with our most ambitious program to date. This year's expanded agenda features 11 conference tracks, 3 focused symposia, 6 technical workshops, and new networking opportunities designed to spark collaboration and showcase the next wave of innovation. Flagship tracks return alongside new content areas, including AI-Powered Robotics & Intelligent Lab Automation, Generative AI, Data Management, and Knowledge Graphs, reflecting the rapidly evolving needs of our community.

Across more than 200 presentations, we'll spotlight the latest ideas, technologies, and real-world use cases shaping science today. From AI-enabled drug discovery to cloud-native R&D, digital twins, and enterprise-scale automation, Bio-IT World Conference & Expo 2026 will bring together the leaders driving the next era of precision medicine and computational life sciences.

As we focus our attention on what's ahead, it's also good to pause and remember how far we've come. To that end, we are launching the 25th Anniversary Memory Wall, an online collection of stories from across the Bio-IT community. We invite you to share your experience, insights, and reflections to help celebrate the people and ideas that have shaped the past quarter-century of Bio-IT innovation.

Bio-IT World has always been more than a conference. Ours is a community where science, technology, and industry connect, a place to learn, strategize, challenge assumptions, and define what comes next. We're thrilled to welcome you to Boston as we open the next chapter.

Allison Proffitt
Executive Editor,
Bio-IT World

Cindy Crowninshield
Executive Event Director
Bio-IT World
Conference & Expo

"This meeting always, reliably, has a finger on the pulse of the most crucial emerging trends at the interface of computation and biomedicine... and has an unparalleled vibe of biotech-revolution enthusiasm."

LEONARD LIPOVICH, PROFESSOR, WENZHOU-KEAN UNIVERSITY

2026 Conference Tracks TUESDAY, MAY 19 - THURSDAY MAY 21

- Data Platforms & Storage Infrastructure
- Data Management
- Software Applications & Services
- Cloud for AI/ML & Modern Data Science
- Generative AI
- AI for Drug Discovery & Development
- AI for Oncology, Precision Medicine & Health
- Data Science & Analytics Technologies
- Bioinformatics
- AI-Powered Robotics & Intelligent Lab Automation
- Pharmaceutical R&D Informatics

Investor Conference TUESDAY, MAY 19

Bio-IT World Venture, Innovation & Partnering

Symposia TUESDAY, MAY 19

- Generative AI Tools
- AI for Biologics
- Knowledge Graphs

Workshops TUESDAY, MAY 19

W1: Building Workflows and Advancing FAIR Bioinformatics Practices

W2: How to Standardize Data Science Ways of Working to Unlock Your Data Science Team's Creativity

W3: Next-Gen AI for Drug Discovery: From LLMs to Multi-Agent Systems

W4: Making Data AI-Ready

W5: Quantum Computing in Life Sciences: From Fundamentals to Future Applications

W6: AI Upskilling for Computational Biology Teams

2026 Hackathon MONDAY, MAY 18 - TUESDAY, MAY 19

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SPONSORSHIP & EXHIBIT OPPORTUNITIES

CHI offers comprehensive packages that can be customized to your budget and objectives. Sponsorship allows you to achieve your goals before, during, and long after the event. Packages may include presentations, exhibit space and branding, as well as the use of delegate lists. Signing on early will maximize your exposure to qualified decision-makers and drive traffic to your website in the coming months.

PODIUM PRESENTATIONS — Available within Main Agenda!

Showcase your solutions to a guaranteed, targeted audience through a 15- or 30-minute presentation during a specific program, lunch, or a pre-conference workshop. Package includes exhibit space, onsite branding, and access to cooperative marketing efforts by CHI. Lunches are delivered to attendees who are already seated in the main session room. Presentations will sell out quickly! Sign on early to secure your talk.

INVITATION-ONLY VIP DINNER/HOSPITALITY SUITE

Select specific delegates from the pre-registration list to attend a private function at an upscale restaurant or a reception at the hotel. From extending the invitations, to venue suggestions, CHI will deliver your prospects and help you make the most of this invaluable opportunity.

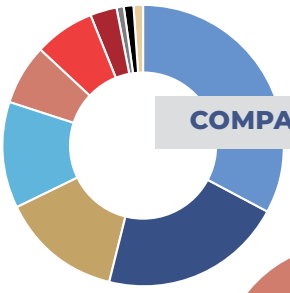
ONE-TO-ONE MEETINGS

CHI will set up 6-8 in-person meetings during the conference, based on your selections from the advance registration list. Our staff will handle invites, confirmations and reminders, and walk the guest over to the meeting area. This package also includes a meeting space at the venue, complimentary main-conference registrations, branding, an 8'x10' exhibit space, and more.

Additional branding and promotional opportunities are available, including:

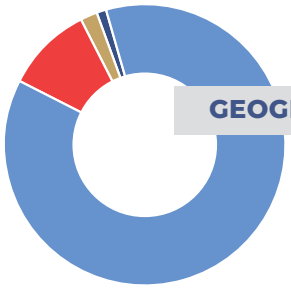
» Conference Tote Bags
» Literature Distribution (Tote Bag Insert or Chair Drop)
» Notebooks
» Water Bottles
» Graphics on elevator doors, columns, and glass railings
» Refreshment breaks and receptions

2025 ATTENDEE DEMOGRAPHICS



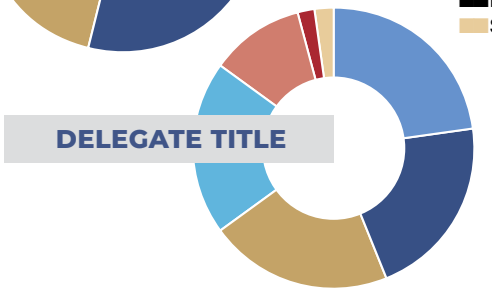
COMPANY TYPE

Biotech	33%
Services	21%
Pharma	14%
Commercial	12%
Academic	7%
Healthcare	7%
Financial	3%
Government	1%
Press	1%
Societies	1%



GEOGRAPHIC LOCATION

USA	87%
Europe	10%
Asia	2%
Rest of World	1%

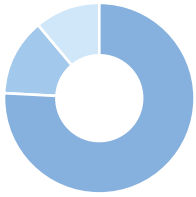


DELEGATE TITLE

Director	23%
Executive	21%
Scientist/Technologist	21%
Sales & Marketing	20%
Manager	11%
Professor	2%
Assistant	2%

US BREAKDOWN

East Coast	76%
West Coast	13%
Midwest	11%



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Email

KEYNOTE PROGRAM

Mohammed AlQuraishi, PhD
Assistant Professor, Systems Biology, Columbia University

Jonathan B. Gilbert, PhD
Senior Director, Ecosystem Growth and Contributor Partnerships, Eli Lilly and Company

Woody Sherman, PhD
Founder and Chief Innovation Officer, Psivant Therapeutics

José-Tomás Prieto, PhD,
Director of AI Programs, Apheris

Christina Taylor, PhD
Senior Science Fellow and Computational Molecular Design Lead, Bayer

José Duca, PhD
Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

TUESDAY, MAY 19

PLENARY KEYNOTE PROGRAM

4:30 pm Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

4:35 PLENARY KEYNOTE INTRODUCTION: Getting Ready for Effective AI: Starting with FAIR Principles with RCH Solutions & MIGx AG
Speaker to be Announced, RCH Solutions

4:45 PLENARY KEYNOTE PRESENTATION: AI Runs on Power: The Physical Limits Shaping the Future of Life Sciences

WEDNESDAY, MAY 20

7:00 Registration and Morning Coffee

PLENARY KEYNOTE PROGRAM

8:00 Organizer's Remarks
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

8:05 Plenary Keynote Introduction
Speaker to be Announced, CLOVERTEX

8:15 PLENARY KEYNOTE PRESENTATION: The Collaboration Breakthrough: How Federated Learning Is Rewriting the Rules of Drug Discovery
Mohammed AlQuraishi, PhD, Assistant Professor, Systems Biology, Columbia University
Jonathan B. Gilbert, PhD, Senior Director, Ecosystem Growth and Contributor Partnerships, Eli Lilly and Company
José-Tomás Prieto, PhD, Director of AI Programs, Apheris
Woody Sherman, PhD, Founder and Chief Innovation Officer, Psivant Therapeutics
Christina Taylor, PhD, Senior Science Fellow and Computational Molecular Design Lead, Bayer

This plenary session explores how federated learning is transforming collaboration in structural biology and drug discovery. The AISB Network brings biopharma leaders together to train OpenFold3 on proprietary protein-ligand data without sharing or moving sensitive datasets. Learn how privacy-preserving architecture, governance frameworks, and early OpenFold3 results demonstrate that shared model training can outperform siloed efforts—unlocking collective intelligence, accelerating small-molecule discovery, and shaping the future of collaborative AI in biopharma.

THURSDAY, MAY 21

PLENARY KEYNOTE PROGRAM

8:00 Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

8:05 Bio-IT World 2026 Innovative Practices Awards Ceremony (Winners Announced)
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

The Innovative Practices Awards recognizes and celebrates technology innovation in the life sciences. Bio-IT World is now accepting entries for the 2026 awards, recognizing partnerships and projects pushing our industry forward. Winners will be announced in April 2026, acknowledged during the May 21 Plenary Keynote, and invited to present their work at the conference. The entry deadline is March 2, 2026. For more information and to apply, visit www.bioitworldexpo.com/innovativepractices.

8:20 Bio-IT World 2026 Emerging Innovator Award—NEW (Winner Announced)
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

The Emerging Innovator Award recognizes one exceptional early-career researcher advancing the future of life sciences through breakthrough work in biomedical data, computational methods, or technology-enabled discovery. The 2026 awardee will deliver a 10-minute plenary keynote at Bio-IT World, highlighting the impact of their research and the forward-looking direction of their work. Nominations are due March 2, 2026, at www.bio-itworldexpo.com.

8:35 Plenary Keynote Introduction
Scott Weiss, Vice President, Product & Strategy, IDBS
José Duca, PhD, Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

8:45 am PLENARY KEYNOTE PRESENTATION: Hopscotching Through Drug Discovery: 15 Years of CADD and the Rise of AI
José Duca, PhD, Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

"Navigating the complex landscape of R&D IT within a large pharma requires a strategic vision. Bio-IT World in Boston provided a vital forum for understanding the evolving challenges and opportunities in bioinformatics."

Melissa L. Coughlin, Director, R&D IT, AstraZeneca

AWARDS & NETWORKING

BIO-IT WORLD INNOVATIVE PRACTICES AWARDS

INNOVATIVE PRACTICES AWARDS
Bio-IT World 2026

Recognizing and Celebrating Innovation in the Life Sciences

Bio-IT World Innovative Practices Awards is a competition designed to recognize the most exciting partnerships and projects pushing the life sciences industry forward. For more than two decades, the Innovative Practices Awards have highlighted strategies that can be widely shared and implemented across the industry to improve science quality, pace, and reach. Judged by an independent panel of industry experts, the awards honor the ideas that are accelerating life sciences advancements.

This year the final deadline for entry is March 2, 2026. Winners will be announced in mid-April 2026 and will be invited to present at the Bio-IT World Conference & Expo in a special, Innovative Practices Awards Winners session in Boston on Thursday, May 21, 2026. For more information on the program and to download the entry form, please visit Bio-ITWorldExpo.com/InnovativePractices

BIO-IT WORLD 2026 BEST OF SHOW AWARDS

BEST of SHOW
Bio-IT World CONFERENCE & EXPO 2026

Recognizing Exceptional Innovation in Technologies Used by Life Sciences Professionals

The Best of Show Awards offer exhibitors of the Bio-IT World Conference & Expo an exclusive opportunity to distinguish and highlight their products, whether an innovative application, technology, tool, or solution. The Bio-IT World community is invited to identify exceptional innovation in technologies used by life science professionals, voting on the most impactful new products of the year.

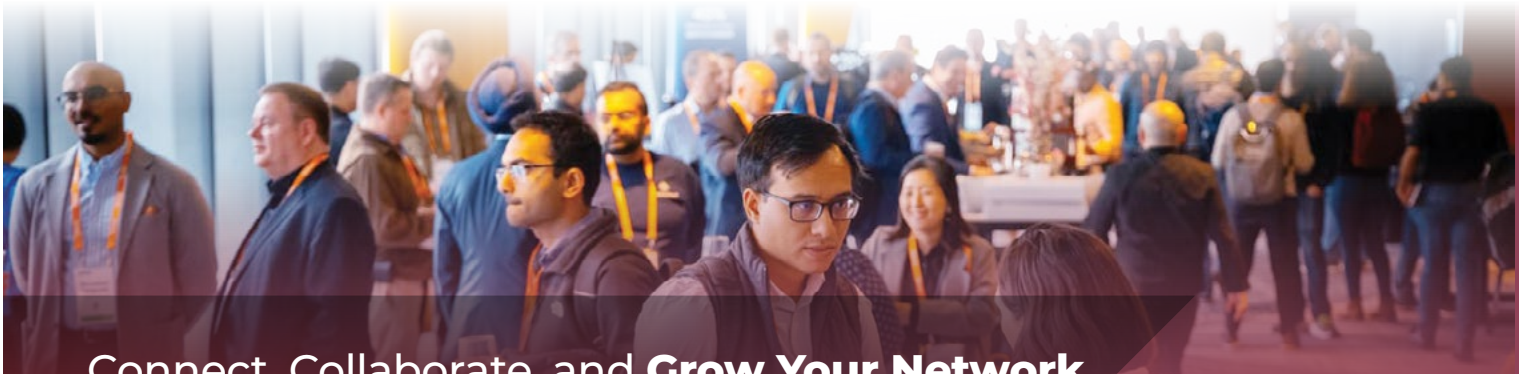
We look forward to continuing this tradition. Exhibitors are invited to enter their products via the online submission form below. Attendees are encouraged to explore the novel technologies and solutions firsthand in the exhibit hall and vote for the People's Choice Award once the conference has begun. Deadline for submissions is Friday, March 27, 2026. Please note, selection is not based upon level of sponsorship or exhibit participation.

Please visit: Bio-ITWorldExpo.com/Best-of-Show-Awards

EMERGING INNOVATOR AWARD
Bio-IT World 2026

BIO-IT WORLD 2026 EMERGING INNOVATOR AWARD

Emerging Innovator Award spotlights one exceptional early-career researcher who is redefining what's possible at the intersection of life sciences, biomedical data, and technology. This award recognizes bold thinkers pushing scientific, computational, or translational innovation forward – whether through AI-driven discovery, novel biological insights, transformative data frameworks, or next-generation digital tools. The selected finalist will deliver a 20-minute plenary keynote and will be featured across Bio-IT channels as a rising leader shaping the future of the field. Nomination deadline: February 1, 2026. For eligibility and nomination information, visit Bio-ITWorldExpo.com/Innovator-Award



Connect, Collaborate, and **Grow Your Network**

- **NETWORK IN PERSON** during our Welcome Reception, Luncheons, Refreshments Breaks, and Closing Reception.
- **SPARK COLLABORATION,** share challenges, and exchange ideas at the Breakfast Networking Roundtables taking place on Thursday, May 20, with small-group, informal discussions designed for cross-functional idea-sharing and community building.
- **ENGAGE DIRECTLY** with industry-leading sponsors and solution providers shaping the future of life sciences.
- **JOIN SCHEDULED AND SPONTANEOUS MEET-UPS** throughout the event including speed networking and the fun run.
- **CONNECT 1-ON-1** with fellow participants through our intuitive networking platform—featuring searchable profiles, smart filters, and easy meeting scheduling.

GENERATIVE AI TOOLS

Move from Proof-of-Concept to Production in Regulated Environments

TUESDAY, MAY 19

7:30 am Registration and Morning Coffee

8:30 Organizer's Welcome Remarks

FROM VISION TO READINESS: BUILDING THE ORGANIZATIONAL FOUNDATION FOR SCALABLE GENAI

8:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

8:40 From Models to Mindsets: A Health Systems Framework for Scaling Generative AI and Building Organizational Capacity

Salim Afshar, Assistant Professor, AI Translation Lead, Health Systems Innovation Lab (HSIL), Harvard T.H. Chan School of Public Health

Generative AI can only transform organizations when it is approached as a system, not a set of tools. This session explores how health systems thinking provides a blueprint for scaling AI responsibly across life-science enterprises. Drawing on lessons from the various projects, it examines how leadership vision, data infrastructure, and organizational learning can be harmonized to move from fragmented pilots to integrated, high-value transformation.

PROVEN WINS: QUANTIFIABLE SUCCESS IN PRODUCTION

9:05 Single Content-Generation Platform for Authors across R&D

Jeremy Zhang, PhD, Senior Director, Data Science, Data & Analytics, Otsuka America Pharmaceuticals, Inc.

This presentation introduces a single AI-powered content-generation platform that integrates directly into standard word processing and spreadsheet tools. Operationalized across R&D functions, including clinical data management and medical writing, it accelerates study startup by up to four weeks. Unlike typical document-centric AI tools, the platform extends to clinical data artifacts, demonstrating how emerging agentic AI technologies enable low-barrier, multi-domain adoption of generative AI across diverse research and development workflows.

9:30 Transforming CTD Authoring: A GenAI-Driven Approach

Edouard Michoud, PhD, AI Lead, Regulatory Data Digital & AI, Sanofi Group

Sanofi's Global Regulatory Affairs has developed two innovative GenAI platforms to transform Common Technical Document (CTD) authoring processes. The CTD Self-Service Platform facilitates draft content generation across multiple document sections, while HAQA leverages historical health authority Q&A data to generate consistent responses. These platforms, integrated into regulatory workflows, demonstrate significant efficiency gains with 80% CTD coverage, marking a paradigm shift in regulatory documentation management.

9:55 Sponsored Presentation *(Opportunity Available)*

10:10 AI-Driven End-to-End Validation for Computerized Systems in Life Sciences: Accelerating Compliance and Quality

Nilu Mishra, Practice Head Quality & Compliance, Health Care & Life Science, Tech Mahindra Ltd.

Ensuring compliance and validation of computerized systems in life sciences is a critical yet resource-intensive process, traditionally involving manual checks, documentation, and risk assessments. This presentation introduces an AI-powered solution that automates end-to-end validation, transforming how organizations achieve regulatory compliance while maintaining data integrity and system reliability. Attendees will gain insights into how AI can modernize validation practices, ensuring faster innovation without compromising regulatory standards.

10:25 Networking Coffee Break

OPERATIONAL GENAI: BUILDING WORKFLOWS THAT ACTUALLY RUN

10:45 Designing AI-Powered Workflows: A Practical Toolkit for Product Leaders

Manasi Ghogare, Senior Technology Product Manager, Digital Health, Takeda Pharmaceutical Co., Ltd.

This session addresses the challenge of turning AI ambitions into trusted, adopted products in complex, regulated settings. It takes a workflow-centric view, positioning AI within end-to-end technical workflows rather than as a standalone feature. Drawing on experiences in digital health and governance, it offers practical principles for mapping workflows, defining human–AI decision rights, and embedding governance, accountability, and feedback so AI-powered products are reliable, responsible, and aligned with real-world practice.

11:10 LLM Agents for CRO Data Processing: Automating Validation, Troubleshooting, and Communication Loops

Kevin Klicki, PhD, Informatics Engineer, Montai Therapeutics

Outsourcing R&D to Contract Research Organizations requires precise coordination. Data, metadata, and material transfers between internal teams and CROs often create miscommunication, fragmented workflows, and extended timelines. We present an agentic AI solution that validates data return formats and empowers CRO personnel to align their outputs with internal data schemas before reaching scientists, reducing manual curation and accelerating downstream analyses.

11:35 Transition to Lunch

11:45 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

12:15 pm Session Break

ENABLING SCALE: PEOPLE, PROCESS, AND PLATFORMS

12:45 Chairperson's Remarks *(Sponsorship Opportunity Available)*

12:50 Advancing Care through Innovation: Nurses and Technologists Driving Real Documentation Innovation

Cheristi Cognetta-Rieke, DNP, MBA, RN, Vice Chair Nursing, Enterprise Transformation, Mayo Clinic

Kathie Helms, MSN, RN, Senior Administrator, Clinical Informatics and Practice Support, Mayo Clinic

This presentation highlights how nurses are driving innovation and leveraging generative AI by co-creating documentation tools that reduce clerical burden and enhance patient care. Using Mayo Clinic's Nurse Virtual Assistant and Ambient Nursing Documentation initiatives as case studies, we will explore how embedding transformation into nursing practice (through strategic, credible, and tech-integrated models) can accelerate adoption and impact. Learn the power of clinical-tech partnerships in delivering scalable, high-value solutions.

1:15 A Generative AI-Enhanced, Multi-Cloud Architecture for Pharma Research-as-a-Service

Karim Chine, Co-Founder & Lead Architect, R&D, RosettaHUB Ltd.

Pharma Research-as-a-Service (RaaS) redefines drug discovery and development by uniting AI-driven automation, multi-cloud scalability, and compliance-by-design frameworks. Delivered as a secure, AWS-native SaaS platform, RaaS enables pharmaceutical and life-sciences organizations to rapidly create, manage, and scale reproducible research environments across hyperscalers and specialized clouds—forming a true "science supercloud." It accelerates innovation, enhances collaboration, reduces infrastructure overhead, and ensures traceability and regulatory alignment from concept to clinical insight.

1:40 Beyond the Hype: Practical Generative AI in Drug Design
Danny A. Bitton, PhD, Head, Applied Research & Innovation, MSD Czech Republic s.r.o.

This presentation showcases novel generative AI and interactive design platforms developed at Merck & Co. Inc., for *de novo* design of therapeutic proteins, antibody optimization, and enzyme engineering for biocatalysis. Featuring proprietary protein language models, scalable, bespoke pipelines, and user-friendly web applications, this talk demonstrates how GenAI is being operationalized to accelerate molecular design and democratize innovation across drug discovery, vaccine development, and manufacturing workflows.

2:05 Networking Refreshment Break

SUSTAINING TRUST: INFRASTRUCTURE, COMPLIANCE & CONTINUOUS GOVERNANCE

2:25 Sponsored Presentation *(Opportunity Available)*

2:55 Beyond Real Data: How AI-Generated Synthetic Data Enables Safe, Scalable GenAI Deployment
Rama Krishna Kumar Lingamgunta, IT Principal, AI Center of Enablement, CIGNA/EVERNORTH

As GenAI moves deeper into clinical, regulatory, and R&D workflows, teams face major validation barriers due to PHI exposure risks and proprietary data restrictions. AI-generated synthetic data offers a safe, scalable alternative—producing high-fidelity structured and unstructured datasets with referential integrity. This talk will demonstrate how synthetic data closes validation and compliance gaps, de-risks deployment, and enables reliable, audit-ready GenAI systems across scientific, clinical, and operational environments.

3:20 Operational Excellence: Embedding Generative AI Tools in Clinical-Trial Systems
Nagaraja "Sri" Srivatsan, Founder, Vidya Seva

This presentation showcases how cutting-edge generative AI tools, like large-language models and agentic platforms, are being embedded into clinical-trial management systems to automate documentation, accelerate study builds, and deliver measurable operational ROI. Attendees will see practical demonstrations, learn about productivity gains, and discover strategies for responsible, compliant adoption of AI tools to enhance efficiency and data-driven decision-making in clinical research.

3:45 Close of Symposium

3:45 Refreshment & Networking Break—Transition to Plenary Keynote

PLENARY KEYNOTE PROGRAM

4:30 Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

4:35 PLENARY KEYNOTE INTRODUCTION: Getting Ready for Effective AI: Starting with FAIR Principles with RCH Solutions & MIGx AG
Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing

Benchling

The Bio-IT Kickoff Reception is a reunion—reconnect with friends, explore cutting-edge research, and celebrate innovation! Enjoy poster presentations, networking, and vote for the Best of Show and Poster awards.

7:15 Close of Day

TUESDAY, MAY 19

7:30 am Registration and Morning Coffee

8:30 Organizer's Welcome Remarks

EXECUTIVE SESSION & PHARMA USE CASES

8:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

8:40 FEATURED PRESENTATION: Accelerating Innovation
Justin M. Scheer, PhD, Vice President In Silico Discovery & Head, Molecular Computational Team, Johnson & Johnson Innovative Medicine

Biologics discovery is now undergoing a massive inflection in AI-technology development that is beginning to unlock opportunities once out of reach. However, translating cutting-edge models into portfolio impact requires consideration of many factors—data capture, benchmarking, and continuous model refinement. In this talk, we describe aspects of how we are realizing the value of integrating AI into existing pharma infrastructure AI to transform drug discovery at J&J.

9:05 PANEL DISCUSSION: Unlocking the Potential of New Modalities through AI and Automation
Moderator: Sebastian Schlicker, Head, Biologics Business Operations, Genedata AG

As biologics R&D expands into increasingly complex modalities such as bispecifics, multispecifics, and antibody-drug conjugates, the biopharma industry faces unprecedented challenges in data integration, workflow automation, and scientific decision-making. Artificial intelligence and intelligent automation are emerging as critical enablers to address these complexities, streamline processes, and accelerate innovation. This panel brings together leading experts to share real-world experiences.

Panelists:
Barbara Brannetti, PhD, Director Bioinformatics & Biotherapeutic Modeling at Biologics Research Center, Novartis Institutes for BioMedical Research (NIBR)
Kausheek Nandy, Digital Transformation Director - Research, Boehringer Ingelheim Pharmaceuticals Inc.
Sukru Kaymakcalan, Director, R&D Information Research, AbbVie, Inc.
Yves Fomekong Nanfack, PhD, Head of AI/ML Research, Takeda

9:30 Use Case from AbbVie
Athena Hadjixenofontos, PhD, Director of Computational Biology & Data Science, Abbvie

Combining the capabilities of a leading antibody-discovery organization with cutting-edge machine learning unlocks transformative opportunities in biotherapeutics discovery. At AbbVie, we are embedding predictive models directly into scientific workflows, enabling programs to progress faster through stage gates, while also making better medicines by exploring previously inaccessible sequence space. We will share the principles that guide the building of this powerful discovery engine, and the successes that follow.

9:55 Talk Title to be Announced
Rumana Begum Raffi, Scientific Data Architect, Zifo Technologies, Inc.

10:10 Sponsored Presentation *(Opportunity Available)*

10:25 Networking Coffee Break

10:45 Operationalizing AI-Enabled Structural Biology and Protein Design at Sanofi
Joseph Batchelor, PhD, Head of Structural Biology, US Biologics Research, Sanofi Group

11:10 NextGenPLM: A Novel Structure-Infused Foundational Protein Language Model for Antibody Discovery and Optimization
Abhinav Gupta, PhD, Principal Machine Learning Scientist, AI Innovation, Large Molecule Research, Sanofi

NextGenPLM: a new paradigm in multimodal foundational models that fuses sequence, 3D structure, and interaction data in a single efficient transformer—enabling high-throughput, repertoire-scale antibody–antigen screening. On a diverse benchmark of antibody–antigen complexes, matches Chai-1 and Boltz-1x on contact-map and epitope accuracy at a fraction of the compute cost.

11:35 Transition to Lunch

11:45 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

12:15 pm Session Break

MODELS AND MORE

12:45 Chairperson's Remarks *(Sponsorship Opportunity Available)*

12:50 Using AI to Increase the Success Rate and Throughput of Biologics Discovery
Liu Cao, PhD, Senior Machine Learning Scientist, Pfizer Inc.
Yuan Lin, Director Digital Biologics Products, Pfizer Inc.

The rapid advancement of biologics, particularly antibody-based therapeutics, has revolutionized the landscape of drug discovery and development. As the complexity and volume of biologics data continue to grow, effective data management strategies have become essential for accelerating research and ensuring data integrity. This presentation explores the intersection of biologics data management and artificial intelligence (AI) in the context of antibody drug discovery.

1:15 Operationalizing AI in Biologics Discovery: Embedding Models into Scientific Workflows
Drazen Nadoveza, PhD, Architect Software Engineering, Novartis
Kannan Sankar, PhD, Senior Expert I, Data Science & Bioinformatics, Novartis Institutes for Biomedical Research Inc.

Operationalizing machine learning and generative AI in biologics discovery means more than building models—it involves embedding them into scientific workflows to run analyses alongside experimental data. This talk will cover strategies for streamlining data usage for model training, integrating *in* silico-generated data with laboratory results, and overcoming implementation challenges.

1:40 Digital Transformation Across Modalities and Geographies
Pravin Kumar, PhD., Senior Product Manager, Global Research Informatics Platform and Solutions (GRIPS), Abbvie Bioresearch Center

2:05 Networking Refreshment Break

INNOVATION SPOTLIGHTS FROM ACADEMIA AND INDUSTRY

2:25 Sponsored Presentation *(Opportunity Available)*

2:55 Introduction to the Innovation Spotlights from Academia & Industry Session
Douaa Mugahid, PhD, Data Officer, Hi-IMPAcTB Consortium, Harvard School of Public Health

Artificial Intelligence (AI)'s promise in accelerating drug discovery has generated plenty of excitement in biopharma. But how exactly is AI being built and leveraged to fulfill the promise of more scalable and efficient therapeutic design, especially in the field of biologics? Please join me and the speakers of the Innovation Showcase to discover how open-source infrastructure, big data, and *de novo* AI models are changing the biologics development landscape.

3:00 Talk Title to be Announced
Ryan Peckner, PhD, Director, Machine Learning, Seismic Therapeutic

3:10 Better Medicines Created Rapidly through *de novo* Protein Design
Ben Meinen, PhD, Head, Protein Design, AI Proteins

Miniproteins are a powerful yet underutilized therapeutic modality with a structure that enables binding with high affinity and specificity to their targets and achieves remarkable stability using only canonical amino acids. By combining *de novo* design with synthetic biology and laboratory automation, we accelerate the discovery and optimization of protein binders and create a vast toolbox of modular miniprotein domains, each with ideal drug-like properties and developability profiles.

3:20 EDA Toolkit: A Unified Framework for Transparent and Reproducible Data Science Workflows
Leon Shpaner, Data Scientist, UCLA Health

The EDA Toolkit is an open-source Python library designed to standardize and accelerate exploratory data analysis across domains. It combines automated data profiling, visualization, and preprocessing in a single, reproducible framework. This presentation demonstrates how the toolkit simplifies data strategy, enhances collaboration between teams, and promotes trust in AI model development through transparency and reproducibility.

3:30 Talk Title to be Announced
Mahmoud Eljendy, Co-Founder & CEO, Proteinea

3:40 Session Speaker Q&A

3:45 Close of Symposium

3:45 Refreshment & Networking Break—Transition to Plenary Keynote

PLENARY KEYNOTE PROGRAM

4:30 Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

4:35 PLENARY KEYNOTE INTRODUCTION: Getting Ready for Effective AI: Starting with FAIR Principles with RCH Solutions & MIGx AG
Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing Benchling

The Bio-IT Kickoff Reception is a reunion—reconnect with friends, explore cutting-edge research, and celebrate innovation! Enjoy poster presentations, networking, and vote for the Best of Show and Poster awards.

7:15 Close of Day

KNOWLEDGE GRAPHS

Connect Fragmented Data for Unified Views and Powerful Discoveries

TUESDAY, MAY 19

7:30 am Registration and Morning Coffee

8:30 Organizer's Welcome Remarks

TECHNICAL FOUNDATION: BUILDING, INTEGRATING & SCALING BIOMEDICAL KNOWLEDGE GRAPHS

8:35 Chairperson's Remarks
Janice McCallum, Managing Director, Health Content Advisors

8:40 Scalable and Reproducible Workflows on Multimodal Biomedical Data for Populating Knowledge Graphs
Anne Deslattes Mays, PhD, Principal, Science and Technology Consulting LLC

We present modular, containerized workflows built with Nextflow for scalable and reproducible integration of biomedical data into a unified cellular knowledge graph. This end-to-end pipeline supports standardized data transformation, semantic linking, and provenance tracking, enabling high-trust integration. The approach supports bring-your-own-data (BYOD) contributions, allowing users to submit, transform, and load datasets through a reproducible and FAIR-aligned process.

9:05 Microbiome Network Research and Visualization Atlas (MINERVA): A Scalable Knowledge Graph for Mapping Microbiome-Disease Associations
Synho Do, MS, PhD, Director, Laboratory of Medical Imaging and Computation (LMIC), Massachusetts General Hospital; Assistant Professor, Harvard Medical School

MINERVA distills 129,719 biomedical publications into an evidence-linked knowledge graph that enables researchers to identify connections and testable hypotheses from complex literature. An LLM-driven pipeline extracts sentence-level microbe–disease relations, harmonizes terminology, and preserves provenance. With 66,444 validated relations across 2,941 microbes and 3,299 diseases, MINERVA provides a transparent, continuously updated resource that accelerates hypothesis generation and supports reproducible, evidence-based biomedical discovery.

9:30 Hybrid RAG-to-Graph Integration: Unifying Semantic Search and Knowledge Graphs for Biomedical-Knowledge Dissemination
Chris Willis, PhD, Director, Research BI&T, Emerging Methods & Technologies, Bristol Myers Squibb Co.

This talk presents the Knowledge Dissemination Platform, an application that bridges this gap through hybrid RAG integrated with Neo4j graph infrastructure. By combining BM25 keyword search and kNN vector similarity over OpenSearch-indexed graph nodes, the platform enables natural-language interrogation of complex biomedical relationships while preserving graph-based lineage and connectivity. Lessons learned from this effort will be presented in the context of other knowledge graph-based BMS Research organization projects.

9:55 Presentation to be Announced

10:25 Networking Coffee Break

10:40 Uncovering Hidden Safety Risks: Using Knowledge Graphs to Surface Chemicals of Concern in Pharmaceutical Manufacturing
Kim Adler, Technical Product Owner, Pfizer Inc.

This talk will delve into how knowledge graphs enable efficient and robust identification of chemicals of concern within manufactured pharmaceutical products. The first part explains how manufacturing data stored in relational databases can be transformed into a knowledge graph containing material-level genealogy for any given product. The second part details how to optimize GenAI by using Graph Retrieval Augmented Generation (GraphRAG) to uncover chemicals of concern in these genealogies.

11:00 Learning from Machine Learning: Validating KGML Models and Finding Pitfalls in Early Drug Discovery
Tudor Oprea, MD, PhD, CEO, Expert Systems, Inc.

Validating KGML models exposes both the power and the limits of graph-based AI for drug discovery. This talk summarizes our experience in validating KGML models for Alzheimer's disease, autophagy, non-Hodgkin lymphoma, and target-druggability predictions. This talk will dissect failure modes often ignored in the field, such as data leakage, bottom-ranked predictions, and interpretation artifacts, while emphasizing the need for rigorous temporal validation.

11:20 Pharma General Ontology (PGO): Building a Semantic Backbone for FAIR and AI-Ready Knowledge Graphs
Giovanni Nisato, PhD, Consultant, Project Manager FAIR implementation, Pistoia Alliance

As lifescience innovation becomes increasingly data-driven, semantic interoperability is essential for scaling FAIR data and trustworthy AI. A shared semantic backbone would enable interoperable knowledge graphs, cross-domain data integration, and AI-ready foundations across the pharma ecosystem. This presentation introduces the Pharma General Ontology (PGO), a Pistoia Alliance–led, industry-governed project designed to harmonize core concepts across the pharmaceutical ecosystem. We introduce PGO's scope, design principles, current stage, and long-term vision.

11:40 Transition to Lunch

11:45 LUNCHEON PRESENTATION: The Foundation for Trustworthy AI: From FAIR Data Principles to Enterprise-Ready AI in Pharma
Mark Hahnel, VP of Open Research, Digital Science

Pharma faces a "scientific content crisis" due to poor data quality, non-FAIR data and governance gaps, hindering AI and regulatory compliance. This session offers an actionable blueprint: using FAIR principles for policy foundation and knowledge graphs for the operational layer. Attendees will hear strategic recommendations: investing in data infrastructure, adopting neuro-symbolic architectures to eliminate hallucinations, and building for machine actionability for audit-ready, trustworthy AI.

12:15 pm Session Break

FROM RESEARCH TO REAL-WORLD IMPACT: TRANSLATIONAL AND CLINICAL APPLICATIONS OF KNOWLEDGE GRAPHS

12:45 Chairperson's Remarks
Janice McCallum, Managing Director, Health Content Advisors

12:50 Federated or Centralized: Building a Unified and Sustainable Biomedical Knowledge Graph Ecosystem
Chunlei Wu, PhD, Professor, Department of Integrative Structural & Computational Biology, The Scripps Research Institute

The integration of LLMs with Knowledge Graphs (KGs) offers transformative potential but demands robust infrastructure for scalability and sustainability. This presentation explores a hybrid KG development ecosystem that leverages federated and centralized approaches, informed by our work in the NIH Biomedical Data Translator program and community consensus from the recent NIH Knowledge Networks meeting. We demonstrate how this combined strategy addresses key challenges in building unified, sustainable biomedical knowledge infrastructures.

Separate registration required.

1:15 From Cellular Morphology to Biological Knowledge: Scaling Image-Based Profiling for Drug Discovery
Shantanu Singh, PhD, Senior Group Leader, Machine Learning, Imaging Platform, Broad Institute

Image-based profiling captures subtle morphological changes in cells exposed to diseases, treatments, or genetic alterations, enabling large-scale screening of cellular responses. This talk explores challenges in making these high-dimensional datasets interoperable with structured biomedical knowledge—connecting morphological signatures to genes, pathways, and mechanisms requires careful integration across data modalities. Our recent work with MOTIVE demonstrates one approach, linking image-based phenotypes with biological ontologies to improve mechanism-of-action prediction.

1:40 Using AI to Explore and Traverse Knowledge Graphs
Martin Leach, PhD, MBA, Chief Data Officer, Black Canyon Consulting LLC

Knowledge graphs are powerful, however, the ability to traverse them is hindered by current user interfaces that focus on filtering datasets, selecting nodes or edges, and expanding them to understand connectivity. We will present an approach where we have trained an AI application to understand a graph schema, allowing users to 'ask questions' on a knowledge graph without needing to understand and construct complex graph queries.

2:05 Networking Refreshment Break

2:25 Sponsored Presentation *(Opportunity Available)*

2:55 Progressing from KG to Clinic: The Personalization of Hypertension for Diagnosis and Treatment in Preeclampsia
Michael Liebman, PhD, Managing Director, IPQ Analytics, LLC

Knowledge Graphs provide a powerful framework for integrating and analyzing disparate biomedical data. We extend this approach beyond representing "known unknowns" to reveal "unknown unknowns," including temporal patterns and relationships vital for clinical applications. Applied to hypertension, it supports a personalized, mechanism-based model through digital-twin development. Our initial implementation focuses on predicting risk and improving early detection and management of preeclampsia to enhance maternal health outcomes.

3:20 From Biomarkers to Bloch Spheres: Quantum-AI Graphs for Precision-Oncology Workflows
Christopher Lundy, Senior Principal Enterprise Architect & Chief Quantum AI Officer, FindInfinite Labs

Precision-oncology workflows struggle with biomarker-drug integration. Due to the high complexity of relationships, I've developed a hybrid quantum-AI framework and methodology that streamlines this process. It queries hundreds of oncology targets in seconds via multi-source caching, predicts EGFR-targeted bindings with 0.92 accuracy (using variational quantum methods), and constructs knowledge graphs for trial design. Join me for a review of the code and approach to democratizing AI-based, quantum computing.

3:45 Close of Symposium

3:45 Refreshment & Networking Break—Transition to Plenary Keynote

PLENARY KEYNOTE PROGRAM

4:30 Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

4:35 PLENARY KEYNOTE INTRODUCTION: Getting Ready for Effective AI: Starting with FAIR Principles with RCH Solutions & MIGx AG
Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing

Benchling

The Bio-IT Kickoff Reception is a reunion—reconnect with friends, explore cutting-edge research, and celebrate innovation! Enjoy poster presentations, networking, and vote for the Best of Show and Poster awards.

7:15 Close of Day

WORKSHOPS

TUESDAY, MAY 19 9:00 AM-12:00 PM

W1: Building Workflows and Advancing FAIR Bioinformatics Practices: A Practical Lab Using the Playbook Workflow Builder (PWB)

Instructors:
Ishwar Chandramouliswaran, Program Director, Office of Data Science Strategy, NIH
Nick Lynch, PhD, Founder & CTO, Curlew Research; Member, FAIRplus Consortium
Daniel Clarke, Biomedical Software Developer, Icahn School of Medicine at Mount Sinai
Allissa Dillman, PhD, CEO & Founder, BioData Sage LLC
Avi Ma'ayan, PhD, Professor & Director, Center for Bioinformatics, Pharmacological Sciences, Icahn School of Medicine at Mount Sinai

This hands-on workshop introduces the Playbook Workflow Builder (PWB), guiding participants through step-by-step recipes to create reusable, transparent, and interoperable bioinformatics workflows aligned with FAIR principles. Attendees will analyze genes, gene sets, and other omics datasets, generate hypotheses, and build shareable workflow components without coding. Working in groups, participants will develop use cases for discovery and leave able to extend PWB, contribute reproducible analyses, and support collaborative research ecosystems.

W2: How to Standardize Data Science Ways of Working to Unlock Your Data Science Team's Creativity

Instructors:
Eric Ma, PhD, Principal Data Scientist, Moderna, Inc.
Jackie Valeri, PhD, Data Scientist, Moderna, Inc.

Build high-performing biotech data science teams in an AI-driven world. This interactive workshop covers workflows, delivery models, and hiring strategies that balance best practices with innovation, helping you select team members who thrive alongside AI tools.

W3: Next-Gen AI for Drug Discovery: From LLMs to Multi-Agent Systems

Instructor:
Parthiban Srinivasan, PhD, Professor and Director, Centre for AI in Medicine, Vinayaka Mission's Research Foundation, India

This workshop explores how agentic AI is transforming drug discovery by connecting data, design, and decision-making across R&D. Attendees will learn how multi-agent AI frameworks integrate predictive modeling, generative design, and experimental validation through knowledge graphs, FAIR data, and ELN/LIMS platforms. Real-world examples will demonstrate how AI-ready, interoperable workflows accelerate discovery, improve traceability, and enhance decision quality while ensuring innovation and compliance across the life sciences.

TUESDAY, MAY 19 1:15-4:15 PM

W4: Making Data AI-Ready

Instructor:
Fernanda Foertter, MSc, Executive Director, The University of Alabama High Performance Computing and Data Center

AI-driven analyses depend on high-quality, accessible data for accurate modeling and decision-making. This workshop digs into strategies and frameworks to ensure that AI models perform reliably, ethically, and within regulatory bounds, while maximizing data's potential to deliver actionable insights and accelerate pharma R&D.

W5: Quantum Computing in Life Sciences: From Fundamentals to Future Applications

Instructor:
Christopher Bishop, Chief Reinvention Officer, Improvising Careers

Quantum computing is set to reshape how we approach complex problems in life sciences. In this workshop, Christopher Bishop will provide an accessible overview of quantum computing, explore its potential for accelerating computational biology and drug discovery, and highlight emerging applications across research and technology. Attendees will leave with a clear understanding of quantum principles and how they may transform the life sciences landscape.

W6: AI Upskilling for Computational Biology Teams

Instructor:
Sonia Timberlake, PhD, R&D Strategy Consultant, Timberlake & MacIsaac Biopharma Consulting

AI is rapidly transforming how computational biology teams design experiments, analyze data, and generate insights—but most scientists haven't had the opportunity to build hands-on proficiency with these new tools. This interactive workshop bridges that gap, providing practical guidance on how to apply AI and agentic coding frameworks in real-world research settings. Participants will learn how to build, test, and deploy simple AI agents, connect biological data to large language models, and explore no-code or low-code platforms that accelerate productivity. Designed for computational biologists, bioinformaticians, and data scientists, this session focuses on applied learning to help teams confidently integrate AI into their daily workflows.

7th Annual Bio-ITWorld HACKATHON

*Hackathon is in-person only

Driving Innovation in Life Sciences with Open Source Tools and FAIR Data Solutions

MONDAY, MAY 18 – TUESDAY, MAY 19, 2026

The Bio-IT World Hackathon is a cornerstone of the Bio-IT World Conference & Expo, bringing together data scientists, software developers, and life science professionals to tackle real-world data challenges. Focused on Open Source and FAIR (Findable, Accessible, Interoperable, Reusable) principles, this two-day event fosters innovation and collaboration to deliver practical solutions.

Hackathon Sponsor

CFDE TRAINING CENTER

WHAT TO EXPECT IN 2026:

The 2026 hackathon will continue to unite life science and technical professionals to address pressing data challenges using Open Source and FAIR Data approaches. Facilitated by leaders from the NIH Common Fund Data Ecosystem (CFDE), this year's event will focus on projects leveraging omics data and integrating CFDE tools, improving interoperability across datasets to accelerate discoveries.

The CFDE ensures Common Fund data is accessible and reusable, providing researchers with a centralized online platform for integrating multiple resources seamlessly while enabling new insights and scalable solutions.

WHY PARTICIPATE?

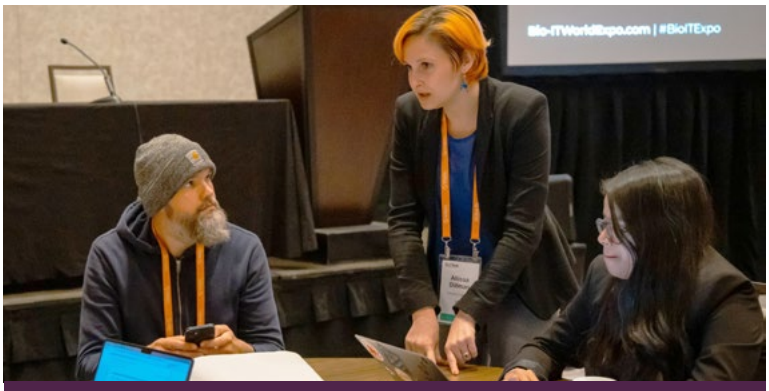
- **Compete for Prizes and Recognition** – Multiple prizes of up to $5,000 will be awarded to top teams for innovative, high-impact solutions that advance open science and biomedical data reuse.
- **Solve Real-World Challenges** – Address critical data problems using Open Source and FAIR principles.
- **Collaborate with Experts** – Partner with peers of various backgrounds to develop workflows, tools and analysis pipelines that advance biomedical discovery.
- **Gain Hands-On Experience** – Work with cutting-edge technologies in bioinformatics, AI, and cloud-based data analysis.

JUST WANT TO PARTICIPATE?

Stay tuned for more information on how to apply.

STAY TUNED FOR 2026 PROJECT INFORMATION

For more details on the Hackathon, please contact:
The CFDE Training Center at cfde-trainingcenter@orau.org



2025 HACKATHON EXAMPLE PROJECT

- GlycoEnzyme Expression Atlas: Linking Differential Expression to Pathway Dysregulation
- DrugCentral Based Review and Profiles of Targets for Approved Drugs
- Mapping Disease at the Cellular Level with HuBMAP
- Unraveling Exercise Resilience: Multi-Omics Meets Machine Learning
- Interactive Analysis with Biological Pathways
- FAIR Maturity Matrix Assessment: The DATA Dimension
- Mapping Immune States in SLE: A FAIR Pipeline for Integrating Spatial, Single-Cell, and Flow Cytometry Data

HAVE AN IDEA? Submit your project pitch for review.

Deadline for Submission: February 2, 2026

Submit project pitch here:
https://orausurvey.orau.org/n/BioITPitch.aspx

** Limited travel funds are available for individuals who need support and are willing to serve as team leads on selected projects.*

DATA PLATFORMS & STORAGE INFRASTRUCTURE

Optimize Data Platforms for Scale, Speed, Performance, and Cost Efficiency

TUESDAY, MAY 19

8:30 am Recommended Pre-Conference Workshops and Symposia*

On Tuesday, May 19, 2026, Cambridge Healthtech Institute is pleased to offer six pre-conference Workshops scheduled across two time slots (9:00 am–12:00 pm and 1:15–4:15 pm) and three Symposia from 8:30 am–3:45 pm. All are designed to be instructional, interactive, and provide in-depth information on a specific topic. They allow for one-on-one interaction and provide a great way to explain more technical aspects that would otherwise not be covered during the main conference tracks that take place Wednesday–Thursday.
**Separate registration required.* Additional details:
Symposia: www.bio-itworldexpo.com/symposia
Workshops: www.bio-itworldexpo.com/workshops

PLENARY KEYNOTE PROGRAM

4:30 pm Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

4:35 PLENARY KEYNOTE INTRODUCTION: Getting Ready for Effective AI: Starting with FAIR Principles with RCH Solutions & MIGx AG
Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing Benchling

The Bio-IT Kickoff Reception is a reunion—reconnect with friends, explore cutting-edge research, and celebrate innovation! Enjoy poster presentations, networking, and vote for the Best of Show and Poster awards.

7:15 Close of Day

WEDNESDAY, MAY 20

6:30 am Bio-IT World's 5K Rise and Shine Fun Run! *(Sponsorship Opportunities Available)*

RUN COORDINATORS:
Bridget Kotelly, Senior Conference Director, Cambridge Healthtech Institute
Eileen Murphy, Conference Producer, Cambridge Healthtech Institute
Lace up and join Bio-IT's Coordinators for the Fun Run on Wednesday, May 20! Sprint, jog, walk, or talk-your-way-through—ALL abilities are welcome. This informal event is all about getting moving together. Full details to come…just don't forget your sneakers!

7:00 Registration and Morning Coffee

PLENARY KEYNOTE PROGRAM

8:00 Organizer's Remarks
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

8:05 Plenary Keynote Introduction Clovertex
Speaker to be Announced, CLOVERTEX

8:15 PLENARY KEYNOTE PRESENTATION: The Collaboration Breakthrough: How Federated Learning Is Rewriting the Rules of Drug Discovery

Mohammed AlQuraishi, PhD, Assistant Professor, Systems Biology, Columbia University
Jonathan B. Gilbert, PhD, Senior Director, Ecosystem Growth and Contributor Partnerships, Eli Lilly and Company
José-Tomás Prieto, PhD, Director of AI Programs, Apheris
Woody Sherman, PhD, Founder and Chief Innovation Officer, Psivant Therapeutics
Christina Taylor, PhD, Senior Science Fellow and Computational Molecular Design Lead, Bayer

This plenary session explores how federated learning is transforming collaboration in structural biology and drug discovery. The AISB Network brings biopharma leaders together to train OpenFold3 on proprietary protein-ligand data without sharing or moving sensitive datasets. Learn how privacy-preserving architecture, governance frameworks, and early OpenFold3 results demonstrate that shared model training can outperform siloed efforts—unlocking collective intelligence, accelerating small-molecule discovery, and shaping the future of collaborative AI in biopharma.

9:30 Coffee Break in the Exhibit Hall with Poster Viewing
(Sponsorship Opportunity Available)

Start your morning with coffee, connections, and cutting-edge research! Enjoy poster presentations, network in the Exhibit Hall, vote for awards, and a chance at a fabulous raffle prize!

10:15 Organizer's Welcome Remarks

BUILDING RELIABLE, SCALABLE RESEARCH DATA FOUNDATIONS

10:20 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:25 Building a Validated, Multi-Lingual Analytics Ecosystem on a Shared Data Platform: Key Lessons from Practice
Anand Ganesan, Product Lead, GD-IT, Regeneron Pharmaceuticals, Inc.
Sriram Krishnamurthy, Director, GD-IT, Regeneron Pharmaceuticals, Inc.

Modern computing and analytics platforms must deliver scalability to support diverse user communities, from regulatory submissions and patient safety in GxP environments to non-GxP use cases like exploratory analysis, all built on an adaptive, scalable infrastructure.This session explores the journey of creating a validated, multi-lingual analytics ecosystem on a shared storage platform, leveraging insights from non-regulatory use cases. It highlights key architectural decisions, governance and validation strategies, and operational lessons,

10:55 Beyond the Script: Architecting a Truly Reproducible R Workflow for Clinical Analysis
Srihas Velpuri, Infrastructure Engineer, Biostatistics & Data Science R&D, F. Hoffmann La Roche AG

In clinical biostatistics, reproducibility isn't optional—it's a regulatory mandate. This presentation details the architecture of a truly reproducible R workflow designed for GxP-compliant clinical analysis. We will break down our solution into four key pillars—Code (Git), Dependencies (Posit Package Manager), Environment (Docker), and Execution (CI/CD)—demonstrating how they combine to create a validated, auditable, and automated platform that ensures the integrity of every result and streamlines regulatory submissions.

11:25 Navigating the Data Landscape: The Cancer Research Data Commons Data Ecosystem
Durga Addepalli, PhD, Health Scientist, Center for Biomedical Informatics & IT, NIH NCI

NCI's Cancer Research Data Commons is a data ecosystem built to administer and manage the data generated by the various NCI funded programs for FAIR data sharing across the research community. NCI has been a pioneer

in establishing a democratized ecosystem co-locating data and compute, building secure and scalable data commons and cloud analytical platforms for the diverse users from cancer community.

11:55 Sponsored Presentation *(Opportunity Available)*

12:10 pm Empowering Discovery: Modernizing Data and Storage Infrastructure to Accelerate Time to Science
Bill Lynch, Life Sciences Strategic Alliances Manager, Healthcare, Pure Storage, Inc.

Discover how Pure Storage empowers life sciences organizations with modern data infrastructure. Learn how flash-optimized, cloud-ready solutions accelerate genomics workflows, streamline data movement, and support AI-driven discovery. See how leading teams improve scalability, sustainability, and collaboration while reducing cost and complexity across hybrid environments.

12:25 Presentation to be Announced

12:55 Transition to Lunch

1:05 LUNCHEON PRESENTATION: The AI Token Tax: Why Life-Science AI Pipelines Waste 40–70% of Compute—and How to Eliminate It
David Cerf, Chief Data Evangelist, GRAU DATA

Genomics, cryo-EM, and imaging data are reprocessed hundreds of times, causing AI pipelines to re-parse the same files for every RAG, agent, or analytics workflow. This wastes 40–70% of GPU and token spend—the AI Token Tax. This session shows how a persistent metadata fabric cuts preprocessing 50–80%, improves data quality, and makes scientific data truly AI-ready.

1:35 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

Bio-IT's hall is bigger than ever; one break won't cut it! Enjoy dessert and coffee after lunch, explore booths and posters, vote for awards, and participate in our raffle for a chance to win a prize!

FEDERATED AND FAIR: SCALING COLLABORATION AND DATA REUSE

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 Federated Data Systems to Turbocharge Collaboration
Ahmad Haider, PhD, Vice President, AI/ML & Data, Natera

In this session, we will discuss a federated data architecture and operating model to shift ownership of data to domain teams and treat datasets as discoverable, secure products—enabling data producers to publish well-documented, versioned data products, data consumers to self-serve high-quality assets for analytics and ML, and platform teams to provide the plumbing, tooling, and federated governance that makes it all scalable.

3:00 MATRIX: Scalable Compound Property Generation for Accelerating Bioinformatics Discovery
Rody Arantes, Director, Digital Technology, Montai Therapeutics
Thomas George Thomas, Senior Data Engineer, Platform Engineering, Montai Therapeutics

The MATRIX (Montai AtTRIbute eXpander) System is a cloud-native platform that automates large-scale molecular property generation through integrated computation and fully lineage-traceable data management. By generating 50+ attributes for over 500 million compounds in under two hours, MATRIX removes a major bottleneck in biotech R&D. This scalable, reproducible workflow modernizes cheminformatics and provides a blueprint for rapid, traceable, research-grade bioinformatics discovery.

3:30 From Data Silos to Data Facilities: Building Platforms That Make Research Data Findable, Ready, and Reusable
Fernanda Foertter, MSc, Executive Director, The University of Alabama High Performance Computing and Data Center

This session presents the data facility, a new approach to overcoming the practical bottlenecks of fragmented, poorly understood data. It will show how to surface valuable datasets, connect distributed storage, and apply readiness workflows so data becomes truly compute-ready for analytics and AI. Attendees will learn concrete strategies to automate data discovery, minimize human gatekeeping, and transform legacy and siloed data into reusable research assets.

4:00 Sponsored Presentation *(Opportunity Available)*

4:30 Best of Show Awards Reception in the Exhibit Hall with Poster Viewing

Unwind with colleagues at our lively reception! Explore posters, vote for the best, network with exhibitors, enjoy a drink, and try to win a raffle prize. Celebrate Best of Show winners!

5:45 Close of Day

THURSDAY, MAY 21

7:00 am Registration Open

CONTINENTAL BREAKFAST WITH BREAKOUT DISCUSSIONS

7:00 Connect & Collaborate: Breakfast Networking Roundtables *(Sponsorship Opportunities Available)*

Kick off the morning with small-group roundtable discussions designed to spark collaboration, share challenges, and exchange insights across the Bio-IT community. Attendees gather around themed tables—spanning data ecosystems, AI adoption, foundational models, intelligent labs, translational infrastructure, and emerging technologies—to compare experiences and explore practical strategies. Each roundtable seats 8–10 participants for focused, peer-driven conversation that accelerates problem-solving, strengthens connections, and surfaces cross-functional perspectives before the plenary keynote. Topics will be announced throughout the year on the Bio-IT World website as part of our 2026 theme rollout, with opportunities for attendees and partners to propose table themes. If you have a topic to suggest or would like to participate as a moderator, contact Cindy Crowninshield at ccrowninshield@healthtech.com.

PLENARY KEYNOTE PROGRAM

8:00 Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

8:05 Bio-IT World 2026 Innovative Practices Awards Ceremony (Winners Announced)
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

The Innovative Practices Awards recognizes and celebrates technology innovation in the life sciences. Bio-IT World is now accepting entries for the 2026 awards, recognizing partnerships and projects pushing our industry forward. Winners will be announced in April 2026, acknowledged during the May 21 Plenary Keynote, and invited to present their work at the conference. The entry deadline is March 2, 2026. For more information and to apply, visit www.bioitworldexpo.com/innovativepractices.

DATA PLATFORMS & STORAGE INFRASTRUCTURE

Optimize Data Platforms for Scale, Speed, Performance, and Cost Efficiency

8:20 Bio-IT World 2026 Emerging Innovator Award—NEW (Winner Announced)
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

The Emerging Innovator Award recognizes one exceptional early-career researcher advancing the future of life sciences through breakthrough work in biomedical data, computational methods, or technology-enabled discovery. The 2026 awardee will deliver a 10-minute plenary keynote at Bio-IT World, highlighting the impact of their research and the forward-looking direction of their work. Nominations are due March 2, 2026, at www.bio-itworldexpo.com.

8:35 Plenary Keynote Introduction
Scott Weiss, Vice President, Product & Strategy, IDBS

8:45 PLENARY KEYNOTE PRESENTATION: Hopscotching through Drug Discovery: 15 Years of CADD and the Rise of AI
José Duca, PhD, Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

9:45 Coffee Break in the Exhibit Hall with Poster Competition Winners Announced *(Sponsorship Opportunity Available)*

Bio-IT is all about connections! Explore booths, award-winning posters, and network with clients, colleagues, and exhibitors. Grab coffee, build relationships, and stay for a chance to win a raffle prize!

10:30 Organizer's Remarks

INTELLIGENT PLATFORMS FOR AI-DRIVEN DISCOVERY

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 Function-First Generative Drug Design Platform Unlocking Functional Biologics
Adam Kraut, Director, Research Informatics and Data Architecture, Metaphore Bio

Metaphore Bio is building a function-first generative drug-design platform where data infrastructure is a first-class product. Cloud-orchestrated autonomous labs stream high-throughput functional and multiomic data into a governed cloud platform that powers AI/ML and protein design at scale. I will share how our storage and compute architecture balances speed, performance, cost, and compliance while accelerating multi-targeting biologics.

11:10 Digital Platform for Data-Driven, AI-Enabled Biotherapeutics Discovery
Yuhao Lin, Consultant, Biologics IT, Eli Lilly & Company

Lilly is developing an integrated digital platform to transform large molecule discovery in the age of AI. From assay data capture and NGS workflows to MLOps and DMTA, the solutions in this platform are unified in both data and UI by design. This talk will highlight the roadmap, progress, impact, challenges, and learnings from this transformational platform.

11:40 Structure Designer: AbbVie's Internal Compound Design Platform
Elyse Geoffroy, Technology Engineer, Information Research, AbbVie Inc.

Structure Designer is an internally built, customizable application for AbbVie's Discovery medicinal chemists, centralizing compound design workflows and data access, and replacing fragmented, vendor-dependent solutions with a flexible, web-based platform. Its modern architecture integrates rapid calculations, seamless session management, and secure user controls, significantly improving speed, usability, and accessibility for both internal staff and external collaborators, all at a lower cost than commercial alternatives.

12:10 pm Sponsored Presentation *(Opportunity Available)*

1:10 Session Break and Transition to Lunch

1:20 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

1:50 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

Feeling tired? Recharge during the final Networking Exhibit Hall break! Visit booths, explore posters, connect with peers, and turn in your Game Cards for a chance to win a raffle prize.

TRENDS FROM THE TRENCHES: BRIDGING TRADITIONAL INSIGHTS WITH INNOVATIVE ADVANCEMENTS

2:30 Chairperson's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

For 20 years, Trends from the Trenches has been Bio-IT World's unscripted pulse check, cutting through hype to reveal what actually works in scientific computing. As the field has shifted, the session has evolved. In 2026, the format advances again with a credibility-driven keynote and a community-powered unconference delivering late-breaking insights, grounded realities, and forward-looking guidance. Attendees leave energized by collective intelligence and clearer on the future of life-science computing.

2:35 From 20 Years of Trends to the Next Era of Digital R&D
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

This presentation frames the industry's next chapter by tracing how Trends from the Trenches has shaped digital R&D for two decades and by spotlighting the forces redefining scientific computing today: AI–HPC convergence, modality-driven compute, multimodal data, and rising expectations for speed, interoperability, and trust. Remarks set the foundation for a forward-looking exploration of where digital biology and computational innovation are heading next.

2:45 FEATURED TALK: The Hard Truth about Digital R&D: Patterns, Pitfalls, and the Next Wave of Innovation
Eleanor A. Howe, PhD, Founder & CEO, Diamond Age Data Science

This presentation delivers a candid, comprehensive assessment of the forces reshaping scientific computing and digital R&D. Eleanor examines the technologies, platforms, modalities, and market dynamics truly driving change. She synthesizes emerging patterns across AI, data platforms, workflow orchestration, multimodal analytics, and new therapeutic/ diagnostic directions, while calling out bottlenecks and architectural missteps. The result is a grounded, evidence-based view of where the field is heading and which strategies matter next.

3:15 Community Unconference: Live Problems, Live Solutions
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

This participatory unconference draws on topics submitted by Bio-IT attendees throughout the week. A working group distills the input into high-value themes, which the facilitator uses to drive rapid-fire exchanges, micro-debates, and collaborative problem-solving. The discussion focuses on real-world challenges in AI, computing, data engineering, and scientific software. The session surfaces patterns, ideas, and solutions emerging across the community creating a crowd-generated state-of-the-field snapshot that only this session can produce.

4:05 Close of Conference

TUESDAY, MAY 19

8:30 am Recommended Pre-Conference Workshops and Symposia*

On Tuesday, May 19, 2026, Cambridge Healthtech Institute is pleased to offer six pre-conference Workshops scheduled across two time slots (9:00 am–12:00 pm and 1:15–4:15 pm) and three Symposia from 8:30 am–3:45 pm. All are designed to be instructional, interactive, and provide in-depth information on a specific topic. They allow for one-on-one interaction and provide a great way to explain more technical aspects that would otherwise not be covered during the main conference tracks that take place Wednesday–Thursday.
**Separate registration required.* Additional details:
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Workshops: www.bio-itworldexpo.com/workshops

PLENARY KEYNOTE PROGRAM

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Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

4:35 PLENARY KEYNOTE INTRODUCTION: Getting Ready for Effective AI: Starting with FAIR Principles with RCH Solutions & MIGx AG
Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing Benchling

The Bio-IT Kickoff Reception is a reunion—reconnect with friends, explore cutting-edge research, and celebrate innovation! Enjoy poster presentations, networking, and vote for the Best of Show and Poster awards.

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WEDNESDAY, MAY 20

6:30 am Bio-IT World's 5K Rise and Shine Fun Run! *(Sponsorship Opportunities Available)*

RUN COORDINATORS:
Bridget Kotelly, Senior Conference Director, Cambridge Healthtech Institute
Eileen Murphy, Conference Producer, Cambridge Healthtech Institute
Lace up and join Bio-IT's Coordinators for the Fun Run on Wednesday, May 20! Sprint, jog, walk, or talk-your-way-through—ALL abilities are welcome. This informal event is all about getting moving together. Full details to come…just don't forget your sneakers!

7:00 Registration and Morning Coffee

PLENARY KEYNOTE PROGRAM

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Speaker to be Announced, CLOVERTEX

8:15 PLENARY KEYNOTE PRESENTATION: The Collaboration Breakthrough: How Federated Learning Is Rewriting the Rules of Drug Discovery

Mohammed AlQuraishi, PhD, Assistant Professor, Systems Biology, Columbia University
Jonathan B. Gilbert, PhD, Senior Director, Ecosystem Growth and Contributor Partnerships, Eli Lilly and Company
José-Tomás Prieto, PhD, Director of AI Programs, Apheris
Woody Sherman, PhD, Founder and Chief Innovation Officer, Psivant Therapeutics
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This plenary session explores how federated learning is transforming collaboration in structural biology and drug discovery. The AISB Network brings biopharma leaders together to train OpenFold3 on proprietary protein-ligand data without sharing or moving sensitive datasets. Learn how privacy-preserving architecture, governance frameworks, and early OpenFold3 results demonstrate that shared model training can outperform siloed efforts—unlocking collective intelligence, accelerating small-molecule discovery, and shaping the future of collaborative AI in biopharma.

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10:15 Organizer's Welcome Remarks

BUILDING THE TRUST ARCHITECTURE: FROM PETABYTES TO IMMUTABLE PLATFORMS

10:20 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:25 From Archive to Ecosystem: Architecting a Petabyte-Scale Biomedical Platform for Sustainable and FAIR Discovery
J. Rodney Brister, PhD, Acting Program Head, Sequence Read Archive, NCBI, NLM, NIH

The Sequence Read Archive is the world's largest open-access repository of genetic data generated by high-throughput sequencing technologies. This presentation provides an initial report from our journey to transform this petabyte-scale data repository into a sustainable, cloud-agnostic resource – fully integrated into the biomedical research ecosystem. We describe strategies for modernizing a production system, balancing ongoing operations while progressively implementing a standards-based framework that supports reliability, governance, and FAIR data practices.

10:45 Building Bridges: Developing the Omics Commons at AbbVie
Brett W. Engelmann, PhD, Senior Data Scientist, Information Research, AbbVie, Inc.

This talk will describe the evolution of AbbVie's omics data strategy from a disparate collection of siloed, single-purpose tools into a unified, commons-based approach. Today, AbbVie is leveraging a common omic data model, ontologies, and visualization tools to achieve FAIR principles and impact the pipeline. The omics commons establishes a better way forward for archiving, re-analyzing, meta-analyzing, and discovering omic data.

11:05 Trust, Teach, Transform: Data Governance, Literacy & Sharing in the Age of AI
Frank Dullweber, PhD, Data Domain Owner, Digital Transformation in Clinical Development, Boehringer Ingelheim Pharma GmbH & Co. KG

In an era where data forms the backbone of biomedical innovation, it is essential to rethink governance, foster literacy, and enable sharing. This presentation explores how modern life science organizations/companies drive data-centric transformation through clear responsibilities, cultural change, and strategic partnerships.

11:25 The Application of Blockchain for Transparent and Efficient Clinical Data Management
Shashidar Reddy Abbidi, Senior Manager, Clinical Data Management, Global Data Operations, Bristol Myers Squibb Co.

Blockchain's decentralized, immutable ledger can revolutionize clinical trials by ensuring data integrity, security, and transparency. It streamlines data sharing, manages patient consent, and enhances drug supply tracking. By providing a tamper-proof record, it builds trust among stakeholders and supports decentralized trials. However, challenges like scalability, high costs, lack of regulations, and the need for specialized training must be addressed for its successful adoption in the highly regulated clinical research environment.

11:45 Q&A with Speakers

11:55 Presentation to be Announced

12:10 pm Sponsored Presentation *(Opportunity Available)*

12:25 Presentation to be Announced

12:40 OMERO Plus Hosted Powered by Portal: A Hosted and Managed Platform for End-to-End Imaging Workflows in Spatial Biology
Erin Diel, President, Glencoe Software

Research organizations face growing challenges in managing, processing, and sharing large and complex imaging datasets. OMERO Plus Hosted is a fully managed service designed to simplify image data management for organizations of any size. Now powered by Portal, OMERO Plus Hosted provides a robust orchestration platform for scalable, end-to-end image-based assays at some of the world's largest organizations. Reduce manual effort, improve traceability, and accelerate your imaging workflows.

12:55 Transition to Lunch

1:05 Luncheon Presentation to be Announced

1:35 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

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UNLEASHING INTELLIGENCE: FROM DATA STEWARDSHIP TO GENAI ACCELERATION

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 Using Stewardship to Unlock Data for AI
Michael Farnum, PhD, Director of Research Data Stewardship, GSK

This presentation will connect principals of quality data to initiatives ongoing at GSK to increase the speed, confidence, and compliance of work to bring medicines to patients. Applications of metadata collection and curation, data modeling, and the use of ontologies to drive data integration will be shown to increase the scope of data available to compute.

2:50 AI-Ready Master-Data & Reference-Data Management for Life Sciences
Suhas Nikam, PhD, Global Head, Data & Advanced Analytics Architecture, Johnson & Johnson

This talk will share a proven enterprise approach and execution with actual case studies to govern, harmonize, and leverage data assets and data products to drive AI-ready Master Data and Reference data to advance on-demand patient-centric vision and drive end-to-end business value across R&D, Commercial, and Supply Chain functions.

3:10 DTS Portal: GenAI-Powered Biomarker Data Transfers with Vendors
Mahesh Nawade, Director, Research Data Engineering & Operations, Business Insights & Technology, Bristol Myers Squibb Co.

The DTS Portal is a transformative solution for biomarker data operations, designed to address the persistent bottlenecks in onboarding external vendor data. In pharmaceutical research, creating Data Transfer Specifications (DTSes) between sponsors like BMS and external vendors is often a slow, manual, and error-prone process. The DTS Portal replaces this with a centralized, user-friendly interface that automates document creation, version control, and stakeholder collaboration.

3:30 Reimagining Clinical Data Management: AI, Data Mesh, and the Path to FAIR in Pharma
Kayure Patel, Senior Data Sciences Product Leader, Data Sciences & Product Development, Genentech, Inc.

As the complexity of clinical trial data grows, traditional management approaches struggle to keep pace with scale, compliance, and scientific demand. This presentation explores how FAIR data principles, data mesh frameworks, and AI-driven tools can transform life sciences data management. Drawing on real-world experience at Genentech/Roche, it will demonstrate strategies for enabling data reuse, enhancing quality, and preparing organizations for next-generation analytics and decision-making.

3:50 Q&A with Speakers

4:00 Presentation to be Announced

4:30 Best of Show Awards Reception in the Exhibit Hall with Poster Viewing

Unwind with colleagues at our lively reception! Explore posters, vote for the best, network with exhibitors, enjoy a drink, and try to win a raffle prize. Celebrate Best of Show winners!

5:45 Close of Day

THURSDAY, MAY 21

7:00 am Registration Open

CONTINENTAL BREAKFAST WITH BREAKOUT DISCUSSIONS

7:00 Connect & Collaborate: Breakfast Networking Roundtables *(Sponsorship Opportunities Available)*

Kick off the morning with small-group roundtable discussions designed to spark collaboration, share challenges, and exchange insights across the Bio-IT community. Attendees gather around themed tables—spanning data ecosystems, AI adoption, foundational models, intelligent labs, translational infrastructure, and emerging technologies—to compare experiences and explore practical strategies. Each roundtable seats 8–10 participants for focused, peer-driven conversation that accelerates problem-solving, strengthens connections, and surfaces cross-functional perspectives before the plenary keynote. Topics will be announced throughout the year on the Bio-IT World website as part of our 2026 theme rollout, with opportunities for attendees and partners to propose table themes. If you have a topic to suggest or would like to participate as a moderator, contact Cindy Crowninshield at ccrowninshield@healthtech.com.

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Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

DATA MANAGEMENT

Transform Data into Strategic Assets for Discovery, Collaboration, and AI

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10:30 Organizer's Remarks

INNOVATIVE PRACTICES AWARD WINNER PRESENTATIONS: BEST PRACTICES IN TECHNOLOGY INNOVATION

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 Innovative Practices Award Winner Presentations: Excellence in Technological Innovation

Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

Since 2003, Bio-IT World has hosted an elite awards program highlighting exceptional examples of technology innovation and strategic initiatives advancing life sciences research. Winners of the 2026 Bio-IT World Innovative Practices Awards—recognized during the morning plenary keynote—will present during this session. Presentation titles and abstracts will be added in April 2026, following the public announcement of award recipients. For more information or to submit an application, visit www.bioitworldexpo.com/innovativepractices.

12:10 pm Presentation to be Announced

12:40 Sponsored Presentation *(Opportunity Available)*

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SOFTWARE APPLICATIONS & SERVICES

Build Next-Gen Software for Discovery, AI, and Digital Transformation

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10:15 Organizer's Welcome Remarks

MODERN SOFTWARE PLATFORMS & DIGITAL INFRASTRUCTURE FOR R&D

10:20 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:25 Software Applications & Services for Lab of the Future
Nevin Gerek Ince, PhD, Director, Research Digital Products, Novo Nordisk

This talk explores how digital technologies are transforming laboratory environments. We will discuss how advanced software solutions and cloud-based services enable automation, data integration, and collaboration in scientific research. Key topics include AI-driven analysis, electronic lab notebooks (ELNs), laboratory information-management systems (LIMS), and secure cloud platforms. These innovations streamline workflows, enhance data accuracy, and support remote access, making labs more efficient and connected.

10:55 CAMEO: A Secure and Interoperable Digital Platform Enabling AI-Ready Data across Translational-Research Workflows
Ritesh Kumar, PhD, Associate Director, Research Informatics, Novartis

Translational research increasingly depends on secure and compliant management of complex patient-sample data, including radioactive and isotopically labeled assays. To overcome workflow fragmentation and data-integrity challenges, we developed CAMEO, an AI-ready digital platform that streamlines secure data exchange, automates device interactions, and standardizes review and approval processes. By enabling interoperability, compliance, and future AI integration, CAMEO accelerates data reliability and digital transformation across experimental and clinical workflows.

11:25 Operating FAIR Data Platforms for Drug Discovery: Lessons from an Open Science Antiviral Consortium
Nick Lynch, PhD, Founder & CTO, Curlew Research; Member, FAIRplus Consortium

Biomedical discovery increasingly depends on shared, AI-ready data platforms, yet operating them across institutions and constraints is challenging. The ASAP Discovery Consortium is a multi-site antiviral drug discovery effort built on shared infrastructure and capabilities rather than proprietary silos. This talk examines software platforms, FAIR data pipelines, governance, and provenance mechanisms supporting the consortium, and

shares lessons learned enabling reproducible collaboration and blind AI benchmarking across distributed drug discovery teams.

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12:55 pm Transition to Lunch

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THE FUTURE OF PUBLIC DATA & SOFTWARE INFRASTRUCTURE: RISKS, FUNDING INSTABILITY, AND IMPACT ON BIOMEDICAL R&D

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 Safeguarding the Future of Biomedical Innovation: How Funding Cuts to Public Science Infrastructure Impact the Entire R&D Ecosystem

Anne Deslattes Mays, PhD, Principal, Science and Technology Consulting LLC
Eleanor A. Howe, PhD, Founder & CEO, Diamond Age Data Science
Douaa Mugahid, PhD, Data Officer, Hi-IMPAcTB Consortium, Harvard School of Public Health

Public scientific infrastructure—data repositories, software ecosystems, foundational research programs, and open-source tools—anchors biomedical innovation, yet shifting U.S. federal funding is creating instability that impacts academia, startups, investors, pharma R&D, and AI/ML reproducibility. This session shares GAFOS survey findings and brings together experts across research, industry, venture, and policy to assess risks and responses. Gain clarity on what's at stake and actionable strategies to protect essential scientific infrastructure.

4:00 Sponsored Presentation *(Opportunity Available)*

4:30 Best of Show Awards Reception in the Exhibit Hall with Poster Viewing

LabVantage pluto

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THURSDAY, MAY 21

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The Emerging Innovator Award recognizes one exceptional early-career researcher advancing the future of life sciences through breakthrough work in biomedical data, computational methods, or technology-enabled discovery. The 2026 awardee will deliver a 10-minute plenary keynote at Bio-IT World, highlighting the impact of their research and the forward-looking direction of their work. Nominations are due March 2, 2026, at www.bio-itworldexpo.com.

8:35 Plenary Keynote Introduction

IDBS

Scott Weiss, Vice President, Product & Strategy, IDBS

8:45 PLENARY KEYNOTE PRESENTATION: Hopscotching through Drug Discovery: 15 Years of CADD and the Rise of AI

José Duca, PhD, Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

9:45 Coffee Break in the Exhibit Hall with Poster Competition Winners Announced *(Sponsorship Opportunity Available)*

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10:30 Organizer's Remarks

AI ADOPTION, ENTERPRISE DECISION INTELLIGENCE, AND RESPONSIBLE SCALING

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 AI Readiness Roadmap for PMOs: From Theory to Practice
Gurpreet Kanwar, Senior Manager Programs, Portfolio Delivery Group, NAV CANADA

While AI continues to dominate discussions in project management, many Project Management Offices (PMOs) struggle to move from conceptual curiosity to real implementation. This talk introduces a practical AI Readiness Roadmap specifically tailored for PMOs. It will walk participants through the maturity stages, from assessing organizational data, processes, and tools, to piloting AI use cases, and eventually scaling AI adoption responsibly.

11:10 From Complexity to Clarity: Graph-Based Decision Intelligence to Accelerate Therapy Launches
Vishal Varma, PhD, Director, Supply Chain Data Science & AI, Johnson & Johnson

This talk will explain how a knowledge graph-driven digital twin of the pharma supply chain turns complex drug launch planning into reliable, data-driven decisions. As new modalities expand operational and manufacturing complexity, graph-based models integrate diverse data, reveal causal bottlenecks, and support validated, explainable scenario analyses. The result is a scalable, production-ready framework that reduces cost, improves predictability, and accelerates the delivery of next-generation therapies to patients.

11:40 Talk Title to be Announced
Vas Vasiliadis, Chief Customer Officer, University of Chicago, Globus

12:10 pm Sponsored Presentation *(Opportunity Available)*

1:10 Session Break and Transition to Lunch

1:20 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

1:50 Refreshment Break in the Exhibit Hall with Poster Viewing
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TRENDS FROM THE TRENCHES: BRIDGING TRADITIONAL INSIGHTS WITH INNOVATIVE ADVANCEMENTS

2:30 Chairperson's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

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2:35 From 20 Years of Trends to the Next Era of Digital R&D
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This presentation frames the industry's next chapter by tracing how Trends from the Trenches has shaped digital R&D for two decades and by spotlighting the forces redefining scientific computing today: AI–HPC convergence, modality-driven compute, multimodal data, and rising expectations for speed, interoperability, and trust. Remarks set the foundation for a forward-looking exploration of where digital biology and computational innovation are heading next.

2:45 FEATURED TALK: The Hard Truth about Digital R&D: Patterns, Pitfalls, and the Next Wave of Innovation
Eleanor A. Howe, PhD, Founder & CEO, Diamond Age Data Science

This presentation delivers a candid, comprehensive assessment of the forces reshaping scientific computing and digital R&D. Eleanor examines the technologies, platforms, modalities, and market dynamics truly driving change. She synthesizes emerging patterns across AI, data platforms, workflow orchestration, multimodal analytics, and new therapeutic/ diagnostic directions, while calling out bottlenecks and architectural missteps. The result is a grounded, evidence-based view of where the field is heading and which strategies matter next.

3:15 Community Unconference: Live Problems, Live Solutions
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This participatory unconference draws on topics submitted by Bio-IT attendees throughout the week. A working group distills the input into high-value themes, which the facilitator uses to drive rapid-fire exchanges, micro-debates, and collaborative problem-solving. The discussion focuses on real-world challenges in AI, computing, data engineering, and scientific software. The session surfaces patterns, ideas, and solutions emerging across the community creating a crowd-generated state-of-the-field snapshot that only this session can produce.

4:05 Close of Conference

CLOUD FOR AI/ML & MODERN DATA SCIENCE

Cloud Technologies and Strategies to Drive Better, Faster Analytics

TUESDAY, MAY 19

8:30 am Recommended Pre-Conference Workshops and Symposia*

On Tuesday, May 19, 2026, Cambridge Healthtech Institute is pleased to offer six pre-conference Workshops scheduled across two time slots (9:00 am–12:00 pm and 1:15–4:15 pm) and three Symposia from 8:30 am–3:45 pm. All are designed to be instructional, interactive, and provide in-depth information on a specific topic. They allow for one-on-one interaction and provide a great way to explain more technical aspects that would otherwise not be covered during the main conference tracks that take place Wednesday–Thursday.
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Workshops: www.bio-itworldexpo.com/workshops

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Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

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7:15 Close of Day

WEDNESDAY, MAY 20

6:30 am Bio-IT World's 5K Rise and Shine Fun Run! *(Sponsorship Opportunities Available)*

RUN COORDINATORS:
Bridget Kotelly, Senior Conference Director, Cambridge Healthtech Institute
Eileen Murphy, Conference Producer, Cambridge Healthtech Institute
Lace up and join Bio-IT's Coordinators for the Fun Run on Wednesday, May 20! Sprint, jog, walk, or talk-your-way-through—ALL abilities are welcome. This informal event is all about getting moving together. Full details to come…just don't forget your sneakers!

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10:15 Organizer's Welcome Remarks

FOUNDATIONS OF CLOUD AI/ML PLATFORMS

10:20 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:25 The AI Platform Factory: Designing, Securing, and Operating AIML Systems
David Bernick, CISO, Broad Institute

As AI and machine learning become core to biomedical research, the challenge is no longer whether models can be built—it's whether organizations can operate them reliably, securely, and at a global scale. We will explore how cloud-native compute, scalable model-serving architectures, multimodal data platforms, and rigorous security and compliance frameworks come together to form an integrated, end-to-end capability for AI in biomedicine.

10:55 AI/ML Platform to Accelerate Innovation
Ahmad Haider, PhD, Vice President, AI/ML & Data, Natera

This session explores a cloud-native AI platform that democratizes AI for business users, scientists, and analysts. It unifies data, domain knowledge, and secure model orchestration to enable rapid prototyping, validation, and deployment of AI applications—from NLP and automation to decision-support copilots and RAG systems. The talk covers architecture and governance ensuring reliability, safety, and compliance, and shows how self-service AI accelerates innovation, boosts efficiency, and delivers tangible business value.

11:25 Unleashing and Accelerating Agentic AI Ambition: Enterprise Data and AI Foundation
Sudeep Regmi, Head Enterprise DM & Innovation, IT, Takeda

Agentic AI can transform how enterprises operate—but only with the right foundation. This session explores what it means to be agentic AI-ready, covering control tower and responsible AI, agent identity/access and security, data ontology, and FinOps. We will introduce an agentic orchestration framework and clarify platform, data, application, and business agents, giving you practical guidance to design a scalable, secure, and value-driven agentic AI ecosystem.

T4 CLOUD FOR AI/ML & MODERN DATA SCIENCE

Cloud Technologies and Strategies to Drive Better, Faster Analytics

11:55 Presentation to be Announced

12:25 pm Presentation to be Announced

12:40 Sponsored Presentation *(Opportunity Available)*

12:55 Transition to Lunch

1:05 LUNCHEON PRESENTATION: Rebuilding Biotech for the AI Era

Nicholas Larus-Stone, Software Engineer, Benchling

The biotech industry is at a critical inflection point where our most advanced science is still trapped within inefficient, fragmented processes. With AI, we have a once-in-a-generation chance to fundamentally rebuild how medicines are made, accelerating R&D timelines, lowering costs, and increasing competitive advantage. This session will detail how Benchling is creating the AI-ready foundation necessary to build a biotech industry worthy of its science. You'll see live examples of Benchling AI agents and models that automate busywork, provide structure to data, and generate scientific insights. We'll also cover important platform considerations for ensuring security, interoperability, and data continuity across your tech ecosystem. Join us to see how your organization can put AI in the hands of every scientist to accelerate the path from discovery to patient.

1:35 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

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CLOUD FOR AI-DRIVEN SCIENTIFIC WORKFLOWS AND DOMAIN-SPECIFIC AGENTS

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 Building Domain-Specific AI Agents for Scientific Workflows

Gregory Hinkle, PhD, Vice President, Research Informatics, Alnylam Pharmaceuticals, Inc.

3:00 A Unified Hybrid-Cloud Platform for AI-Driven Protein Prediction in Drug Discovery

Michail Vlysidis, PhD, Principal Engineer, AbbVie

AI has transformed protein structure prediction, yet R&D teams face fragmented tools and steep learning curves. We present a unified platform that combines the best public, commercial, and proprietary AI models within a seamless hybrid-cloud environment. With intuitive visualization, robust API integration, and integrated access to diverse prediction methods, the platform enables scientists to move from raw sequence to actionable insights for therapeutic design and optimization.

3:30 Enabling Foundation Model Training for Science

Vas Vasiliadis, Chief Customer Officer, University of Chicago, Globus

Large foundation model training demands access to diverse—and geographically distributed—computation and data resources. Coordinating access to these resources requires building container images, managing training jobs, monitoring job progress, and managing data and provenance across multiple storage systems and computing clusters. We will describe how cloud services on the Globus platform are being used to orchestrate this process and highlight use cases from computational biology and other scientific domains.

4:00 Sponsored Presentation *(Opportunity Available)*

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LEVERAGING CLOUD TO ACCELERATE DATA ACCESS

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 Bench to Bucket: Automating Lab Data Transfer to AWS with DataSync

Adam Mendez, Senior Director, Data & Cloud Platforms, Flagship Pioneering

Scientific instruments generate vast datasets, yet making it usable for scientists and machine learning remains a challenge. This talk presents a cloud-native architecture for high-throughput ingestion of laboratory data, enabling timely access for analysis and model training. Drawing on real-world experience, we highlight design patterns that reduce latency, improve reliability, and make experimental data a first-class input to scientific discovery and AI development.

11:10 Beyond the Data Silo: Paving the Way for Future Digital-Health Foundation Models with Scalable Cloud Infrastructure

Bahador Marzban, PhD, Senior Digital Health Data Engineer, Innovative Medicine R&D, Johnson & Johnson

We present a systems-focused pipeline that converts population-scale biosensor-based actigraphy and PPG data (i.e., biosensor data) into reproducible, high-throughput training datasets for multimodal digital health foundation models. In brief, this work emphasizes the infrastructure and data engineering trade-offs, as well as the operational patterns required to convert siloed time series into reproducible, high-throughput training pipelines—independent of model architecture or downstream performance metrics.

11:40 Leveraging Cloud to Break Data Silos and Power AI in Life Sciences

Rodney Marable, Executive Director, Scientific Computing & Informatics, Flare Therapeutics

Cloud platforms offer unprecedented opportunities to unify fragmented lab, clinical, and real-world data—but the challenge is turning this data into actionable AI insights. This panel brings together leaders from pharma, biotech, and digital health to discuss how cloud-native architectures, high-throughput data pipelines, and scalable storage solutions can enable AI/ML at scale, while maintaining governance, security, and regulatory compliance.

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verily

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T5 GENERATIVE AI

Accelerate Research and Enterprise Innovation through Responsible GenAI Adoption at Scale

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ACCELERATING ENTERPRISE ADOPTION AND SCIENTIFIC IMPACT

10:20 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:25 Flashes to Flames: Predicting the Future Technology Stack
Vinod Das, Pharma R&D, Drug Innovation and AI Enablement, Bayer Pharmaceuticals

Generative AI has rapidly evolved from experimental flashes of innovation into a blazing force reshaping the technological landscape. As the flames of GenAI spread, the future tech stack will be defined by hybrid architectures that blend foundation models, agentic AI, knowledge graphs, and domain-specific autopilots. Together with advances in federated learning, memory systems and computing, these approaches will amplify human creativity, accelerate decision-making, and unlock collaborative innovation in life sciences.

10:45 Harnessing Generative AI to Transform Real-World Data into Actionable Evidence for Pharma R&D
Anu Sharma, Senior Principal Scientist, MRL BARDS Epidemiology RWE Capabilities and Analytics, Merck & Co., Inc.

In today's evolving healthcare landscape, Generative AI and Real-World Data (RWD) are transforming pharmaceutical R&D. This session introduces Merck's RWDEx platform, showcasing AI-powered agents that enable real-time evidence synthesis, automate regulatory tracking, and deliver personalized analytics. Through real-world case studies, attendees will learn how these innovations accelerate study execution, bridge data silos, and improve patient outcomes—advancing the future of data-driven drug development.

11:05 Reimagining Clinical Trial Operations: Generative AI for Workflow Transformation and Compliance
Nagaraja "Sri" Srivatsan, Founder, Vidya Seva

Generative AI is transforming clinical trial operations by automating protocol authoring, regulatory submissions, and patient communications. This session highlights how generative AI streamlines workflows, enhances audit readiness, and supports compliance with FDA guidance. Attendees will learn practical strategies for responsible AI adoption, see real-world examples of automation, and understand the importance of human oversight in deploying generative AI for safer, more efficient clinical research.

11:25 Strategy Considerations for AI Agents in Drug Discovery for a Rapidly Evolving Ecosystem

Peng Cheng Zhang, PhD, Technical Associate Director Scientific Products, Integrated Data and Insights/SDP/NX, Novartis Institutes for BioMedical Research, Inc.

In a rapidly evolving technology landscape for drug discovery, AI agents or agentic systems present new strategic opportunities and challenges. This talk highlights several key strategic considerations—platform agility, proprietary data, and physical-world validation loops. I share some perspective on a balanced approach for efficiency and innovation, and why integration-first thinking is essential for navigating emerging opportunities in this dynamic landscape.

11:45 Q&A with Speakers

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DESIGNING ADAPTIVE ARCHITECTURES FOR GENERATIVE INTELLIGENCE

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 The State of AI Prompting: How We Talk to AI Today and What Comes Next

Vinod Das, Pharma R&D, Drug Innovation and AI Enablement, Bayer Pharmaceuticals

Pearson Henri, Forward Deployed Engineer, OpenAI

Rebecca Lebeaux, PhD, Associate Director, Strategy Implementation & Business, Global Portfolio & Project Management, AstraZeneca

Generative AI is transforming pharma and life sciences. This session explores how prompt strategies drive innovation, accuracy, and efficiency while managing computational resources. Topics include self-correcting prompts for reliable outputs, the unexpected creative value of AI "hallucinations" in sparking new ideas, and the rise of voice-based prompting for hands-free workflows. Learn practical insights to enhance drug discovery, clinical documentation, and decision-making across pharma roles, from research to regulatory to commercial.

3:30 Innovation Showcase—Emerging Solutions for Life Sciences (NEW)

Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

The Innovation Showcase offers emerging companies (pre-commercial; founded in 2020 or later; focused on life sciences, pharma, clinical research, healthcare, or informatics/tech; currently raising a late seed or Series A) an alternative to a traditional sponsored talk. This curated, in-track session features lightning talks and demos from startups developing tools for discovery, development, and clinical research, highlighting novel approaches, architectures, and deployment models. To discuss participation, contact Cindy Crowninshield ccrowninshield@healthtech.com.

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The Emerging Innovator Award recognizes one exceptional early-career researcher advancing the future of life sciences through breakthrough work in biomedical data, computational methods, or technology-enabled discovery. The 2026 awardee will deliver a 10-minute plenary keynote at Bio-IT World, highlighting the impact of their research and the forward-looking direction of their work. Nominations are due March 2, 2026, at www.bio-itworldexpo.com.

8:35 Plenary Keynote Introduction

Scott Weiss, Vice President, Product & Strategy, IDBS

8:45 PLENARY KEYNOTE PRESENTATION: Hopscotching through Drug Discovery: 15 Years of CADD and the Rise of AI

José Duca, PhD, Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

9:45 Coffee Break in the Exhibit Hall with Poster Competition Winners Announced *(Sponsorship Opportunity Available)*

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10:30 Organizer's Remarks

SCALING FOUNDATION MODELS FOR RESPONSIBLE DEPLOYMENT

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 PANEL DISCUSSION: Foundation Model Tuning for Biomedical AI: From Domain Adaptation to Enterprise Deployment

Moderator: Ben Busby, PhD, Global Alliances Manager, Omics, NVIDIA

While foundation models transform biomedical R&D, most pilots fail to scale due to inadequate domain adaptation. This session unites academia and industry leaders to share proven frameworks for fine-tuning multimodal models across molecules, omics, and clinical data. Learn practical strategies for data curation, validation protocols, and governance structures that ensure regulatory compliance and build trust. Speakers present case studies demonstrating successful enterprise deployment, moving from experimentation to responsible, ROI-driven implementation.

Panelists:

Jonathan Z. Amar, PhD, Senior Applied AI Scientist, Generative AI, Verily Life Sciences

Parul Bordia Doshi, Chief Data Officer, Cellarity

Andreas Kraemer, PhD, Staff Biologist, Computational Systems, QIAGEN GmbH

Neha Tadimeti, Product Manager, Nvidia

12:10 pm Presentation to be Announced

12:40 Building AI-Ready Scientific Data Portals: Turning External Content into Actionable Insights

Carl Robinson, Senior Corporate Solutions Director, Licensing, CCC (Copyright Clearance Center)

To power generative AI and analytics, life science companies are increasingly shifting from ad-hoc search and article purchases to curating machine-readable datasets. Questions remain, however, when it comes to complying with copyright laws and policies. This session explores best practices for compliant, AI-ready data portals that integrate external scientific sources—maximizing data accessibility, scalability, and downstream value to stakeholders.

12:55 A Practical Path to AI-Grounded Drug Discovery with Knowledge Graphs

Mark Hahnel, VP of Open Research, Digital Science

LLMs in drug discovery suffer from hallucination and lack of semantic intelligence. This talk presents practical, knowledge-grounded AI applications using knowledge graphs for use cases like target identification and polypharmacy prediction. The core is the neuro-symbolic approach which uses a knowledge graph to transform probabilistic LLMs into reliable reasoning systems. Learn to accelerate your pipeline by connecting internal knowledge with the research ecosystem via persistent identifiers.

1:10 Session Break and Transition to Lunch

1:20 Luncheon Presentation to be Announced

1:50 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

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BEYOND DISCOVERY: TURNING AI INSIGHTS INTO REAL-WORLD CLINICAL IMPACT

2:30 Sponsored Presentation *(Opportunity Available)*

2:35 Beyond Discovery: Turning AI Insights into Real-World Clinical Impact

Anastasia Christianson, PhD, Pharma Industry Data Science Leader

Loucif Ouyahia, PharmD, Global Head of Digital Healthcare, Jazz Pharmaceuticals

Alexander Sherman, Director, Center for Innovation and Bioinformatics, Massachusetts General Hospital

While AI drives early-stage discovery, pharma organizations still struggle to extend its impact into clinical operations and patient care. This panel session unites leaders from biopharma, hospitals, and digital health to explore how to integrate AI across R&D, bridge research insights to outcomes, and enable collaboration through shared infrastructure—creating an AI ecosystem that delivers measurable impact from discovery to clinical application.

4:05 Close of Conference

AI FOR DRUG DISCOVERY & DEVELOPMENT

Next-Gen AI Driving Discovery, Validation, and Development across the Biopharma Lifecycle

TUESDAY, MAY 19

8:30 am Recommended Pre-Conference Workshops and Symposia*

On Tuesday, May 19, 2026, Cambridge Healthtech Institute is pleased to offer six pre-conference Workshops scheduled across two time slots (9:00 am–12:00 pm and 1:15–4:15 pm) and three Symposia from 8:30 am–3:45 pm. All are designed to be instructional, interactive, and provide in-depth information on a specific topic. They allow for one-on-one interaction and provide a great way to explain more technical aspects that would otherwise not be covered during the main conference tracks that take place Wednesday–Thursday.
**Separate registration required.* Additional details:
Symposia: www.bio-itworldexpo.com/symposia
Workshops: www.bio-itworldexpo.com/workshops

PLENARY KEYNOTE PROGRAM

4:30 pm Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

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Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing Benchling

The Bio-IT Kickoff Reception is a reunion—reconnect with friends, explore cutting-edge research, and celebrate innovation! Enjoy poster presentations, networking, and vote for the Best of Show and Poster awards.

7:15 Close of Day

WEDNESDAY, MAY 20

6:30 am Bio-IT World's 5K Rise and Shine Fun Run! *(Sponsorship Opportunities Available)*

RUN COORDINATORS:
Bridget Kotelly, Senior Conference Director, Cambridge Healthtech Institute
Eileen Murphy, Conference Producer, Cambridge Healthtech Institute
Lace up and join Bio-IT's Coordinators for the Fun Run on Wednesday, May 20! Sprint, jog, walk, or talk-your-way-through—ALL abilities are welcome. This informal event is all about getting moving together. Full details to come…just don't forget your sneakers!

7:00 Registration and Morning Coffee

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Speaker to be Announced, CLOVERTEX

8:15 PLENARY KEYNOTE PRESENTATION: The Collaboration Breakthrough: How Federated Learning Is Rewriting the Rules of Drug Discovery

Mohammed AlQuraishi, PhD, Assistant Professor, Systems Biology, Columbia University
Jonathan B. Gilbert, PhD, Senior Director, Ecosystem Growth and Contributor Partnerships, Eli Lilly and Company
José-Tomás Prieto, PhD, Director of AI Programs, Apheris
Woody Sherman, PhD, Founder and Chief Innovation Officer, Psivant Therapeutics
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This plenary session explores how federated learning is transforming collaboration in structural biology and drug discovery. The AISB Network brings biopharma leaders together to train OpenFold3 on proprietary protein-ligand data without sharing or moving sensitive datasets. Learn how privacy-preserving architecture, governance frameworks, and early OpenFold3 results demonstrate that shared model training can outperform siloed efforts—unlocking collective intelligence, accelerating small-molecule discovery, and shaping the future of collaborative AI in biopharma.

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10:15 Organizer's Welcome Remarks

FOUNDATION MODELS AND MULTIMODAL AI FOR DRUG DISCOVERY

10:20 Chairperson's Remarks
Speaker to be Announced, Tamarind Bio Inc

10:25 Evaluating Single-Cell Foundation Models for *in silico* Perturbation in Drug Discovery
Xiong Sean Liu, PhD, Director, Data Science & Artificial Intelligence, Novartis

In silico perturbation (ISP) offers a scalable approach to study gene regulation and prioritize therapeutic targets. Presenting a biologically grounded evaluation of single-cell foundation models using metrics for cell state separation, perturbation fidelity, and recovery of perturbed genes, with functional analyses across gene categories and contexts. Our results reveal model-specific strengths and limitations, guiding selection and optimization and aligning computational predictions with experimental readouts to accelerate decision-making in drug development.

10:45 The CONECTA Platform: Integrating Multimodal Foundation Models with Nature's Chemical Intelligence to Find Solutions for Hard-to-Drug Targets
Hok Hei Tam, PhD, Co-Founder and CTO, Montai Therapeutics; Senior Principal, Flagship Pioneering

Advanced AI is making it possible to discover new oral therapeutics for chronic disease and address significant unmet patient needs. Montai's CONECTA platform integrates proprietary bioassay data from a diverse chemical space and multimodal foundation models built on billions of chemical and biological datapoints. This platform finds diverse compounds inspired by nature's chemical intelligence that can solve previously undruggable targets with the highest probability of becoming successful drugs.

11:05 Integrating Enchant: A Multimodal Transformer and Automated Laboratory Platform Driving AI-Enabled Drug Discovery
Fred Manby, DPhil, Co-Founder & CTO, Iambic Therapeutics

We have built Enchant, a large-scale multimodal transformer for predicting molecular properties spanning the full scope of drug discovery and

development. A key part of the success of Enchant in driving real discovery programs is integration with a flexible high-throughput experimental facility for data generation.

11:25 An AI Engine for Designing Intracellular-Targeting Peptide Medicines
Brandon Allgood, PhD, Chief Data Science Officer, Parabilis Medicines

Intracellular targets present major challenges for traditional therapeutic modalities. This talk introduces an AI-driven approach for designing peptide-based medicines capable of engaging targets inside the cell. By combining machine learning models, predictive property estimation, and iterative design workflows, the platform accelerates the generation and ranking of peptide candidates with improved likelihood of successful intracellular activity. Learn how AI can broaden therapeutic possibilities and streamline discovery for previously difficult-to-address targets.

11:45 Q&A with Speakers

11:55 AI-Driven Antibody Design: Accelerating Therapeutic Design through Machine Learning and Large Language Models
Justin Klekota, Principal, Arrayo

Arrayo harnessed AI for faster, smarter antibody design. Using machine learning models built on protein language model embeddings and structure-based features, the team predicted antibody stability, affinity, selectivity, and manufacturability to pre-screen candidates to accelerate the design and maturation process. This talk will show how data-driven methods accelerate therapeutic design, paving the way for automated, high-performance antibody development.

12:10 pm Presentation to be Announced

12:40 Lowering the Barriers to Scientific Innovation with Quantori's Q-Suite Accelerators
Chris Waller, Chief Strategist, Quantori

Pharmaceutical R&D is stalled by silos and manual tasks. Quantori's Q-Suite eliminates these barriers, unifying wet and dry labs. Q-Scientist ensures data lineage, while Q-Discover's AI optimizes candidate design. Q-HPC and Q-Image automate infrastructure and analysis, and Q-Portal/Q-Share drive collaboration. This agentic ecosystem compresses the Design-Make-Test-Analyze cycle from weeks to days, turning the "Laboratory of the Future" into reality today.

12:55 Transition to Lunch

1:05 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

1:35 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

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DESIGN–MAKE–TEST–LEARN: MEDICINAL CHEMISTRY WORKFLOWS AND ENABLING INFRASTRUCTURE

2:25 Chairperson's Remarks
Speaker to be Announced, Neo4j Inc

2:30 AI-Driven Profiling and Predictive Modeling of Neuroactive Steroids and Steroidal Hormones across Neural Targets
Eva Kudova, PhD, Junior Group Leader, Neurosteroids, Academy of Sciences of the Czech Republic

This presentation unveils an advanced, AI-enabled platform for large-scale characterization of neuroactive steroids without hormonal activity and steroidal hormones, integrating chemoinformatics, high-content *in vitro* data, and their bioactivity profiling based on IOCB Steroid Compound Library. This approach facilitates discovery of steroidal compounds as modulators of GABAA receptors and reveals new structural classes capable of targeted modulation relevant to CNS pharmacology and translational neuroscience.

2:50 Data-Driven Decision-Making in Medicinal Chemistry
Rishi R. Gupta, PhD, Director, Data Science, Novartis Institutes for Biomedical Research, Inc.

This talk discusses how AI-driven analytics optimize compound design, prioritization, and lead progression in medicinal chemistry workflow

3:10 Comparing AI and Established Methods to Mine Medicinal Chemistry Patents for Discovery Insights
Christopher Southan, PhD, Honorary Professor, Deanery of Biomedical Sciences, University of Edinburgh

Medicinal chemistry patents are an underused discovery resource. Between 2000 and 2024, WO filings rose from 2,636 to 9,521, capturing millions of SAR datapoints. Tools like OPSIN and DECIMER convert names and images to structures, while PubChem hosts 48 million patent-extracted compounds. BindingDB has added 1.2 million curated binding measurements. Combined with recent AI advances, these workflows are making patent data increasingly FAIR and unlocking new opportunities to accelerate discovery.

3:30 Practical GenAI: Building Agentic AI Infrastructure with the Model Context Protocol (MCP) for Use with Life Science Repositories
Martin Leach, PhD, MBA, Chief Data Officer, Black Canyon Consulting LLC

Model Context Protocol (MCP) is a flexible framework that enables AI agents and agentic AI systems to access and interpret distributed data. We present a practical and scalable approach for utilizing MCP to traverse public life-sciences repositories via their API endpoints, enabling rapid, context-aware data gathering, assimilation, and interpretation to accelerate research and discovery.

3:50 Q&A with Speakers

4:00 Presentation to be Announced

4:30 Best of Show Awards Reception in the Exhibit Hall with Poster Viewing

Unwind with colleagues at our lively reception! Explore posters, vote for the best, network with exhibitors, enjoy a drink, and try to win a raffle prize. Celebrate Best of Show winners!

5:45 Close of Day

THURSDAY, MAY 21

7:00 am Registration Open

CONTINENTAL BREAKFAST WITH BREAKOUT DISCUSSIONS

7:00 Connect & Collaborate: Breakfast Networking Roundtables *(Sponsorship Opportunities Available)*

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Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

8:05 Bio-IT World 2026 Innovative Practices Awards Ceremony (Winners Announced)
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

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10:30 Organizer's Remarks

ENTERPRISE-SCALE AI ADOPTION, STRATEGIC DECISION-MAKING, AND TRANSLATIONAL IMPACT

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 GenAI Upskilling for R&D
Carolina Benjaminsen, PhD, AI & Innovation in R&D, NovoNordisk

In Research, we have achieved notable success in driving GenAI enterprise adoption and digital upskilling efforts. Currently, we have 80% coverage of our scientists, with an average of six training sessions completed per person. Our approach has focused on integrating upskilling directly into workflows, ensuring that training efforts connect to relevant, discipline-specific use cases.

11:10 Leveraging AI for Strategic Decision-Making in Biopharmaceutical Program Management: A Framework for Risk and Opportunity Analysis
George Stephen, Director, Product & Program Management, Gilead Sciences Inc.

Strategic planning in biopharma faces regulatory complexity and uncertainty, requiring predictive methods. AI transforms program management by enhancing decision-making, operational efficiency, and risk assessment through machine learning, NLP, and advanced analytics. It optimizes clinical trials, predicts enrollment, and improves site selection. AI also supports regulatory strategy by monitoring global policy shifts. Insights from patents and trials guide portfolio choices, enabling rapid adaptation and discovery of new therapeutic opportunities.

11:40 AI-Driven Mitochondrial Drug Discovery: Building a New Therapeutic Class for Neurodegeneration and Kidney and Cardiometabolic Disease
Andy D. Lee, Co-Founder & CBO, Business Development, Vincere Biosciences, Inc.

Advances in multimodal AI and computational biology now enable rapid discovery of small molecules that repair mitochondria, opening a previously intractable target space for neurodegenerative and aging-related diseases. Learn how modern AI tools, target-specific biophysics, and automated chemistry converge to accelerate mitophagy-enhancing therapeutics into the clinic. Real-world case studies will illustrate how AI platforms translate into validated assets nearing the clinic, resulting in partnerships with industry leaders and investment-ready programs.

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AI FOR ONCOLOGY, PRECISION MEDICINE & HEALTH

Transform Multimodal Data into Clinical Impact with Trusted AI

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Speaker to be Announced, RCH Solutions

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10:15 Organizer's Welcome Remarks

AI-ENHANCED DISCOVERY AND MULTIMODAL INSIGHTS IN PRECISION ONCOLOGY

10:20 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:25 Spatial AI Platform for Precision Biomarker Discovery in Tumor Microenvironments

Sandeep Singhal, PhD, Associate Professor, Pathology, University of North Dakota

We developed a containerized deep learning pipeline for automated segmentation and classification of tumor, immune, and stromal cells from whole-transcriptome spatial imaging data. By integrating per-cell transcriptomic, morphological, and spatial features, the framework generates harmonized, high-confidence single-cell annotations across sites. These outputs enable robust spatial and topological biomarker analyses to advance precision oncology.

10:55 MethylFM: A DNA Methylation Foundation Model for Modeling Epigenomic Regulatory Dynamics

Xiang Chen, PhD, Associated Member, Computational Biology, St. Jude Children's Research Hospital

MethylFM is a transformer-based foundation model to capture context-aware methylation patterns and to enable multiple downstream tasks. Our work addresses the challenge of leveraging WGBS data to uncover relationships between methylation, histone modifications, and cellular identity, with applications in disease biomarker discovery and therapeutic development.

11:25 Bridging AI Predictions and Biological Reality: Experimental Validation Frameworks for Genetic Diseases

Marianna Weener, MD, PhD, Senior Researcher, Broad Institute of MIT and Harvard

As AI models (AlphaMissense, AlphaGenome etc) variant interpretation algorithms increasingly shape genomic research, their predictions remain probabilistic—powerful but unverified. This talk presents a practical framework for experimentally validating AI-predicted pathogenic variants using high-throughput splicing assays (HTSA), multimodal genomic data, and clinical correlations from 15,000+ patient registry. Attendees will learn how integrating

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AI-driven insights and real-world patient data transforms variant hypotheses into actionable, clinically credible conclusions.

11:55 Bridging Real-World Evidence Gaps: The Role of Literature-Derived RWE in Precision Medicine
Mark Kiel, Co-Founder & CSO, Genomenon

The biomedical literature reflects decades of global clinical practice and millions of patient records, with deep characterization of demographics, clinical features, biomarkers, and genetics. Especially for rare or complex indications, where traditional sources of RWE may lack coverage or sufficient detail, this evidence can fill critical gaps. We reveal how literature-derived RWE can complement other sources and optimize precision medicine programs in both inherited disease and oncology.

12:10 pm Presentation to be Announced

12:40 Presentation to be Announced

12:55 Transition to Lunch

1:05 LUNCHEON PRESENTATION: Transforming Cancer Care: AI-Driven Molecular Tumor Boards for Enhanced Patient Outcomes
Sanjay Jaiswal, Principal, Data & AI, Ernst & Young LLP
Vasu Chandrasekaran, Managing Director, AI & Data, Ernst & Young LLP

Leveraging AI for Molecular Tumor Boards across diverse data sets and interdisciplinary workflows can revolutionize cancer treatment by automating clinical summarization, enhancing decision-making, and optimizing personalized therapy and clinical trial matching for patients. This presentation will showcase a real-world case study from a leading cancer healthcare system, detailing the business case, implementation strategies, and key lessons learned. Attendees will discover how this approach achieved 30% to 50% reductions in costs and time, while delivering more comprehensive, effective, and safe cancer care, all with a human-in-the-loop framework.

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AI-ENABLED DIAGNOSTICS AND MULTIMODAL BIOMARKERS ACROSS ONCOLOGY AND HUMAN HEALTH

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 AI/ML for Biomedical Technologies Development for Individualized Patient Diagnostics
Umer Hassan, PhD, Assistant Professor, Electrical & Computer Engineering, Rutgers University

Next-generation biomedical technologies for individualized diagnostics and longitudinal patient monitoring increasingly embed AI and machine learning directly into the devices to enhance accuracy, robustness, and clinical utility. By combining novel biomarker data from these sensors with hospital EHR systems, we can enable advanced, truly personalized patient monitoring platforms. This talk will highlight recent work from Dr. Hassan's research laboratory in developing such AI-enabled biomedical sensing technologies.

3:00 A Biology-Informed AI Platform for Scalable Multi-Cancer Early Detection
Kieran Chacko, PhD, Vice President, Data Science & Strategy, Harbinger Health
Grant Stephen, CEO & Co-Founder, bPrescient, Inc.

This presentation introduces a biology-informed AI platform designed for scalable, multi-cancer early detection using blood-based molecular signals. By combining mechanistic priors with advanced machine learning, the platform improves sensitivity, reduces false positives, and enhances tumor-type localization across diverse populations. Attendees will learn how integrative feature modeling, robust validation workflows, and real-world deployment data support a clinically viable, population-scale approach to early detection.

3:30 Integrating AI and Molecular Biomarkers for Precision Suicide Prevention: The *Proteus-AI* and cf-mtDNA Framework
Arpitha Parthasarathy, PhD, MBA, Clinical Health Scientist, Behavioral & Mental Health, VA Caribbean Healthcare System

Psychiatry is on the brink of a paradigm shift. While oncology has achieved precision medicine through AI and biomarkers, mental health still operates reactively, responding after a crisis occurs. This talk introduces *Proteus-AI*, a next-generation framework that integrates explainable AI, EHR-based trajectory modeling, and emerging mitochondrial cf-mtDNA biomarkers to signal psychiatric deterioration before it becomes acute. Learn how data, biology, and clinical workflows can converge to transform suicide prevention.

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The Emerging Innovator Award recognizes one exceptional early-career researcher advancing the future of life sciences through breakthrough work in biomedical data, computational methods, or technology-enabled discovery. The 2026 awardee will deliver a 10-minute plenary keynote at Bio-IT World, highlighting the impact of their research and the forward-looking direction of their work. Nominations are due March 2, 2026, at www.bio-itworldexpo.com.

8:35 Plenary Keynote Introduction
Scott Weiss, Vice President, Product & Strategy, IDBS

8:45 PLENARY KEYNOTE PRESENTATION: Hopscotching through Drug Discovery: 15 Years of CADD and the Rise of AI
José Duca, PhD, Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

9:45 Coffee Break in the Exhibit Hall with Poster Competition Winners Announced *(Sponsorship Opportunity Available)*
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10:30 Organizer's Remarks

BUILDING TRUST AND RELIABILITY IN CLINICAL AI SYSTEMS

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 From Reliability to Clinical Assurance: Predictive Risk Scoring for Healthcare AI Systems
Jeevan Kumar Goud Bandharapu, AI Reliability & Predictive Systems Architect, Independent Researcher & Consultant
Healthcare AI increasingly informs diagnostics, triage, and clinical operations—yet accuracy metrics alone cannot capture real-world safety. This session presents a predictive risk-scoring framework that evaluates AI stability, drift, and workflow impact in patient-critical environments. Built on production healthcare deployments, it integrates anomaly detection, explainability, and auditability to create clinically aligned assurance. Attendees will learn practical methods to monitor and govern AI used in regulated healthcare settings.

11:10 Advancing Oncology and Precision Medicine with Biomedical Digital Twins: AI-Driven Insights for Predictive and Personalized Care
Heiko Enderling, PhD, FMSB, Professor, Radiation Oncology, MD Anderson Cancer Center
Tina Hernandez-Boussard, PhD, Associate Dean of Research and Professor of Medicine (Biomedical Informatics), Biomedical Data Sciences, Surgery and Epidemiology & Population Health, Stanford University
Eric Stahlberg, PhD, Executive Administrative Director, Institute for Data Science in Oncology, MD Anderson Cancer Center
Biomedical digital twins are redefining oncology and precision medicine by integrating multi-modal patient data, AI-driven modeling, and predictive analytics. This session explores how digital twins enhance disease prediction, treatment optimization, and clinical decision-making in oncology and biopharma. Learn how AI-enabled twin models are addressing data and validation challenges while paving the way for more adaptive, personalized, and patient-centered care pathways.

12:10 pm Presentation to be Announced

12:40 Sponsored Presentation *(Opportunity Available)*

1:10 Session Break and Transition to Lunch

1:20 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

1:50 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*
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AI FOR RARE DISEASE: ACCELERATING PRECISION DIAGNOSIS THROUGH GENOMICS, DATA SCIENCE & REAL-WORLD INSIGHT

2:30 Chairperson's Remarks
William Van Etten, PhD, Co-Founder & Principal Consultant, StarfleetBio

2:35 AI for Rare Disease: Accelerating Precision Diagnosis through Genomics, Data Science & Real-World Insight
Thomas Bartlett, Ambassador, MG Uniter Myasthenia Gravis, Amgen
Catherine Brownstein, PhD, Manager, Molecular Genomics Core Facility, Boston Children's Hospital; Scientific Director, Manton Center for Orphan Disease Research Gene Discovery Core; Assistant Professor, Harvard Medical School
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AI, genomics, and multimodal data science are reshaping rare-disease diagnosis and dramatically reducing the diagnostic odyssey. This closing joint session brings together leaders in precision medicine, bioinformatics, national rare-disease infrastructure, and real-world patient advocacy to highlight breakthrough models for rapid genomic interpretation, data integration, and clinical deployment. Attendees will gain a unified, cross-disciplinary view of what's required to deliver faster, more accurate, and more equitable rare-disease diagnoses.

4:05 Close of Conference

DATA SCIENCE & ANALYTICS TECHNOLOGIES

Scale Data Science in Life Sciences from Algorithms to Outcomes

TUESDAY, MAY 19

8:30 am Recommended Pre-Conference Workshops and Symposia*

On Tuesday, May 19, 2026, Cambridge Healthtech Institute is pleased to offer six pre-conference Workshops scheduled across two time slots (9:00 am–12:00 pm and 1:15–4:15 pm) and three Symposia from 8:30 am–3:45 pm. All are designed to be instructional, interactive, and provide in-depth information on a specific topic. They allow for one-on-one interaction and provide a great way to explain more technical aspects that would otherwise not be covered during the main conference tracks that take place Wednesday–Thursday.
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Workshops: www.bio-itworldexpo.com/workshops

PLENARY KEYNOTE PROGRAM

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Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

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Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing

The Bio-IT Kickoff Reception is a reunion—reconnect with friends, explore cutting-edge research, and celebrate innovation! Enjoy poster presentations, networking, and vote for the Best of Show and Poster awards.

7:15 Close of Day

WEDNESDAY, MAY 20

6:30 am Bio-IT World's 5K Rise and Shine Fun Run! *(Sponsorship Opportunities Available)*

RUN COORDINATORS:
Bridget Kotelly, Senior Conference Director, Cambridge Healthtech Institute
Eileen Murphy, Conference Producer, Cambridge Healthtech Institute
Lace up and join Bio-IT's Coordinators for the Fun Run on Wednesday, May 20! Sprint, jog, walk, or talk-your-way-through—ALL abilities are welcome. This informal event is all about getting moving together. Full details to come…just don't forget your sneakers!

7:00 Registration and Morning Coffee

PLENARY KEYNOTE PROGRAM

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Speaker to be Announced, CLOVERTEX

8:15 PLENARY KEYNOTE PRESENTATION: The Collaboration Breakthrough: How Federated Learning Is Rewriting the Rules of Drug Discovery





Mohammed AlQuraishi, PhD, Assistant Professor, Systems Biology, Columbia University
Jonathan B. Gilbert, PhD, Senior Director, Ecosystem Growth and Contributor Partnerships, Eli Lilly and Company
José-Tomás Prieto, PhD, Director of AI Programs, Apheris
Woody Sherman, PhD, Founder and Chief Innovation Officer, Psivant Therapeutics
Christina Taylor, PhD, Senior Science Fellow and Computational Molecular Design Lead, Bayer

This plenary session explores how federated learning is transforming collaboration in structural biology and drug discovery. The AISB Network brings biopharma leaders together to train OpenFold3 on proprietary protein-ligand data without sharing or moving sensitive datasets. Learn how privacy-preserving architecture, governance frameworks, and early OpenFold3 results demonstrate that shared model training can outperform siloed efforts—unlocking collective intelligence, accelerating small-molecule discovery, and shaping the future of collaborative AI in biopharma.

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10:15 Organizer's Welcome Remarks

RETHINKING HEALTH AND DISEASE: NETWORK MEDICINE AS A FOUNDATION FOR PREDICTIVE DATA SCIENCE

10:20 Chairperson's Remarks
Speaker to be Announced, Lenovo

10:25 FEATURED PRESENTATION: Examining Health and Disease Through the Lens of Network Medicine
John Quackenbush, PhD, Chair, Biostatistics & Henry Pickering Walcott Professor, Computational Biology & Bioinformatics, Harvard T.H. Chan School of Public Health

Health and disease are not driven by individual genes, but by complex interactions among genes, gene variants, proteins, epigenetic factors, environmental perturbations, and stochastic processes. These multilayered relationships can be represented using network models inferred from fundamental biological mechanisms. The structure of such networks and how they evolve over time provides powerful insight into disease drivers and enables the identification of novel therapeutic targets.

FROM NETWORKS TO DECISIONS: APPLIED SYSTEMS MEDICINE AND PREDICTIVE ANALYTICS

10:55 Optimizing Data Analytics to Solve Healthcare's "Three-Body Problem": Modeling Interactions among Patients, Disease, and Care
Michael Liebman, PhD, Managing Director, IPQ Analytics, LLC
Michael Montgomery, MD, Co-Founder and CEO, Stable Solutions LLC
Nicholas J. Sarlis, MD, PhD, FACP, CMO, CLEARA Biotech B.V.

This session introduces the concept of Accurate Medicine, an evolution beyond Precision Medicine that integrates the complexities of patients, diseases, and real-world clinical practice. Rather than focusing solely on technology or genomics, this approach models the dynamic interrelationships among these three components to optimize therapeutic development

and treatment outcomes. Learn how innovative disease stratification and translational insights can enhance efficacy, personalize care, and maximize clinical benefit within modern healthcare systems.

11:55 Sponsored Presentation *(Opportunity Available)*

12:10 pm Presentation to be Announced

12:40 3dpredict/Ab: High-Throughput Antibody Structure and Ensemble Protein Property Predictions
Meline Simsir, Scientific Project Manager, Discngine SAS

Developability preemption using *in silico* predicted protein properties as a de-risking approach for identifying downstream antibody liabilities (e.g., aggregation, viscosity, oxidation, etc.) has become commonplace in the antibody-drug-development pipeline. High-quality property prediction involves prediction of ensembles of 3D structures at specified pH to reduce sensitivity to single conformational states. In this work, we present 3dpredict/Ab which calculates ensemble-based predictions of antibody developability descriptors and putative liabilities. 3dpredict/Ab allows for out-of-the-box SaaS automation and integration of such complex simulations of hundreds or thousands of sequences.

12:55 Transition to Lunch

1:05 Luncheon Presentation to be Announced

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TRUST, INTERPRETABILITY & PRIVACY IN ADVANCED ANALYTICS

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 From Chaos to Clarity: Nonlinear Dynamics and Bifurcation Theory for Predictive Medicine
Iman Tavassoly, MD, PhD, Founder and CEO, QMed

A nonlinear dynamics and bifurcation-based framework for modeling complex medical systems connects mechanistic theory with modern machine learning. This approach enhances interpretability and prediction across multimodal data streams. A software package is presented that enables practical, scalable, and MLOps-ready implementation of these methods in biomedical data science.

3:00 Towards Trustworthy Analytics of Brain Dynamics across Modalities, Scales, and Conditions
Takao Hensch, PhD, Professor, Molecular and Cellular Biology, Harvard University
Julian Kedys, Computational Neuroscience Researcher, Poznan Supercomputing and Networking Center, Polish Academy of Sciences
Cezary Mazurek, PhD, Senior Researcher, Head of Digital Medicine, Poznan Supercomputing and Networking Center, Polish Academy of Sciences

This presentation highlights a transdisciplinary approach to understanding neurodegenerative mechanisms, bridging quantum scales to virtual humans. It introduces a modular, quantum-computing—first pipeline for population-level neural state-space modeling that integrates secure preprocessing, multi-subject alignment, and dimensionality reduction. Using interpretable Ising/PMEM inference with energy-landscape and phase-diagram analytics, the framework enables extraction of kinetic descriptors and enhances cross-subject comparability, advancing scalable, data-driven insights into neurodegenerative processes.

4:00 Sponsored Presentation *(Opportunity Available)*

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THURSDAY, MAY 21

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(Sponsorship Opportunities Available)

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10:30 Organizer's Remarks

OPERATIONALIZING DATA SCIENCE: DISCOVERY TO IMPACT

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 High-Throughput End-to-End Data Automation to Accelerate Drug Discovery

Rizki Mardian, PhD, Senior Scientist, Discovery Biologics, Merck & Co.

This talk will present a data automation strategy developed in our discovery group. The fully integrated platform covers end-to-end workflows for key biologics discovery assays, streamlining data capture and processing from lab instruments to an analysis-ready database for both transactional and analytical needs. The platform reduced data processing turnaround from hours to seconds, enabling rapid, data-driven decision-making in biologics R&D.

11:00 Using Clinical Studies to Power Reverse Translation Projects

Radhesh Nair, Director, Data Science and Analytics, Clinical Development, AbbVie, Inc.
Yu Tian, PhD, Director, Development Sciences, AbbVie, Inc.

Reverse translational approaches are rapidly gaining ground as a means to identify drug targets, segment patients, and validate unmet medical needs. Clinical studies offer one of the richest sources of data to support such analyses. We share examples of "bedside to bench" research programs where scientific insight is generated through the secondary use of clinical study data and documents.

11:20 Operationalizing PK-Driven Predictive Models for Compound Selection and Portfolio Decision-Making

Vimala Selvaraj, Senior Principal Scientific Product Operational Manager, Novartis Biomedical Research

Pharmacokinetic (PK) modeling is widely used in drug development, yet its impact is often limited by inconsistent integration into decision workflows. This case study presents a production-ready data science framework that operationalizes PK-driven predictive models alongside Intuence Discovery to support compound selection and portfolio decisions. By embedding validated models into cross-functional workflows, teams improved predictability, reduced late-stage attrition, and accelerated decision-making across discovery and development.

11:40 Federated Convolutional Neural Networks on Small-Scale Molecular Datasets: A Privacy-Conscious Strategy for Pattern Discovery

Anne Deslattes Mays, PhD, Principal, Science and Technology Consulting LLC

We present a privacy-preserving approach using federated averaging to train convolutional neural networks on small-scale molecular datasets where data cannot be moved or shared. By simulating a multi-center environment with publicly available phenotype-linked omics data, we evaluate how varying site participation and model reuse affect performance—demonstrating that federated learning can improve generalizability and robustness even in low-data, distributed biomedical research settings.

12:00 pm Q&A with Speakers

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BIOINFORMATICS

Operationalize Bioinformatics and Multimodal Data for Discovery and Clinical Impact

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10:15 Organizer's Welcome Remarks

NEXT-GENERATION BIOINFORMATICS: PRECISION MEDICINE AND CANCER GENOMICS

10:20 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:25 Next-Generation Bioinformatics for Precision Medicine and Cancer Genomics

Brendan Gallagher, Chief Commercial Officer, Sentieon, Inc.
Jeffrey A. Rosenfeld, PhD, President, Rosenfeld Consulting
Fritz Sedlazeck, PhD, Associate Professor, Human Genome Sequencing Center, Baylor College of Medicine
James Smagala, PhD, Bioinformatics Practice Manager, Yahara Software

This session showcases cutting-edge advances in bioinformatics powering precision medicine and cancer genomics. Speakers will present new methods for accelerating secondary analysis, enhancing variant-detection accuracy, optimizing large-scale sequencing pipelines, and improving reproducibility across heterogeneous datasets. With perspectives from industry, academia, and clinical informatics, the session highlights practical approaches for scaling genomic computation, reducing processing bottlenecks, and enabling high-confidence insights that directly support translational research and clinical decision-making.

11:25 Hackathons with Impact: Advancing Omics Research through Collaborative Innovation

Jennifer Burnette, MPH, Project Manager, Public Health and Healthcare, Oak Ridge Associated Universities (ORAU)
Allissa Dillman, PhD, CEO & Founder, BioData Sage LLC

Hackathons offer fast-paced, collaborative learning that mirror the needs of modern omics research. This session will highlight how integrating Common Fund Data Ecosystem resources enable teams to tackle real data challenges, build practical skills, share strategies for supporting new users, and spark discovery. Outcomes from the Bio-IT Hackathon on May 18–19, 2026, will be shared, including project themes, open tools, and data used.

11:55 Talk Title to be Announced

Sachin Kothandaraman, Scientific Application Lead, Bioinformatics, Zifo Technologies, Inc.

BIOINFORMATICS

Operationalize Bioinformatics and Multimodal Data for Discovery and Clinical Impact

12:10 pm Sponsored Presentation *(Opportunity Available)*

12:25 Agents in the Loop: High-Fidelity Public Omics Data Requires Subject-Matter Expertise

Dan Rozelle, Vice President, Data Analytics & Technology & Innovation, Rancho Biosciences LLC

We benchmark agentic systems for curating single-cell and proteomics metadata from valuable public repositories. Comparing against a PhD-curved gold standard, we show where agents excel, where they fail, and how human-in-the-loop QC achieves publication-grade curation at scale. Practical playbook and metrics included.

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FROM NETWORKS TO TISSUES: MULTISCALE COMPUTATIONAL BIOLOGY

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 The Role of MicroRNAs and Competing Endogenous RNA Regulatory Networks in Mesothelioma Response to Immunotherapy

Farhad Kosari, PhD, Associate Professor, Molecular Medicine, Mayo Clinic

This talk presents a framework to analyze the potential contributions of microRNAs in response to ICI therapy in mesothelioma. We first constructed mesothelioma ceRNA networks using the two largest sets of publicly available gene and microRNA expression data and six public microRNA databases. We then used these networks to ascertain the contributions of differentially expressed microRNAs to mesothelioma patient survival outcomes with ICI.

3:00 Bioinformatics-Driven Statistical Modeling of Metabolic Regulation in Liver Systems

Rima Zinjuwadia, Computation Biology Co-op, Computational Omics, Novo Nordisk AS

Metabolic dysfunction and insulin resistance remain central challenges in cardiometabolic disease research, demanding integrative frameworks that bridge biology and bioinformatics. Leveraging a microphysiological liver model and bulk RNA-Seq, we developed a Nextflow-based bioinformatics pipeline integrating batch correction and statistical power modeling to ensure reproducible and interpretable results. This approach operationalizes design and computational rigor, transforming transcriptomic data into actionable insights to advance understanding of metabolic regulation and therapeutic targets.

3:30 Towards Scalable Visualization and Spatial Analysis in Multi-Volume (3D) IF Imaging Data

Robert Krueger, PhD, Assistant Professor, New York University

Novel 3D IF (immunofluorescence) imaging technologies are shifting analysis of the tissue microenvironment from low-resolution 2D to high-resolution 3D approaches, allowing study of cellular interaction in unprecedented detail. This talk presents progress from displaying and analyzing spatial relations in tabular (2D) data towards scalable 3D multi-volume visualization and detailed image-based analysis of cellular features and cell-cell interactions. I will showcase different approaches and tools on healthy and cancerous tissue data.

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PRODUCTION-READY GENOMICS: REFERENCES, INFRASTRUCTURE, INTERPRETATION & VALIDATION

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 Somatic Mosaicism with Personalized Pangenome Reference A

Sairam Behera, PhD, Postdoctoral Associate, Human Genome Sequencing Center—Informatics, Nex-Gen, Baylor College of Medicine

Analyzing somatic mosaicism with DRAGEN using blood and sperm tissues, enhanced by a personalized reference genome for improved accuracy and detection. This approach will enable more sensitive detection of low-frequency variants and provide deeper insights into tissue-specific mosaic patterns.

11:10 Democratizing Genomics Analysis Platforms: Building Cost-Effective Infrastructure with miniWDL and AWS Batch

Sanjay Sreeram, Director Cloud Engineering, Genome Informatics & Data Engineering, Regeneron Pharmaceuticals, Inc.

Building scalable genomics analysis platforms traditionally requires significant infrastructure investment and specialized IT expertise, limiting access to well-funded institutions. We present a production-ready platform architecture using miniWDL and AWS Batch that enables research organizations to deploy enterprise-grade genomics infrastructure supporting complex genomics pipelines while achieving 30–50% cost reduction through intelligent spot instance orchestration. This platform democratizes genomics by providing researchers with self-service access to secure, reproducible, and cost-efficient large-scale analyses.

11:40 Democratizing Genomic Interpretation Through On-Device Analysis and Model Context Protocol

William Van Etten, PhD, Co-Founder & Principal Consultant, StarfleetBio

Whole genome sequencing is becoming widespread, yet access, usability, and data ownership remain controlled by sequencing providers. This talk introduces architectures and tools that let individuals query their full genomic data using natural language—directly on personal devices, without uploading sensitive information. Users can ask health, kinship, or trait questions. Shifting genomic analysis to the edge with mobile compute and AI interfaces, data ownership returns to individuals while preserving analytical rigor.

12:10 pm Sponsored Presentation *(Opportunity Available)*

1:10 Session Break and Transition to Lunch

1:20 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

1:50 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

Feeling tired? Recharge during the final Networking Exhibit Hall break! Visit booths, explore posters, connect with peers, and turn in your Game Cards for a chance to win a raffle prize.

AI FOR RARE DISEASE: ACCELERATING PRECISION DIAGNOSIS THROUGH GENOMICS, DATA SCIENCE & REAL-WORLD INSIGHT

2:30 Chairperson's Remarks

William Van Etten, PhD, Co-Founder & Principal Consultant, StarfleetBio

2:35 AI for Rare Disease: Accelerating Precision Diagnosis through Genomics, Data Science & Real-World Insight

Thomas Bartlett, Ambassador, MG Uniter Myasthenia Gravis, Amgen
Catherine Brownstein, PhD, Manager, Molecular Genomics Core Facility, Boston Children's Hospital; Scientific Director, Manton Center for Orphan Disease Research Gene Discovery Core; Assistant Professor, Harvard Medical School
Sebastien Lefebvre, Head of Technology, Data and AI, Aurelis Insights
William Van Etten, PhD, Co-Founder & Principal Consultant, StarfleetBio

AI, genomics, and multimodal data science are reshaping rare-disease diagnosis and dramatically reducing the diagnostic odyssey. This closing joint session brings together leaders in precision medicine, bioinformatics, national rare-disease infrastructure, and real-world patient advocacy to highlight breakthrough models for rapid genomic interpretation, data integration, and clinical deployment. Attendees will gain a unified, cross-disciplinary view of what's required to deliver faster, more accurate, and more equitable rare-disease diagnoses.

4:05 Close of Conference

AI-POWERED ROBOTICS & INTELLIGENT LAB AUTOMATION NEW

Unite Physical and Digital to Build the Intelligent Laboratory of the Future

TUESDAY, MAY 19

8:30 am Recommended Pre-Conference Workshops and Symposia*

On Tuesday, May 19, 2026, Cambridge Healthtech Institute is pleased to offer six pre-conference Workshops scheduled across two time slots (9:00 am–12:00 pm and 1:15–4:15 pm) and three Symposia from 8:30 am–3:45 pm. All are designed to be instructional, interactive, and provide in-depth information on a specific topic. They allow for one-on-one interaction and provide a great way to explain more technical aspects that would otherwise not be covered during the main conference tracks that take place Wednesday–Thursday.
**Separate registration required.* Additional details:
Symposia: www.bio-itworldexpo.com/symposia
Workshops: www.bio-itworldexpo.com/workshops

PLENARY KEYNOTE PROGRAM

4:30 pm Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

4:35 PLENARY KEYNOTE INTRODUCTION: Getting Ready for Effective AI: Starting with FAIR Principles with RCH Solutions & MIGx AG
Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing

The Bio-IT Kickoff Reception is a reunion—reconnect with friends, explore cutting-edge research, and celebrate innovation! Enjoy poster presentations, networking, and vote for the Best of Show and Poster awards.

7:15 Close of Day

WEDNESDAY, MAY 20

6:30 am Bio-IT World's 5K Rise and Shine Fun Run! *(Sponsorship Opportunities Available)*

RUN COORDINATORS:
Bridget Kotelly, Senior Conference Director, Cambridge Healthtech Institute
Eileen Murphy, Conference Producer, Cambridge Healthtech Institute
Lace up and join Bio-IT's Coordinators for the Fun Run on Wednesday, May 20! Sprint, jog, walk, or talk-your-way-through—ALL abilities are welcome. This informal event is all about getting moving together. Full details to come…just don't forget your sneakers!

7:00 Registration and Morning Coffee

PLENARY KEYNOTE PROGRAM

8:00 Organizer's Remarks
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

8:05 Plenary Keynote Introduction
Speaker to be Announced, CLOVERTEX

8:15 PLENARY KEYNOTE PRESENTATION: The Collaboration Breakthrough: How Federated Learning Is Rewriting the Rules of Drug Discovery





Mohammed AlQuraishi, PhD, Assistant Professor, Systems Biology, Columbia University
Jonathan B. Gilbert, PhD, Senior Director, Ecosystem Growth and Contributor Partnerships, Eli Lilly and Company
José-Tomás Prieto, PhD, Director of AI Programs, Apheris
Woody Sherman, PhD, Founder and Chief Innovation Officer, Psivant Therapeutics
Christina Taylor, PhD, Senior Science Fellow and Computational Molecular Design Lead, Bayer

This plenary session explores how federated learning is transforming collaboration in structural biology and drug discovery. The AISB Network brings biopharma leaders together to train OpenFold3 on proprietary protein-ligand data without sharing or moving sensitive datasets. Learn how privacy-preserving architecture, governance frameworks, and early OpenFold3 results demonstrate that shared model training can outperform siloed efforts—unlocking collective intelligence, accelerating small-molecule discovery, and shaping the future of collaborative AI in biopharma.

9:30 Coffee Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

Start your morning with coffee, connections, and cutting-edge research! Enjoy poster presentations, network in the Exhibit Hall, vote for awards, and a chance at a fabulous raffle prize!

10:15 Organizer's Welcome Remarks

BUILDING THE CONNECTED LAB: UNIFYING DATA, AUTOMATION, AND ROBOTIC INFRASTRUCTURE

10:20 Chairperson's Remarks
Olga Seltser, Head, Automation & Lab Technology, Dash Bio, Inc.

10:25 Architecting Connected Labs across Robotics, Data, and Digital Systems
David Dambman, Co-Founder & Chief Innovation Officer, LabSync

10:45 Presentation to be Announced

11:00 Presentation to be Announced

11:15 Moderated Panel Discussion with Session Speakers

This panel examines how modern R&D organizations are building connected laboratory environments by integrating robotics, automation platforms, scheduling tools, and data systems. Panelists will discuss practical approaches to achieving interoperability across ELN, LIMS, analytics, and cloud architectures, along with design principles for connected labs, best practices for data lineage and orchestration, and lessons learned from integrating physical and digital research infrastructure at scale.

11:50 Moderator Synthesis and Closing Remarks

11:55 Presentation to be Announced

12:10 pm Presentation to be Announced

12:25 Sponsored Presentation *(Opportunity Available)*

12:55 Transition to Lunch

1:05 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

1:35 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

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AI-POWERED ROBOTICS & INTELLIGENT LAB AUTOMATION

NEW

Unite Physical and Digital to Build the Intelligent Laboratory of the Future

ENTERPRISE DIGITAL TRANSFORMATION: ARCHITECTURE, GOVERNANCE, AND CHANGE ACROSS AUTOMATED AND ROBOTIC R&D

2:25 Chairperson's Remarks
Jesse Mulcahy, Automation Lead, Genetic Medicine RNA, Eli Lilly & Co.

2:30 Governing Digital and Robotic Transformation in Complex R&D Environments
Jesse Mulcahy, Automation Lead, Genetic Medicine RNA, Eli Lilly & Co.

2:50 Organizational Frameworks for Scaling Digital and Robotic Change
John Cesarek, Senior Director of Automation Engineering, Cellares

3:05 Standardizing Data and Workflow Models across Organizational Teams
Ben Miller, Head, Operations, Leash Bio

Modern experimental sciences can generate data faster than teams can analyze and interpret it. We present an automated data analysis system designed to accelerate collaboration between data scientists and laboratory scientists. By integrating experiment design, and analysis into a unified workflow, we shorten iteration cycles, improve reproducibility, and enable faster scientific and organizational decision-making. This talk describes some of the techniques needed to build systems like this at any organization.

3:20 Moderated Panel Discussion with Session Speakers

This panel examines how organizations scale automation and robotics through enterprise-ready architectures, governance frameworks, and operating models. Panelists will share practical strategies for sustaining transformation beyond pilots and early adopters, including approaches to change management, organizational alignment, and cross-site deployment. The discussion will focus on what it takes to institutionalize automated and robotic capabilities across teams, functions, and locations.

3:55 Moderator Synthesis and Closing Remarks

4:00 Sponsored Presentation *(Opportunity Available)*

4:30 Best of Show Awards Reception in the Exhibit Hall with Poster Viewing

LabVantage pluto

Unwind with colleagues at our lively reception! Explore posters, vote for the best, network with exhibitors, enjoy a drink, and try to win a raffle prize. Celebrate Best of Show winners!

5:45 Close of Day

THURSDAY, MAY 21

7:00 am Registration Open

CONTINENTAL BREAKFAST WITH BREAKOUT DISCUSSIONS

7:00 Connect & Collaborate: Breakfast Networking Roundtables *(Sponsorship Opportunities Available)*

Kick off the morning with small-group roundtable discussions designed to spark collaboration, share challenges, and exchange insights across the Bio-IT community. Attendees gather around themed tables—spanning data ecosystems, AI adoption, foundational models, intelligent labs, translational infrastructure, and emerging technologies—to compare experiences and explore practical strategies. Each roundtable seats 8–10 participants for focused, peer-driven conversation that accelerates problem-solving, strengthens connections, and surfaces cross-functional perspectives before the plenary keynote. Topics will be announced throughout the year on the Bio-IT World website as part of our 2026 theme rollout, with opportunities for attendees and partners to propose table themes. If you have a topic to suggest or would like to participate as a moderator, contact Cindy Crowninshield at ccrowninshield@healthtech.com.

PLENARY KEYNOTE PROGRAM

8:00 Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

8:05 Bio-IT World 2026 Innovative Practices Awards Ceremony (Winners Announced)
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

The Innovative Practices Awards recognizes and celebrates technology innovation in the life sciences. Bio-IT World is now accepting entries for the 2026 awards, recognizing partnerships and projects pushing our industry forward. Winners will be announced in April 2026, acknowledged during the May 21 Plenary Keynote, and invited to present their work at the conference. The entry deadline is March 2, 2026. For more information and to apply, visit www.bioitworldexpo.com/innovativepractices.

8:20 Bio-IT World 2026 Emerging Innovator Award—NEW (Winner Announced)
Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

The Emerging Innovator Award recognizes one exceptional early-career researcher advancing the future of life sciences through breakthrough work in biomedical data, computational methods, or technology-enabled discovery. The 2026 awardee will deliver a 10-minute plenary keynote at Bio-IT World, highlighting the impact of their research and the forward-looking direction of their work. Nominations are due March 2, 2026, at www.bio-itworldexpo.com.

8:35 Plenary Keynote Introduction
Scott Weiss, Vice President, Product & Strategy, IDBS

IDBS

8:45 PLENARY KEYNOTE PRESENTATION: Hopscotching through Drug Discovery: 15 Years of CADD and the Rise of AI
José Duca, PhD, Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

9:45 Coffee Break in the Exhibit Hall with Poster Competition Winners Announced *(Sponsorship Opportunity Available)*

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10:30 Organizer's Remarks

AUTOMATION AS INFRASTRUCTURE: MODULAR, ROBOTIC, AND MULTIMODAL DISCOVERY PLATFORMS

10:35 Chairperson's Remarks
Leanna Duraj, Senior Account Manager, Thermo Fisher Scientific

10:40 Automation as Strategic Robotic Infrastructure for Integrated Discovery
Samuel Michael, Vice President, Data, Automation & Predictive Sciences (DAPS), GSK

AI-POWERED ROBOTICS & INTELLIGENT LAB AUTOMATION

NEW

Unite Physical and Digital to Build the Intelligent Laboratory of the Future

11:00 Modular Robotic Automation Architectures for Multi-Modality Workflows
Todd DeCollo, Principal Scientist, Alexion Pharmaceuticals, Inc.

Modular robotic automation is evolving labs from isolated workcells into orchestrated, modality-agnostic platforms. This talk outlines architectures that standardize labware and data, integrate robotics for conveyance, and unify functions such as dispensing, mixing, incubation, and sampling. A recently deployed system will be presented as a case study to show how orchestration and structured data pipelines accelerate DMTA, boost utilization, enable remote monitoring, and future-proof discovery and development with AI-ready workflows.

11:15 Aggregating Modular Robotics for a Multi-Detection DMTA Platform
Craig Shulz, PhD, Chief Platform Officer, Terray Therapeutics

11:30 Moderated Panel Discussion with Session Speakers

This panel explores the design of modular and flexible automation infrastructure that supports multi-modal discovery and heterogeneous robotic systems. Panelists will discuss platform extensibility, orchestration strategies, and approaches to balancing standardization with scientific flexibility. The discussion will highlight architectural patterns for building future-proof robotic platforms, integrating diverse instruments, and scaling automation across modalities without compromising adaptability or research velocity.

12:05 pm Moderator Synthesis and Closing Remarks

12:10 Sponsored Presentation *(Opportunity Available)*

1:10 Session Break and Transition to Lunch

1:20 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

1:50 Refreshment Break in the Exhibit Hall with Poster Viewing
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AI IN THE LAB: TURNING ROBOTIC AND DIGITAL DATA INTO ACTIONABLE DECISIONS ACROSS THE DMTA CYCLE

2:30 Chairperson's Remarks
Kelcy Newell, PhD, Senior Director, Robotics and Automation Development, AstraZeneca

2:35 Building AI-Ready Labs through Robotic Data Quality and Workflow Integration
Kelcy Newell, PhD, Senior Director, Robotics and Automation Development, AstraZeneca

2:55 Automated Data Capture and Metadata Frameworks in Robotic Workflows
Ilja Kusters, PhD, Associate Director, Assay Automation & Qualification, Generate:BioMedicines

3:10 AI-Enabled Iterative Experimentation Using Robotics at Scale
Pushkar Ghanekar, Senior Director – Lead, AI Frontier, Eli Lilly & Co.

3:25 Moderated Panel Discussion with Session Speakers

This panel examines how high-quality data generated by automated and robotic laboratory systems enables AI-driven experiment planning, optimization, and closed-loop learning across the DMTA cycle. Panelists will discuss the technical and organizational requirements for AI-ready lab data, real-world examples of AI-enabled decision-making, and practical steps for progressing from automated execution to predictive and adaptive experimentation at scale.

4:00 Moderator Synthesis and Closing Remarks

4:05 Close of Conference

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Workshops: www.bio-itworldexpo.com/workshops

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Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

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Speaker to be Announced, RCH Solutions

4:45 Presentation to be Announced

6:00 Welcome Reception in the Exhibit Hall with Poster Viewing

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Eileen Murphy, Conference Producer, Cambridge Healthtech Institute
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7:00 Registration and Morning Coffee

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Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

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Speaker to be Announced, CLOVERTEX

8:15 PLENARY KEYNOTE PRESENTATION: The Collaboration Breakthrough: How Federated Learning Is Rewriting the Rules of Drug Discovery

Mohammed AlQuraishi, PhD, Assistant Professor, Systems Biology, Columbia University
Jonathan B. Gilbert, PhD, Senior Director, Ecosystem Growth and Contributor Partnerships, Eli Lilly and Company
José-Tomás Prieto, PhD, Director of AI Programs, Apheris
Woody Sherman, PhD, Founder and Chief Innovation Officer, Psivant Therapeutics
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9:30 Coffee Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

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10:15 Organizer's Welcome Remarks

WHAT HAS BEEN THE TRUE VALUE OF DATA AND DIGITIZATION—AN EXECUTIVE OVERVIEW

10:20 Chairperson's Remarks
Speaker to be Announced, Revvity Signals

10:25 FEATURED PRESENTATION: The Goldilocks of AI
Julie Huxley-Jones, Vice President, Research, Pre-Clinical, Manufacturing and Supply Chain Data Technology, Vertex Pharmaceuticals

We are embracing the transformative power of AI digitalization to drive innovation and operational excellence. Our approach to impacting science and manufacturing is strategic and balanced: a "Goldilocks" approach—not too much, not too little. By leveraging the right tools for the right job, tools that are evolving at an unprecedented pace, we operate with agility, maintain speed, and effectively manage the important balance of compliance, precision, and innovation.

10:55 FEATURED PRESENTATION: The Bilingual Scientist—Building the R&D Workforce of 2030
Michel Rider, Global Head, Digital R&D, Sanofi

The pharmaceutical industry stands at a pivotal moment with AI and digital technologies. By 2030, 45% of R&D activities will undergo significant transformation, creating unprecedented opportunities for productivity gains and breakthrough discoveries. The "bilingual scientist" combines deep scientific expertise with advanced AI and digital fluency, representing the future of R&D innovation. This session frames a four-pillar transformation roadmap that positions science teams to thrive in the AI-driven future.

11:25 PANEL DISCUSSION: Executive Panel—Successful Strategies for Digital Transformation in the AI Era
Moderator: Anastasia Christianson, PhD, Pharma Industry Data Science Leader

- Operational efficiency with breakthrough innovation
- Improving existing processes with redefining them
- Improving target identification
- Leveraging an expanded workforce
- Agentic AI
- Digital transformation and translational and clinical development

Panelists:
Hongmei Huang, PhD, Digital Strategy Advisor, ClarityNexus; Former Vice President of Digital Strategy and Enablement, Roche
Julie Huxley-Jones, Vice President, Research, Pre-Clinical, Manufacturing and Supply Chain Data Technology, Vertex Pharmaceuticals
Michel Rider, Global Head, Digital R&D, Sanofi
Jianchao (JC) Yao, Vice President, Research and Early Development & Technical Operations and Quality Technology, Alnylam

11:55 Presentation to be Announced

12:25 pm Presentation to be Announced

12:55 Transition to Lunch

1:05 LUNCHEON PRESENTATION: Unlocking Molecular Biology Innovation with Signals BioDesign
Speaker to be Announced, Revvity Signals

Designing proteins or engineering antibodies often means scattered sequences, lost protocols, and siloed tools. Signals BioDesign solves this with a central hub for all molecular design work—built to connect seamlessly with the wider Signals ecosystem, including Signals One—so your BioDesign projects flow naturally into analytical workflows without creating new data silos.

1:35 Refreshment Break in the Exhibit Hall with Poster Viewing
(Sponsorship Opportunity Available)

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KNOWLEDGE GRAPHS AND KNOWLEDGE MANAGEMENT

2:25 Chairperson's Remarks *(Sponsorship Opportunity Available)*

2:30 PANEL DISCUSSION: One Bit at a Time: Agents, MCP, and the Jagged Frontier of Interoperable Science
Moderator: Tom Plasterer, PhD, Managing Director, Knowledge Graph Capability, XponentL Data

Autonomous scientific agents are advancing quickly, but without semantic grounding and interoperable toolchains they can get lost at the jagged AI frontier. This panel examines how knowledge graphs, GNN-LLM hybrids, MCP-enabled systems, and multihop prompting provide the scaffolding for agentic R&D—supported by garbage-model-assertion collection to maintain quality. We'll close with a call for vendor MCP interfaces and a safe, one-bit NAM-aligned approach to early cross-pharma data exploration.
Panelists:
Ben Busby, PhD, Global Alliances Manager, Omics, NVIDIA
Helena Deus, PhD, Lead for Semantic Data Products, Bristol Myers Squibb Co.

3:00 Unlocking Product-Development Insights: Harnessing Knowledge Graphs and Ontologies at BMS
Hannah Reck, Senior Manager, Development Excellence Technical Program, Bristol Myers Squibb Co.

3:30 End-to-End Knowledge Management across Discovery and Research
Nicholas Baro, Director, Data Science, Johnson & Johnson
Laszlo Vasko, Senior Director, Therapeutic Enabling Innovation, R&D IT, Johnson & Johnson

Biomedical research generates vast knowledge that is often trapped in disconnected PowerPoint decks, siloed analyses, and institutional memory, making it difficult for teams to learn from prior work or understand past decisions. This talk explores an end-to-end knowledge management approach that uses knowledge graphs, ontologies, and generative AI to connect unstructured content, analytical models, and raw data—embedded directly into workflows, collaboration platforms, and decision-support systems.

4:00 Presentation to be Announced

4:30 Best of Show Awards Reception in the Exhibit Hall with Poster Viewing

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5:45 Close of Day

THURSDAY, MAY 21

7:00 am Registration Open

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7:00 Connect & Collaborate: Breakfast Networking Roundtables
(Sponsorship Opportunities Available)

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PLENARY KEYNOTE PROGRAM

8:00 Organizer's Remarks
Cindy Crowninshield, Executive Event Director, Cambridge Healthtech Institute

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Allison Proffitt, Editorial Director, Bio-IT World and Clinical Research News

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PHARMACEUTICAL R&D INFORMATICS

Digitalization of Pharma R&D and the Path to Innovation

8:35 Plenary Keynote Introduction
Scott Weiss, Vice President, Product & Strategy, IDBS

8:45 PLENARY KEYNOTE PRESENTATION: Hopscotching through Drug Discovery: 15 Years of CADD and the Rise of AI
José Duca, PhD, Global Head Computer-Aided Drug Discovery, Global Discovery Chemistry, Novartis Institutes for Biomedical Research, Inc.

9:45 Coffee Break in the Exhibit Hall with Poster Competition Winners Announced *(Sponsorship Opportunity Available)*

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10:30 Organizer's Remarks

ORGANIZING AND CONTRIBUTING TO RELIABLE & QUALITY DATA

10:35 Chairperson's Remarks *(Sponsorship Opportunity Available)*

10:40 BioRels—Evolving a Data Warehouse into a FAIR Infrastructure
Jeremy Desaphy, PhD, Senior Director, Scientific Data, Eli Lilly & Company

Modern drug discovery depends on vast biological data, yet the value of making these resources truly FAIR is often underappreciated. BioRels is a lean, automated data infrastructure that embeds FAIR principles directly into data preparation—standardizing sources, harmonizing ontologies, and tracking provenance across billions of records. By eliminating redundant curation and enabling instant, reproducible queries, BioRels makes FAIR a practical accelerator for scientific insight and decision-making.

11:10 The Role of Open-Source Toolkits in Advancing Chemical Registration Systems: A Case Study from Novartis
David Deng, PhD, Technical Associate Director, Molecule Design & Registration, Novartis

This presentation discusses recent advancements in the Small Molecule Registration (SMR) product used at Novartis Biomedical Research. It highlights the replacement of the original validation and standardization component with a newly implemented module, which was subsequently published as open-source code and contributed to the RDKit cheminformatics toolkit.

11:40 Presentation to be Announced

12:10 pm Sponsored Presentation *(Opportunity Available)*

12:40 Presentation to be Announced

1:10 Session Break and Transition to Lunch

1:20 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

1:50 Refreshment Break in the Exhibit Hall with Poster Viewing *(Sponsorship Opportunity Available)*

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BEYOND DISCOVERY: TURNING AI INSIGHTS INTO REAL-WORLD CLINICAL IMPACT

2:30 Sponsored Presentation *(Opportunity Available)*

2:35 Beyond Discovery: Turning AI Insights into Real-World Clinical Impact
Anastasia Christianson, PhD, Pharma Industry Data Science Leader
Loucif Ouyahia, PharmD, Global Head of Digital Healthcare, Jazz Pharmaceuticals
Alexander Sherman, Director, Center for Innovation and Bioinformatics, Massachusetts General Hospital

While AI drives early-stage discovery, pharma organizations still struggle to extend its impact into clinical operations and patient care. This panel session unites leaders from biopharma, hospitals, and digital health to explore how to integrate AI across R&D, bridge research insights to outcomes, and enable collaboration through shared infrastructure—creating an AI ecosystem that delivers measurable impact from discovery to clinical application.

4:05 Close of Conference

ABOUT THE EVENT

As part of the 25th Annual Bio-IT World Conference & Expo, the 3rd Annual Bio-IT World Venture, Innovation & Partnering Conference (May 19, 2026) delivers an executive-level platform for investors, corporate leaders, and entrepreneurs driving the next wave of biotech and precision medicine. This boutique event convenes C-suite leaders from venture capital, private equity, corporate venture arms, growth-stage companies, and pharma. The 2026 program zeroes in on AI-driven discovery, platform vs. product investment models, evolving M&A and partnership strategies, IPO and private liquidity pathways, and regulatory shifts shaping capital deployment. Sessions are designed to provide investors with clear insights into market dynamics, risk-adjusted returns, and scalable innovation strategies. Through candid discussions, fireside chats, and curated panels, participants will explore how capital is being allocated, where innovation pipelines are headed, and how to identify long-term winners. Alongside investor-focused dialogue, attendees gain access to 150+ exhibits, 11 scientific tracks, and global partners from 30+ countries to broaden market perspective.

2026 TOPICS:

Funding the Modern Pipeline—Capital Strategy across Biology, Technology & Informatics

Innovation—Science & Business Models

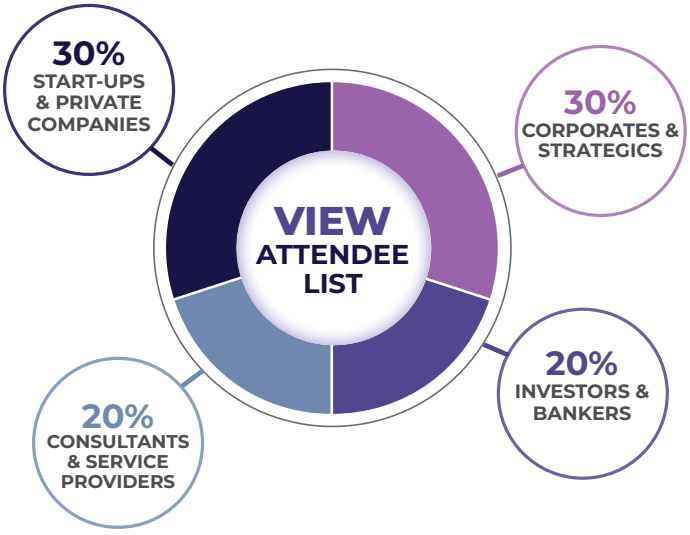
The Future of Lab Funding—Stronger Pathways between Academia, Capital & Spinouts

Strategic Partnerships VC, Pharma & Beyond

The Evolution of Biotech Leadership

CAMBRIDGE VIP ATTENDEE DEMOGRAPHICS

ENGAGE WITH A **HIGH-LEVEL** AUDIENCE



MEET OUR CO-CHAIRS

William (Bill) Mayo
Senior Vice President, Research IT
Bristol-Myers Squibb

Morgan Cheatham, MD
Partner, Head of Healthcare & Life Sciences
Breyer Capital

Rana Lonnen
General Partner
Science Capital

KEY CONTACTS

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PARTNERING & SPONSORSHIP
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PRESENT A POSTER AND **SAVE $50!**

Reasons you should present your research poster at this conference:

- Your research will be seen by our international delegation, representing leaders from top pharmaceutical, biotech, academic and government institutions
- Discuss your research and collaborate with other attendees
- Your poster presentation will be published in our conference materials
- Automatically entered in the Poster Competition, where two winners will each receive a $250 Gift Card
- Receive $50 off your registration

Cambridge Healthtech Institute encourages attendees to gain further exposure by presenting their work in the poster sessions. To secure an onsite poster board and/or ensure your poster is included in the conference materials, your full submission must be received, and your registration paid in full by **April 10, 2026**.

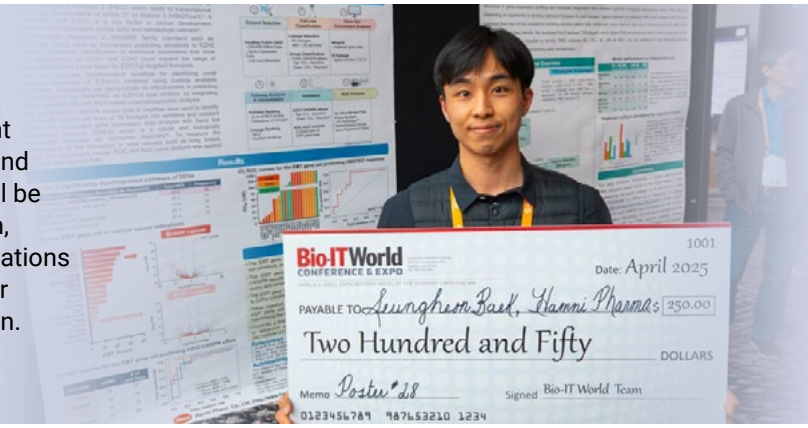
Register and indicate that you would like to present a poster. Once your registration has been fully processed, we will send an email with a unique link and instructions for submitting your abstract and other materials. Please see below for more information.

CHI reserves the right to publish your poster content in various marketing materials and products.

Learn more by visiting Bio-ITWorldExpo.com/poster-information

Poster Competition

The poster competition returns for 2026! Present your poster at Bio-IT World Conference & Expo and be automatically entered to win. The winners will be chosen based on clarity of short text description, novelty of data, technology advances and implications of the work presented, visual clarity of the poster presentation, clear and engaging oral explanation.



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Join Us in Boston

HOTEL & TRAVEL INFORMATION

CONFERENCE HOTEL AND VENUE:

Omni Boston Hotel at the Seaport
450 Summer Street
Boston, MA 02210

Discounted Room Rate:

$352 Artist Tower *(single or double occupancy)*

$396 Patron Tower *(single or double occupancy)*

*** Includes Complimentary WiFi*

Discounted Room Rate Cut-Off Date:
Tuesday, April 21, 2026

Please visit **Bio-ITWorldExpo.com/Travel**
for more information and to make your hotel reservations.

Seaport is a 21st century neighborhood designed for the way people live today. It's fast becoming the most sought-after spot for both Fortune 500s and start-ups to set up shop, one of the top residential areas in the city, and a go-to destination for global travelers.

Nestled between Boston's scenic waterfront and the historic Fort Point District—you'll find something interesting is just around the corner, including over 100 restaurants!

Can't Make it to Boston?

Connect from anywhere. Join via our robust virtual platform and access these dynamic features.

- BREAKOUT GROUPS
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- RECORDED SESSIONS
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- LIVE SESSIONS
- DOWNLOADS
- POSTER SESSIONS