

GENOMICS & BIG DATA SUMMIT

Includes four co-located conferences:

6th Next Generation Sequencing

3rd Metabolomics - Advances & Applications in Human Diseases

CRISPR & Genome Engineering

Big Data Bioinformatics

MAY 25-27, 2016 • BOSTON, MA

Gold Sponsors:



Hospitality Sponsor:



ABOUT

We invite you to attend the **Genomics & Big Data Summit** 2016, which will take place **May 25 - 27, 2016** in **Boston, MA** at the Hyatt Regency. This summit has four tracks to discuss the developments and challenges in the popular omics areas listed below. Representatives from big pharma, academic institutions, and government research labs will present data on advances in new technology and case studies on therapeutic targets, molecular diagnostics, and integration of complex data.

The Genomics & Big Data Summit is comprised of these 4 conferences:

May 25-26, 2016:

[6th Next Generation Sequencing](#)

[3rd Metabolomics-Advances & Applications in Human Disease](#)

May 26-27, 2016:

[CRISPR & Genome Engineering](#)

[Big Data Bioinformatics](#)

POSTER & ORAL PRESENTATION OPPORTUNITIES

If you are interested in participating in the Summit's poster session to showcase your work and research, please submit an abstract [here](#) and select which conference you would like to present in by **April 25, 2016**. In addition, the top two to three abstracts submitted for each individual conference will be selected to give a short oral presentation as part of that conference's program. Presentation slots fill up fast so please submit your abstract ASAP.

SPONSORSHIP OPPORTUNITIES

Our conferences are designed with our sponsors and exhibitors in mind: we create intimate and highly interactive environments so that they can maximize their reach and make long-lasting contacts. Our sponsors and exhibitors benefit from a few of the following:

- Sponsors/exhibitors have the option to receive the delegate list a week before and a week after the conference.
- The exhibit space for the meeting is shared with any other concurrent conferences, providing sponsors and exhibitors with access to a larger audience. The exhibit space is also where all networking functions take place, including coffee, snack stations, breakfast, and the evening reception.
- Your corporate logo will be placed on the cover page of the conference brochures, the proceedings given to all conference delegates, and on the presentation screen during all breaks to enhance your company's visibility at the event. Your logo will also be placed on the conference website agenda linked to your website.

For sponsorship and exhibit opportunities, please contact:

Amber Kempf
Senior Account Executive
amber.kempf@gtcbio.com

SPONSORS

GOLD

Diagenode, the leading provider of complete solutions for epigenetics research, offers innovative shearing and automation instruments, reagent kits, and high quality antibodies to streamline DNA methylation, ChIP, and ChIP-seq workflows. Our latest innovations include a full automation system, ChIP-seq kits for only 10,000 cells, and the industry's most validated antibodies.



Beckman Coulter Life Sciences empowers the research community with workflow solutions that simplify, automate and help improve results for complex biomedical testing. Our Agencourt SPRI-paramagnetic bead-based reagents provide fast and efficient isolation of nucleic acids. Notable is Ampure XP, a gold standard for DNA purification in Next Generation Sequencing applications. Additionally, our Biomek Liquid Handling Systems provide scientists a platform to automate applications such as nucleic acid sample prep, qPCR/PCR setup, and NGS sample prep resulting in a standardize workflow with increased productivity.

Thermo Fisher Scientific supplies innovative solutions to enable pharmaceutical and biotechnology companies producing biologics-based therapeutics and vaccines. With applications that span the drug development process—from drug discovery through large-scale commercial production—we provide unmatched protein expression and purification technologies as well as cells and cell lines for licensing to help companies of all sizes to develop breakthrough new drugs and make the world healthier.



HOSPITALITY

Optra Health's Big Data solutions combine disparate data sources such as EMR/ genomics/ imaging etc., structured/unstructured, to facilitate longitudinal patient views, smart clinical trials, contextualization information, extensibility and interoperability. Optra Health's Advanced Machine Learning and BioNLP technologies deploy complex bioinformatics processes on a massively parallel scale, pushing the boundaries of interpretation for novel biomedical insights.



AGENDA AT-A-GLANCE

Day 1 - Wednesday, May 25, 2016

7:00	<i>Registration & Continental Breakfast</i>	
7:55	<i>Welcome & Opening Remarks</i>	
	6th Next Generation Sequencing	3rd Metabolomics - Advances & Applications in Human Disease
8:00	KEYNOTE PRESENTATION Session I Current and Emerging Sequencing Technologies	Session I Metabolite Identification - Targets and Pathways
10:00	<i>Morning Networking Break</i>	
10:45	Session II: RNA Sequencing, DNA Sequencing	Session II: Advances in Metabolite Markers - Discovery and Validation
12:30	<i>Lunch on Your Own</i>	
1:30	Session II: RNA Sequencing, DNA Sequencing (cont.)	Session III: Bioinformatics for Metabolomics: Current Status and Future Directions
3:00	<i>Afternoon Networking Break</i>	
3:30	Session II: RNA Sequencing, DNA Sequencing (cont.)	Session IV: Imaging and Computational Approaches to Assessing the Metabolome
5:00	<i>Evening Reception & Poster Session Sponsored by</i> 	

Day 2 - Thursday, May 26, 2016

7:00	<i>Continental Breakfast</i>	
	6th Next Generation Sequencing	3rd Metabolomics - Advances & Applications in Human Disease
8:00	Keynote Presentation Session III: Single Cell Analysis	Session V: Translating Metabolomics Discoveries in Clinical Practice
9:30	<i>Morning Networking Break</i>	
10:00	Session IV: Clinical Diagnostic Sequencing	Session V: Translating Metabolomics Discoveries in Clinical Practice (cont.)
12:00	<i>Registration & Lunch Provided by GTCbio</i>	
1:25	<i>Welcome & Opening Remarks</i>	
	CRISPR & Genome Engineering	Big Data Bioinformatics
1:30	Session I: Update: Current CRISPR Technologies & Techniques	Session I: Big Data Collection & Curation
2:45	<i>Afternoon Networking Break</i>	
3:20	Session I: Update: Current CRISPR Technologies & Techniques (cont.)	Session II: Bioinformatics Enabling Precision Medicine
5:00	<i>Evening Reception & Poster Session</i>	

All times are approximate and subject to changes without notice

AGENDA AT-A-GLANCE

Day 3 - Friday, May 27, 2016

7:00

Continental Breakfast

CRISPR & Genome Engineering

Big Data Bioinformatics

8:00

Session II:
Therapeutic Applications of CRISPR & Genome Engineering

Keynote Presentation

Session III:
Big Data & Systems Pharmacology

9:40

Morning Networking Break

10:20

Session II:
Therapeutic Applications of CRISPR & Genome Engineering
(cont.)

Session IV:
Combining Large Population & Personal Data for Patient
Care, Clinical Trials and R&D

12:00

Lunch Provided by GTCbio

1:30

Session III:
CRISPR Regulation of Gene Expression

Session V:
Novel Tools and Approaches for Big Data

Session VI:
The Future of Big Data in Biomedicine

3:10

Conference Concludes

All times are approximate and subject to changes without notice

KEYNOTE SPEAKER



Session: Current and Emerging Sequencing Technologies

Jeffery Schloss
National Institutes of Health

DISTINGUISHED SPEAKERS



The Sample Preparation Bottleneck Arrives: Why Nobody will Care About DNA Sequencers in 2018

Paul Blainey
Broad Institute of MIT and Harvard



Session: Single Cell Analysis

Kenneth Livak
Fluidigm Corporation



Novel Strategies in Single Molecule Sensing

Joshua Edel
Imperial College London



Session: Clinical Diagnostic Sequencing

Vilas Menon
Allen Institute for Brain Science



Session: Single Cell Analysis

Yanyi Huang
Biodynamic Optical Imaging Center, Peking University



Our Path to Precision Care for Kids

Patrice Milos
Claritas Genomics



Spatial Transcriptomics and Beyond

Je 'Jay' H. Lee
Cold Spring Harbor Laboratory



Session: RNA Sequencing, DNA Sequencing

Kalim Mir
Harvard University



Squeezing New Information out of DNA Using Tunable Nanoscale Confinement

Sabrina Leslie
McGill University



Session: Current and Emerging Sequencing Technologies

John Oliver
Nabsys

DISTINGUISHED SPEAKERS



*5' end RNA-Seq Methods – Evaluating
the Options to Annotate Neuronal
Transcriptomes*

Joshua Levin
Broad Institute



Session: Clinical Diagnostic Sequencing

Joseph Vockley
Inova Healthcare

KEYNOTE SPEAKER



Session: Translating Metabolomics Discoveries in Clinical Practice

Howard Federoff
University of California, Irvine

DISTINGUISHED SPEAKERS



Session: Metabolite Identification - Targets and Pathways

John M. Asara
Harvard Medical School



Session: Translating Metabolomics Discoveries in Clinical Practice

Evagelia (Lia) C. Laiakis
Georgetown University



Session: Translating Metabolomics Discoveries in Clinical Practice

Susan Cheng
Harvard Medical School



Session: Translating Metabolomics Discoveries in Clinical Practice

Jessica Ann Lasky-Su
Brigham and Women's Hospital and Harvard Medical School



Session: Bioinformatics for Metabolomics: Current Status and Future Directions

Xiuxia Du
University of North Carolina at Charlotte



Session: Bioinformatics for Metabolomics: Current Status and Future Directions

Pierluigi Mauri
Institute for Biomedical Technologies



Session: Metabolite Identification - Targets and Pathways

Elizaveta Freinkman
Whitehead Institute



Session: Advances in Metabolite Markers - Discovery and Validation

Mike Milburn
Metabolon



Session: Imaging and Computational Approaches to Assessing the Metabolome

Timothy Garrett
University of Florida



Session: Metabolite Identification - Targets and Pathways

Deepak Nagrath
Rice University



Session: Metabolite Identification - Targets and Pathways

David Grant
University of Connecticut



Session: Advances in Metabolite Markers - Discovery and Validation

Monika Niewczas
**Joslin Diabetes Center
Harvard Medical School**

DISTINGUISHED SPEAKERS



Session: Translating Metabolomics Discoveries in Clinical Practice

Stefan Kempa
Berliner Institut für Gesundheitsforschung



Session: Translating Metabolomics Discoveries in Clinical Practice

John Ryals
Metabolon



Session: Translating Metabolomics Discoveries in Clinical Practice

Richard Kibbey
Yale School of Medicine



Session: Translating Metabolomics Discoveries in Clinical Practice

Susan Sumner
RTI International



Session: Translating Metabolomics Discoveries in Clinical Practice

Alla Kloss
Sanofi



Clinical Metabolomics: Technical Developments Representing the Alpha and Omega of Drug Development

Vladimir Tolstikov
Berg



Session: Advances in Metabolite Markers - Discovery and Validation

Irwin Kurland
Albert Einstein College of Medicine

DISTINGUISHED SPEAKERS



Session: CRISPR Regulation of Gene Expression

Daniel Anderson
MIT



Session: Therapeutic Applications of CRISPR & Genome Engineering

Pamela Munster
UCSF



Session: Therapeutic Applications of CRISPR & Genome Engineering

Zheng-Yi Chen
**Massachusetts Eye & Ear Infirmary,
Harvard Medical School**



Session: Therapeutic Applications of CRISPR & Genome Engineering

Mark Osborn
University of Minnesota



Session: Update: Current CRISPR Technologies & Techniques

Jonathan D. Chesnut
Thermo Fisher Scientific



Session: Therapeutic Applications of CRISPR & Genome Engineering

Eric Ostertag
Poseida Therapeutics



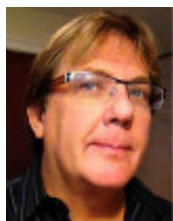
Session: Update: Current CRISPR Technologies & Techniques

John G. Doench
Broad Institute of MIT and Harvard



Session: Update: Current CRISPR Technologies & Techniques

Pablo Perez Pinera
University of Illinois at Urbana-Champaign



Functional Genomics Using CRISPR-Cas9 for the Identification & Validation of Novel Oncology Targets

Dennis France
Horizon Discovery



Session: Therapeutic Applications of CRISPR & Genome Engineering

Wenning Qin
Biogen



Session: Update: Current CRISPR Technologies & Techniques

Keith T. Gagnon
Southern Illinois University



Session: CRISPR Regulation of Gene Expression

Gaurav Varshney
National Human Genome Research Institute



Session: Therapeutic Applications of CRISPR & Genome Engineering

William Hendriks
**Massachusetts General Hospital
Harvard Medical School**



Session: CRISPR Regulation of Gene Expression

Ron Weiss
Massachusetts Institute of Technology

DISTINGUISHED SPEAKERS



*Lenti- and AAV Viral Delivery of CRISPR/
Cas9 - The Caveats and Successes*

Jeffrey Hung
GenScript USA



*Session: Therapeutic Applications of
CRISPR & Genome Engineering*

Guangbin Xia
University of Florida



*Session: Therapeutic Applications of
CRISPR & Genome Engineering*

Alexander Marson
University of California, San Francisco



*Delivery Technologies and Therapeutic
Genome Editing*

Hao Yin
Massachusetts Institute of Technology



*Session: Update: Current CRISPR
Technologies & Techniques*

Miguel A. Moreno-Mateos
Yale University School of Medicine

KEYNOTE SPEAKER



New Technologies for Collecting and Interpreting Petabytes for BRAIN and Precision Medicine Projects

George Church
Harvard University

DISTINGUISHED SPEAKERS



Computational Assessment of Novel Drug-target Interactions and Pharmacological Strategies

Ivet Bahar
School of Medicine, University of Pittsburgh



Session: Combining Large Population & Personal Data for Patient Care, Clinical Trials and R&D

Sidi Chen
Broad Institute



Session: Combining Large Population & Personal Data for Patient Care, Clinical Trials and R&D

Roberto Chiarle
Boston Children Hospital and Harvard Medical School



Session: The Future of Big Data in Biomedicine

Fabrício Costa
UCB



Session: Novel Tools and Approaches for Big Data

Ben Gordon
MIT-Broad



Session: Big Data Collection & Curation

Michael Green
University of Nebraska Medical Center



Session: Novel Tools and Approaches for Big Data

Vladimir Litvak
UMass Medical School



Session: Bioinformatics Enabling Precision Medicine

Xiaole Shirley Liu
Harvard University



Session: Big Data & Systems Pharmacology

Andriy Morgun
Oregon State University



Session: Big Data Collection & Curation

Sudhakaran Prabakaran
AAAS



Session: Bioinformatics Enabling Precision Medicine

John Quackenbush
Genospace



Session: Big Data & Systems Pharmacology

Birgit Schoeberl
Merrimack

DISTINGUISHED SPEAKERS



Session: Combining Large Population & Personal Data for Patient Care, Clinical Trials and R&D

Manolis Kellis
MIT



Session: The Future of Big Data in Biomedicine

Alex Sherman
Massachusetts General Hospital



Session: Novel Tools and Approaches for Big Data

Purvesh Khatri
Stanford University

CONFERENCE DETAILS

REGISTRATION

Early Registration Discount:

20% until March 25, 2016

10% until April 25, 2016

Register for 2 the 3rd goes FREE with coupon code: **RCDVB**

To register online, visit: www.gtcbio.com/register/genomics-big-data-summit

	Commercial	Academic / Govt	Student
Summit	2595.00	1295.00	1095.00
2 day pass - 2 conferences	2095.00	1095.00	945.00
Individual Conference	1895.00	895.00	745.00

QUICK REGISTRATION - FAX TO (626) 466-4433

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VENUE

Hyatt Regency

1 Ave De Lafayette
Boston, MA
(617) 912-1234

Discounted Group Rate: \$275.00 per night

Discount Deadline: May 2, 2016

Toll Free Reservations: 1-888-421-1442

Mention **GTCbio Event** to receive the group rate.

Online Reservations:

<https://resweb.passkey.com/go/GDDS>



PROCEEDINGS

If you are unable to attend the conference you can purchase the proceedings by downloading the order form [here](#). Fill out the order form and fax it to 1 (626) 433-4433 or email it to proceedings@gtcbio.com.