



Member of Qatar Foundation

Functional Genomics Symposium

13 - 14 December 2015

Day 1 (13 December 2015)

07:00 – 08:00	Registration and refreshments
08:00 – 08:05	<i>Opening remarks</i> Professor the Lord Darzi of Denham PC KBE FRS Vice-Chairperson of the Board of Sidra Medical and Research Center
08:05- 08:10	<i>Recent advances in genomic medicine in Qatar</i> Francesco M Marincola, MD, FACS Chief Research Officer, Sidra Medical and Research Center, Qatar
Session 1	<i>The international forefront of genomics and precision medicine</i>
Moderator	Clare Turnbull
08:10 – 08:40	<i>The Genomics England 100,000 Genomes project</i> Clare Turnbull, PhD Clinical Lead for the Genomics England Cancer Program, Genomics England, UK
08:40 – 09:10	<i>Genomes for medicine</i> David Bentley, DPhil, FMedSci Vice president and Chief Scientist, Illumina Inc, USA
09:10 – 09:40	<i>The Continuous spectrum of mutations spanning pediatric and adult disease</i> Eric Boerwinkle, MD, PhD Kometsky Family Chair in Human Genetics, Professor and Director, Human Genetics Center and Department of Epidemiology, University of Texas, Health Science Center at Houston, School of Public Health, USA



Member of Qatar Foundation

- 09:40 – 10:10 *Population precision medicine: linking the clinic and research at scale*
Hákon Guðbjartsson, PhD
Vice President of Bioinformatics and IT
WuXi Next Code Genomics, USA
- 10:10 – 10:25 *Enabling research by publishing human genomics*
Myles Axton, PhD
Chief Editor, Nature Genetics, USA
- 10:25 – 10:45 Coffee break
- Session 2** *The need and readiness to implement genomic medicine locally*
- Moderator** **Khalid Fakhro**
- 10:45 – 11:15 *Qatar Genome Program*
Asma Ali J F Al-Thani, PhD
Head and Associate Professor of Virology, Health Sciences Department,
College of Arts and Sciences, Qatar University
Director of Biomedical Research Center, Qatar University
Chair of Qatar Genome Program Committee - Board Vice Chairperson,
Biobank, Qatar
- Wei Liu, PhD**, Director of Clinical Genomic Lab,
Sidra Medical and Research Center, Qatar
Rashid Al Ali, PhD, Division Chief of Bioinformatics,
Sidra Medical and Research Center, Qatar
Ena Wang, MD, Division Chief of Translational Medicine,
Sidra Medical and Research Center, Qatar
- 11:15 – 11:45 *The use of clinical exome sequencing in Middle Eastern patients with mendelian disorders*
Tawfeg Ben-Omran, MD, FRCPC, FCCMG
Head, Clinical and Metabolic Genetics, Associate Professor,
Weill Cornell Medical College, Department of Pediatrics,
Hamad Medical Corporation, Qatar



Member of Qatar Foundation

- 11:45 - 12:15 *Regulation in genetic testing and consultation*
Eman Sadoun, MD
General Manager, Research Division, Healthcare Quality Management and Patient Safety Department,
Supreme Council of Health, Qatar
- 12:15 - 12:45 *Ethical issues in (Functional) genomics: Islamic perspectives*
Mohammed Ghaly, BA, MA, PhD
Professor of Islam and Biomedical Ethics, Research Center for Islamic Legislation and Ethics (CILE), Faculty of Islamic Studies, Qatar
- 12:45 - 13:45 Lunch and poster viewing
- 13:15 – 13:35 Lunch time session sponsored by Alliance Global Group
- Accurate Somatic mutation detection applied to liquid biopsy samples*
Jeff Jensen, Chief Executive Officer, Fluxion Biosciences, UAE
- Moderator** **Tawfeg Ben-Omran**
- 13:45 - 14:15 *Functional genomics through the medical annotation of the human genome*
Fowzan Alkuraya, MD, FAAP, FACMG
Professor of Human Genetics, Principal Clinical Scientist/Senior Consultant,
King Faisal Specialist Hospital and Research, Center, Saudi Arabia
- 14:15 - 14:45 *Identification of De Novo and rare inherited DNA variants in autism spectrum disorder*
Hatem El-Shanti, MD
Scientific Director, Qatar Biomedical Research Institute, Qatar
- 14:45 - 15:15 *Exome sequencing in mendelian disease in Qatar*
Khalid Fakhro, PhD
Principal Investigator, Congenital Disease Genetics Sidra Medical and Research Center
Assistant Professor, Weill Cornell Medical College, Qatar



Member of Qatar Foundation

15:15 - 15:45	<i>Gene discovery in unique populations</i> Marios Kambouris, PhD, FACMGG Senior Clinical Genetics, Acting Head, Pathology Genetics, Sidra Medical and Research Center, Qatar
15:45 - 16:00	Coffee Break
Session 3	<i>Challenges and accessibility from big data to personalized medicine</i>
Moderator	Ena Wang
16:00 - 16:30	<i>Pancancer genome analysis and the path towards women's personalized medicine</i> Xavier Estivill, MD, PhD Chair-Genetics Program, Experimental Genetics Division, Sidra Medical and Research Center, Qatar
16:30 - 17:00	<i>Variation annotation and interpretation: tools and public data</i> Gabe Rudy VP Product & Engineering, Golden Helix, Inc, Bozeman, MT, USA
17:00 - 17:30	<i>Data-driven enablement of the hippocratic oath in a clinical oncology setting</i> David B Jackson, PhD Chief Innovation Officer, Molecular Health GmbH, Germany



Member of Qatar Foundation

Day 2 (14 December 2015)

Session 4

Genomics guided healthcare

Moderator

Paolo Gasparini

07:00 – 08:00

Registration and refreshments

08:00 - 08:30

Expanding the number of hospitals practicing genomic medicine

Howard Jacob, PhD

Faculty investigator, Executive Vice President Genomic Medicine,
Chief Genomic Medicine Officer,
Hudson Alpha Institute for Biotechnology, Alabama, USA

08:30 - 09:00

From genetic discovery to gene therapy- 30 Years of Experience

Paolo Gasparini, PhD

Division Chief of Experimental Human Genetics, Sidra Medical and
Research Center, Qatar

09:00 - 09:30

The use of genetics isolates to dissect complex quantitative traits

Nicola Pirastu, PhD

Investigator, Sidra Medical and Research Center, Qatar

09:30 - 10:00

Highly multiplexed single molecule counting: NanoString platform from lab to clinic

Alessandra Cesano, MD, PhD

Chief Medical Officer, NanoString Technologies, USA

10:00 - 10:30

Coffee Break

Moderator

Marios Kambouris

10:30 - 11:00

Genomics in clinical practice: Lessons from the bedside

Livija Medne, MS, LCGC

Co-Director, Individualized Medical Genetics Center
Division of Human Genetics, The Children's Hospital of Philadelphia, USA

11:00 - 11:30

Intrauterine molecular therapy for the fetus

Jerry Chan Kok Yen, MD

Research Director, KK Women's and Children's Hospital, Singapore



Member of Qatar Foundation

- 11:30 - 12:00 *3D Genome organisation and transcription regulation*
Yijun Ruan, PhD
Professor and Director of Genomic Sciences, The Jackson Laboratory for Genomic Sciences, USA
- 12:00 - 13:15 Lunch and poster viewing
- 12.15-12.35 Lunch time session sponsored by LabWare Arabia
- Streamlining data management and workflows for biomedical and clinical research labs*
Abdallah Maazi, General Manager LabWare Arabia, UAE
- Session 5** ***Functional genomics and award abstract presentation***
- Moderator** **Yijun Ruan**
- 13:15 - 13:45 Gene discovery leads to new targeted therapies in congenital immunological diseases
Michael Lenardo, MD
Chief, Molecular Development Section and Director, NIAID Clinical Genomics program, National Institutes of Health, USA
- 13:45 - 14:15 *Transcriptome wide analysis of non-coding RNA function in zebrafish*
Sridhar Sivassubu, PhD
Senior Scientist, CSIR Institute of Genomics and Integrative Biology, India
- 14:15 - 14:45 *Short stories on long non-coding RNAs*
Vinod Scaria, MBBS, PhD
Scientist, CSIR Institute of Genomics and Integrative Biology (CSIR-IGIB), India
- 14:45 - 15:15 *Next Generation epigenetics - Innovative research tools for accurate analysis of DNA modifications*
Hanna Schutz, PhD
Business Development Associate, Cambridge Epigenetix Ltd, UK



Member of Qatar Foundation

Abstract awards and closing

- 15:15 – 15:45 Coffee Break
- 15:45 - 16:00 *Novel genes for intellectual disability identified using whole genome sequencing and pathway analysis*
Farah R Zahir, Canada's Michael Smith Genome Sciences Center, Vancouver, BC, Canada
- 16:00 - 16:15 *High altitude adaptive EPAS1 haplotype in the Himalayas*
Qasim Ayub, The Wellcome Trust Sanger Institute, Wellcome Genome Campus, UK
- 16:15 – 16:30 *Abstract Award oral presentation (to be confirmed)*
- 16:30 - 16:45 Abstract Award Ceremony
- 16:45 – 17:00 *Closing Remarks*
Ena Wang, MD
Division Chief of Translational Medicine
Sidra Medical and Research Center, Qatar