

# 1<sup>st</sup> Advances in Precision Medicine

## Epigenetics and Precision Medicine

29<sup>th</sup> November – 1<sup>st</sup> December 2021



عضو في مؤسسة قطر  
Member of Qatar Foundation

كلية العلوم الصحية والحيوية  
College of Health & Life Sciences

جامعة حمد بن خليفة  
HAMAD BIN KHALIFA UNIVERSITY



# Day 1 (29<sup>th</sup> November 2021)

08:00 – 09:30 Registration – Breakfast

## Session 1 - Epigenetics Contribution to Neurological Disorders

co-chairs: Fadel Tissir and Mohammed Farhan

Talk Time	Speaker	Speaker Position	Speaker Institute	Talk Title
09:30-09:45				Introduction and welcome
09:45 – 10:00	<b>Fatemeh Darakhshan-Rassam</b>	Programme Manager	Biomedical Science and Health, QNRF	QNRF welcome
10:00 – 10:45	<b>Shelley Berger,</b> Keynote speaker	Group Leader	University of Pennsylvania – USA	<a href="#">Epigenetics of Learning and Memory: too much or too little?</a>
10:45 – 11:15	<b>Timothy Bredy</b>	Associate Professor	The University of Queensland – Australia (online)	<a href="#">Long Noncoding RNAs and Memory</a>
11:15 – 11:45	<b>Dorret Boomsma</b>	Professor	Vrije University – Netherlands	<a href="#">Elucidating the (epi)genetics of female reproduction: Predicting Complex Traits from Polygenic Scores and DNA Methylation Profiles</a>
11:45 – 12:15	<b>Boyan Bonev</b>	Associate Professor	Ludwig Maximilians University – Germany (online)	<a href="#">Decoding the single-cell regulatory landscape of the cerebral cortex in development and disease</a>
12:15 – 12:45	<b>Borbala Mifsud</b>	Assistant Professor	Hamad Bin Khalifa University - Qatar	<a href="#">Autism-associated neuronal enhancers</a>
12:45 – 13:45	<b>Lunch</b>			
13:45 – 14:00	<b>Mona Abdi</b>	PhD Student	Hamad Bin Khalifa University / Sidra Medicine - Qatar	<a href="#">Autism Spectrum Disorder in Qatar: Insights from Whole Genome Sequencing of 100 Affected Families</a>



14:00 – 14:30	<b>Judith Zaugg</b>	Group Leader	European Molecular Biology Laboratories - Germany	<a href="#">Systems epigenetics view of cellular processes during ageing of the bone marrow niche</a>
14:30 – 15:00	<b>Shigeki Iwase</b>	Associate Professor	University of Michigan - USA (online)	<a href="#">Neuron-specific histone demethylase complex</a>

## Session 2 – Epigenetics of Aging

co-chairs: Georges Nemer and Ehsan Pourkarimi

Talk Time	Speaker	Speaker Position	Speaker Institute	Talk Title
15:00 – 15:30	<b>Nady El Hajj</b>	Assistant Professor	Hamad Bin Khalifa University - Qatar	<a href="#">Epigenetic Signatures and DNA Methylation Age Acceleration in Progeroid Syndromes</a>
15:30 – 16:00	<b>Jordana Bell</b>	Associate Professor	King's College London - UK (online)	<a href="#">Age and cohort-related DNA methylome variation captures generational effects</a>
16:00 – 16:30	<b>Riccardo Marioni</b>	Group Leader	Institute of Genetics and Molecular Medicine - UK	<a href="#">Epigenetics and data linkage to electronic health records: Precision Medicine opportunities in Generation Scotland</a>
16:30 – 17:00	<b>Coffee break</b>			
17:00 – 17:30	<b>Wolfgang Wagner</b>	Professor	University of Aachen - Germany	<a href="#">Targeted epigenetic clocks for aging and replicative senescence</a>
17:30 – 17:45	<b>Stephanie Ramadan</b>	Research Associate	Weill Cornell Medicine - Qatar	<a href="#">Novel protein contact points among TP53 and MCM complex proteins as possible new cancer treatment targets</a>
18:00 – 18:45	<b>Steve Horvath,</b> Keynote speaker	Professor	University of California, Los Angeles - USA (online)	<a href="#">Epigenetic Clocks for Clinical and Preclinical Applications</a>



# Day 2 (30<sup>th</sup> November 2021)

## Session 3 - Epigenetic Mechanisms Involved in Cancer

co-chairs: Julie Decock and Omar Khan

Talk Time	Speaker	Speaker Position	Speaker Institute	Talk Title
10:00 – 10:45	<b>Ali Shilatifard</b> , Keynote speaker	Professor	Northwestern University - USA	<a href="#">Principles of Epigenetics and Chromatin in Development and Human Disease</a>
10:45 – 11:15	<b>Kathi Zarnack</b>	Group Leader	Buchmann Institute for Molecular Life Sciences - Germany	<a href="#">High-throughput mutagenesis identifies mutations and RNA-binding proteins controlling CD19 splicing and CART-19 therapy resistance</a>
11:15 – 11:45	<b>Cameron Osborne</b>	Lecturer	King's College London - UK	<a href="#">Combining multi-omics with machine learning for perspective in leukemic gene regulatory pathways.</a>
11:45 – 12:00	<b>Hibah Shaath</b>	Research Associate	Hamad Bin Khalifa University / QBRI - Qatar	<a href="#">Single-cell long noncoding RNA (lncRNA) transcriptome implicates MALAT1 in triple-negative breast cancer (TNBC) resistance to neoadjuvant chemotherapy</a>
12:00 – 12:15	<b>Exhibitor talk – Dovetail Genomics</b>			
12:15 – 13:30	<b>Lunch</b>			
13:30 – 14:30	<b>Poster session</b>			
14:30 – 15:00	<b>Douglas Phanstiel</b>	Assistant Professor	University of North Carolina - USA (online)	<a href="#">Phase separation drives aberrant chromatin looping and cancer development</a>



## Session 4 - Epigenetics in Obesity, Diabetes, Bone and Cardiovascular Diseases

co-chairs: Johan Ericsson and Ayman Al Haj Zen

Talk Time	Speaker	Speaker Position	Speaker Institute	Talk Title
15:00 – 15:30	<b>Karsten Suhre</b>	Professor	Weill Cornell Medicine - Qatar	<a href="#">Connecting the epigenome, metabolome and proteome for a deeper understanding of disease</a>
15:30 – 16:00	<b>Jorge Ferrer</b> Distinguished speaker	Professor	Center for Genomic Regulation / CIBERDEM - Spain	<a href="#">Genetic mechanisms underlying diabetes: insights from the noncoding genome</a>
16:00 – 16:30	<b>Omar Albagha</b>	Professor	Hamad Bin Khalifa University - Qatar	<a href="#">Epigenome-wide association analysis of Paget's disease of bone identifies differentially methylated loci that predict disease status</a>
16:30 – 17:00	<b>Coffee break</b>			
17:00 – 17:15	<b>Ilhame Diboun</b>	Postdoctoral Researcher	Hamad Bin Khalifa University - Qatar	<a href="#">An epigenetic DNA methylation signature underlying the severity of Paget's disease of bone</a>
17:15 – 17:45	<b>Francesco Paneni</b>	Professor	University of Zurich - Switzerland (online)	<a href="#">The Emerging Role of Epigenetics in Cardiovascular Precision Medicine: Mechanisms, Biomarkers and Drugs</a>
17:45– 18:30	<b>Michael Snyder,</b> Keynote speaker	Professor	Stanford University - USA (online)	<a href="#">Big Data, Health, and Covid-19</a>
18:30 – 19:00	<b>Andrea Baccarelli</b>	Professor	Columbia University - USA (online)	<a href="#">Epigenomics in precision environmental health</a>



# Day 3 (1<sup>st</sup> December 2021)

## Session 5 - Epigenetics in Immunology and Autoimmune Diseases

co-chairs: Chiara Cugno and Davide Bedognetti

Talk Time	Speaker	Speaker Position	Speaker Institute	Talk Title
08:00 – 08:45	<b>Anjana Rao</b> , Keynote speaker	Professor	La Jolla Institute of Immunology - USA (online)	<a href="#">TET methylcytosine dioxygenases, inflammation and cancer</a>
08:45 – 09:15	<b>Stanley Qi</b>	Assistant Professor	Stanford University - USA (online)	<a href="#">Synthetic Genome Engineering for Genomics and Gene Therapy</a>
09:15 – 09:45	<b>Gioacchino Natoli</b>	Professor	European Institute of Oncology - Italy	<a href="#">Clinical kinase inhibitors in inflammation: using chromatin modifications as unbiased readouts of efficacy and selectivity</a>
09:45 – 10:00	<b>Shimaa Sherif</b>	PhD Student	Hamad Bin Khalifa University / Sidra Medicine	<a href="#">The immune landscape of solid pediatric tumors</a>
10:00 – 10:30	<b>Coffee break</b>			



## Session 6 - Epigenetics and Transgenerational Inheritance

co-chairs: Borbala Mifsud and Nady El Hajj

Talk Time	Speaker	Speaker Position	Speaker Institute	Talk Title
10:30 – 11:15	<b>Hamdi Mbarek</b> , Keynote speaker	Research Partnerships Manager	Qatar Genome Programme - Qatar	<a href="#">The genome of the Qatari population: first findings</a>
11:15 – 11:30	<b>Muhammad Kohailan</b>	PhD Student	Hamad Bin Khalifa University / Sidra Medicine - Qatar	<a href="#">A precise, combinatorial approach for the estimation of de novo mutation rate from short-read WGS data</a>
11:30 – 12:00	<b>Ehsan Pourkarimi</b>	Assistant Professor	Hamad Bin Khalifa University - Qatar	<a href="#">Transgenerational Inheritance of Epigenetic Marks: Fact or Fiction?</a>
12:00 – 12:05	<b>Closing remarks</b>			





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