

HCA Middle East Symposium Agenda

Day 1 - 15 November 2023

11:55 AM - 2:00 PM GMT +4 / 2:55 AM - 5:00 AM Your local time (2 Hours, 5 Min)

Day 1/Part 1 - Broadcasting

12:00 PM - 12:05 PM GMT +4 / 3:00 AM - 3:05 AM Your local time (5 Min)

Welcoming Remarks



Youssef Idaghdour
Associate Professor
NYU Abu Dhabi
Speaker

12:05 PM - 12:35 PM GMT +4 / 3:05 AM - 3:35 AM Your local time (30 Min)

Overview of The Human Cell Atlas



Youssef Idaghdour
Associate Professor
NYU Abu Dhabi
Moderator



Sarah Teichmann
Head of Cellular Genetics and Se...
Wellcome Sanger Institute
Speaker

12:35 PM - 12:55 PM GMT +4 / 3:35 AM - 3:55 AM Your local time (20 Min)

How are atlases being assembled



John Randell
Chief Alliance Officer
Human Cell Atlas
Speaker



Lucia Robson
Senior Programme Manager
Human Cell Atlas
Speaker

12:55 PM - 1:25 PM GMT +4 / 3:55 AM - 4:25 AM Your local time (30 Min)

Keynote #1 - Ido Amit

Ido Amit - The power of ONE: Immunology in the age of spatial and single cell genomics



Youssef Idaghdour
Associate Professor
NYU Abu Dhabi
Moderator



Ido Amit
Principal Investigator
Weizmann Institute of Science
Keynote

1:25 PM - 1:40 PM GMT +4 / 4:25 AM - 4:40 AM Your local time (15 Min)

Break

1:35 PM - 3:10 PM GMT +4 / 4:35 AM - 6:10 AM Your local time (1 Hour, 35 Min)

Day 1/Part 2 - Broadcasting

1:40 PM - 2:55 PM GMT +4 / 4:40 AM - 5:55 AM Your local time (1 Hour, 15 Min)

Session 1: Computational and Data Science Session

1. **Noor Kosaji** - Modelling SCN1A Dravet Syndrome and investigating cellular causality to design allele specific mRNA therapeutic molecule
2. **Seyed Amir Malekpour** - Single-cell multi-omics analysis identifies context specific gene regulatory gates and mechanisms
3. **Keren Yizhak** - Metabolic predictors of response to immune checkpoint blockade therapy
4. **Chongwei Bi** - Single-cell Individual Full-length mtDNA Sequencing Enables Quantitative Haplotype-resolved Analysis of mitochondrial DNA Heteroplasmy in Native and Genome-Edited Cells
5. **Hananeh Aliee** - Unravelling cellular diversity using invariant representations



Luis Saraiva
Principal Investigator
Sidra Medicine
Moderator



Keren Yizhak
Principal Investigator
Technion - Israel Institute of Tech...
Speaker



Noor Kosaji
PhD Student
Mohammed Bin Rashid Universit...
Speaker



Chongwei Bi
PhD Student
King Abdullah University of Scien...
Speaker



Seyed Amir Malekpour
Senior Postdoctoral Research Fel...
Institute for Research in Fundam...
Speaker



Hananeh Aliee
Researcher
Sanger Institute
Speaker

2:55 PM - 3:10 PM GMT +4 / 5:55 AM - 6:10 AM Your local time (15 Min)

Break

3:05 PM - 5:00 PM GMT +4 / 6:05 AM - 8:00 AM Your local time (1 Hour, 55 Min)

Day 1/Part 3 - Broadcasting

3:10 PM - 3:55 PM GMT +4 / 6:10 AM - 6:55 AM Your local time (45 Min)

Session 2: Experimental Session

1. **Luis Saraiva** - Using spatial transcriptomics to unwrap the anatomical logic of smell
2. **Binte Ashraf** - Integrative Analysis of Long Isoform Sequencing and Functional Data Identifies Distinct Neuronal Subtypes Derived from Human Induced Pluripotent Stem Cells (iPSCs)
3. **Richa Naveed** - Delineating the CHD linked cellular heterogeneity using mutation enrichment analysis



Mohammed Uddin
Principal Investigator
Mohammed Bin Rashid Universit...
Moderator



Luis Saraiva
Principal Investigator
Sidra Medicine
Speaker



Binte Zehra Ashraf
Postdoctoral Research Fellow
Mohammed Bin Rashid Universit...
Speaker



Richa Naveed
Postdoctoral Fellow
Mohammed Bin Rashid Universit...
Speaker

3:55 PM - 4:55 PM GMT +4 / 6:55 AM - 7:55 AM Your local time (1 Hour)

Session 3: Highlights of Single Cell Research in The Middle East Part 1

1. **Itay Tirosh** - The spatial organization of glioblastoma
2. **Nasna Nassir** - Single-nucleus RNA sequencing reveals MAPT expression dynamics and correlates with tau pathology in human brain
3. **Bruno Guillotin** - A single cell pan-grass transcriptome to study crop root adaptations"
4. **Yasmin Demerdash** - The single-cell dynamics of hematopoietic stem and progenitor cells' response to IFN-alpha stimulated inflammation



Naomi Habib
Principal Investigator
The Hebrew University of Jerusal...
Moderator



Itay Tirosh
Principal Investigator
Weizmann institute of science
Speaker



Nasna Nassir
Scientist
Mohammed bin Rashid Universit...
Speaker



Bruno Guillotin
Postdoctoral Associate
New York University Abu Dhabi
Speaker



Yasmin Demerdash
PhD Student
German Cancer Research Center ...
Speaker

4:55 PM - 5:00 PM GMT +4 / 7:55 AM - 8:00 AM Your local time (5 Min)

Day 1 Closing Remarks



Youssef Idaghdour
Associate Professor
NYU Abu Dhabi
Speaker



John Randell
Chief Alliance Officer
Human Cell Atlas
Speaker

Day 2 - 16 November 2023

11:55 AM - 1:40 PM GMT +4 / 2:55 AM - 4:40 AM Your local time (1 Hour, 45 Min)

Day 2/Part 1 - Broadcasting

WATCH RECORDING

12:00 PM - 12:10 PM GMT +4 / 3:00 AM - 3:10 AM Your local time (10 Min)

Day 2 Welcoming Remarks



Youssef Idaghdour
Associate Professor
NYU Abu Dhabi
Speaker



Laleh Haghverdi
Group Leader
Max-Delbruck-Centrum fur Mole...
Speaker

12:10 PM - 12:40 PM GMT +4 / 3:10 AM - 3:40 AM Your local time (30 Min)

Keynote #2 - Mohammed Uddin

Mohammed Uddin - Genomic Origin and Cell Type-Specific Regulation in Neurodevelopmental Disorders



Laleh Haghverdi
Group Leader
Max-Delbruck-Centrum fur Mole...
Moderator



Mohammed Uddin
Principal Investigator
Mohammed Bin Rashid Universit...
Speaker

12:40 PM - 1:40 PM GMT +4 / 3:40 AM - 4:40 AM Your local time (1 Hour)

Session 4: Highlights of Single Cell Research in The Middle East Part 2

1. **Shahar Alon** - Nanoscale in situ sequencing of tissues using Expansion Sequencing
2. **Ali AlFaiz** - Ethical and Regulatory Considerations in Clinical Single-Cell Sequencing
3. **Mohammad Lotfollahi** - Querying single-cell reference to understand tissue organisation
4. **Efrat Shema** - Single-molecule and single-cell epigenetics: Decoding the epigenome for cancer research and diagnostics



Laleh Haghverdi
Group Leader
Max-Delbruck-Centrum fur Mole...
Moderator



Mohammad Lotfollahi
Team Leader
Helmholtz Zentrum Munchen
Speaker



Shahar Alon
Principal Investigator
Bar-Ilan University
Speaker



Efrat Shema
Principal Investigator
Weizmann Institute of Science
Speaker



Ali AlFaiz
Computational Biologist
King Fahad Medical City
Speaker

1:40 PM - 1:55 PM GMT +4 / 4:40 AM - 4:55 AM Your local time (15 Min)

Break

1:50 PM - 2:55 PM GMT +4 / 4:50 AM - 5:55 AM Your local time (1 Hour, 5 Min)

Day 2/Part 2 - Broadcasting

WATCH RECORDING

1:55 PM - 2:40 PM GMT +4 / 4:55 AM - 5:40 AM Your local time (45 Min)

Session 5: Highlights of Single Cell Research in The Middle East Part 3

1. **Fereshteh Fallah** - The Role of Tumor Microenvironment Communication in Glioma Cancer Progression Using Single-Cell RNA Sequencing
2. **Tala Shahin** - The impact of ethnicity on the single-cell immune response to malaria in West African children
3. **Priyam Narin** - Single-cell sequencing in the mouse brain: Insights into circadian rhythms and mood disorders



Lucia Robson
Senior Programme Manager
Human Cell Atlas
Moderator



Fereshteh Fallah
PhD Student
Tehran University
Speaker



Dr. Tala Shahin
Postdoctoral Associate
New York University Abu Dhabi
Speaker



Priyam Narain
Postdoctoral Fellow
New York University Abu Dhabi
Speaker

2:40 PM - 2:55 PM GMT +4 / 5:40 AM - 5:55 AM Your local time (15 Min)

Break

2:50 PM - 4:15 PM GMT +4 / 5:50 AM - 7:15 AM Your local time (1 Hour, 25 Min)

Day 2/Part 3 - Broadcasting

WATCH RECORDING

2:55 PM - 3:35 PM GMT +4 / 5:55 AM - 6:35 AM Your local time (40 Min)

Session 6: Empowering Middle East HCA Engagement to better achieve scientific goals

Panel Discussion



Alex Shalek
Principal Investigator
MIT | Ragon | Broad
Moderator



Naomi Habib
Principal Investigator
The Hebrew University of Jerusal...
Panelist



Laleh Haghverdi
Group Leader
Max-Delbruck-Centrum fur Mole...
Panelist



Youssef Idaghdour
Associate Professor
NYU Abu Dhabi
Panelist



John Randell
Chief Alliance Officer
Human Cell Atlas
Panelist



Mohammed Uddin
Principal Investigator
Mohammed Bin Rashid Universit...
Panelist

3:35 PM - 3:45 PM GMT +4 / 6:35 AM - 6:45 AM Your local time (10 Min)

Closing Remarks



Youssef Idaghdour
Associate Professor
NYU Abu Dhabi
Speaker



John Randell
Chief Alliance Officer
Human Cell Atlas
Speaker