

Online DZG Symposium 2025

Cells in Precision: Unlocking the Translational Potential of Single-Cell Omics



DEUTSCHE ZENTREN DER
GESUNDHEITSFORSCHUNG

#DZGSymposium25
#ForschenfürGesundheit

Nov
3

Bioinformatics

From Matrix to Meaning: Analytical Advances in Single-Cell Omics

13:00 Welcome Note

Jonas Schulte-Schrepping | DZNE

13:15 Keynote lecture – **Fabian Theis** – TBA

Chair: Simone Glaser

13:45 ECR Selected talks

Chair: Simone Glaser, Jonas Schulte-Schrepping

Probeset Selection in Imaging-based Spatial Transcriptomics

Chelsea Bright + Valentina Beliaeva | DZL

Mapping cells through time and space with moscot

Dominik Klein | DZD

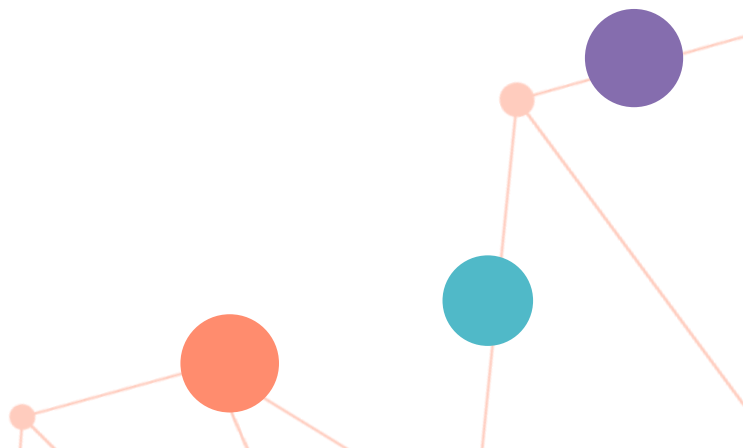
Unsupervised Multi-Scale Domain Identification in Spatial Omics Data

Behnam Yousefi | DZKJ

14:30 Coffee break

14:45 Keynote lecture – **Matthias Becker** – Graph neural networks (GNNs) for single-cell omics data

Chair: Jonas Schulte-Schrepping



Nov
3

Bioinformatics

From Matrix to Meaning: Analytical Advances in Single-Cell Omics

15:15 ECR Selected talks

Chair: Pascal Gottmann, Jonas Schulte-Schrepping

**Modeling differentiation dynamics at clonal level in B-cell
Precursor Acute Lymphoblastic Leukemia (BCP-ALL)**

Adrien Jolly | DKTK

Vascular niches are the primary hotspots in cardiac aging

David Rodriguez Morales | DZHK

**From Cells to Subjects: Scaling Single-Cell Data for
Translational Applications**

Johannes Wahle | DZNE

TBA

Christoph Geisenberger | DKTK

16:15 Keynote lecture – **Felix Hartmann** - TBA

Chair: Nadezda Dolgikh

16:45 Coffee break

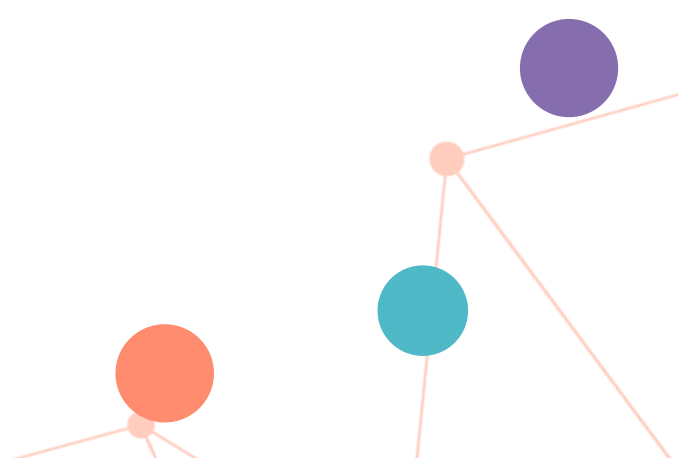
16:50 Best ECR Talks Award Ceremony (Day 1)

16:45 Meet the expert in parallel breakout rooms

Matthias Becker

Felix Hartmann

17:15 End of the first day



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Nov
4

Application

Cells in Context: Single-Cell Insights Across Pathologies

09:00 Welcome Note

Simone Glaser | DZHK

09:15 Keynote lecture – **Mareike Lehmann** – Single cell decomposition of multicellular aging programs associated with impaired lung regeneration

Chair: Anja Michl

09:45 Keynote lecture – **Saskia Trump** – Tracking Cystic Fibrosis Airway Homeostasis by Single-Cell Sequencing

Chair: Jennifer Loske

10:15 ECR Selected talks

Chair: Anja Michl, Jonathan Gross

Cellular and spatial mapping of pleuroparenchymal fibroelastosis exposes aberrant cell states and their zonation
Jannik Ruwisch | DZL

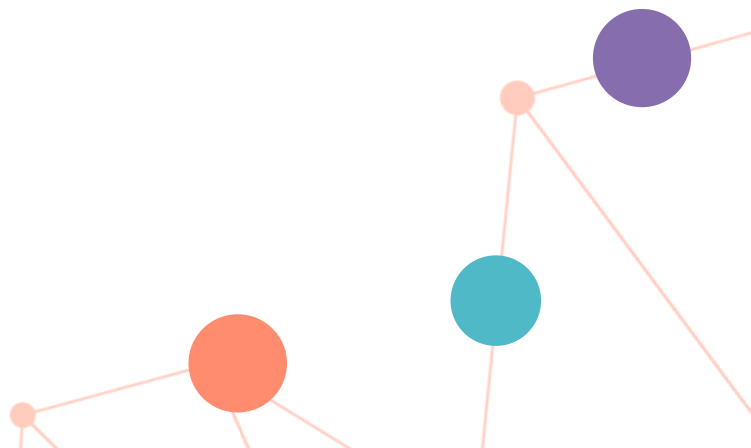
Location, Location, Location! The new Frontier of Islet Cell Omics in Diabetes

Yanni Morgenroth | DZD

TGF- β links EBV to Multisystem Inflammatory Syndrome in Children

Carl Christoph Goetzke | DZKJ

11:00 Coffee break



Nov
4

Application

Cells in Context: Single-Cell Insights Across Pathologies

11:15 Keynote lecture – **Mostafa Bakhti** – Dissecting pancreatic endocrinogenesis through single-cell multi-omics

Chair: Pascal Gottmann

11:45 Keynote lecture – **Daniel Reichart** – TBA

Chair: Simone Glaser

12:15 ECR Selected talks

Chair: Simone Glaser, Nadezda Dolgikh

Single-cell multi-omic profiling allows the dissection of peripheral immune phenotypes in Alzheimer's Disease progression

Jannis Spintge | DZNE

Molecular barcoding in spatial transcriptomics: Tracing clonal evolution

Georg Kastner | DKTK

Single-cell transcriptomics reveal distinctive patterns of fibroblast activation in heart failure with preserved ejection fraction

Laura Wienecke | DZHK

13:00 Coffee break

13:15 Best ECR Talks Award Ceremony (Day 2)

13:30 Meet the expert in parallel breakout rooms

Maraïke Lehmann

Saskia Trump

Mostafa Bakhti

Daniel Reichart

14:00 Closing remarks

Nadezda Dolgikh | DKTK

