

Program

Tuesday, May 16th

- 8:00 – 9:00 Registration
- 9:00 – 9:30** **Opening of the Meeting**
Oliver Bruestle, Chairman of the Stem Cell Network North Rhine-Westphalia
Svenja Schulze, Minister of Innovation, Science and Research of the State of North Rhine-Westphalia
- 9:30 – 11:00** **Keynote Lectures**
[Hans Clevers \(Utrecht\)](#) Lgr5 stem cell based organoids and their applications in cancer research
[Dieter Birnbacher \(Düsseldorf\)](#) Prospects of human germ-line modification by CRISPR-Cas9 – an ethicist's view
- 11:00 – 11:15 Coffee Break
- 11:15 – 12:30** **Session I Disease Modeling (Chair: Oliver Brüstle)**
[Steven Goldman \(Rochester\)](#) Human progenitor cell-based treatment and modeling of glial disease
[Jerome Mertens \(La Jolla\)](#) Aged and rejuvenated neurons to study human disease
[Chao Sheng \(Bonn\)](#) Age-related DNA methylation dynamics in iPSC-derived and directly converted NSC
- 12:30 – 13:30 Lunch Break, Poster Session
- 13:30 – 14:45** **Session II Tumor Initiating Cells/Cancer Stem Cells (Chair: Martin Götte):**
[Zena Werb \(San Francisco\)](#) Understanding cancer, metastasis and the tumor microenvironment in the age of single-cell genomics
[Robert Weinberg \(Cambridge\)](#) Malignant progression of carcinoma cells
[Samantha Langer \(Essen\)](#) Analysis of the functional impact of RUNX1 mutations in MDS stem cells
- 14:45 – 15:15** **Session III Ethical, Legal, Social Aspects (Chair: Dieter Sturma)**
[Ralf Müller-Terpitz \(Mannheim\)](#) The concept of embryo under german and european law: Recent developments
- 15:15 – 16:00 Coffee Break, Poster Session
- 16:00 – 17:15** **Session IV Epigenetics (Chair: Peter Horn)**
[Frank Grosveld \(Rotterdam\)](#) The 3D genome and transcriptional regulation
[Gerd Blobel \(Philadelphia\)](#) Chromosome conformation: mechanisms and therapeutic applications
[Michaela Bartusel \(Cologne\)](#) Molecular and functional characterization of an enhancer harboring non-coding genetic variants associated with orofacial clefts
- 17:15 – 18:30 Poster Session
- 19:30 – 22:30** **Networking Event**

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- 8:00 – 9:00 Registration
- 8:00 – 9:00 Early Career Breakfast – Meet the Experts
- 9:00 – 10:20** **Session V 3D Organoids (Chair: James Adjaye)**
[Jason Spence \(Ann Arbor\)](#) Modeling human lung development using insights from organoids and embryos
[Juan Carlos Izpisua Belmonte \(La Jolla\)](#) Cell, tissue and organ generation in vivo and in vitro
[Barbara Treutlein \(Leipzig\)](#) Reconstructing human organ development using single-cell transcriptomics
- 10:20 – 11:00** Coffee Break, Poster Session
- 11:00 – 12:15** **Session VI Stem Cells and Regeneration (Chair: Oliver Brüstle)**
[Chuck Murry \(Washington\)](#) Cardiogenesis with human stem cells
[Michele de Luca \(Modena\)](#) Epidermal stem cells and combined cell and gene therapy for epidermolysis bullosa
[Monika Eipel \(Aachen\)](#) Investigating the premature aging phenotype of PRDM8 knockout in induced pluripotent stem cells using the CRISPR/Cas9 technology
- 12:15 – 13:40 Lunch Break, Poster Session
- 13:40 – 15:00** **Session VII Totipotency and Pluripotency (Chair: Hans Schöler)**
[Alexander Meissner \(Harvard\)](#) Mechanisms of epigenetic regulation in development and disease
[Maria Elena Torres-Padilla \(Strasbourg\)](#) Epigenetic mechanisms of cellular plasticity
[Juan M. Vaquerizas \(Münster\)](#) Chromatin architecture during early embryonic development
- 15:00 – 15:45 Coffee Break, Poster Session
- 15:45 – 17:00** **Session VIII Stem Cell Niche (Chair: Peter Horn)**
[Paul Frenette \(New York\)](#) Blood vessels in healthy and malignant stem cell microenvironments
[Claus Nerlov \(Oxford\)](#) Support of early thymocyte progenitors by differentiation stage-specific niches
[Julia Hesse \(Duesseldorf\)](#) ATP and tenascin-C activate inflammasomes in epicardium-derived cells formed after myocardial infarction
- Following** **Poster Awarding, Closing Remarks**