



GermanStemCellNetwork

13th GSCN Conference

Speakers & Abstracts

15 – 17 October 2025

Helmholtz Munich

Conference Center Neuherberg



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MUNICH**

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**13th GSCN Conference
15 – 17 October 2025
Helmholtz Munich**

Organizer:

German Stem Cell Network (GSCN)

c/o Charité Universitätsmedizin

Luisenstr. 65, 10117 Berlin



GermanStemCellNetwork

Dear colleagues and friends, partners and participants,

It is a great pleasure and honor to welcome you all to this 13th German Stem Cell Network Conference in Munich – a city renowned not only for its cultural richness and scientific tradition, but also for its spirit of innovation in modern biomedical research at Helmholtz Munich, Max Planck Society, Fraunhofer Institute as well as the Technical and



Ludwig-Maximilian Universities and clinical hospitals. I am delighted to welcome so many outstanding stem cell scientists, clinicians, and representatives from industry, and society gathering at the brand new conference center at Helmholtz Munich in Neuherberg, in the North of Munich. Your commitment to participate, your curiosity, and courage to push boundaries, will generate an excellent atmosphere for an exciting meeting over the three days gathering from 15 till 17 October 2025.

I am looking forward to over 400 participants who will come to discuss stem cell research in all flavors and debate new technologies, first clinical study results and fascinating data, shown on many posters and in oral presentations from junior and senior colleagues, keynote speakers and award lectures. An interesting and broad industry exhibition will offer latest technologies and personal contact in combination with industry sessions of GSCN industry partners. There will also be the non-PI meeting, as well as GSCN mentoring program workshop. Finally, we will enjoy two social events to continue networking after working hours. Check out the whole program on our online platform (www.gscn-conferences.org -> Program & Speakers 2025).

Stem cell research today represents both immense promise and great responsibility. It offers hope for new therapies for currently incurable diseases, deeper insights into human development, and challenges us to reconsider ethical, societal, and scientific questions in entirely new ways.

At this point, I would like to extend my sincere thanks to everyone who made this conference possible: the GSCN office, the local organizers and program committee, the speakers, the Helmholtz Munich staff who made this happen, and of course, all of you — whose presence and contributions will make this event a vibrant space for knowledge, inspiration, and connection.

I wish all of us stimulating discussions, meaningful encounters, and fresh ideas to carry back to our labs, clinics, and communities.

Thank you very much — and let's have a successful conference!

A handwritten signature in blue ink that reads "Heiko Lickert". The signature is fluid and cursive, with the first name "Heiko" being more prominent than the last name "Lickert".

Heiko Lickert

GSCN President

For the program committee

Sina Bartfeld (Berlin) · Daniel Besser (Berlin) · Magdalena Götz (Munich) · Matthias Hebrok (Munich) · Karl-Ludwig Laugwitz (Munich) · Heiko Lickert (Munich) · Thomas Schwarz-Romond (Munich) · Fabian Theis (Munich) · Claudia Waskow (Jena)

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Conference Information

Venue

Helmholtz Munich
Conference Center (Building 3522)
Ingolstädter Landstr. 1
85764 Neuherberg

Registration

Regular fee	€ 620,-
Regular member fee	€ 400,-
Student fee	€ 310,-
Student member fee	€ 200,-

Date

Wednesday, 15 October – Friday, 17 October 2025

Internet

Internet access via Wireless LAN is free of charge.

The registration fee includes admission to all scientific sessions, additional scientific events, poster and commercial exhibition, the get-together on 15 October and the networking evening on 16 October, lunch and coffee breaks, free internet access, conference bag including badge and access to the GSCN web app.

Poster Exhibition

Posters will be displayed during the conference in two sessions in Build23. Authors are asked to be present at their poster during the poster session. Even numbers will be presented on Wednesday, 15 October 2025, 17:30 – 18:30 h and odd numbers will be presented 18:30 – 19:30 h. On Thursday, 16 October 2025 even numbers will be presented from 16:30 – 17:30 h and odd numbers from 17:30 – 18:30 h. You will find the number of your poster in this abstract volume. Please prepare the size DIN A0 portrait for the poster. Otherwise, there are no specifications. Posters in poster session I should be mounted on Wednesday 12:00 – 16:30 h and removed latest on Thursday, 12:00 h. Posters in Poster Session II should be mounted on Thursday 12:00 – 16:30 h and should be removed latest on Friday at 14:00 h.

Poster Session I

Wednesday, 15 October 2025, 17:30 – 19:30 h

Basic, translational & applied hematopoiesis: P001 - P006
Pluripotency, differentiation & PSC-derived models: P007 - P047
Stem cells in aging & disease (cancer stem cells): P048 - P051
Tissue-derived stem cells & organoids: P052 - P072



The poster session I is supported by Biomérieux

Poster Session II

Thursday, 16 October 2025, 16:30 – 18:30 h

Computational stem cell biology: P073 - P081
Stem cells in disease modeling & drug dev.: P082 - P124
Stem cells in regenerative therapies: P125 - P144



The poster session II is supported by Miltenyi

GSCN Awards

Scientific awards 2025

A top-class commission supported the GSCN in choosing this year's awardees. The three awardees will give a presentation in the Presidential Symposium on Thursday, 16 October 2025 at 14:00 - 16:15 h.

GSCN 2025 Young Investigator Award: **Aydan Bulut-Karslioglu**, Max Planck Institute for Molecular Genetics, Berlin

GSCN 2025 Hilde Mangold Award: **Michaela Frye**, German Cancer Research Center, Heidelberg

GSCN 2025 Publication of the Year Award: **Moritz Mall**, German Cancer Research Center, Heidelberg and **Bryce Lim**, SZ, London, UK

Travel awards

The following participants have been selected for the GSCN travel awards:

- **Annasara Artioli**, Mannheim
- **Mari Ozaki**, Dublin, IE
- **Meiyang Xue**, Berlin
- **Sohana Islam Khan**, Halle
- **Susanna Quach**, Berlin

Poster awards

There will be two poster awards for each poster session. Members of the poster jury have a red dot on their badge – please present them your poster with due attention. The awardees will receive € 500 each. Authors are asked to be present at the poster award ceremony on Friday, 17 October 2025 at 15:30 – 15:50 h in the plenary hall.

The poster awards are supported by Active Bioscience + PeptiGrowth



ACTIVE BIOSCIENCE
PROTEINS · CELLS · ANTIBODIES



PeptiGrowth

Elsa Symposium

Embryo models meet genome engineering: A dialog on ethics and innovation

Recent advances in three-dimensional tissue culture and matrix interactions have led to the development of increasingly authentic models of human physiology, enabling researchers to study inherited and acquired diseases. This trend is evident in various somatic organoids, including neuro-organoids, and has also been applied to embryo models, which are now reaching advanced developmental stages. Genome editing tools have been widely used in organoid research to interfere with disease-associated pathways or repair inborn genetic mutations, raising only few ethical concerns. However, when applied to human embryo models, these techniques spark more intense ethical discussions. At this year's conference, we aim to initiate a dialog on these critical issues and are honored to welcome Jacob Hanna, Weizmann Institute of Science, Rehovot, Israel, as our keynote speaker for Wednesday evening. During the ELSA Symposium on Thursday morning, Dr. Hanna will join us to explore the latest advancements in the rapidly growing field of embryo models. We will also examine the emerging concept of human-on-a-chip models, which serve as in vitro avatars for patient-specific studies. This raises fundamental questions about the characteristics that render in vitro models entities with some form of human moral status. While this symposium will not provide comprehensive answers to these complex questions, we expect it to be a thought-provoking starting point for a broader debate on the ethics and implications of embryo modeling and genome engineering.

Social Events

Get-together

On Wednesday, 15 October 2025, from 20:30 – 22:00 h, we invite all participants and exhibitors to a get-together with an evening buffet in the mensa, which is just a 2-minute walk from the conference center. Starting at 22:00 h, buses will be available to transfer to the Garching-Hochbrück subway station (U6 towards Garching and Munich City Center), which is located in the immediate vicinity of most hotels in Garching. Bus departure points can be found on the map on page 10.

The Get-together is supported by
FUJIFILM Wako Chemicals Europe GmbH



Networking Event

The GSCN Networking Event with dinner buffet and DJ is open for all participants and exhibitors and will take place on Thursday, 16 October 2025, 19:00 – 01:00 h at the Gasthof Neuwirt in Garching. From 18:30 h, there will be a bus transfer from the conference center to Gasthof Neuwirt. The departure point for the buses can be found on the map on page 10. After the event, all participants can take the subway (U6) from the Garching subway station which is located directly behind the Gasthof Neuwirt. It is only one station to Garching-Hochbrück.

The Networking Event is supported by
STEMCELL Technologies GmbH



Address:

Gasthof Neuwirt Garching, Münchener Str. 10, 85749 Garching

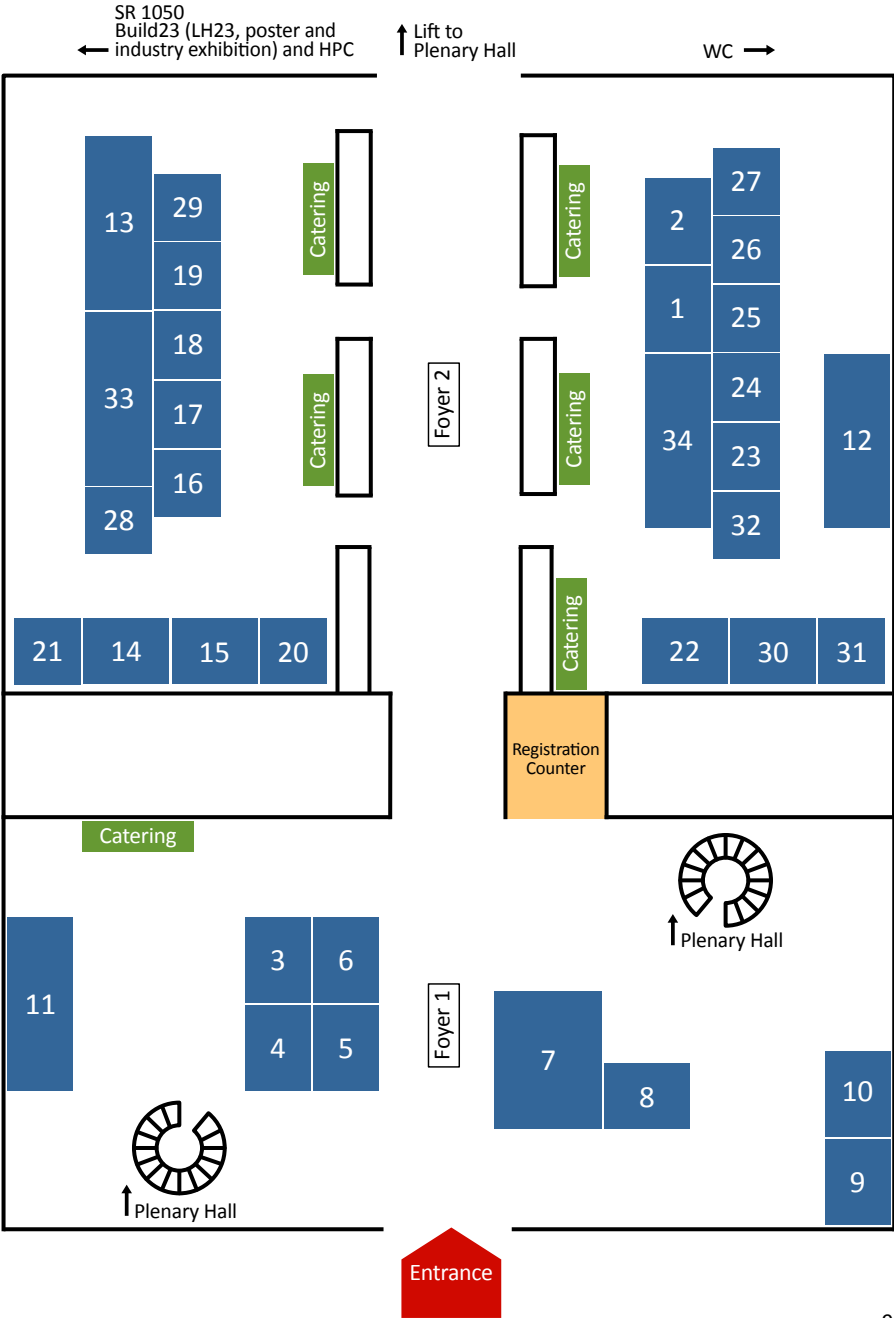


List of exhibitors (grey ones are located in Build23)

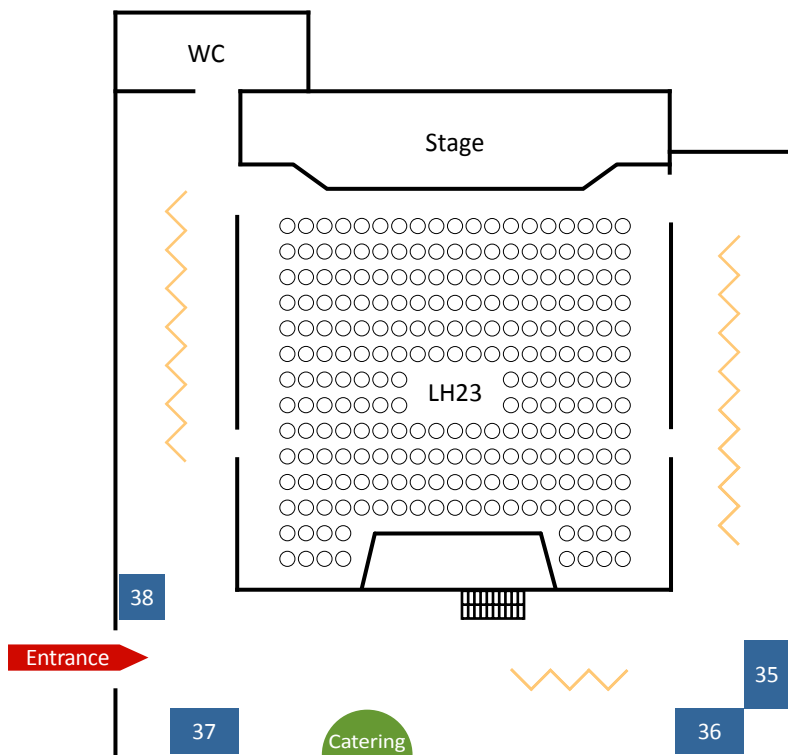
<i>Sorted in alphabetical order</i>		<i>Sorted by booth number</i>	
COMPANY	NUMBER	COMPANY	NUMBER
Active Bioscience and PeptiGrowth*	5	Miltenyi Biotec B.V. & Co. KG*	1
Amsbio*	18	Stem Genomics*	2
Becton Dickinson (BD)*	34	iotaSciences*	3
BioLamina*	14	Eppendorf SE*	4
Biomerieux Deutschland GmbH*	10	Active Bioscience and PeptiGrowth*	5
Biomol GmbH*	17	Sartorius*	6
Bio-Techne GmbH*	36	STEMCELL Technologies GmbH*	7
Biozym Scientific GmbH	25	Evotec*	8
Cellseeker*	20	Minaris*	9
Cenibra GmbH	19	Biomerieux Deutschland GmbH*	10
Eppendorf SE*	4	SYNTEC GmbH	11
Evotec*	8	New England Biolabs	12
faCellitate	24	PELOBiotech GmbH*	13
FUJIFILM Wako Chemicals Europe GmbH*	37	BioLamina*	14
ibidi GmbH	29	Thermo Fisher Scientific*	15
Integrated DNA Technologies*	30	Nippon Genetics Europe*	16
iotaSciences*	3	Biomol GmbH*	17
MACHERY-NAGEL GmbH & Co. KG*	26	Amsbio*	18
MedChemExpress	27	Cenibra GmbH	19
Miltenyi Biotec B.V. & Co. KG*	1	Cellseeker*	20
Minaris*	9	Xceltis GmbH	21
New England Biolabs	12	Qkine*	22
Nippon Genetics Europe*	16	Zymo Research Europe	23
Novogene Europe	32	faCellitate	24
OMNI Life Science GmbH & Co. KG*	35	Biozym Scientific GmbH	25
PELOBiotech GmbH*	13	MACHERY-NAGEL GmbH & Co. KG*	26
Proteintech	33	MedChemExpress	27
Qkine*	22	SARSTEDT AG & Co. KG	28
SARSTEDT AG & Co. KG	28	ibidi GmbH	29
Sartorius*	6	Integrated DNA Technologies*	30
Stem Genomics*	2	Telight	31
STEMCELL Technologies GmbH*	7	Novogene Europe	32
SYNTEC GmbH	11	Proteintech	33
Telight	31	Becton Dickinson (BD)*	34
Thermo Fisher Scientific*	15	OMNI Life Science GmbH & Co. KG*	35
VectorBuilder*	38	Bio-Techne GmbH*	36
Xceltis GmbH	21	FUJIFILM Wako Chemicals Europe GmbH*	37
Zymo Research Europe	23	VectorBuilder*	38

**Partners of the GSCN Quiz. Win one of three Amazon 200 € Gift Vouchers.*

Floor plan industry exhibition



Floor plan Build23 – Poster and industry exhibition



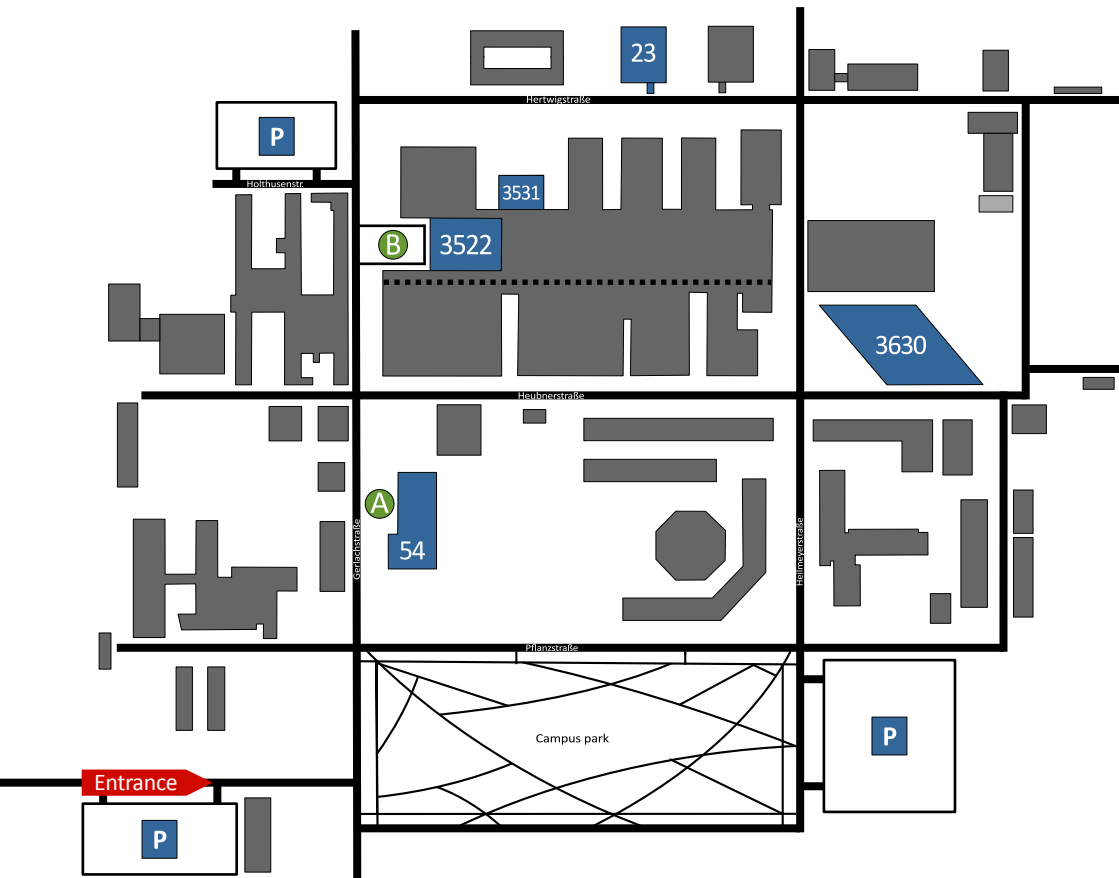
Number

Company

- 35 OMNI Life Science GmbH & Co. KG*
- 36 Bio-Techne GmbH*
- 37 FUJIFILM Wako Chemicals Europe GmbH*
- 38 VectorBuilder*

**Partners of the GSCN Quiz. Win one of three Amazon 200 € Gift Vouchers.*

Helmholtz Munich campus site plan



- 23 Build23 (LH23)
- 54 Mensa
- 3522 Conference Center
- 3531 Seminar room 1050
- 3630 Helmholtz Pioneer Campus (HPC)
- A Bus transfer to the subway station Garching-Hochbrück.
Wed., 15 October, 22:00 h
- B Bus to the networking event,
Thu., 16 October, 18:30 h

Program Overview Wednesday

	Helmholtz Munich Conference Center				
09:00 – 19:00	Registration				
	Plenary Hall	Seminar room 1050	LH23	Seminar room HPC*	Foyer Build23
11:00 – 11:30	Opening				
11:30 – 12:15	Keynote lecture I <i>Viviane Tabar</i>				
12:15 – 13:00	Keynote lecture II <i>Timm Schröder</i>				
13:00 – 14:30	Lunch break (Mensa) / Industry exhibition				
14:30 – 16:00	Concurrent scientific working group session I				
	Stem cells in regenerative therapies	Tissue-derived stem cells & organoids	Stem cells in disease modeling & drug development		
16:00 – 16:30	Break time / Industry exhibition (CC & Build23)				
16:30 – 17:30			GSCN Members Meeting		
17:30 – 18:30					Poster session I even numbers
18:30 – 19:30					Poster session I uneven numbers
19:45 – 20:30	Keynote lecture III (on ELSA topics) <i>Jacob Hanna</i>				
20:30 – 22:00	Informal GSCN get-together with dinner buffet at the Mensa				

*Helmholtz Pioneer Campus

Program Overview Thursday

	Helmholtz Munich Conference Center				
08:00 – 18:00	Registration				
	Plenary Hall	Seminar room 1050	LH23	Seminar room HPC*	HPC* – VIP
09:00 – 10:30	Concurrent scientific working group session II				
	Basic, translational and applied hematopoiesis	TACTIC Symposium on iPSC-based heart Repair	Pluripotency, differentiation & PSC-derived models	Stem cells in disease modeling & drug development II	Elsa Symposium
10:30 – 11:00	Break time / Industry exhibition (CC & Build23)				
11:00 – 12:35	Industry session: "Technologies from GSCN industry partners"				
SR1050 until 12:45 LH23 & HPC until 12:25	Eppendorf SE STEMCELL Technologies GmbH Active Bioscience/PeptiGrowth	Thermo Fischer Scientific Biomerieux DE GmbH Miltenyi Biotec B.V. & Co. KG BioLamina Sartorius	iotaSciences Integrated DNA Technologies Evotec Stem Genomics	Qkine Minaris OLS OMNI Life Science Bio-Technie	
12:30 – 14:00	Lunch break (Mensa) / Industry exhibition				
14:00 – 14:45	Presidential Invite: <i>Wolfram-Hubertus Zimmermann</i>	Presidential Symposium			
14:45 – 15:15	Young Investigator Award: <i>Aydan Bulut-Karslioglu</i>				
15:15 – 15:45	Hilde Mangold Award: <i>Michaela Frye</i>				
15:45 – 16:15	Publication of the Year Award: <i>Moritz Mall, Bryce Lim</i>				
					Foyer Build23
16:15 – 16:30	Break time / Industry exhibition (CC & Build23)				
16:30 – 17:30					Poster session II even numbers
17:30 – 18:30					Poster session II uneven numbers
19:00 – 01:00	GSCN networking event with dinner buffet & DJ at Gasthof Neuwirt, Garching				

*Helmholtz Pioneer Campus

Program Overview Friday

	Helmholtz Munich Conference Center			
08:00 – 16:00	Registration			
	Plenary Hall	Seminar room 1050	LH23	Seminar room HPC*
09:00 – 10:30	Concurrent scientific working group session III			
	Stem cells in aging & disease	DZL/Breath symposium: stem cells in lung research	Pluripotency, differentiation & PSC-derived models II	Computational stem cell biology
10:30 – 11:00	Break time / Industry exhibition (CC & Build23)			
11:00 – 12:30	Concurrent strategic working group session			
	Technologies in stem cell research	Career development	Clinical trials & regulatory affairs	
12:30 – 14:00	Lunch break (Mensa) / Industry exhibition			
14:00 – 14:45	Keynote lecture IV <i>Hongkui Deng</i>			
14:45 – 15:35	Keynote lecture V <i>Maria-Elena Torres-Padilla</i>			
15:35 – 16:00	Poster Award Ceremony and closing remarks			
16:00	END OF CONFERENCE			
	GSCN public outreach event (in German) with panelists at Presseclub München, Marienplatz 22, 80331 München Stammzellforschung bei Diabetes, Alterung und seltenen Erkrankungen. Chancen, Risiken und Perspektiven			

*Helmholtz Pioneer Campus

Public outreach event (in German)

**Stammzellforschung bei Diabetes, Alterung und seltene Erkrankungen.
Chancen und Risiken**

Wann: **Freitag, 17. Oktober 2025, 18:30 – 20:00 Uhr**

Wo: Presseclub München, Marienplatz 22, 80331 München

Programm: 18:30 – 20:00 Uhr: Podiumsdiskussion & Kurz Ime

20:00 – 20:30 Uhr: Ausklang mit Gesprächen & Getränken

Auf dem Podium

Prof. Dr. Anette-Gabriele Ziegler, Helmholtz Munich, Expertin für Diabetes

Prof. Dr. Heiko Lickert, Helmholtz Munich, Experte für Diabetes & Stammzellen

Dr. Ole Pless, Frauenhofer ITMP Hamburg, Experte für Wirkstofftestung und seltene Erkrankungen

Prof. Dr. Hartmut Geiger, Universität Ulm, Experte für Alterung

Moderation: **Dr. Stefanie Seltsmann**, Wissenschaftsjournalistin, Heidelberg

Beschreibung

Haare wachsen ein Leben lang. Wunden heilen wieder. Zellen im Blut erneuern sich alle drei Monate. Verantwortlich für diese Phänomene sind Stammzellen, eine ganz besondere Zellart in unserem Körper: Ein Leben lang können sie sich teilen, vermehren und in alle verschiedenen Körperzellen entwickeln. Wenn bei diesen fundamentalen Vorgängen Fehler passieren, können Krankheiten entstehen. Daher liefert die Erforschung von Stammzellen wichtige Erkenntnisse für die Medizin. Perspektiven für Zelltherapien und Testsysteme entstehen. Unsere Themen:

Wie weit sind Zelltherapien bei Diabetes? Wie früh kann Diabetes überhaupt festgestellt werden?

Stammzellen als Detektiv? Wie findet man das richtige Medikament für eine seltene Erkrankung?

Stammzellen als Jungbrunnen? Alle altern – können Stammzellen beim gesunden Altern helfen?

Bei der Podiumsdiskussion berichten die eingeladenen Wissenschaftler*innen, welche Rolle Stammzellen bei der Erforschung von Diabetes, seltenen Erkrankungen und dem Alterungsprozess spielen. Kurz Ime stellen die Forschung der Wissenschaftler*innen vor. In der Diskussion dreht es sich um Stand und Zukunft der Stammzellforschung sowie neue Behandlungsmöglichkeiten. Im Anschluss an die Veranstaltung sind alle herzlich eingeladen, das Gespräch bei Getränken fortzuführen.

Program Wednesday, 15 October 2025

11:00 - 11:30 Plenary Hall	Opening GSCN Conference 2025
11:00 - 11:15	Welcome Helmholtz Munich <i>Martin Hrabě de Angelis</i> , Research Director Helmholtz Munich
11:15 - 11:30	Opening of GSCN Conference 2025 <i>Heiko Lickert</i> , President GSCN
11:30 - 12:15 Plenary Hall	Keynote lecture I supported by FUJIFILM Wako Chemicals Europe K1 - Advances in cell therapy for Parkinson's disease: Insights from the results of a phase 1 trial and future directions <i>Viviane Tabar</i> , Memorial Sloan Kettering Cancer Center, New York, USA Chair: <i>Magdalena Götz</i>
12:15 - 13:00 Plenary Hall	Keynote lecture II K2 - Long-term single live cell quantification: New tools for old questions <i>Timm Schroeder</i> , Biosystems Science and Engineering (BSEE), ETH Zürich, Basel, Switzerland Chair: <i>Claudia Waskow</i>
13:00 - 14:30 Mensa	Lunch break / Industry exhibition
14:30 - 16:00	Concurrent scientific working group session I
14:30 - 16:00 Plenary Hall	Stem cells in regenerative therapies supported by Eppendorf Chairs: <i>Ulrich Martin & Wolfgang Wagner</i>
14:30 - 15:00	T01 - Therapeutic CAR-T cell products: What can we learn for pluripotent stem cell based products? <i>Ulrike Köhl</i> , Fraunhofer IZI, Leipzig
15:00 - 15:15	T02 - Maximizing gene editing efficiency for enhanced clinical-grade iPSCs via sequential factor delivery <i>Thomas Berger</i> , Catalent, Langenfeld
15:15 - 15:30	T03 - Off the shelf immune-shielded stem cell-derived macrophages for clinical applications <i>Stefanie Pfaender</i> , Evotec, Cell Therapy, Göttingen
15:30 - 15:45	T04 - Prototypical ten-week end-to-end process for autologous Parkinson's disease cell therapy <i>Diana Haberhausen</i> , Mitenyi Biotech, Bergisch Gladbach

- 15:45 - 16:00 T05 - Enhancing stem cell derived beta cell survival in hypoxia and nutrient deprivation with small molecules
Väinö Lithovius, Helmholtz Diabetes Center, Munich
- 14:30 - 16:00 **Tissue-derived stem cells & organoids** supported by Sartorius
SR1050 Chairs: *Sina Bartfeld & Anne Grapin-Botton*
- 14:30 - 15:00 T06 - Mapping the transcriptome and DNA-methylome at the single cell level decodes stemness across the young and injured brain
Ana Martin-Villalba, DKFZ Heidelberg
- 15:00 - 15:15 T07 - Manipulation of global protein translation rates and stem cell self-renewal by CRISPR mediated activation of rRNA transcription
Stefan Stricker, LMU & Helmholtz Munich
- 15:15 - 15:30 T08 - Slit–Robo signaling controls early liver zonation during fetal development
Dominic Grün, Würzburg Institute of Systems Immunology
- 15:30 - 15:45 T09 - Unveiling human cardiac regenerative mechanisms in iPSC-derived epicardioids
Tobias Ellinger, TUM Munich
- 15:45 - 16:00 T10 - Human-specific morphoregulatory signatures in basal radial glia characterize neocortex evolution
Mareike Albert, TU Dresden
- 14:30 - 16:00 **Stem cells in disease modeling & drug development**
LH23 Chairs: *Oliver Brüstle & Harald Stachelscheid* supported by Evotec SE
- 14:30 - 15:00 T11 - Epicardioids: Bridging cardiac development with disease and therapy
Alessandra Moretti, TUM School of Medicine and Health, Munich
- 15:00 - 15:15 T12 - AI-guided protein design of synthetic growth factor mimetics
Thomas Schlichthärle, TUM School of Natural Science, Munich
- 15:15 - 15:30 T13 - Enhanced fibrosis modeling in human skin organoids through hiPSC-derived macrophage integration
Amelie Reigl, Fraunhofer Institute for Silicate Research (ISC), Würzburg
- 15:30 - 15:45 T14 - Heart organoids and engineered heart tissue as hiPSC-derived in vitro models for Fabry cardiomyopathy
Anna Reinelt, University hospital Eppendorf (UKE), Hamburg

15:45 - 16:00	T15 - iPSC-driven drug discovery identifies sildenafil as a drug candidate for the mitochondrial disease Leigh syndrome <i>Annika Zink</i> , University hospital Düsseldorf
16:00 - 16:30 CC & Build23	Break time / Industry exhibition
16:30 - 17:30 LH23	General Member Meeting Executive Board & Managing Director <i>Heiko Lickert, Claudia Waskow, Sina Bartfeld, Michael Cross, Daniel Besser</i> (excused Andreas Trumpp)
17:30 - 19:30 Build23	Poster session I - Poster number P001 - P072 supported by Biomerieux (with beverages) Basic, translational & applied hematopoiesis: P001 - P006 Pluripotency, differentiation & PSC-derived models: P007 - P047 Stem cells in aging & disease (cancer stem cells): P048 - P051 Tissue-derived stem cells & organoids: P052 - P072 Even numbers: 17:30 - 18:30 Odd numbers: 18:30 - 19:30
19:45 - 20:30 Plenary Hall	Keynote lecture III (on ELSA topics) K3 - Synthetic ex utero embryogenesis: From naive pluripotent stem cells to bona fide embryo models <i>Jacob Hanna</i> , Weizmann Institute of Science, Rehovot, Israel Chair: <i>Tobias Cantz</i>
20:30 - 22:00 Mensa	GSCN Get-together for all participants supported by FUJIFILM Wako Chemicals Dinner buffet

Program Thursday, 16 October 2025

09:00 - 10:30	Concurrent scientific working group session II
09:00 - 10:30 Plenary Hall	Basic, translational & applied hematopoiesis supported by Thermo Fisher Chairs: <i>Nina Cabezas-Wallscheid & Michael Milsom</i>
09:00 - 09:30	T16 - Blood stem cell expansion: Technology to biology <i>Adam Wilkinson</i> , Cambridge Stem Cell Institute, UK
09:30 - 09:45	T17 - C57BL/6 Kit-mutant immunodeficient mouse models uncover mechanism of successful hematopoietic stem cell xenotransplantation <i>Julia Fröbel</i> , Leibniz Institute on Aging – FLI, Jena
09:45 - 10:00 Plenary Hall	T18 - From codons to blood: A new perspective on hematopoietic differentiation <i>Marius Külp</i> , Goethe University, Frankfurt

- 10:00 - 10:15 T19 - Multimodal omics identify an age resilient multipotent progenitor population that preserves youthful identity and function in the hematopoietic system
Mari Carmen Romero-Mulero, ETH Zurich, CH
- 10:15 - 10:30 T20 - Development of accessible ex vivo culture models of the human hematopoietic bone marrow niche
Sigrid Uxa, University Leipzig
- 09:00 - 10:30 SR1050 **TACTIC symposium on iPSC-based heart repair**
BMBF-funded project "Tailored Application for individualized Cell Therapy with iPSC-derived Cardiomyocytes (TACTiC)"
Chairs: *Ulrich Martin & Robert Zweigerdt*
- 09:00 - 09:30 T21 - Deep immune-phenotyping of HLA-homozygous iPSC-cardiomyocytes
Dirk Strunk, PMU Salzburg, Austria
- 09:30 - 10:00 T22 - Biological-engineering and application of a myocardial patch
Joost Sluijter, UMC Utrecht, The Netherlands
- 10:00 - 10:15 T23 - Large-scale production of human pluripotent stem cell-derived cardiomyocytes
Kevin Cyrus, MH Hanover
- 10:15 - 10:30 T24 - Automated myocardial cell injection
Raphael Mönkemöller, LU Hanover
- 09:00 - 10:30 LH23 **Pluripotency, differentiation & PSC-derived models**
Chairs: *Mina Gouti & Hans Schöler*
- 09:00 - 09:30 T25 - Developing a safe and immune-evasive stem cell source for off-the-shelf therapeutic products
Andras Nagy, Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, Toronto, Canada
- 09:30 - 09:45 T26 - Lineage single-cell multi-omics identify novel regulators and barriers in iPSC reprogramming
Angeliki Spathopoulou, University of Innsbruck, Austria
- 09:45 - 10:00 T27 - You shall not pass - functional pluripotency testing using hiPSCore
Jochen Dogner, Leibniz-Institut für umweltmedizinische Forschung (IUF) Düsseldorf
- 10:00 - 10:15 T28 - PluripotencyScreen – quantification of early cell fate decisions of iPSC based on DNA methylation
Kira Zeevaert, UK RWTH Aachen
- 10:15 - 10:30 T29 - Does gene dosage influence cell fate during human gastrulation?
Theresa Gross-Thebing, Gurdon Institute, Cambridge, UK

09:00 - 10:30 HPC	Stem cells in disease modeling & drug development II Chairs: <i>Jan Eickhoff & Karl-Ludwig Laugwitz</i> supported by Bio-Techne
09:00 - 09:30	T30 - Modulating reactive astrocytes in Alzheimer's disease <i>Bastian Zimmer, Evotec SE, Hamburg</i>
09:30 - 09:45	T31 - Evaluating the potential of Bruton's tyrosine kinase inhibitors to modulate microglial inflammation to attenuate multiple sclerosis progression <i>Alica Blenkle, Fraunhofer ITMP, Göttingen</i>
09:45 - 10:00	T32 - A reproducible human brain tissue model to study physiological and disease-associated microglia phenotypes <i>Dominik Paquet, LMU Munich</i>
10:00 - 10:15	T33 - Integration of CNTNAP2-deficient neurons into defined E/I networks unmasks functional pathophenotypes <i>Jasmin Aicher, University of Bonn</i>
10:15 - 10:30	T34 - Capturing disease severity in LIS1-lissencephaly reveals proteostasis dysregulation in patient-derived forebrain organoids <i>Matteo Gasparotto, ZI Mannheim</i>
09:00 - 10:30 HPC-VIP	ELSA symposium Panel: <i>Jacob Hanna and Maria-Elena Torres-Padilla</i> Moderation: <i>Tobias Cantz</i>
10:30 - 11:00 CC & Build23	Break time / Industry exhibition supported by Minaris
11:00 - 12:45	Industry session: "Technologies from GSCN industry partners"
11:00 - 12:35 Plenary Hall	Main Supporter Chairs: <i>Magdalena Götz & Hartmut Geiger</i>
11:05 - 11:30	C01 - Tackling leachables in stem cell bioprocessing: Ensuring safety and scalability in single-use systems for clinical studies <i>Philipp Nold, Eppendorf SE</i>
11:30 - 12:10	C02 - Advance your research with genetically diverse human induced pluripotent stem cell-derived models and a novel mRNA-lipid nanoparticle platform to rapidly generate functional forebrain neurons <i>Katharina Debowski, STEMCELL Technologies GmbH</i>
12:10 - 12:35	C03 - Forging the future of regenerative medicine with synthetic peptide growth factors <i>Robert Brownlee, Opes Diagnostics</i>
11:00 - 12:45 SR1050	Supporter II Chairs: <i>Hannes Klump & Ana Martin-Villalba</i>

- 11:05 - 11:25 C04 - Approaches for optimizing pluripotent stem cell spheroid expansion in multi-liter bioreactors through the use of constant medium perfusion
David Kuninger, Thermo Fisher Scientific
- 11:25 - 11:45 C05 - The world's fastest PCR-based mycoplasma detection assay
Sabine Hahnau-Jurth, Biomerieux Deutschland GmbH
- 11:45 - 12:05 C06 - Enabling reliable PSC culture for advanced research applications
Hannah Johannsen, Miltenyi Biotech B.V. & Co. KG
- 12:05 - 12:25 C07 - The role of full-length laminins in enhancing in vitro cellular microenvironments
Chiara Annunziata, BioLamina
- 12:25 - 12:45 C08 - Live-cell 3D cell imaging innovations
Marco Benkisser-Petersen, Sartorius
- 11:00 - 12:25 **Supporter III**
LH23
Chairs: *Thomas Braun & Andreas Kurtz*
- 11:05 - 11:25 C09 - Recent advancements in gentle single-cell handling: The iotaSciences way
Matthias Hoja, iotaSciences
- 11:25 - 11:45 C10 - Alt-R™ CRISPR capabilities to accelerate your next breakthrough
Katarzyna Julia Duda, Integrated DNA Technologies
- 11:45 - 12:05 C11 - Cell therapy at Evotec – end-to-end from process development to clinical manufacturing
Matthias Austen, Evotec
- 12:05 - 12:25 C12 - What we've discovered: Opening Pandora's box of genomic mutations using NGS technology
Reda Zenagui, Stem Genomics
- 11:00 - 12:30 **Supporter IV**
HPC
Chairs: *Thomas Schwarz-Rommond & Zoltan Ivics*
- 11:05 - 11:25 C13 - Commercial media formulations vs chemically defined home-brewed media for iPSC maintenance
Liz Stewart, Qkine
- 11:25 - 11:45 C14 - A global vision for cell and gene therapies
Karin Abitorabi, Minaris
- 11:45 - 12:05 C15 - Reliable 3D cell models – high-yield cultivation meets precision sorting
Markus Uhrig, OLS OMNI Life Science

12:05 - 12:25	C16 - Enhancing reproducibility in stem cell and organoid research: Strategies for consistent culture and characterization <i>Volker Arps, Bio-Techne</i>	
12:30 - 14:00 Mensa	Lunch break / Industry exhibition	supported by IDT Germany GmbH
14:00 - 16:15 Plenary Hall	Presidential Symposium Chair: <i>Heiko Lickert & Claudia Waskow</i>	
14:00 - 14:45	Presidential Invite PS1 - Translation of tissue engineered heart repair <i>Wolfram-Hubertus Zimmermann, University Hospital Göttingen</i>	
14:45 - 15:15	GSCN 2025 Young Investigator Award PS2 - Molecular regulation of mammalian dormancy <i>Aydan Bulut-Karslioğlu, Max Planck Institute of Molecular Genetics, Berlin</i>	
15:15 - 15:45	GSCN 2025 Hilde Mangold Award PS3 - Harnessing RNA Modifications for Cancer Therapies <i>Michaela Frye, DKFZ, Heidelberg</i>	
15:45 - 16:15	GSCN Publication of the Year 2024 - 2025 Award PS4 - The role of safeguard repressors in cancer <i>Bryce Lim, Moritz Mall, DKFZ, Heidelberg</i>	
16:15 - 16:30 CC & Build23	Break time / Industry exhibition	supported by Biolamina
16:30 - 18:30 Build23	Poster session II - Poster number P073 - P144 (with beverages) Computational stem cell biology: P073 - P081 Stem cells in disease modeling & drug dev.: P082 - P124 Stem cells in regenerative therapies: P125 - P144 Even numbers: 16:30 - 17:30 Odd numbers: 17:30 - 18:30	supported by Miltenyi
19:00 - 01:00	GSCN networking event for all participants The entrance fee is collected on site Event location: Gasthof Neuwirt, Garching Münchener Str.10 85748 Garching	supported by STEMCELL Technologies

Program Friday, 17 October 2025

- 09:00 - 10:30 **Concurrent scientific working group session III**
- 09:00 - 10:30 **Stem cells in aging & disease**
Plenary Hall Chairs: *Hartmut Geiger & Simon Haas*
- 09:00 - 09:30 T35 - Tracing clonal architecture and differentiation trajectories in cancer using single cell barcoding
Michael Rieger, Goethe University Frankfurt
- 09:30 - 09:45 T36 - Role of aging and environmental stress in the decline of lung stem cell function and regenerative capacity
Maja Funk, Helmholtz Munich
- 09:45 - 10:00 T37 - Investigating aging and telomere biology in lung disease using induced pluripotent stem cell derived models
Mari Ozaki, Royal College of Surgeons (RCSI), Dublin, Ireland
- 10:00 - 10:15 T38 - High fat diet affects the stromal niche signaling in the porcine intestine
Falk Farkas, Helmholtz Munich
- 10:15 - 10:30 T39 - TET2-mutant clonal hematopoiesis drives inflammation-associated hepatocarcinogenesis in a murine NAFLD model
Sena Alptekin, DKFZ/HI-STEM Heidelberg
- 09:00 - 10:30 **DZL/Breath symposium: Stem cells in lung research**
SR1050 Chair: *Ulrich Martin & Ruth Olmer*
- 09:00 - 09:30 T40 - Modelling type 2 alveolar epithelial cell biology and disease using patient-derived iPSC
Killian Hurley, RCSI, Ireland
- 09:30 - 09:45 T41 - Sotatercept as a novel therapy for pulmonary arterial hypertension: Attenuation of fibrosis and contractility in iPSC-derived smooth muscle cells
Aileen Schmidt, MH Hannover
- 09:45 - 10:00 T42 - The lung microvasculature promotes alveolar type 2 cell differentiation via secreted SPARCL1
Paolo Panza, UKGM, Gießen
- 10:00 - 10:15 T43 - Differentiation of airway epithelial basal cells into organotypic mucociliary tissues
Janna Nawroth, TU Munich
- 10:15 - 10:30 T44 - From injury to insight: Aberrant basaloid cells and the fortuitous discovery of a regeneration-associated cell state
Jonas Schupp, MH Hannover

09:00 - 10:30
LH23

Pluripotency, differentiation & PSC-derived models II

Chairs: *Micha Drukker & Ralf Jauch*

supported by OMNI Life Science

09:00 - 09:15

T45 - Wnt/Planar cell polarity signaling orchestrates ciliogenesis and cell-cycle exit during endocrine lineage commitment
Tobias Greisle, Helmholtz Munich

09:15 - 09:30

T46 - Single-cell multiome uncovers differences in glycogen metabolism underlying species-specific speed of development
Christian Schröter, Leiden Academic Center, NL

09:30 - 09:45

T47 - NSD1 governs H3K36me2-mediated DNA methylation and drives differentiation of human iPSCs by regulating 'HIDEN' lncRNA expression
Deepika Puri, UK Aachen

09:45 - 10:00

T48 - Patient-specific gene correction in LMNA-linked cardiomyopathy using 3D hiPSC-derived heart-tissues and native myocardial slices
Eleonore Baier, TUM Munich

10:00 - 10:15

T49 - 3D transcriptomic reconstruction highlights human heart-forming organoid development as a model of early organogenesis
Liam Wilson, MH Hannover

09:00 - 10:30
HPC

Computational stem cell biology

Chairs: *Ingmar Glauche & Carsten Marr*

09:00 - 09:30

T50 - Digital reprogramming decodes epigenetic barriers of cell fate changes
Eva Hörmanseder, Helmholtz Munich

09:30 - 09:45

T51 - Reinforcement learning for relapse prediction from sparse measurements in exponentially progressing disease
Arina Shelashen, TU Dresden

09:45 - 10:00

T52 - Uncovering transcriptional drivers of cell identity with generative modeling and high-throughput reprogramming
Mariia Minaeva, Helmholtz Munich

10:00 - 10:15

T53 - High resolution spatio-temporal mapping reveals differentiation niches in mammalian cardiac repair
Andy Shing-Fung Chan, Würzburg Institute of Systems Immunology

10:15 - 10:30

T54 - Napari-organoid-counter: An open-source tool for high-throughput organoid detection in brightfield microscopy
Christina Bukas, Helmholtz Munich

10:30 - 11:00
CC & Build23

Break time / Industry exhibition

supported by Qkine

11:00 - 12:30

Concurrent strategic working group session

11:00 - 12:30
Plenary Hall

Technologies in stem cell research
Chairs: *Sebastian Diecke & Ole Pless*

supported by IotaSciences

11:05 - 11:25

S1 - Reproducible brain organoids for disease phenotyping and screening
Jakob Metzger, Max Delbrück Center, Berlin

11:25 - 11:45

S2 - High-content phenotypic profiling reveals subpopulation-specific modulation of human microglia by inflammasome-targeting compounds
Johannes Wilbertz, Ksilink, Strasbourg, France

11:45 - 12:05

S3 - Bioreactor-based innate immunocompetent hiPSC-derived neurospheroids as preclinical models for advanced therapy development
Catarina Brito, iBet, Qeiras, Portugal

12:05 - 12:25

S4 - BMP, MEK and WNT inhibition: A novel dSMAD-independent paradigm for rapid generation of hiPSC-derived neurons amenable to regional patterning
Peter Reinhardt, Abbvie, Ludwigshafen

11:00 - 12:30
SR1050

Career development
Chairs: *Marieke Essers & Karin Hoehne*

S5 - Stay calm and clear: Communication strategies for difficult situations
Nele Haasen, konteam, Munich

11:00 - 12:30
LH23

Clinical trials & regulatory affairs
Chairs: *Andreas Kurtz & Torsten Tonn*

11:00 - 11:30

S6 - iPSC banks for clinical use: Regulatory and ethical challenges and solutions from the perspective of EU COST Action HAPLOiPS and the Norwegian iPSC Biobank for Clinical Applications (NIBCA)
Joel C. Glover, Norwegian Center for Stem Cell Research, Oslo, Norway

11:30 - 12:00

S7 - tba
Joannis Mytilineos, German National Bone Marrow Donor Registry (ZKRD), Ulm

12:00 - 12:30

S8 - Applying haplo-selected hiPSC lines and safety switches: Significant steps towards safer, 'off-the-shelf' iPSC-based ATMPs
Gerald G. Schumann, Paul-Ehrlich-Institut, Langen

12:30 - 14:00
Mensa

Lunch break / Industry exhibition

supported by Stem Genomics

14:00 - 14:45
Plenary Hall

Keynote lecture IV
K4 - From bench to bedside: Chemical reprogramming and the future of regenerative medicine
Hongkui Deng, Peking University (PKU), Beijing, China
Chair: *tba*

14:45 - 15:35
Plenary Hall

Keynote lecture V

K5 - Epigenetic mechanisms of cellular plasticity
Maria Elena Torres-Padilla, Helmholtz Munich
Chair: *Ana Martin-Villalba*

15:35 - 15:50
Plenary Hall

Award ceremony

Daniel Besser

Poster awards

Travel awards

supported by Active Bioscience (AB) / PeptiGrowth (PG)

15:50 - 16:00
Plenary Hall

Closing remarks by the GSCN president

Heiko Lickert

END OF GSCN CONFERENCE 2025

Building Partnerships in Science

FUJIFILM Wako is dedicated to advancing public health and safety through world-class reagents and support for bacterial endotoxin detection. By combining this expertise with access to JCRB's comprehensive collection of over 1,600 human and animal cell lines, we empower researchers worldwide to perform reliable research that drive scientific innovation.

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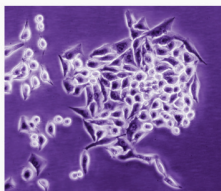
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