



Annual Conference of the  
German Society for Biological  
Radiation Research 2025

## From Basic Science to Clinical Applications

Scientific Program



Horst Zitzelsberger  
Anna Friedl  
Kirsten Lauber

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## Monday, September 29<sup>th</sup> 2025

|       |       |              |
|-------|-------|--------------|
| 08:30 | 12:45 | Registration |
|-------|-------|--------------|

### DeGBS Young Investigators' Session

Replace, Reduce, Refine – Innovative Strategies for Translational Radiation Research

**Chairs:** Lisa Deloch, Johann Matschke

|       |       |                                                                                                                                                                                                  |
|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00 | 10:30 | <b>Invited Talk E-O1: Modelling resistance to therapy using an oral cancer organoid biobank</b><br>Kai Kretschmar, University Hospital Würzburg                                                  |
| 10:30 | 11:00 | <b>Invited Talk E-O2: The use of the CAM model to access tumor heterogeneity</b><br>Regine Schneider-Stock, University Hospital Erlangen                                                         |
| 11:00 | 11:30 | <b>Invited Talk E-O3: Advancing preclinical radiotherapy research using 3D bioprinted lung cancer models and experimental irradiation platforms</b><br>Jens Kurreck, Technical University Berlin |
| 11:30 | 12:00 | Networking and Exchange                                                                                                                                                                          |
| 12:00 | 12:45 | Lunch Break                                                                                                                                                                                      |

### Opening Ceremony and Welcome Address

|       |       |                                                                            |
|-------|-------|----------------------------------------------------------------------------|
| 12:45 | 12:55 | Horst Zitzelsberger, Anna Friedl, and Kirsten Lauber, Organizing Committee |
| 12:55 | 13:05 | Udo Gaigl, President of the DeGBS                                          |
| 13:05 | 13:15 | Julia Mayerle, Vice Dean of the Medical Faculty of the LMU München         |

### Session A: Fundamental Mechanisms of Cellular Responses to Radiation

DNA damage response and Cell fate decisions

**Chairs:** Ulrike Theiß and Roman Hennel

|       |       |                                                                                                                                                                                                                        |
|-------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:15 | 13:45 | <b>Keynote A-K1: Mitochondria at the hub of cell death and immunity in irradiated cancer cells</b><br>Lorenzo Galluzzi, Fox Chase Cancer Center, Philadelphia, USA                                                     |
| 13:45 | 15:00 | <b>Proffered Papers Session A</b>                                                                                                                                                                                      |
| 13:45 | 13:55 | Sponsor Spotlight: OncoMed-Solutions                                                                                                                                                                                   |
| 13:55 | 14:10 | <b>A-O1: Multi-modal computational analyses reveal motifs of interferon signaling and DNA repair as hallmarks of the radiation response in HNSCC</b><br>Rosario Astaburuaga-Garcia, Charité University Medicine Berlin |
| 14:10 | 14:25 | <b>A-O2: Inhibition of polymerase theta overcomes replication-associated radioresistance in triple-negative breast cancer cell lines</b><br>Marie Vogt, University Hospital Hamburg Eppendorf                          |
| 14:25 | 14:40 | <b>A-O3: Analysis of radiation-induced senescence in vitro</b><br>Katharina Gehr, LMU University Hospital München                                                                                                      |
| 14:40 | 14:55 | <b>A-O4: Inhibition of PARP results in highly effective radiosensitization of paediatric brain tumors without affecting normal tissue</b><br>Nele Koeppen, University Hospital Hamburg Eppendorf                       |
| 15:00 | 17:00 | <b>Posters and Coffee Session A, in parallel: Meet and Greet Physics</b>                                                                                                                                               |

### Special Topic: Scientific publishing

**Chairs:** Horst Zitzelsberger and Kirsten Lauber

|       |       |                                                                                                                    |
|-------|-------|--------------------------------------------------------------------------------------------------------------------|
| 17:00 | 17:30 | <b>Scientific Publishing: Insights from an Editor-in-Chief</b><br>Seamus Martin, Editor-in-Chief, The FEBS Journal |
|-------|-------|--------------------------------------------------------------------------------------------------------------------|

### DeGBS Awards Ceremony

**Chairs:** Udo Gaigl and Kirsten Lauber

|       |       |                                                                |
|-------|-------|----------------------------------------------------------------|
| 17:30 | 18:30 | Ulrich-Hagen Award, Best-Paper-of-the-Year Award               |
| 19:00 | 20:30 | Dinner, followed by an optional stroll through the Oktoberfest |

## Tuesday, September 30<sup>th</sup> 2025

|                                                                                                                                                                                               |       |                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08:25                                                                                                                                                                                         | 08:30 | Opening day 2                                                                                                                                                                                      |
| <b>Session B: Signaling &amp; Adaptive Mechanisms in Cellular Responses to Radiation</b><br>Signal transduction, Epigenetics, Different radiation qualities, Temporal & spatial fractionation |       |                                                                                                                                                                                                    |
| Chairs: Nina Struve and Benjamin Frey                                                                                                                                                         |       |                                                                                                                                                                                                    |
| 08:30                                                                                                                                                                                         | 09:00 | <b>Keynote B-K1: Experimental data from FLASH - Which factors matter</b><br>Brita Singers Sørensen, Aarhus University Hospital, Denmark                                                            |
| 09:00                                                                                                                                                                                         | 10:15 | <b>Proffered Papers Session B</b>                                                                                                                                                                  |
| 09:00                                                                                                                                                                                         | 09:10 | Sponsor Spotlight: X-Strahl                                                                                                                                                                        |
| 09:10                                                                                                                                                                                         | 09:25 | <b>B-O1: Hypofractionated particle therapy improves tumor control and preserves healthy tissue in brain tumor organoids</b><br>Tamara Bender, GSI Darmstadt                                        |
| 09:25                                                                                                                                                                                         | 09:40 | <b>B-O2: Spatial astrocyte distribution in mice after partial-brain proton irradiation</b><br>Robin Hegering, Technical University Dortmund                                                        |
| 09:40                                                                                                                                                                                         | 09:55 | <b>B-O3: Damage-specific p21 response to radiation and toxin exposure</b><br>Christian Mielke, University Hospital Düsseldorf                                                                      |
| 09:55                                                                                                                                                                                         | 10:10 | <b>B-O4: Six-month evaluation of normal mouse brain side effects: Comparing FLASH and conventional irradiation</b><br>Elke Beyreuther, Helmholtz Center Dresden-Rossendorf                         |
| 10:15                                                                                                                                                                                         | 12:15 | <b>Posters and Coffee Session B, in parallel: Meet and Greet Medicine</b>                                                                                                                          |
| 12:15                                                                                                                                                                                         | 13:15 | <b>Lunch Break</b>                                                                                                                                                                                 |
| <b>Session C: Cell-extrinsic &amp; Systemic Factors Modulating Cellular Responses to Radiation</b><br>Cell-to-cell interactions, Microenvironment, Immune system                              |       |                                                                                                                                                                                                    |
| Chairs: Thomas Friedrich and Michael Rückert                                                                                                                                                  |       |                                                                                                                                                                                                    |
| 13:15                                                                                                                                                                                         | 13:45 | <b>Keynote C-K1: PRiSM – Personalized Radiotherapy with integrated Scientific Modeling</b><br>Heiko Enderling, MD Anderson Cancer Center, Houston, USA                                             |
| 13:45                                                                                                                                                                                         | 15:00 | <b>Proffered Papers Session C</b>                                                                                                                                                                  |
| 13:45                                                                                                                                                                                         | 13:55 | Sponsor Spotlight: SmART Scientific Solutions                                                                                                                                                      |
| 13:55                                                                                                                                                                                         | 14:10 | <b>C-O1: Influence of HPV Status in HNSCC cells on the polarisation of tumor-associated fibroblasts</b><br>Elia Heid, University Medicine, Goethe University Frankfurt/Main                        |
| 14:10                                                                                                                                                                                         | 14:25 | <b>C-O2: Modulation of T cell activation in HNSCC through combined DNA damage response inhibition, radiotherapy, and PD-1/PD-L1 axis inhibition</b><br>Anna Gottwald, University Hospital Erlangen |
| 14:25                                                                                                                                                                                         | 14:40 | <b>C-O3: Effect of <sup>12</sup>C-ion irradiation in combination with PD-L1 inhibitors in lung tumor cells and tissue</b><br>Naomi Metten, Philipps-University Marburg                             |
| 14:40                                                                                                                                                                                         | 14:55 | <b>C-O4: Comparative Study of immune cell composition and recovery in a pneumonitis mouse model of radiation-induced lung injury</b><br>Mario Hetzel, University Hospital Essen                    |
| 15:00                                                                                                                                                                                         | 17:00 | <b>Posters and Coffee Session C, in parallel: Meet and Greet Biology</b>                                                                                                                           |
| 17:00                                                                                                                                                                                         | 18:00 | <b>DeGBS General Assembly</b><br>Members only please                                                                                                                                               |
| 19:00                                                                                                                                                                                         | 00:00 | <b>Social Evening in Biergarten Waldheim</b>                                                                                                                                                       |

## Wednesday, Oct 1<sup>st</sup> 2025

08:25 | 08:30 | Opening day 3

### Session D: Innovative approaches in radiotherapy, Joint session DEGRO/ DeGBS

Personalized & Combined modality treatment approaches, Predictive & Prognostic markers

Chairs: Elena Sperk and Julia Heß

08:30 | 09:00 | **Keynote D-K1: Tumor-to-draining lymph node communication is highly relevant for successful radioimmunotherapy**  
Martin Pruschy, University Hospital Zurich, Switzerland

09:00 | 10:45 | **Posters and Coffee Session D, in parallel: Meet and Greet 3R & Green Lab**

10:45 | 11:45 | **Proffered Papers Session D**

10:45 | 11:00 | **D-O1: Adding the PPAR $\alpha$  agonist enhances T cell-mediated effects of RT in combination with anti-PD-1**  
Meidan Wang, University of Freiburg

11:00 | 11:15 | **D-O2: PD-L1/PD1 Expression patterns define distinct tumor immune microenvironment subgroups in HNSCC in association with chemoradiation response**  
Benedek Dankó, LMU University Hospital München

11:15 | 11:30 | **D-O3: Defining predictive immune markers by immune monitoring and machine learning from the blood of HNSCC patients in the prospective DIREKHT trial**  
Anna-Jasmina Donaubauer, University Hospital Erlangen

11:30 | 11:45 | **D-O4: Intraoperative radiotherapy (IORT) induces local and systemic immune effects in breast cancer patients**  
Nikko Brix, LMU University Hospital München

11:45 | 12:15 | **Awards Ceremony and Farewell**

Chairs: Horst Zitzelsberger, Anna Friedl, and Kirsten Lauber

Best Poster Awards, Best Presentation Award, and Welcome to jDeGBS 2026

12:15 | 13:00 | **Lunch and End of the DeGBS Annual Conference 2025**

WiFi Access: Pegasus Direct  
Password: 20Eom-Peg@25



Stay tuned for the Satellite Symposium starting at 13:30...

