

26. Gravimeeting

Veranstaltung am 30.09. – 02.10.2026

Biologiezentrum, Staudtstr. 5, Erlangen

Programm

Mittwoch, 30. September 2026

- 14:00-14:05 Begrüßung: Michael Lebert (U Erlangen) & Markus Braun (DLR RFA)
- 14:05-14:35 Markus Braun (DLR RFA) Status und Perspektiven des Deutschen Biowissenschaftlichen Raumfahrtprogramms
- 14:35-15:05 Christiane Hahn (ESA HRE) Das European Exploration Envelope Programme in Periode 4
- 15:05-15:25 Kathrin Schoppmann (DLR Moraba) How to jump on a sounding rocket – new concepts for experiment accommodation
- 15:25-15:45 Andreas Schütte (Airbus Bremen) Schwerelos nach 2030: Wie der Science Park NRW Bodenlabore und Orbitallabore von Starlab & Co. vernetzt
- 15:45-16:10 KAFFEPAUSE / Diskussion**
- 16:10-16:30 Jürgen Kempf (OHB) HOBI-WAN: Demonstrating Gas Fermentation for Protein Production in Microgravity
- 16:30-16:50 Christian Liemersdorf (DLR ME) Simulate to Succeed – Vorbereitung von Weltraumexperimenten in Ground-Based Facilities & das DLR MAPHEUS Sounding Rocket Programm
- 16:50-17:10 Maximilian Brüdern (Univ. Kiel) Dosismessungen im Columbus Labor auf der ISS mit dem Kieler DOSTEL
- 17:10-17:30 Stefan Leuko (DLR ME) Lux-in-Space & Touching Surfaces

Donnerstag, 1. Oktober 2026

- 09:00-09:20 *Warm Up bei Kaffee und Tee*
- 09:20-09:40 Francesco Pampaloni (Univ. Frankfurt) SHAPE (Spheroid Aggregation and Viability in Space) and HBMM (Human Bone Marrow Model): Key Results and Future Directions
- 09:40-10:00 Jonas Reif (Uni Konstanz) Physical Performance and biological age in ISS crew members
- 10:00-10:20 Jörg Höhfeld (Univ. Bonn) Funktion und Regulation des BAG3-Muskelerhaltungssystems – von Krastraining bis Schwerelosigkeit
- 10:20-10:40 Peter Richter (Univ. Erlangen) CRISPR/Cas9-based approaches to unravel the signal transduction pathway of *Euglena gracilis*

10:40-11:10

KAFFEPAUSE

11:10-11:30

Johannes Windisch (TU Dresden) Establishing and Adapting Model Systems for 3D Bioprinting in Space

11:30-11:50

Bianca Lemke (Charité Berlin) 3D SpacePatchNG

11:50-12:10

David Sipos (TU Darmstadt) Droplet-Based 3D Bioprinting in Microgravity: From Simulation to Parabolic Flight Experiments

12:10-12:30

Matthias Ostermeier & Dominique Moser (Uniklinikum München) Interaktion von Mikroalgen mit menschlichem Gewebe in Hinblick auf medizinische Anwendungen unter Mikrogravitation

12:30-14:00

MITTAGSPAUSE

14:00-14:20

Gaia Ziraldo (Charité Berlin) NEMUCO: Report from ESA-Biomiission Spaceflight Experiment

14:20-14:40

Rouhollah Habibey (Uniklinik Bonn) Electrophysiological Responses of Vascularized Retinal Organoids to Microgravity and Hypergravity During Suborbital Flight

14:40-15:00

Maik Böhmer (Univ. Frankfurt) Tracking Gravity-Induced Calcium Dynamics with CaMPARI: From Centrifuges and Parabolic Flights to the ISS

15:00-15:20

Sherif El Sheikh (TH Köln) K+X: Pro-neuroplastic and neuroprotective Effects of Ketamine Derivatives and Synergists under Earth and Space conditions

15:20-15:40

Insa Schröder (GSI Darmstadt) Cerebral organoid alterations in real microgravity - lessons learned from sounding rocket missions

15:40 - 16:00

KAFFEPAUSE

16:00-16:20

Anna-Maria Liphardt (Univ. Erlangen) Cartilage metabolism in space analogues

16:20-16:40

Maria Moreno (Univ. Konstanz) The effect of confinement on DNA damage response

16:40-17:00

Marcus Krüger (Univ. Magdeburg) G-FORCE: Chemotherapie und Mikrogravitation

17:00-17:20

Andreas Elsässer (Freie Univ. Berlin) Die ISS-Experimente OREOcube und Exocube: In-situ-Spektroskopie und Mikrofluidik zur Untersuchung chemischer und biologischer Prozesse unter Weltraumbedingungen

19:00

Möglichkeit zum gem. Dinner

Freitag, 2. Oktober 2026

Workshop DLR CELLBOX-Programm

09:00-09:20	<i>Warm Up bei Kaffee und Tee</i>
09:20-09:40	<u>Michael Becker</u> (DLR RFA) Einführung CELLBOX Programm
09:40-10:00	<u>Smit Patel</u> (Yuri, Meckenbeuren) CELLBOX Mission Support
10:00-10:20	<u>Francesco Pampaloni</u> (Univ. Frankfurt) COSMOS: differentiation of endocrine organoids under microgravity – technical and scientific update
10:20-10:40	<u>Gabor Trautmann</u> (Charité Berlin) NEMUCO auf CellBox3 und BiMU: Bioprinting of Muscle and Nerve Cells for Gravitation Physiology
10:40-11:00	<u>Markus Wehland</u> (Univ. Magdeburg) Das PRECISE Projekt
11:00 - 11:30	<i>KAFFEEPAUSE</i>
11:30-11:45	<u>Volker Busskamp</u> (Univ. Bonn) Investigation of human neuromuscular junctions under prolonged microgravity conditions (CB-4)
11:45-12:00	<u>Maik Böhmer</u> (Univ. Frankfurt) CaMPARI ON CELLBOX: Calcium signaling in neurons in response to changes in gravity after short- and long-term adaptation in space (CB-4)
12:00-12:15	<u>Leonie Hartig</u> (GSI Darmstadt) Human hippocampal organoids as a model to better understand and counteract effects of space environment in LEO (CB-4)
12:15-12:30	<u>Fiona Hiereth</u> (Univ. Konstanz) The role of IL-6 in the interplay between DNA repair, immune response and energy metabolism under space conditions (CB-4)
12:30-12:45	<u>David Sipos</u> (Univ. Darmstadt) cOSmicStrain: Investigating Mechanical Stimulation to Support Bone Regeneration in Microgravity (CB-5)
12:45-13:00	<u>Claudia Müller</u> (TU Dresden) ILLUMINATE: Influence of microgravity and cosmic rays on mouse tissue functionality through modifications of extracellular matrix, transcriptome and chromatin accessibility (CB-5)
13:00-13:15	A.O.B. (ESA Themen, AOs, Termin Gravimeeting 2027); Botschaften aus der Raumfahrtagentur: Zwischenberichte, Publikationen
13:15	<i>Ende Gravimeeting 2026</i>