Berlin University Alliance

**Monday, April 28, 2025**

**Technische Universität Berlin**
**Straße des 17. Juni 135, 10623 Berlin-Charlottenburg**
**Hauptgebäude, Room H 3005**

**BUA ACEM Core Facility Day 2025:**

# *The Diversity of Scientific Challenges tackled by Advanced Electron Microscopy Methods*

## Program

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| 14:00 | **Welcome and Introduction**<br>Prof. Michael Lehmann, TU Berlin |

## Projects from Seed Funding Call by Early Career Researchers

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| 14:10 | **Cell unroofing for in situ cryo-electron tomography**<br>Dr. Jana Kroll, FU Berlin/MDC |
| 14:25 | **A TEM within a TEM – Developing the electron-optical beam path of the Jeol JEM-2200FS within the FEI 80-300 Titan TEM**<br>Dr. Tolga Wagner, HU Berlin |
| 14:40 | **Mossy fiber release site plasticity**<br>Dr. Marta Orlando, Charité |
| 14:55 | **Development of a new method for the reconstruction of the electrostatic potential of interfaces utilizing momentum resolved STEM**<br>Dr. Laura Niermann, TU Berlin |
| 15:10 | **Mechanistic insights into Woodhouse-Sakati-Syndrome (WSS) pathogenesis**<br>Dr. David Schwefel, TU Berlin |
| 15:25 | Break (20 Min) |
| 15:45 | **Ptychography-Enabled In-Operando Validation of Semiconductor Nanostructure Models**<br>Hüseyin Çelik, TU Berlin |

16:00 **Cellular localization and three-dimensional structures of ATM-Drebrin-actin functional complexes in neurons**
Dr. Magdalena Schacherl, Charité

16:15 **Direct imaging of PtCo intermetallic nanoparticles in oxygen reduction reaction with liquid cell electron microscopy**
Dr. Xingli Wang, TU Berlin

16:30 **Impact of early protocol-based physiotherapy and muscle activating measures on mitochondrial morphology and function in critically ill Intensive Care Unit patients: a secondary analysis from a prospective randomized controlled trial**
Dr. Julius Grunow, Charité

## Looking beyond the (Electron Microscopy) Horizon

16:45 **Presentation of the Advanced Medical BioImaging (AMBIO) Core Facility @ Charité**
Dr. Jan Schmoranzer (Leiter AMBIO), Dr. André Lampe (RDM AMBIO)

17:00 **Closing Remarks**
Dr. Dirk Berger, TU Berlin

## Get together with Posters presenting the Members of ACEM