

## BIH RESEARCH PLATFORM

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# MULTISCALE OMICS

**As essential pillars of personalized medicine and preclinical research, omics technologies are of utmost importance for the translational goals of the BIH.**

The interdisciplinary **BIH Multiscale Omics Platform** comprises essential **BIH Core Units** (Bioinformatics, Genomics, Proteomics, Metabolomics and Flow & Mass Cytometry), as well as **research groups** focusing, among other areas, on neurological, psychiatric, cardiovascular and pulmonary diseases; cancer; genetics; machine learning/artificial intelligence; systems biology and systems medicine. The platform supports the BIH research foci by developing and offering mainstay and cutting-edge **omics technologies and analyses** to the BIH research community.

The Multiscale Omics Platform aims to become an internationally visible beacon for translational omics as a cornerstone and prerequisite for **personalized medicine**. To fully exploit its strengths, it will foster infrastructure, research and development by implementing the following **major tools**:

- Standardized sample and data processing pipelines
- Computational approaches for data integration, analysis and modeling
- Continuous technology development
- Development of diagnostic assays and novel therapeutic approaches
- Efficient user interfaces and education

## Steering Committee

*Speaker:*

**Prof. Dr. Angelika Eggert** Dept. of Pediatrics, Dept. of Oncology and Hematology, Charité

*Deputy Speaker:*

**Prof. Dr. Nils Blüthgen** Computational Modelling in Medicine, Charité

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<b>Prof. Dr. David Capper</b>	Molecular Neuropathology Institute of Neuropathology, Charité
<b>Prof. Dr. Norbert Hübner</b>	Genetics and Genomics of Cardiovascular Diseases, MDC
<b>Dr. Jan Philipp Junker</b>	Quantitative Developmental Biology, MDC
<b>Dr. Martin Kircher</b>	Computational Genome Biology, BIH & Charité
<b>Dr. Jennifer Kirwan</b>	Core Facility Metabolomics, BIH & MDC
<b>Dr. Oliver Klein</b>	BCRT-Core Unit Tissue Typing and Cardioproteomics, BIH & Charité
<b>Prof. Dr. Marcus Mall</b>	Dept. of Pediatrics, BIH & Charité
<b>Dr. Philipp Mertins</b>	Core Facility Proteomics, BIH & MDC
<b>Prof. Dr. Ute Scholl</b>	Hypertension and Molecular Biology of Endocrine Tumors, BIH & Charité

## Coordinator

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