

# DATA SCIENCE COLLOQUIUM

**Dr. Tobias Lang**

Co-Founder & CTO Mindpeak,  
Decoding Tissue for the Future of Medicine

**Tuesday, September 8<sup>th</sup>, 2026 @ 5 PM**  
**On-Site (Hamburg University of Technology)**  
**& Online (Zoom)**

## Seeing the Unseen: How AI Decodes Tissue to Shape the Future of Medicine

Tissue samples taken from patients are among the richest sources of clinical insight, providing accurate diagnoses of diseases like cancer. While visual analysis of these samples forms a foundation of today's therapeutic decision-making, a vast amount of valuable biological information remains invisible to the human expert's eye. In contrast, image analysis based on artificial intelligence can decode tissue into quantitative, high-dimensional data in ways previously impossible. While this technology already helps in established clinical workflows today, its broader promise lies in shaping the future of precision medicine. By identifying complex biological patterns that escape human visual inspection, AI reveals entirely new layers of biomarker information. This talk will explore how AI-assisted tissue decoding helps match patients to targeted therapies and accelerates the development of next-generation, life-saving drugs, enabling more effective cancer treatment worldwide.

*Chair: Prof. Matthias Rarey*

**DASHH** Data Science in Hamburg  
HELMHOLTZ Graduate School  
for the Structure of Matter



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