

Dr. rer. nat. Alexander Hayn



Postdoc - Clinic and Polyclinic for Oncology, Gastroenterology,
Hepatology, Pneumology and Infectiology – University Hospital Leipzig

Role in LiSyM-Cancer

- WP3 – Tissue scale-model for liver regeneration in MASLD
- Biophysical insights into the progression of steatosis in tissue
- AG Berg

Expertise

- Biophysics
- ECM – collagen model systems
- Atomic Force Microscopy
- Magnetic Tweezer
- Fiber Displacements / Traction Force Microscopy
- Imaging:
 - Live-cell imaging
 - Confocal Laser Scanning Microscopy
 - Fluorescence microscopy

Professional Experience

MUDIPLIX

„Development of a multiwell, ultra-high-density microelectrode and oscillator array multiplexer platform for spatially and temporally high-resolution monitoring of cellular biomechanics in real time“ – SAB/SMWK TG70

Degrees

- **PhD thesis**

Faculty of Physics and Earth System Sciences, Leipzig University

Biophysical impact on the bidirectional interaction of breast cancer cells with the extracellular matrix

- **Master thesis**

Biological Physics Division, Leipzig University

Characteristics of three-dimensional engineered tissues from collagen type I and their influence on cancer cell invasion

- **Bachelor thesis**

Biological Physics Division, Leipzig University

The role of $\alpha2\beta1$ integrins in cell motility and cell mechanics