

INM – Leibniz Institute for New Materials

Saarbrücken, Germany

Post-doc position in human biology or biochemistry: liquid phase electron microscopy of breast cancer cells

Description

We are looking for a scientist with a PhD in biochemistry or human biology for a cancer research project funded by the Else Kröner-Fresenius Stiftung. The research involves the influence of drugs on breast cancer cells using the new analytical capabilities of liquid-phase scanning transmission electron microscopy (STEM). HER2 positive breast cancer is an aggressive form of cancer, diagnosed in about 20% of breast cancer patients. Although it can be treated with the HER2-targeted antibody drug trastuzumab, primary or acquired drug resistance is often inevitable, presumably also as a consequence of cancer cell heterogeneity. We plan studying the influence of drug at the single cell level while taking cancer cell heterogeneity into account. We may possibly discover a molecular signature serving as predictor for drug resistance. The proposed research presents a groundbreaking new approach to examine the effect of HER2 targeting drugs on different subpopulations of cancer cells that was not possible before with any other method.

Requirements

- PhD in human biology or biochemistry.
- Proven ability to write high-quality scientific papers as first author.
- In-depth knowledge of cancer research.
- Practical experience with mammalian cell culture and with microscopy techniques.
- Experience would be beneficial with electron microscopy, growth factor receptors, specific labeling using small peptides and/or nanoparticles.
- Strong motivation for science and open minded for unconventional ideas.
- Team player and interested to work in an interdisciplinary group
- Proficient written and oral communication skills in English is a must.
- Proficient in German.

More information

<http://www.dejonge.physik.uni-saarland.de/jobs.html>

Contact

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