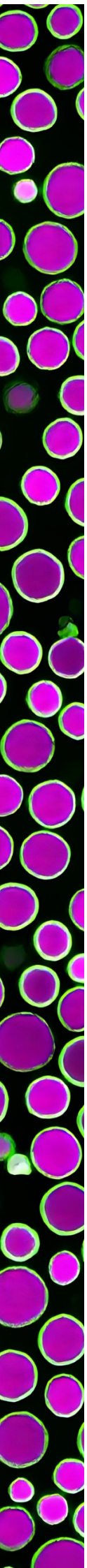

Postdoctoral Position – Alexander von Humboldt Scouting Program

Synthetic Cell/Living Cell Spheroids for Interactive Biomaterials

Key words: Artificial Cells, Cell Biology, Spheroids, Interactive Biomaterials

The Walther Lab at the University of Mainz (Germany) is searching for an outstanding postdoctoral researcher to work on the co-assembly of artificial and living cells to make co-spheroid structures, wherein both entities can communicate with prospects for new interactive biomaterials. We want to understand how to form defined co-assembled structures, how such structures evolve in time, and how molecular level communication scenarios between synthetic and living cells can be encoded to achieve cross-regulation. The position can be tackled from the soft matter or from the cell biology side. We will teach you the complementary skills.

Team. We are an ambitious team and provide you with an inspiring and collaborative team atmosphere in a multinational and multidisciplinary environment, and ample opportunities to develop. Brand new, cutting-edge synthetic and analytical infrastructure, our own fully equipped cell lab, and other facilities are available due to generous support by the University of Mainz and the Gutenberg Research College.. Prof. Walther (h-index 72) is a Gutenberg Research Professor, a Max Planck Fellow and a 2 x ERC Awardee. More information on the group can be found here: www.walther-group.com

Direct Recruitment to the Prestigious Alexander von Humboldt Program. Andreas Walther is a Henriette-Herz Scout for the Alexander von Humboldt Foundation and can directly suggest Postdoctoral Fellows for such fellowships and bypass the classical highly competitive selection process. More Information can be found here: https://www.walther-group.com/opportunities The position is available immediately and has a duration of 2 years. Starting date is flexible. We wish to support international talents and diversity in the lab using this funding tool.

Expected Candidate Profile. As an ideal candidate you are creative, highly self-motivated, ambitious, and communicative to excel in scientific challenges. You hold a PhD in Chemistry, Biochemistry, Biomedical Engineering, Biology or similar, and ideally have a background in synthetic cells, biomaterials, or cell spheroid/organoid technology. We are willing to train you in complementary skills. You have an initial track record of excellent publications.

3 Selected references on DNA-based artificial cells in the past:

1. A. Samanta, M. Hörner, W. Liu, W. Weber, **A. Walther** "Signal-processing and adaptive prototissue formation in metabolic DNA protocells", *Nat. Commun. 13*, 1 **(2022)**.
2. A. Samanta, V. Sabatino, T. Ward, **A. Walther** "Functional and morphological adaptation in DNA protocells via signal processing prompted by artificial metalloenzymes" *Nat. Nanotechnol.* 15, 914 (**2020**).
3. R. Merindol, S. Loescher, A. Samanta, **A. Walther** "Pathway-Controlled Formation of Mesostructured all-DNA Microgels and their Superstructures" *Nat. Nanotech.,* 13, 730 (**2018**). (Cover Article, highlighted in Mirkin et al. *Nat. Nanotech.* 13, 624)

Application Deadline is June 15th 2024

Please send your full application as a **single** PDF file containing

- letter of motivation including a summary of your past research experience, in particular a meaningful summary of your PhD and master thesis; transcript of records of your Master program.
- Detail in your letter why you believe you are the right person and what you expect from this position for your future.
- curriculum vitae and list of publications
- Two contacts for reference letters

To andreas.walther@uni-mainz.de
Prof. Dr. Andreas Walther, University of Mainz, Germany