

Developing functional surfaces for biosensing and drug discovery

Expected schedule

2-5 days a week (depends on your schedule), min. 2-3 hours/day

Description & Tasks

You will work on 2 projects.

1. Drug discovery and search for protein binders. For this project, you will:
 - Prepare polymer-based Droplet Micro Arrays (DMAs)

 - Conduct chemical, photochemical and biochemical reaction in micro- and nanoliter-sized droplets
 - Measure samples by UV-Vis and protein assays
 - Organize sample measurement by MALDI, ToF-SIMS, HPLC, LC-MS and more
2. Modification of electrodes for development of highly sensitive biosensors, which will allow to diagnose Covid-19 and other popular pathogens quickly and easily. For this project, you will:
 - Coating electrodes on glass chips with nanoparticles (using spray/spin coater) and modify its chemical properties by conducting (photo)chemical reactions
 - Investigate surfaces by IR microscope and WCA machine
 - Organize sample measurements by means of microscopy and more



Your profile

- You are a student in chemistry or chemical biology
- You are friendly and well-organized
- Ideally, you are interested in long-term work with us, including Master research and potentially also PhD study :-)

About our group

We are an international group of people who work on Chemistry and drug design, 3D printing and bioprinting and Cellular biology & oncology

Where you will work

Our lab is located in KIT Campus Nord. It's a bit far from city center, but we have cool brand-new labs and great food in canteen. :-)

Contact

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Contract details

1 year contract, up to 40 hours / month