

The laboratory of Prof. Dr. Daniela Duarte Campos at the Center for Molecular Biology (ZMBH) is seeking a

HIWI for the Synthesis of dynamic photocrosslinkable hydrogels for bioprinting (f/m/d)

For participating in a project focused on the development of new photocrosslinkable polymers for 3D bioprinting of stress relaxing hydrogels.

The Bioprinting & Tissue Engineering Group located at the ZMBH, Heidelberg University, investigates biofabrication technologies and biomaterials suitable for tissue and organ engineering, and their impact on the structure and function of natural and synthetic living tissues. Hydrogels are often used as supporting extracellular matrix (ECM) for 3D cell culture in tissue engineering applications. However, conventionally crosslinked hydrogels often fail to capture the unique properties of the native ECM. In this project, we design and produce new dynamically crosslinked hydrogels that polymerize in the presence of light and show stress relaxing behaviour custom-made for bioprinting applications.

Your task will be to synthesize a new modified polymer that allows for photocrosslinking while still maintaining dynamic stress relaxing properties as a hydrogel. The work will involve:

- Literature research
- Polymer modification and purification
- Synthesis of hydrogels
- Rheological and mechanical characterization of polymer solutions and hydrogels
- Bioprinting

Your profile:

- B.Sc. in Chemistry, preferably with a bachelor thesis in organic chemistry
- Experience in organic synthesis
- Highly motivated and self-organized
- Motivation to work in an interdisciplinary environment

The position is available for **immediate start** and it is to be filled with **10 h / week**.

Applications should be sent to Dr. Friederike Dehli (f.dehli@zmbh.uni-heidelberg.de) in a single PDF-file that includes a letter of motivation, CV, and a copy of transcripts.

Closing date for applications: February 29, 2024.

The position is funded within a PostDoc Take off Grant of the Cluster of Excellence 3DMM2O.

Heidelberg University stands for equal opportunities and diversity. Qualified female candidates are especially invited to apply. Disabled persons will be given preference if they are equally qualified. Information on the application process and the collection of personal data is available at www.uni-heidelberg.de/stellenmarkt.