

Junior Postdoctoral Researcher (Bioengineer)

(100%)

The Department of Biomedicine (DBM) belongs to the Faculty of Medicine at the University of Basel, Switzerland. The DBM promotes basic and translational biomedical research at the highest international level.

The Inner Ear Research group, part of the Department of Biomedicine, offers Postdoctoral positions (100%)

About us

To date no medicines are available to address the debilitating condition of hearing loss which is impacting over half a billion people worldwide. A total of 43 biotechnology and pharmaceutical companies have been identified as developing therapeutics for inner ear and central hearing disorders. None of the new products being tested have yet arrived to the clinical market, and a large proportion are still in the preclinical phase, and many did not meet the end point or their development has been stopped. Drug delivery is an additional problem in inner ear therapies development .

We are an ambitious small team with one big mission: To develop an inner ear cell derived organ on a chip that is environmentally, ethically and economically sustainable.

For the first time ever an organ on a chip with inner ear human cells will be fabricated. We seek to circumvent the use of animal models with the alternative in vitro 3D cell culture model.

This chip would provide tools for investigating specific contributions of the inner ear to physiological and pathophysiological mechanisms underlying hearing loss. This project is supported by Innosuisse.

Your position

- Set up, developing and fabrication of organ on a chip for human cell growth
- Processing and modifying its properties through the fabrication of a chip
- Network model on chip/dynamic flow
- Validation of the chip
- Conducting a wide range of analytical tests, quality controls, safety assessments and sensory evaluations
- Providing detailed designs for implementing the research findings

Your profile

General requirements

- Motivated, dedicated and easy to work with - we encourage candidates from different backgrounds
- Pragmatic mindset: You like to solve problems by finding a (creative) solutions, whenever it is needed (but not because of it)
- Flexible mindset: Our challenges change regularly - and so do your role and tasks
- Self-discipline and organization: you take the initiative and structure your work

- Good communicator and team worker: You speak your mind, you are transparent to roadblocks, you share your knowledge - we are team players, and you are as well
- Solid English: We mostly communicate in English, but we also use German.

Special requirements

- PhD in nanoscience-microfabrication, biomedical engineering or a related discipline
- Experience in microfluidics, BBB on a chip
- Working knowledge about functionalization of the microdevices their properties is important
- Basic knowledge of cell biology

We offer you

The opportunity to work on something big and significant:

- Enabling potential preventive and curative breakthrough oral treatments, while being cost and time effective
- Ownership and responsibility for your area: Be in charge on how you deliver your work while meeting our high academic, ethical & professional standards
- Young, dynamic and experienced colleagues: We are just starting in nano-technology but have years of experience in the field of experimental and translational medicine
- Making an impact: Taking the initiative, trouble-shooting challenges, finding creative solutions
- Develop your professional skill set: Learning, practicing, experimenting – all in a supportive, cooperative team setting

Application / Contact

Your application should include a CV, an overview on your past research experience including techniques you are competent in, some words on your motivation and scientific interests, and the contact details of at least two references.

The position is available immediately or by agreement.

Please submit your application online until August 15, 2021

Kindly send your application as a pdf to: vesna.petkovic@unibas.ch

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