DBMR Research Conference

Langhans Auditorium
Murtenstrasse 31, 3008 Bern

Date: **Monday, September 9, 2024, 5 pm – 6 pm**

Title: **Mechanics as a multi-scale marker for diseases and drugs**

Speaker: **Prof. Dr. Alireza Mashaghi**
LACDR Division of Systems Pharmacology and Pharmacy, Leiden University

Bio: Prof. Alireza Mashaghi is a physician-scientist who has dedicated his career to advancing interdisciplinary medical innovations through his research and teaching. He is currently a principal investigator at Leiden Academic Centre for Drug Research, where he leads the Medical Systems Biophysics and Bioengineering program. He holds a BSc degree in chemistry (with a minor in pure mathematics), MSc and PhD degrees in physics and an MD degree in clinical medicine. Prior to his tenure in Leiden, he was a fellow in neurology and ophthalmology at Harvard Medical School, where he also gained extensive expertise in cancer and mucusal immunology. During his career, Mashaghi has been affiliated with various academic institutions including Leiden University, Harvard University, Massachusetts Institute of Technology, Delft University of Technology, ETH Zurich, and Max Planck Institute (MPI) for Multidisciplinary Sciences and MPI of Molecular Cell Biology and Genetics. He has served as a grant advisor for various agencies including Swiss National Science Foundation, German Research Foundation (DFG), and The European Science Foundation (ESF). He also serves on the editorial boards of several journals including NanoResearch.

Abstract: This talk will discuss opportunities at the interface of physics and medicine, enabled by measuring the mechanics of human organs at various scales. Performing such measurements has recently become possible due to technical developments. Given the crosstalk between the mechanics of biological systems and other cellular processes such as metabolism and gene regulation, mechanics can provide complementary information about the functioning of biological components. This is particularly important in areas such as neuromuscular disorders, immunology, and virology, where mechanical processes are often at the core of physiology and disease.

Prof. Alireza Mashaghi has been invited by the Platform for Stem Cell Research and Regenerative Medicine (SCRM).

The DBMR Research Conference takes place from 5 pm – 6 pm and will be followed by an apéro.

Next DBMR Research Conference	**Monday, November 4, 2024, 5 pm – 6 pm** **Speaker: Dr. Mattia Aime, Recipient of the Johanna Dürmüller-Bol DBMR Research Award 2023** *Title: tba*

Department for BioMedical Research (DBMR)
www.dbmr.unibe.ch
https://twitter.com/dbmr unibe

UNIVERSITÄT BERN