

DBMR Research Conference

Langhans Auditorium, Pathology
Murtenstrasse 31, 3008 Bern

Date: Monday, August 31, 2023, 5 pm – 6 pm

Title: Expanding the CRISPR technologies for efficient and precise genome editing

Speaker: Prof. Dr. Anna Cereseto
Department of Cellular, Computational and Integrative Biology, University of Trento, Trento, Italy

Bio: Anna Cereseto is Full Professor at the University of Trento where she serves as Deputy Director of the Department CIBIO. She started her scientific career as post-doc at the National Cancer Institute, NIH in Bethesda, and then moved to Cornell University (NY) and Mount Sinai School of Medicine (NY) as Instructor. She moved back to Italy as Associate Professor of Molecular Biology at Scuola Normale Superiore in Pisa before moving to her current position at the University of Trento. She is leading a research group that gave major contribution in advancing genome editing technologies based CRISPR-Cas systems and proved their efficacy in reversing genetic defects causing one of the most frequent genetic disease, cystic fibrosis. Her research is supported by the European Community (Horizon 2020) and by the US and Italian Cystic Fibrosis Foundations. In 2019 she co-founded a start-up, Alia Therapeutics, working on genome editing treatments where she is currently chief scientific officer (CSO).

Abstract: CRISPR technologies initiated a new era for the development of curative therapies for genetic diseases and cancer. Nonetheless, various hurdles are limiting the desirable expansion for clinical use. Challenges are imposed by various properties of CRISPR tools which includes low compatibility with currently available delivery systems, target sequence constraints, immunogenicity and unpredictable efficiency and precision throughout the genome. We recently focused on the development of the technologies using two approaches: molecular engineering of the available Cas systems and retrieval of undiscovered systems existing in nature. I will present the frontiers opened by the discovery of new CRISPR systems and their potentials for the treatment of genetic diseases including cystic fibrosis.

Prof. Dr. Anna Cereseto 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, October 2, 2023, 5 pm – 6 pm

Speaker: Prof. Maria L Martinez Chantar, PhD

Title: "Searching for new mechanisms of liver disease with therapeutic potential. Is Magnesium a new hepatic player?"



Department for BioMedical Research (DBMR)

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The logo of the University of Bern, consisting of a stylized 'u' with a superscript 'b'.

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