



Centre de Neurosciences Psychiatriques

MINI-SYMPOSIUM

Friday, March 24, 2023 - from 09:00 to 12:15
Salle de séminaire, 1^{er} étage CNP Site de Cery, CH-1008 Prilly-Lausanne

From bench to bedside: improving the design of preclinical studies

Despite being an essential step in the development of new drugs and treatments, there is a high rate of failure in clinical trials that arise from results of animal experiments. This has led to criticisms of animal research as being unsuitable for developing human medicine. It is imperative that we address this issue by improving the design of preclinical studies to ensure that the results obtained are more reliable and more predictive of human outcomes.

This symposium will feature four talks focused on different aspects of the design of preclinical studies and the robustness of their results.

The first talk by Fulvio Magara will discuss how to embrace and control the genetic variability of experimental animals.

The second talk, by Bernhard Völkl, will address how environmentally induced variation influence the reproducibility of results in pre-clinical animal experiments. Ignoring the implications of phenotype variation can lead to spurious results that are idiosyncratic to the specific standardized laboratory conditions.

The third talk, by Ulf Tölch, will focus on data analysis that looks at effect size rather than p-values. This is an important shift, as the overreliance on p-values has been identified as a significant contributor to the replication crisis in science.

Finally, the last talk, by Leonardo Restivo, will discuss the importance of precise reporting of experimental protocols. This is critical for ensuring that studies are transparent and reproducible, and can contribute to the overall improvement of preclinical study design.

Through these talks, we hope to provide researchers with practical strategies for improving the quality and reliability of preclinical data, ultimately leading to more successful clinical trials and the development of new and effective treatments for human diseases.

09:00 - 09:45 **Fulvio Magara** - Center for the Study of Behavior, CNP, CHUV

The impact of genetic variation on external validity of preclinical studies: caveats and solutions.

09:45 – 10:30 **Dr. Bernhard Voelkl** - Veterinary Public Health Institute of the University of Bern, Switzerland

Reproducibility of animal research in light of biological variation

10:30 – 10:45 Question and answers / coffee break

10:45 - 11:30 **Dr. Ulf Tölch** – Project team leader Translational Medicine at BIH QUEST Center for Responsible Research, Berlin Institute of Health at Charité, Germany

Strategies to improve preclinical development pathways: from SESOI to multicenter trials

11:30 – 12:15 **Dr. Leonardo Restivo** -Head of NeuroBAU, DNF Lausanne

"As previously described": traceability of protocol details in rodent behavioral assays and the quest for a standardized approach to home cage monitoring.

Participation to this symposium is credited as half-day of continuing education for animal experiments. Please register at <https://forms.gle/es9VqKu5VofmEeH57>

Attendance on-site is limited to 50 participants. A link for remote attendance will be transmitted to registered participants.

For further information mail Fulvio.Magara@chuv.ch