NCCR TransCure

Swiss National Centre of Competence in Research

NCCR TransCure

Excellence in Membrane Transport Research

What is the NCCR TransCure?

The National Centre of Competence in Research (NCCR) TransCure is an interdisciplinary Swiss-wide research network of academic research groups. **The main focus of this network is membrane transporter and ion channel research.**

The NCCR TransCure is one of the current NCCRs funded by the Swiss National Science Foundation (SNSF). NCCRs are meant to promote research projects in areas of vital strategic importance that benefit Swiss economy, society and public health.

The NCCR TransCure was established in 2010, with the University of Bern as leading house and with research groups affiliated to the Universities of Zürich and ETH, Lausanne and Basel.

Besides fostering high quality science in the field of membrane transport, the NCCR TransCure is also active in the fields of education, equal opportunities, technology transfer and communication.

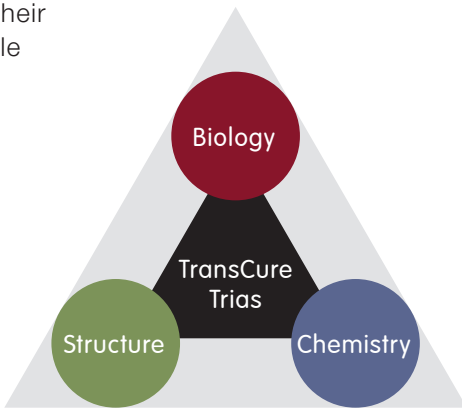
Research

Many major human diseases such as diabetes, hypertension, cardiovascular diseases, cancer, osteoporosis, neurological and psychiatric disorders are related to or are based on dysfunction of membrane transporters and channels.

Transporters are integral membrane proteins that move important substances such as nutrients, drugs and other substrates across cellular membranes. As such, they are cellular gatekeepers of primary importance. The NCCR TransCure aims at a deep understanding of their structure, functioning and role in diseases.

This is of fundamental significance for advances in basic research and for the development of novel therapeutic approaches.

The research of the NCCR TransCure is characterized by a unique combination of three scientific disciplines, namely biology / physiology, structural biology and chemistry (referred to as “TransCure Trias”).



The NCCR TransCure projects

Astrocyte-targeting: VMAT2, VGLUTs
PIs: Andrea Volterra and Paola Bezzi, University of Lausanne

Na+/H+ exchanger NHA2
PI: Daniel Fuster, University of Bern

Iron transporters DMT1 and FPN
PI: Raimund Dutzler, University of Zürich

Multidrug transporter ABCG2
PI: Kaspar Locher, ETH Zürich

Endocannabinoid Transport
PI: Jürg Gertsch, University of Bern

Cation channel TRPM4
PI: Hugues Abriel, University of Bern

Canalicular lipid transporters
PI: Bruno Stieger, University of Zürich

SLC7 amino acid transporters
PI: Dimitrios Fotiadis, University of Bern

Genetics of membrane transporters
PI: Murielle Bochud, University of Lausanne

Screening facility
PI: Jürg Gertsch, University of Bern

Training of young researchers

The NCCR TransCure aims to produce high quality science and to educate the next generation of biomedical research scientists. The NCCR TransCure fellows profit from training in a unique interdisciplinary environment and from courses ranging from highly advanced topics to soft skills.

Equal opportunities

The NCCR TransCure is committed to support the advancement of women in science. Measures in this field encompass mentoring, counselling, organisation of events and non-biased hiring processes. Special attention is also given to the selection of female speakers for the network lecture series.

Knowledge and technology transfer

The NCCR TransCure supports mutually beneficial collaborations between universities, industry and the public sector, as well as the transfer of knowledge and technologies through the precompetitive or competitive research collaboration with industry.

Social media and outreach

Sharing knowledge within and outside the scientific community is a fundamental aspect of the scientific activity. The NCCR TransCure is present on social media such as Twitter (@NCCR_TransCure) and LinkedIn. Moreover, the network gets involved in outreach activities to reach the general public of all ages.


DURACELL
FALCON

How to contact us

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