

DBMR Research Conference

Date: Monday, February 7, 2022, 5pm – 6pm

Title: Genes coding for ion channels and ion channels to sequence genes: Experience in two African medical genetics laboratories

Speaker: Prof. Dr. Hugues Abriel, Co-Director,
Institute of Biochemistry and Molecular Medicine and NCCR TransCure,
University of Bern

Bio: Hugues Abriel studied life sciences at the ETHZ (1989) and medicine at the University of Lausanne in Switzerland (1994). He received a Ph.D. in Physiology from the University of Lausanne (1995). Hugues Abriel has been a Group Leader (2002-2009) at the Department of Pharmacology and Toxicology at the University of Lausanne, thanks to a professorship from the Swiss National Science Foundation (SNSF-Professor). From 2009 until 2016, he was the Director of the Department of Clinical Research at the University of Bern. Since 2016, he is Co-Director of the Institute of Biochemistry and Molecular Medicine of the University of Bern, as well as Professor of Molecular Medicine. From 2012 until 2020, he was a member of the SNSF research council and president (2018-2020) of the biology and medicine division. He is the Director since 2015 of the SNSF-funded research network NCCR TransCure. His research work focuses on the roles of ion channels in human diseases (channelopathies).

Abstract: Ion channels are essential membrane proteins involved in many functions such as neuronal information transmission, muscle contraction, and transepithelial transport. Many ion channel genes have been found mutated in patients with rare genetic syndromes (genetic channelopathies): cystic fibrosis, hereditary hypertension, cardiac arrhythmias, or genetic epilepsies. About 30 years ago, it was shown that single-stranded DNA fragments could flow across large channels (protein nanopores) from bacteria. Based on this observation, several companies developed new DNA sequencing technologies allowing "long-reads" sequencing. During this lecture, I will present my experience in two medical genetics laboratories from RD Congo and Morocco. We tested the implementation of such long-read sequencing methods to sequence mutated genes of interest, causing sickle cell anemia, thalassemia, and cystic fibrosis.

Prof. Dr. Hugues Abriel has been invited by Prof. Dr. Mark A. Rubin, Director DBMR, Rubin Lab, Department for BioMedical Research, University of Bern

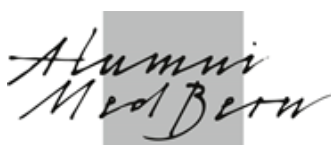
The DBMR Research Conference will take place as a webinar via Zoom.
For those wishing to attend, please use this link
<https://unibe-ch.zoom.us/j/62817350467?pwd=RkZxNXc5TWVzVXhmSElwNjJqVUxPZz09>
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Next DBMR Research Conference

Monday, March 7, 2022, 5pm – 6pm
Prof. Martin J. Stoddart, PhD, FRBS
AO Research Institute Davos (ARI), Davos, Switzerland
*Title "Mechanical regulation of MSC chondrogenesis.
Can we repurpose rehabilitation?"*



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