

CoMMiTMenT

<u>Combined Molecular Microscopy for</u> <u>Therapy and Personalized Me</u>dication in Rare Anaemias <u>Treatments</u>







Mission

- Anaemia affects 1.6 billion individuals worldwide. Approx.
 10% of these individuals suffer from rare anaemia (RA).
- As the pathophysiology of the majority of these RA is poorly understood, the appropriate treatment is often ineffective or even lacking.
- Therefore, there is a current demand for new tools for improved diagnosis and monitoring of disease progression.
- CoMMiTMenT contributes to the goal of the International Rare Diseases Research Consortium (IRDiRC) to deliver novel diagnostic modalities and 200 new therapies for rare diseases by 2020.



Objectives

- To develop and validate the technologies of optofluidic microscopy and scanning ion conductance microscopy as novel methods to be combined in a synergistic device.
- To allow for the identification and probing of the molecular players that underlie rare anaemia (e.g. channelopathies).
- To provide
 - a novel diagnostic tool,
 - a better understanding of the underlying pathophysiology of rare anaemia,
 - and the possibility for the development of (personalised)
 treatments for this group of established, emerging, and as yet undiscovered RBC disorders.



Technology

 Imaging technologies will be complemented by microfluidics and image analysis tools

The goal is to see cells in action! ion channel glass microelectrode



Team

- Multidisciplinary consortium of 9 partners:
 - Lars Kaestner, Saarland University, DE (Coordinator)
 - Anna Bogdanova, Universität Zürich, CH
 - Richard van Wijk, Universitair Medisch Centrum Utrecht, NL
 - Andrew Rafael Bañas, OptoRobotix Aps, DK
 - Ward Hills, OpenIOLabs Limited, UK
 - Christian Götze, Arivis AG, DE
 - Joan Lluís Vives Corrons, Consorci Institut d'Investigacions Biomediques August PI I Sunyer, ES
 - Timothy Ryan, Epigem Limited, UK
 - Vera Schneider, European Research and Project Office GmbH, DE



Further information

www.rare-anaemia.eu

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