

CryoEM at CRELUX

This year the nobel prize for chemistry was awarded to Jacques Dubochet, Joachim Frank and Richard Henderson "for developing cryo-electron microscopy for the high-resolution structure determination of biomolecules".

The advances in cryoEM technology especially through the development of highly sensitive detectors and better computing infrastructure have made it a valuable technology for drug discovery. Especially applications like the structure determination of large macromolecules and weakly expressing targets and antibody epitope mapping profit from improved resolution.

At Crelux, we run several initiatives to offer negative staining and cryoEM services. Specializing in the production of large protein complexes and difficult to express and purify targets, CRELUX offers tailor-made proteins in buffer-optimized conditions at their highest purity and homogeneity - suitable for assays, biophysics, crystallography and cryoEM.

Since 2015, CRELUX maintains a tight collaboration with Eyen, a Central-European company specialized in high-performance computational solutions for nanostructure analysis and cryoEM technology. With an increasing demand, CRELUX recently expanded its collaboration with Diamond Light Source (UK).

"CRELUX is our ideal partner for producing challenging protein complexes for our cryoEM studies. Together we provide a full "Gene-to-structure" service from an amino acid sequence all the way to a 3D structure", says **Lukas Marsalek**, CEO of **Eyen**.

"Crelux is a regular user of Diamond Light Source's macromolecular crystallography beamlines and XChem high-throughput ligand-screening platforms. We are now happy to also work with CRELUX in our offering of state-of-the-art single particle and tomographic cryo-electron microscopy capabilities housed at Diamond's Electron Bio-imaging Centre" states **Jason van Rooyen**, Industrial Liaison Scientist - cryo Electron Microscopy at the **Diamond Light Source**.

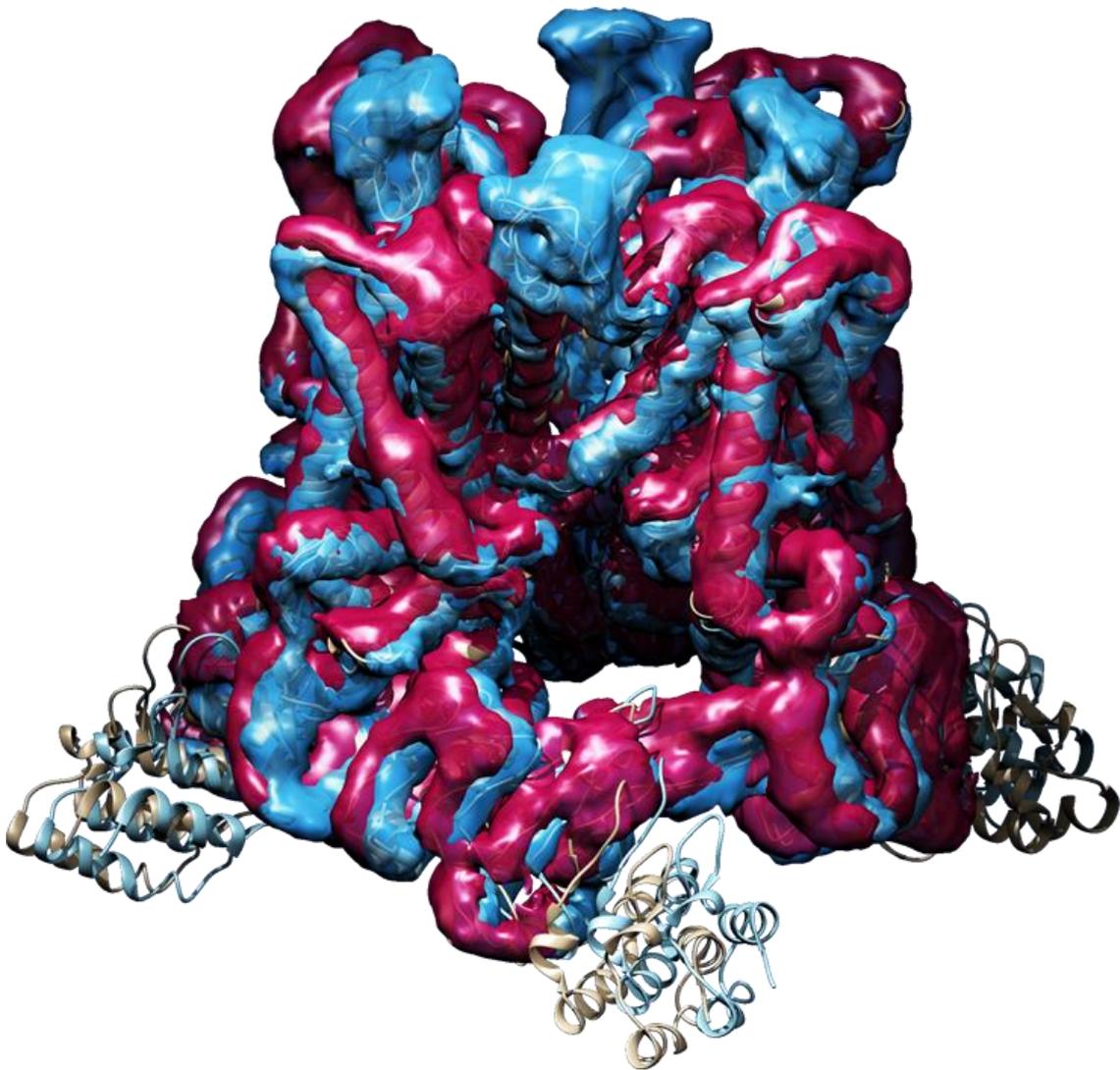


Figure: 3D CryoEM structure of a membrane protein (courtesy of Eyer)

The structure of membrane proteins can be resolved to quasi-atomic resolution, widening the range of feasible targets. Here, a 3.4Å resolution of mammalian transient receptor potential channel was resolved. Cao et al., Nature (2013) 504, pp. 113-118.

PRIME PROTEIN

Your tailor-made proteins

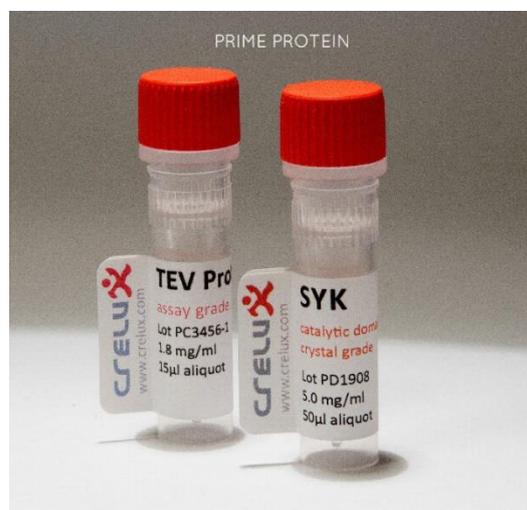
At Crelux, we produce high quality recombinant proteins that meet your specific requirements.

In our PRIME PROTEIN program we are advancing innovations in protein expression to generate stringently controlled premium proteins - for use in assays, screenings, cryoEM and crystallization.

Protein can be expressed in E. coli, insect- and mammalian cells in mg amounts.

[Find out more on our Website](#)

www.crelux.com



Over 800 different proteins and protein complexes have been produced at Crelux: membrane proteins, secreted proteins, metabolic enzymes, proteases, heat shock proteins, nuclear receptors, epigenetic proteins, phosphatases and kinases.

Crelux chooses Labiotech as Media Partner

[Why Asian CROs are Turning to the European Biotech Market](#)

Read more about the interview with Michael Schaeffer and Steve Yang on

<https://labiotech.eu/asia-cros-europe-crelux/>

CRELUX is your premium partner for hit finding, confirmation and validation. We are focusing on integrated drug discovery solutions in target protein production, X-ray crystallography, cryoEM, biophysical analysis and fragment based screening.

Please visit our websites at www.crelux.com to learn more about the solutions we are providing to our growing number of clients from all over the world.

Since April 2016, CRELUX is part of WuXi AppTec's Research Services Division, providing a fully integrated drug discovery and development platform through to clinical candidate selection.

Meet us at

BioEurope Spring, March 12–14, 2018, Amsterdam, NL

NovAliX Biophysics in Drug Discovery, June 13-15, 2018, Boston, USA

BioEurope, November 5–7, 2018, Copenhagen & Malmö

PSDI 2018, November 11-13, Versailles, FR



CRELUX GmbH – a WuXi Apptec company - Am Klopferspitz 19a - 82152 Martinsried - GERMANY
Dr. Michael Schaeffer - +49 (0)89 700 760 170 - michael_schaeffer@wuxiapptec.com
www.crelux.com

Copyright © 2017 CRELUX GmbH, All rights reserved.