



Heike Wulff, Ph.D.

Research/Academic Interests

As a pharmacologist and medicinal chemist I am fascinated by the largely untapped therapeutic potential of ion channel modulation and have made it my research aim to develop specific ion channel modulators as research tools and as potential drugs for the treatment of autoimmune, cardiovascular and neurological diseases. The primary focus of the work in my laboratory is the role of the voltage-gated K⁺ channel Kv1.3 and the calcium-activated K⁺ channel KCa3.1 in the immune system. After successfully designing potent and selective blockers for both channels and demonstrating that Kv1.3 and KCa3.1 indeed constitute novel targets for autoimmune diseases and fibroproliferative disorders, we are currently exploring the usefulness of Kv1.3 and KCa3.1 blockers for reducing microglia activation in stroke and Alzheimer's disease. We also embarked on the design of KCa2/3 channel activators as potential therapeutics for hypertension, epilepsy and ataxia. My long-term goal is to translate at least one of the channel targets validated by our work into a clinically used therapy.

Dr. Wulff is director of the Probe and Pharmaceutical Optimization core of the UC Davis CounterACT Center of Excellence. <http://counteract.ucdavis.edu/>

Title Professor

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Languages German

Education Ph.D., University of Kiel, Kiel, Germany 1998
M.S., University of Kiel, Kiel, Germany 1993

Professional Memberships American Chemical Society



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American Society for Pharmacology and Experimental Therapeutics

Biophysical Society

German Pharmaceutical Society

International Union of Basic and Clinical Pharmacology, Subcommittee on Potassium Channels:

KCa Group

Honors and Awards

Laverna Titus Award, American Heart Association, 2005

Kaiser Foundation Award for "Excellence in Teaching Basic Sciences", 2013

Thomson Reuters list of "World's Most Influential Scientific Minds", 2014

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