



Heike Wulff, Ph.D., M.S. Pharm.

Research/Academic Interests	Dr. Wulff is considered an expert on potassium channel pharmacology and the work in her laboratory focuses on the design of new potassium channel modulators as research tools and as potential drugs. Her laboratory is particularly interested in the voltage-gated Kv1.3 and the calcium-activated KCa3.1 channels in immune cells and in the calcium-activated KCa2/3 channels in the cardiovascular and nervous system. More recent work has focused on the role of Kv1.3 in neuroinflammation in the context of stroke and Alzheimer's disease.
Title	Professor
Specialty	Pharmacology
Department	Pharmacology
Division	Pharmacology
Additional Phone	Physician Referrals: 800-4-UCDAVIS (800-482-3284)
Languages	German
Education	Ph.D., Medicinal Chemistry, Christian Albrecht's University, Kiel, Germany 1998 M.S., Christian Albrecht's University, Kiel, Germany 1993
Fellowships	Postdoctoral Researcher, UC Irvine, Irvine CA 1999-2003
Board Certifications	Approbation as Apothecary, Germany - Pharmacy
Professional Memberships	American Chemical Society American Society for Pharmacology and Experimental Therapeutics Biophysical Society
Honors and Awards	Highly Cited Researchers (Clarivate Analysis of papers that rank in the top 1% by citations for field and year in Web of Science), 2018, 2019 Kaiser Foundation Award for Excellence in Teaching Basic Sciences, 2013, 2019 Thomson Reuters list of Worlds Most Influential Scientific Minds, which lists scientists in the top 1% of citations for their field (Pharmacology & Toxicology), 2014 Postdoctoral Fellowship Award, American Heart Association, 2000 Doctoral Thesis with summa cum laude, 1998
Select Recent Publications	See: Complete List of Publications



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Pressly B, Vasylieva N, Barnych B, Singh V, Singh L, Bruun DA, Hwang SH, Chen YJ, Fettinger JC, Johnnides S, Lein PJ, Yang J, Hammock BD, Wulff H. Comparison of the toxicokinetics of the convulsants picrotoxinin and tetramethylenedisulfotetramine (TETS) in mice. *Arch Toxicol.* 2020 Jun;94(6):1995-2007. doi:10.1007/s00204-020-02728-z. Epub 2020 Apr 1. PMID:32239239.

Brown BM, Shim H, Christophersen P, Wulff H. Pharmacology of Small- and Intermediate-Conductance Calcium-Activated Potassium Channels. *Annu Rev Pharmacol Toxicol.* 2020 Jan 6; 60:219-240. doi:10.1146/annurev-pharmtox-010919-023420. Epub 2019 Jul 23. PMID: 31337271.

Wulff H, Christophersen P, Colussi P, Chandy KG, Yarov-Yarovoy V. Antibodies and venom peptides: new modalities for ion channels. *Nat Rev Drug Discov.* 2019 May;18(5):339-357. doi: 10.1038/s41573-019-0013-8. PMID:30728472.

Nguyen HM, Grössinger EM, Horiuchi M, Davis KW, Jin LW, Maezawa I, Wulff H. Differential Kv1.3, KCa3.1, and Kir2.1 expression in 'classically' and 'alternatively' activated microglia. *Glia.* 2017 Jan;65(1):106-121. doi:10.1002/glia.23078. Epub 2016 Oct 3. PMID: 27696527.

Feske S, Wulff H, Skolnik EY. Ion channels in innate and adaptive immunity. *Annu Rev Immunol.* 2015;33:291-353. doi:10.1146/annurev-immunol-032414-112212. PMID:25861976.

Wulff H, Castle NA, Pardo LA. Voltage-gated potassium channels as therapeutic targets. *Nat Rev Drug Discov.* 2009 Dec;8(12):982-1001. doi:10.1038/nrd2983. PMID:19949402.

Wulff H, Zhorov BS. K⁺ channel modulators for the treatment of neurological disorders and autoimmune diseases. *Chem Rev.* 2008 May;108(5):1744-73. doi:10.1021/cr078234p. PMID: 18476673.



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Wulff H, Calabresi PA, Allie R, Yun S, Pennington M, Beeton C, Chandy KG. The voltage-gated Kv1.3 K(+) channel in effector memory T cells as new target for MS. *J Clin Invest*. 2003 Jun;111(11):1703-13. doi:10.1172/JCI16921. Erratum in: *J Clin Invest*. 2003 Jul;112(2):298. PMID: 12782673.

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