

Curriculum Vitae

Personal information Hannes Todt

Work experience

01/1995-present Assoc. Prof. of Pharmacology and Toxicology Institute of Pharmacology, Medical University of Vienna (before 2002: Faculty of Medicine, University of Vienna)

10/1994-02/1997 ResearchFellow University of Chicago

12/1988 – 12/1994 University Assistant, Institute of Pharmacology, Faculty of Medicine, University of Vienna

Main Activities: Teaching, research (cardiovascular pharmacology, electrophysiology)

Education and training

10/1980 – 02/1987 Study of Medicine University of Vienna Dr. med.

05/1987 - 11/2987 Medical Training at the Military Hospital Stammersdorf/Vienna

12/1987- 12/1994 Medical Training at the Medical University of Vienna

Medical Specialty: Pharmacology and Toxicology

Main Activities: Teaching, research (cardiovascular pharmacology, electrophysiology)

Additional information

Publications

Szabo PL, Marksteiner J, Ebner J, Dostal C, Podesser BK, Sauer J, Kubista H, Todt H, Hackl B, Koenig X, Kiss A, Hilber K. Ivabradine acutely improves cardiac Ca handling and function in a rat model of Duchenne muscular dystrophy. *Physiol Rep.* 2023 Apr;11(7):e15664. doi: 10.14814/phy2.15664. PMID: 37032434; PMCID: PMC10083165.

Dorninger F, Kiss A, Rothauer P, Stiglbauer-Tscholakoff A, Kummer S, Fallatah W, Perera-Gonzalez M, Hamza O, König T, Bober MB, Cavallé-Garrido T, Braverman NE, Forss-Petter S, Pifl C, Bauer J, Bittner RE, Helbich TH, Podesser BK, Todt H, Berger J. Overlapping and Distinct Features of Cardiac Pathology in Inherited Human and Murine Ether Lipid Deficiency. *Int J Mol Sci.* 2023 Jan 18;24(3):1884. doi: 10.3390/ijms24031884. PMID: 36768204; PMCID: PMC9914995.

Berger V, Gabriel L, Lilliu E, Hackl B, Marksteiner J, Hilber K, Koenig X, Uhrin P, Todt H. Modulation of cardiac ventricular conduction: Impact on QRS duration, amplitude and dispersion. *Eur J Pharmacol.* 2023 Feb 15;941:175495. doi: 10.1016/j.ejphar.2023.175495. Epub 2023 Jan 5. PMID: 36621601.

Marksteiner J, Ebner J, Salzer I, Lilliu E, Hackl B, Todt H, Kubista H, Hallström S, Koenig X, Hilber K. Evidence for a Physiological Role of T-Type Ca Channels in Ventricular Cardiomyocytes of Adult Mice. *Membranes (Basel).* 2022 May 28;12(6):566. doi: 10.3390/membranes12060566. PMID: 35736273; PMCID: PMC9230067.

Hackl B, Lukacs P, Ebner J, Pesti K, Haechl N, Földi MC, Lilliu E, Schicker K, Kubista H, Stary-Weinzinger A, Hilber K, Mike A, Todt H, Koenig X. The Bradycardic Agent Ivabradine Acts as an Atypical Inhibitor of Voltage-Gated Sodium Channels. *Front Pharmacol.* 2022 May 2;13:809802. doi: 10.3389/fphar.2022.809802. PMID: 35586063; PMCID: PMC9108390.

Hackl B, Todt H, Kubista H, Hilber K, Koenig X. Psilocybin Therapy of Psychiatric Disorders Is Not Hampered by hERG Potassium Channel-Mediated Cardiotoxicity. *Int J Neuropsychopharmacol.* 2022 Apr 19;25(4):280-282. doi: 10.1093/ijnp/pyab085. PMID: 34871422; PMCID: PMC9017764.

Szabó PL, Ebner J, Koenig X, Hamza O, Watzinger S, Trojanek S, Abraham D, Todt H, Kubista H, Schicker K, Remy S, Anegón I, Kiss A, Podesser BK, Hilber K. Cardiovascular phenotype of the *Dmdmdx* rat - a suitable animal model for Duchenne muscular dystrophy. *Dis Model Mech.* 2021 Feb 22;14(2):dmm047704. doi: 10.1242/dmm.047704. PMID: 33619211; PMCID: PMC7927653.

Amstetter D, Badt F, Rubi L, Bittner RE, Ebner J, Uhrin P, Hilber K, Koenig X, Todt H. The bradycardic agent ivabradine decreases conduction velocity in the AV node and in the ventricles in-vivo. *Eur J Pharmacol.* 2021 Feb 15;893:173818. doi: 10.1016/j.ejphar.2020.173818. Epub 2020 Dec 18. PMID: 33345856.

Todt H, Dorninger F, Rothauer PJ, Fischer CM, Schranz M, Bruegger B, Lüchtenborg C, Ebner J, Hilber K, Koenig X, Erdem FA, Gawali VS, Berger J. Oral batyl alcohol supplementation rescues decreased cardiac conduction in ether phospholipid-deficient mice. *J Inherit Metab Dis.* 2020 Sep;43(5):1046-1055. doi: 10.1002/jimd.12264. Epub 2020 Jun 5. PMID: 32441337; PMCID: PMC7540404.

Ebner J, Uhrin P, Szabo PL, Kiss A, Podesser BK, Todt H, Hilber K, Koenig X. Reduced Na^+ current in Purkinje fibers explains cardiac conduction defects and arrhythmias in Duchenne muscular dystrophy. *Am J Physiol Heart Circ Physiol.* 2020 Jun 1;318(6):H1436-H1440. doi: 10.1152/ajpheart.00224.2020. Epub 2020 May 8. PMID: 32383994.

Ebner J, Cagalinec M, Kubista H, Todt H, Szabo PL, Kiss A, Podesser BK, Cserne Szappanos H, Hool LC, Hilber K, Koenig X. Neuronal nitric oxide synthase regulation of calcium cycling in ventricular cardiomyocytes is independent of Ca^{2+} channel modulation under basal conditions. *Pflugers Arch.* 2020 Jan;472(1):61-74. doi: 10.1007/s00424-019-02335-7. Epub 2019 Dec 10. PMID: 31822999; PMCID: PMC6960210.

Haechl N, Ebner J, Hilber K, Todt H, Koenig X. Pharmacological Profile of the Bradycardic Agent Ivabradine on Human Cardiac Ion Channels. *Cell Physiol Biochem.* 2019;53(1):36-48. doi: 10.33594/000000119. PMID: 31169990.

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mechanistic insights from recent crystal structures. *Sci Rep.* 2018 Jan 12;8(1):631. doi: 10.1038/s41598-017-18919-1. PMID: 29330525; PMCID: PMC5766632.

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Gawali VS, Todt H. Mechanism of Inactivation in Voltage-Gated Na⁽⁺⁾ Channels. *Curr Top Membr.* 2016;78:409-50. doi: 10.1016/bs.ctm.2016.07.004. Epub 2016 Aug 1. PMID: 27586291.

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Gawali VS, Lukacs P, Cervenka R, Koenig X, Rubi L, Hilber K, Sandtner W, Todt H. Mechanism of Modification, by Lidocaine, of Fast and Slow Recovery from Inactivation of Voltage-Gated Na⁺ Channels. *Mol Pharmacol.* 2015 Nov;88(5):866-79. doi: 10.1124/mol.115.099580. Epub 2015 Sep 10. PMID: 26358763.

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the voltage-gated sodium channel. Does the inactivation gate stabilize the
channel structure? *J Biol Chem*. 2002 Oct 4;277(40):37105-15. doi:
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inactivation in $\mu 1$ Na⁺ channels is produced by a structural rearrangement of
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Arch Pharmacol*. 1994 Dec;350(6):670-6. doi: 10.1007/BF00169373. PMID: 7708124.

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vivo. *Br J Pharmacol*. 1993 Sep;110(1):145-50. doi:
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Projects

In vivo models of Cardiac electrophysiology and arrhythmogenesis
Pharmacology/toxicology and structure-activity relationships of voltage-gated ion channels

Memberships

Austrian Neuroscience Association
Austrian Pharmacological Society
Biophysics Austria

Other Relevant Information

36 year experience in teaching pharmacology to medical students. Main fields: General Pharmacology (pharmacodynamics/pharmacokinetics), cardiovascular pharmacology, endocrinology, neuropharmacology, psychopharmacology, pharmacology of antimicrobials