ACADEMIC CURRICULUM VITAE

Lukas. A. Huber (DOB 04.07.1961 in Vienna)
Member of the Academia Europaea

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Personal information

Nationality	Austria
Acad. Degree	Univ.-Prof. Dr. med. univ.
Wikipedia	https://de.wikipedia.org/wiki/Lukas_Huber_(Mediziner)

Eduction

2002	Venia Legendi in Histology and molecular Cell Biology
1995	Venia Legendi, in General and Experimental Pathology (Both at University of Innsbruck, Medical School)
1989	MD, Medical School, University of Innsbruck, Austria
1980	Matura, Humanistisches Gymnasium Paulinum, Schwaz, Austria

Career History

2022-2024	President of the Austrian Platform for Personalized Medicine (ÖPPM)
since 2022	Member of the Academia Europaea
2018-2022	President, Austrian Association of Molecular Life Sciences and Biotechnology (ÖGMBT)
2015-2019	Scientific Advisory Board Max-Planck-Institute for Infection Biology, Berlin
2013-2015	Austrian delegate in the International Agency for Research on Cancer-IARC Scientific Council (WHO)
2012-2019	Founder and Co-Director of the Austrian Drug Screening Institute under the patronage of the Austrian Academy of Sciences (ÖAW)
2012	Appointment as Full Professor and Director Systems Pharmacology, University College Dublin, Ireland – declined
2010-2014	Austrian representative and Steering Committee member to the ESF Research Networking Program on “Frontiers in Functional Genomics”
since 2009	Chair of Ilse and Helmut Wachter Foundation (Wachter Prize)
2009-2020	CSO, Center for Personalized Medicine, ONCOTYROL, Innsbruck
2007-2008	Co-Director of the Integrated Research and Therapy Center (IFTZ), Innsbruck
2007-2011	Member of the Senate of Medical University Innsbruck
since 2005	Chair of Research Infrastructure Commission Innsbruck Medical University
2005-2013	Founding-Director of the Biocenter, Medical University Innsbruck
since 2004	Director Institute of Cell Biology, Biocenter, Medical University Innsbruck
2002-2004	Director Institute of Histology and Cell Biology, Medical University Innsbruck
2002	Call as Full Professor to Innsbruck Medical University
1996-2002	Group Leader, Institute of Molecular Pathology, IMP, Vienna, Austria
1993-1995	Maître Assistant, Département de Biochimie, Université de Genève, Sciences II, Genève, Switzerland, Prof. Dr. Jean Gruenberg

1990-1993 Postdoc at the European Molecular Biology Laboratory (EMBL), Cell Biology Program, Heidelberg, Germany, Prof. Dr. Kai Simons

1987-1989 M.D. Thesis, "Immunology of Ageing: Immuno-regulatory Properties of Lipoproteins". Institute for General and Experimental Pathology, University of Innsbruck, Medical School, Austria, Prof. Dr. Georg Wick

Recent Awards

Silver Lion for Social Engagement and Research on Rare Diseases, 2018

Patents

US 12/994,491, PCT/EP2017/087086, International Publication Number WO 2018/099952A1; EP Nr. 22734923.0 (4355346); Regional Phase PCT/EP2022/066436

Editorial activities

Senior Editor Proteomics, Proteomics Clinical Applications, FEBS Letters**;** Associate Editor Current and Molecular Life Sciences, Frontiers Cell and Developmental Biology, Cells

Reviewing boards

ERC, DFG, Cancer UK, BAYGENE, EUROSTARS, Max Planck, BMBF program "National Consortium for Translational Cancer Research", BMBF program “Systems Medicine”, International Agency for Research on Cancer-IARC, ÖNB, Research Agency of Lower Austria, Swiss National Science Foundation, Deutsche Krebshilfe

Experience in competitive acquisition coordination of internationally visible research projects

I have led several major European and national research initiatives, including the EU FP6 and FP7 programs GROWTHSTOP and OPTATIO, the Austrian Proteomics Platform as part of GEN-AU, and the FWF SFB021 program focused on cell proliferation and death in tumors. I'm involved in several EU translational programs such as Organoids in Personalized Cancer Medicine. From 2009 until 2021 I was the CSO of ONCOTYROL, a center for personalized cancer medicine supported by FFG Austria, and in 2012 I founded the Austrian Drug Screening Institute (ADSI). In addition, I support young scientists through the FWF DOC 82 doc.funds, focusing on the cellular basis of diseases related to metabolism and inflammation.

Research interests and major achievements

With my medical expertise and international collaborations, I've made significant advances in intracellular protein trafficking and its link to disease. My lab discovered the LAMTOR complex and we were the first in Innsbruck to solve its structure (Araujo et al., Science 2017). Together with my team, we have identified 5 critical genes that affect lysosomal transport diseases. We have effectively translated cell biology insights into potential disease treatments, particularly for LAMTOR-related disorders (Bohn et al, Nat Med 2007; Scheffler et al, Nat Comm 2014; Taub et al, J Cell Sci 2012). Our discovery of TIS7 as a cystic fibrosis modifier gene (Vietor et al., EMBO J, 2002; Gu et al., Nature, 2009) and our identification of MYO5B mutations in microvillus inclusion disease (Müller et al., Nature Gen, 2008; Ruemmele et al., Human Mutation, 2010) were groundbreaking. We have also identified syntaxin3 and Munc-18 in related diseases (Wiegerink et al., Gastroenterology, 2014; Vogel et al., J Cell Biology, 2015; Vogel et al., J Clinical Invest. Insight 2017) and, in collaboration with the Ballabio lab, uncovered a novel mTORC1 pathway in Birt-Hogg-Dubé syndrome (Napolitano et al., Nature, 2020).

Our recent work with the Hurley lab detailed the structure of the lysosomal mTORC1-TFEB-Rag-Ragulator megacomplex (Cui et al., Nature 2023). These discoveries are guiding pharmaceutical development, including a CdK inhibitor for multiple myeloma in collaboration with ASCENION, Munich.

Lukas A. Huber: 10 most important scientific publications (All Publications, Citations, h-index and i10-index: Google Scholar link)

1. Cui Z, Napolitano G, de Araujo MEG, Esposito A, Monfregola J, **Huber LA**, Ballabio A, Hurley JH. Structure of the lysosomal mTORC1-TFEB-Rag-Ragulator megacomplex. **Nature**. 2023 Feb;614(7948):572-579. doi:10.1038/s41586-022-05652-7. Epub 2023 Jan 25. PMID: 36697823; PMCID: PMC9931586.
2. Napolitano G, Di Malta C, Esposito A, de Araujo MEG, Pece S, Bertalot G, Matarese M, Benedetti V, Zampelli A, Stasyk T, Siciliano D, Venuta A, Cesana M, Vilardo C, Nusco E, Monfregola J, Calcagnì A, Di Fiore PP, **Huber LA**, Ballabio A. A substrate-specific mTORC1 pathway underlies Birt-Hogg-Dubé syndrome. **Nature**. 2020 Sep;585(7826):597-602. doi: 10.1038/s41586-020-2444-0. Epub 2020 Jul 1. PMID: 32612235; PMCID: PMC7610377.
3. Araujo MEG, Naschberger A, Fürnrohr BG, Stasyk T, Dunzendorfer-Matt T, Lechner S, Welti S, Kremser L, Shivalingaiah G, Offterdinger M, Lindner HH, **Huber LA***, Scheffzek K.* Crystal structure of the human lysosomal mTORC1 scaffold complex and its impact on signaling. **Science** 2017; doi: 10.1126/science.aao1583. Epub 2017 Sep 21.* *equal contribution as corresponding authors*
4. Filipek PA, Araujo MEG, Vogel GF, De Smet CH, Eberharter D, Rebsamen M, Rudashevskaya EL, Kremser L, Yordanov T, Tschaikner P, Fürnrohr BG, Lechner S, Dunzendorfer-Matt T, Scheffzek K, Bennett KL, Surperti-Furga G, Lindner HH, Stasyk T, **Huber LA**. LAMTOR/Ragulator is a negative regulator of Arl8b- and BORC-dependent late endosomal positioning. **J Cell Biol**. 2017; doi: 10.1083/jcb.201703061. Epub 2017 Oct 9.
5. Vogel GF, Klee KM, Janecke AR, Müller T, Hess MW, **Huber LA**. Cargo-selective apical exocytosis in epithelial cells is conducted by Myo5B, Slp4a, Vamp7, and Syntaxin 3. **J Cell Biol.** 2015; 211:587-604. doi: 10.1083/jcb.201506112.
6. Rebsamen M, Pochini L, Stasyk T, de Araujo ME, Galluccio M, Kandasamy RK,Snijder B, Fauster A, Rudashevskaya EL, Bruckner M, Scorzoni S, Filipek PA, HuberKV, Bigenzahn JW, Heinz LX, Kraft C, Bennett KL, Indiveri C, **Huber LA**, Superti-Furga G. SLC38A9 is a component of the lysosomal amino acid sensing machinery that controls mTORC1. **Nature**. 2015; 519:477-81. doi: 10.1038/nature14107.
7. Scheffler JM, Sparber F, Tripp CH, Herrmann C, Humenberger A, Blitz J, Romani N, Stoitzner P, **Huber LA**. LAMTOR2 regulates dendritic cell homeostasis through FLT3-dependent mTOR signaling. **Nat Commun**. 2014; 5:5138. doi: 10.1038/ncomms6138.
8. Schiefermeier N, Scheffler JM, de Araujo ME, Stasyk T, Yordanov T, Ebner HL, Offterdinger M, Munck S, Hess MW, Wickström SA, Lange A, Wunderlich W, Fässler R, Teis D, **Huber LA**. The late endosomal p14-MP1 (LAMTOR2/3) complex regulates focal adhesion dynamics during cell migration. **J Cell Bio***l*. 2014; 205:525-40. doi: 10.1083/jcb.201310043.
9. Müller T, Hess MW, Schiefermeier N, Pfaller K, Ebner HL, Heinz-Erian P, Ponstingl H, Partsch J, Röllinghoff B, Köhler H, Berger T, Lenhartz H, Schlenck B, Houwen RJ, Taylor CJ, Zoller H, Lechner S, Goulet O, Utermann G, Ruemmele FM, **Huber LA***, Janecke AR*. MYO5B mutations cause microvillus inclusion disease and disrupt epithelial cell polarity. **Nat Genet**. 2008; 40:1163-5. doi: 10.1038/ng.225. **Equal contribution as corresponding authors*

10. Teis D, Taub N, Kurzbauer R, Hilber D, de Araujo ME, Erlacher M, Offterdinger M, Villunger A, Geley S, Bohn G, Klein C, Hess MW, **Huber LA**. p14-MP1-MEK1 signaling regulates endosomal traffic and cellular proliferation during tissue homeostasis. **J Cell Biol**. 2006; 175:861-8. doi: 10.1083/jcb.200607025.