

Volker Haucke

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Molecular Pharmacology and Cell Biology
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Curriculum vitae

- Since 2012 Director, FMP, Berlin
Since 2012 Full professor, Molecular Pharmacology, FMP, Berlin
2011 – 2012 Spokesperson, Collaborative Research Center (SFB) 958 ‘Scaffolding of membranes – molecular mechanisms and cellular functions’, German Research Foundation (DFG)
2008 – 2010 Spokesperson, Collaborative Research Center (SFB) 449 ‘Structure and function of membrane integral receptors’, German Research Foundation (DFG)
2005 – 2011 Full professor (W3) and chair, Department of Biochemistry, Freie Universität Berlin
2003 – 2005 Professor (C3), Membrane Biochemistry, Freie Universität Berlin
2000 – 2003 Research group leader, Center for Biochemistry and Molecular Cell Biology, Georg-August-Universität Göttingen
1997 – 1999 Postdoctoral fellow, Yale University School of Medicine, New Haven; and Howard Hughes Medical Institute, Chevy Chase, US
1994 – 1997 PhD, Department of Biochemistry, Biozentrum, Universität Basel, CH
1989 – 1994 Studies in Biochemistry, Freie Universität Berlin and Universität Basel, CH

Research fields

- Cellular and molecular mechanisms of synaptic vesicle recycling and presynaptic protein homeostasis
- Regulation of endocytosis and endosomal membrane traffic by phosphoinositides
- Endosomal membrane dynamics in cell signaling and development
- Super-resolution and optical imaging of neuronal function and activity

Activities in the scientific community, honors, awards

- Since 2020 President, Scientific Advisory Board, Institute of Psychiatry and Neuroscience of Paris, Université Paris Descartes (iPNP)
2020 Feldberg Prize for Research in Physiology and Pharmacology
Since 2019 Member, Academia Europaea/ Academy of Europe (AE)
Since 2017 Member, Berlin-Brandenburg Academy of Sciences and Humanities (BBAW)
Since 2017 Member, Leopoldina – German National Academy of Sciences
2017 Avanti Award, American Society for Biochemistry and Molecular Biology
2017 Reinhart-Koselleck-Award, German Research Foundation (DFG)
Since 2016 Scientific advisory board of open access platform ‘Matters’
Since 2014 Member, European Molecular Biology Organization (EMBO)
Since 2011 Member, editorial board, EMBO Reports
2008 – 2016 Member, Study Section, Biochemistry, German Research Foundation (DFG)
Since 2007 Member, editorial board, The Journal of Biological Chemistry
Since 2004 Member, editorial board, Biology of the Cell
2003 YIP Award, European Molecular Biology Organization (EMBO)
1998 Long-Term Fellowship, Human Frontier Science Program (HFSP)
1997 Long-Term Fellowship and Short-Term Fellowship, European Molecular Biology Organization (EMBO)
1994 – 1997 PhD Fellowship, Boehringer Ingelheim Fonds
1990 – 1994 Scholarship, Studienstiftung des deutschen Volkes (German Academic Scholarship Foundation)

Selected publications

- Wallroth A, Koch PA, Marat AL, Krause E, Haucke V. Protein kinase N controls a lysosomal lipid switch to facilitate nutrient signalling via mTORC1. *Nat Cell Biol* 2019; 21: 1093-1101
- Vukoja, A., Rey, U., Petzoldt, A.G., Vollweiter, D., Ott, C., Quentin, C., Puchkov, D., Reynolds, E., Lehmann, M., Hohensee, S., Rosa, S., Lipowsky, R., Sigrist, S.J., Haucke, V. Presynaptic biogenesis requires axonal transport of lysosome-related vesicles. *Neuron* 2018; 99: 1216-1232
- Marat AL, Wallroth A, Lo WT, Muller R, Norata GD, Falasca M, Schultz C, Haucke V. mTORC1 activity repression by late endosomal phosphatidylinositol 3,4-bisphosphate. *Science* 2017; 356:968-972
- Soykan T, Kaempf N, Sakaba T, Vollweiter D, Goerdeler F, Puchkov D, Kononenko NL, Haucke V. Synaptic Vesicle Endocytosis Occurs on Multiple Timescales and Is Mediated by Formin-Dependent Actin Assembly. *Neuron* 2017; 93:854-866
- Ketel K, Krauss M, Nicot AS, Puchkov D, Wieffer M, Muller R, Subramanian D, Schultz C, Laporte J, Haucke V. A phosphoinositide conversion mechanism for exit from endosomes. *Nature* 2016; 529:408-412
- Koo SJ, Kochlamazashvili G, Rost B, Puchkov D, Gimber N, Lehmann M, Tadeus G, Schmoranzer J, Rosenmund C, Haucke V*, Maritzen T*. Vesicular Synaptobrevin/VAMP2 Levels Guarded by AP180 Control Efficient Neurotransmission. *Neuron* 2015; 88:330-344 | *corresponding authors
- Kononenko NL, Puchkov D, Classen GA, Walter AM, Pechstein A, Sawade L, Kaempf N, Trimbuch T, Lorenz D, Rosenmund C, Maritzen T, Haucke V. Clathrin/AP-2 mediate synaptic vesicle reformation from endosome-like vacuoles but are not essential for membrane retrieval at central synapses. *Neuron* 2014; 82:981-988
- Posor Y, Eichhorn-Gruenig M, Puchkov D, Schoneberg J, Ullrich A, Lampe A, Muller R, Zarbakhsh S, Gulluni F, Hirsch E, Krauss M, Schultz C, Schmoranzer J, Noe F, Haucke V. Spatiotemporal control of endocytosis by phosphatidylinositol-3,4-bisphosphate. *Nature* 2013; 499:233-237
- von Kleist L, Stahlschmidt W, Bulut H, Gromova K, Puchkov D, Robertson MJ, MacGregor KA, Tomilin N, Pechstein A, Chau N, Chircop M, Sakoff J, von Kries JP, Saenger W, Krausslich HG, Shupliakov O, Robinson PJ, McCluskey A, Haucke V. Role of the clathrin terminal domain in regulating coated pit dynamics revealed by small molecule inhibition. *Cell* 2011; 146:471-484
- Faelber K, Posor Y, Gao S, Held M, Roske Y, Schulze D, Haucke V, Noe F, Daumke O. Crystal structure of nucleotide-free dynamin. *Nature* 2011; 477:556-560