HOPF, CARSTEN, PROF. DR. RER. NAT., DIPL.-BIOCHEM.

GENERAL INFORMATION

W2 Professor
Hochschule Mannheim
Center for Mass Spectrometry and Optical Spectroscopy (CeMOS)
Paul-Wittsack-Str. 10, 68163 Mannheim, Germany

C04

ACADEMIC EDUCATION & QUALIFICATION

Year(s)	Education
1989-1995	Dipl.-Biochem.: University Tübingen; thesis in neurochemistry at Max-Planck-Institute for Developmental Biology, Dept. Biochemistry
1992-1993	Graduate Studies in Biochemistry & Biophysics: Oregon State University, Corvallis, USA

SCIENTIFIC EDUCATION & QUALIFICATION

Year(s)	Education
1995-1998	Dr. rer. nat., Biochemistry: Max-Planck-Institute for Developmental Biology and Eberhard-Karls-University Tübingen; Member DFG Graduiertenkolleg "Neurobiology"
1999-2001	EMBO-Postdoctoral Fellow: The Johns Hopkins University School of Medicine, Department of Neuroscience, Baltimore, USA

PROFESSIONAL EXPERIENCE

Year(s)	Experience
Since 2018	Head of CeMOS
Since 2011	Head, Institute of Instrumental Analytics and Bioanalytics, Mannheim University of Applied Sciences, Dept. of Biotechnology
2012-2014	Cellzome GmbH – a GSK company, Heidelberg: Member of the Leadership Team ("Geschäftsführung"), e.g. responsible for: all Cellzome Neuroscience R&D, Member of GSK's global „Phenotypic Drug Discovery" team
Since 2009	Member, Institute of Medical Technology of Heidelberg University and Mannheim University of Applied Sciences
Since 2005	W2-Professor (Bioanalytics, Drug Discovery, Proteomics) at Mannheim University of Applied Sciences, Dept. of Biotechnology
2001-2012	Cellzome AG, Heidelberg (Analytical Biochemistry/Proteomics, Target Identification, Drug Discovery), Assoc. Director of Biochemistry & Business Development Technology

OTHER QUALIFICATIONS/ROLES/RESPONSIBILITIES

Year(s)	
Since 2018	Spokesperson, "Chemical Biology", German Society for Biochemistry & Molecular Biology
Since 2017	Spokesperson and scientific coordinator: BMBF consortium M^2Aind ("multimodal analytics and intelligent sensorics in health industry")
Since 2015	Head, Rhine-Neckar Center for mass spectrometry imaging and fingerprinting, Bruker reference center
Since 2014	Project leader M^2oBiTE – Biopsy analytics and Theranostica Development, BMBF Forschungscampus M^2OLIE („Mannheim Molecular Intervention Environment")

2011-2016	Spokesperson: Center „Applied Biomedical Mass Spectrometry“ (ABIMAS) of Mannheim University of Applied Sciences, DKFZ and Heidelberg University
Since 2005	Referee for scientific journals incl. Anal. Chem., J. Proteome Res., Brit. J. Cancer and scientific institutions, e.g. DFG, BMBF/PTJ, BMBF/AiF, Österreichische FFG, National Science Center, Poland
1990-1995	Scholarship of the “Studienstiftung des Deutschen Volkes”

SELECTED PUBLICATIONS

1. Szaruga M, Munteanu B, Lismont S, Veugelen S, Horré K, Mercken M, Saido TC, Ryan NS, De Vos T, Savvides SN, Gallardo R, Schymkowitz J, Rousseau F, Fox NC, Hopf C, De Strooper B, Chávez-Gutiérrez L. Alzheimer's-Causing Mutations Shift Aβ Length by Destabilizing γ-Secretase-Aβn Interactions. **Cell** 2017;170(3):443-456
2. Fülöp A, Sammour DA, Erich K, von Gerichten J, van Hoogevest P, Sandhoff R, Hopf C. Molecular imaging of brain localization of liposomes in mice using MALDI mass spectrometry. **Sci Rep** 2016;6:33791
3. Schwartz M, Meyer B, Wirnitzer B, Hopf C. Standardized processing of MALDI imaging raw data for enhancement of weak analyte signals in mouse models of gastric cancer and Alzheimer's disease. **Anal Bioanal Chem** 2015;407(8):2255-64
4. Munteanu B, Meyer B, von Reitzenstein C, Burgermeister E, Bog S, Pahl A, Ebert MP, Hopf C. Label-free in situ monitoring of histone deacetylase drug target engagement by matrix-assisted laser desorption ionization-mass spectrometry biotyping and imaging. **Anal Chem** 2014;86(10):4642-7
5. Fülöp A, Porada MB, Marsching C, Blott H, Meyer B, Tambe S, Sandhoff R, Junker HD, Hopf C. 4-Phenyl-α-cyanocinnamic acid amide: screening for a negative ion matrix for MALDI-MS imaging of multiple lipid classes. **Anal Chem** 2013;85(19):9156-63
6. Ruh H, Salonikios T, Fuchser J, Schwartz M, Sticht C, Hochheim C, Wirnitzer B, Gretz N, Hopf C. MALDI imaging MS reveals candidate lipid markers of polycystic kidney disease. **J Lipid Res** 2013;54(10):2785-94
7. Dawson MA, Prinjha RK, Dittmann A, Giotopoulos G, Bantscheff M, Chan WI, Robson SC, Chung CW, Hopf C, Savitski MM, Huthmacher C, Gudgin E, Lugo D, Beinke S, Chapman TD, Roberts EJ, Soden PE, Auger KR, Mirguet O, Doehner K, Delwel R, Burnett AK, et al. Inhibition of BET recruitment to chromatin as an effective treatment for MLL-fusion leukaemia. **Nature** 2011;478(7370):529-33
8. Ramsden N, Perrin J, Ren Z, Lee BD, Zinn N, Dawson VL, Tam D, Bova M, Lang M, Drewes G, Bantscheff M, Bard F, Dawson TM, Hopf C. Chemoproteomics-based design of potent LRRK2-selective lead compounds that attenuate Parkinson's disease-related toxicity in human neurons. **ACS Chem Biol** 2011;6(10):1021-8
9. Bantscheff M*, Hopf C*, Savitski MM, Dittmann A, Grandi P, Michon AM, Schlegl J, Abraham Y, Becher I, Bergamini G, Boesche M, et al. Chemoproteomics profiling of HDAC inhibitors reveals selective targeting of HDAC complexes. **Nat Biotechnol** 2011;29(3):255-65 *equal contribution
10. Xu D*, Hopf C*, Reddy R, Cho RW, Guo L, Lanahan A, Petralia RS, Wenthold RJ, O'Brien RJ, Worley P. Narp and NP1 form heterocomplexes that function in developmental and activity-dependent synaptic plasticity. **Neuron** 2003;39(3):513-28 *equal contribution

PATENTS AND PUBLISHED PATENT APPLICATIONS

- Hopf, Drewes, Ruffner: Treatment of neurodegenerative diseases by the use of ATP7Amodulators (WO2005075632A3)
- Hopf, Drewes: Use of Eph receptor inhibitors for the treatment of neurodegenerative diseases (EP1662259A1)
- Drewes, Kuester, Kruse, Hopf, Eberhard, Bantscheff, Reader, Raida, Middlemiss: Process for the identification of novel enzyme interacting compounds (WO2006134056A1)
- Hopf, Drewes, Ruffner: Treatment of Neurodegenerative Diseases by the Use of Degs Inhibitors (US20070298029A1)
- Drewes, Hopf, Neubauer, Kruse: In vivo method for the evaluation of a compound-target interaction (US20130210030A1)