Prof. Michael Hoch, PhD

Life and Medical Sciences Institute (LIMES)

Rheinische Friedrich-Wilhelms-Universität Bonn

Life and Medical Sciences Institute (LIMES), Program Unit Genetics, Developmental Biology & Molecular Physiology

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Research Expertise

Our aim is to identify new key regulators and genetic networks which control metabolism and cell and organ physiology. In particular, we elucidate the metabolism – innate immunity – gut microbiome axis, we investigate cellular (sphingo)lipid metabolism and body fat regulation, we study peroxisome and lysosome biogenesis and metabolic disorders (e.g. lipid storage diseases or neurodegeneration), and we analyse new regulators of cell-to-cell communication and tissue physiology. We use the fruit fly Drosophila, the mouse and zebra fish as genetic model organisms for our studies.

Education / Training

University of Munich, Germany, Developmental Biology
PhD, 1992
University of Heidelberg, Germany, Biology Undergraduate (Dipl.), 1989

Appointments / Positions Held

2010
Visiting Research Professors, ASMeW Institute, Waseda University, Japan

2006 - present
Managing Director of the LIMES Institute, Chair Molecular Developmental Biology, LIMES Institute, University of Bonn, Germany

2000 - 2002
Director, Institute of Animal Physiology, University of Bonn, Germany

1999 - present
Full Professor, Chair of Molecular Developmental Biology LIMES Institute, University of Bonn, Germany

1996
Habilitation in Developmental Genetics & Cell Biology Technical University of Braunschweig, Germany

1994 - 1999
Group Leader, Dept. Mol. Developmental Biology

(Head: Prof. H. Jäckle), Max Planck Institute for Biophysical Chemistry, Göttingen, Germany

1992 - 1994
Post-doc Fellow, Dept. Mol. Developmental Biology (Head: Prof. H. Jäckle), Max Planck Institute for Biophysical Chemistry, Göttingen, Germany

Honors / Awards

Since 2015 Rector of the University of Bonn

2006 - 2015 Managing Director of the LIMES (Life & Medical Sciences) Institute

2014 - 2015
Member of the Academic Senate of the University of Bonn

2013 - 2015
Member of the PhD fellowship selection committee of the German National Academic Foundation (Studienstiftung des deutschen Volkes)

2012 - 2015
Member of the Steering Committee of the ImmunoSensation Cluster of Excellence Bonn (German Research Foundation DFG)

2009 - 2015
Member of the Minerva Fellowship Committee of the Max Planck Society, Munich

2006 - 2009
Founding Head of the Section Molecular Biomedicine of the Faculty for Mathematics & Natural Science, University of Bonn
2005 - present

Speaker of the Collaborative Research Centre SFB 645 (German Research Foundation)

2003 - 2004
Head of the Section Biology of the Faculty for Mathematics & Natural Science, University of Bonn

2002 - 2004
Chairman of the Bonner Forum Biomedizin

2001 - 2004
Speaker of the Research Unit FOR 425, funded by the DFG

2000 - 2007
Member of the reviewer panel for the award of Post Graduate Fellowships of the DAAD (German Academic Exchange Service)

1996
Gerhard Hess Young Investigator Award (DFG)

1989 - 1992
PhD Fellowship of the Boehringer Ingelheim Fonds (Foundation for Basic Research in Medicine)

1986 - 1989
Member of the German National Academic Foundation (Studienstiftung des deutschen Volkes)

5 Most Relevant Publications for Prof. Michael Hoch

1. Mass E, Wachten D, Aschenbrenner AC, Voelzmann A, Hoch M. 2014. Murine Creld1 controls cardiac development through activation of calcineurin/NFATc1 signaling. Developmental Cell 28, 711-726. DOI: 10.1016/j.devcel.2014.02.012.

2. Becker T, Loch G, Beyer M, Zinke I, Aschenbrenner AC, Carrera P, Inhester T, Schultze JL, Hoch M. 2010. FOXO-dependent regulation of innate immune homeostasis. Nature 463: 369-73.

3. Bauer R, Voelzmann A, Breiden B, Schepers U, Farwanah H, Hahn I, Eckardt F, Sandhoff K, Hoch M. 2009. Schlank, a member of the ceramide synthase family controls growth and body fat in Drosophila. EMBO J 28: 3706-3716.

4. Behr M, Wingen C, Wolf C, Schuh R, Hoch M. 2007. Wurst is essential for airway clearance and respiratory-tube size control. Nat Cell Biol 9: 847-53.

5. Fuss B, Becker T, Zinke I, Hoch M. 2006. The cytohesin Steppke is essential for insulin signalling in Drosophila. Nature 444: 945-8.