

Christina Ising, PhD



2012, Travel grant from the GlaxoSmithKline Stiftung
2010, Travel grant from the Deutsche akademische Auslandsdienst (DAAD)
2009, Three-year fellowship of the International Graduate School for Development Health and Disease (IGS DGD), University of Cologne, Germany

Most Relevant Publications

1. **Ising C**, Venegas C, Zhang S, Scheiblich H, Schmidt SV, Vieira-Saecker A, Schwartz S, Albasset S, McManus RM, Tejera D, Griep A, Santarelli F, Brosseron F, Opitz S, Stunden J, Merten M, Kayed R, Golenbock DT, Blum D, Latz E, Buée L, Heneka MT. NLRP3 inflammasome activation drives tau pathology. *Nature* 2019;575:669-673.
2. **Ising C**, Heneka MT. Functional and structural damage of neurons by innate immune mechanisms during neurodegeneration. *Cell Death* 2018;Dis 9:120.
3. **Ising C***, Gallardo G*, Leyns CEG, Wong CH, Stewart F, Koscal LJ, Roh J, Robinson GO, Remolina Serrano J, Holtzman DM. AAV-mediated expression of anti-tau scFvs decreases tau accumulation in a mouse model of tauopathy. *J Exp Med* 2017;214:1227-1238. (*equal contribution)
4. **Ising C**, Stanley M, Holtzman DM. Current thinking on the mechanistic basis of Alzheimer's and implications for drug development. *Clin Pharmacol Ther* 2015;98:469-71.
5. **Ising C**, Koehler S, Brähler S, Merkwirth S, Höhne M, Baris OR, Hagmann H, Kann M, Fabretti F, Dafinger C, Bloch W, Schermer B, Linkermann A, Brüning JC, Kurschat CE, Müller R, Wiesner RJ, Langer T, Benzing T, Brinkkoetter PT. Inhibition of insulin/IGF-1 receptor signaling protects from mitochondria-mediated kidney failure. *EMBO Mol Med* 2015;7:275-87.

University Hospital Bonn

Postdoctoral researcher

E-Mail: christina.ising@ukb.uni-bonn.de / christina.ising@dzne.de

Research Expertise

Dr. Christina Ising is trained in molecular and cell biology, with a focus on preclinical biomolecular research. She is interested in understanding the underlying mechanisms in the development and progression of tauopathies like Frontotemporal dementia and Alzheimer's disease and the impact of neuroinflammation on tau pathology. Techniques she is using include, but are not restricted to immunohistochemical and immunocytochemical stainings, Western Blot, ELISA, primary cell culture, flow cytometry, RNA sequencing, purification of recombinant proteins and stereotaxic injections for in vivo spread assays.

Education / Training

2014, PhD, Genetics, University of Cologne, Germany
2009, Diploma, University of Bonn, Germany
2005 - 2009, Excellence study course "Molecular Biomedicine", University of Bonn, Germany

Appointments / Positions Held

2017 - present, Postdoctoral researcher in the Dept. for Neurodegenerative Diseases and Geriatric Psychiatry/Neurology, Heneka lab, University Hospital of Bonn and German Center for Neurodegenerative Diseases (DZNE), Germany
2014 - 2017, Postdoctoral researcher in the Dept. of Neurology, Holtzman lab, Washington University School of Medicine in St. Louis, MO, USA
2014, Postdoctoral researcher, Kidney Research Center Cologne, Benzing lab, University Hospital of Cologne, Germany
2010 - 2014, PhD student, Kidney Research Center Cologne, Benzing lab, University Hospital of Cologne, Germany

Honors / Awards

2018, Three-year Research Grant from the Deutsche Forschungsgemeinschaft (DFG)
2017, Poster Award, 5th Venusberg Meeting on Neuroinflammation, Bonn, Germany
2017, Six-months return-grant from the DFG
2015, Two-year Research Fellowship from the DFG