Johannes Berger CV

Personal Data

Date of Birth:	May 26, 1964
Place of Birth:	Vienna, Austria
Nationality:	Austrian

Education

1984 – 1989	Studies of Biology / Genetics, University of Vienna; Degree: Master Sc.
1989 – 1991	Thesis at the Sandoz Research Institute (SFI), Department of Antiretroviral Therapy; Degree: Dr. rer. nat. (Ph.D)
1999	Habilitation in Molecular Biology, Medical Univ. Vienna
2003	Habilitation in Biochemistry, University of Vienna

Career History

1992 – 1999	Univ. Assistant at the Institute of Neurology, Univ. of Vienna
1999 – 2007	Associate professor for Molecular Biology at the Center for Brain Research, Medical University of Vienna
2002 –	Coordinator of the PhD-program Neuroscience
2004 – 2009	Coordinator of EU projects concerning therapeutic strategies against X-ALD and the role of peroxisomes in health and disease
2007 –	Full professor for Pathobiology of the Nervous System and head of a Section at the Center for Brain Research, Medical University Vienna
2011 –	Head of the Department for Pathobiology of the Nervous System at the Center for Brain Research, Medical University Vienna

Awards (5 most important)

2001	Kardinal-Innitzer-Förderungspreis
2003	Otto-Loewi-Award of the Austrian Neuroscience Association
2005	Researcher of the Month awarded by the Medical Univ. of Vienna
2013	“Rare Diseases – upcoming challenges” award by the Society for MPS and Rare Diseases

Invitations to present at conferences (5 most important)

International symposium on X-linked adrenoleukodystrophy and adrenomyeloneuropathy, plenary, 2008, Cambridge, USA; Jahrestagung der Österreichischen Gesellschaft für Neurologie , 2011, plenary, Vienna, Austria; 43rd Annual Meeting of the American Society for Neurochemistry (ASN), 2012, plenary, Baltimore, USA; 2014 Meeting of the United Leukodystrophy Foundation, 2014, plenary, Baltimore, USA; 13th International Conference Rare Diseases, 2015, plenary, Warsaw, Poland.

Peer review activities, editorships, and/or memberships in academic organizations (5 most important)

Reviewing for a broad range of international journals including: Human Mol Genet, Nat Struct Mol Biol, Cell Metab, Hum Mutat, Lancet Neurol, Brain, Acta Neuropath, J Biol Chem, Biochim Biophys Acta, J Lipid Res, Mol Genet Metab, J Inherit Metab Dis and many others.

Member of: Austrian Neuroscience Association, Austrian Association of Molecular Life Sciences and Biotechnology

Peer-reviewed and funded research projects (5 most important as responsible PI)

X-linked Adrenoleukodystrophy (X-ALD): pathogenesis, animal model and therapy, Coordinator, EU, 2004-2007, 1,800,000 € own part 425,271 €

Peroxisomes in health and disease, Coordinator, EU, 2005-2008, 8,000,000 € own part 895,772 €

HMGCR and the peroxisome, FWF, 2009-2012, 149,520 €

Neurotransmitter alterations in Ether lipid deficiency, FWF, 2012-2015, 315,986 €

Characterization of immune cells in X-ALD, FWF, 2013-2017, 437,860 €

Key international cooperation partners (last 5 years)

Patrick Aubourg, INSERM U986, France

Florian Eichler, Harvard Medical School, USA

Wilhelm W Just, University Heidelberg, Germany

Britta Brügger, University Heidelberg, Germany

Nancy E Braverman, McGill University, Canada

Stephan Kemp, Academic Medical Center, The Netherlands

10 most important scientific publications

Netik A, Forss-Petter S, Holzinger A, Molzer B, Unterrainer G, **Berger J.** Adrenoleukodystrophy-related protein can compensate functionally for adrenoleukodystrophy protein deficiency (X-ALD): implications for therapy. Hum Mol Genet. 1999 May;8(5):907-13.

Unterrainer G, Molzer B, Forss-Petter S, **Berger J.** Co-expression of mutated and normal adrenoleukodystrophy protein reduces protein function: implications for gene therapy of X-linked adrenoleukodystrophy. Hum Mol Genet. 2000 Nov 1;9(18):2609-16.

Weinhofer I, Forss-Petter S, Zigman M, **Berger J.** Cholesterol regulates ABCD2 expression: implications for the therapy of X-linked adrenoleukodystrophy. Hum Mol Genet. 2002 Oct 15;11(22):2701-8.

Oezen I, Rossmanith W, Forss-Petter S, Kemp S, Voigtländer T, Moser-Thier K, Wanders RJ, Bittner RE, **Berger J.** Accumulation of very long-chain fatty acids does not affect

mitochondrial function in adrenoleukodystrophy protein deficiency. Hum Mol Genet. 2005 May 1;14(9):1127-37.

Berger J, Gärtner J. X-linked adrenoleukodystrophy: clinical, biochemical and pathogenetic aspects. Biochim Biophys Acta. 2006 Dec;1763(12):1721-32.

Kou J, Kovacs GG, Höftberger R, Kulik W, Brodde A, Forss-Petter S, Hönigschnabl S, Gleiss A, Brügger B, Wanders R, Just W, Budka H, Jungwirth S, Fischer P, **Berger J.** Peroxisomal alterations in Alzheimer's disease. Acta Neuropathol. 2011 Sep;122(3):271-83. doi: 10.1007/s00401-011-0836-9.

Facciotti F, Ramanjaneyulu GS, Lepore M, Sansano S, Cavallari M, Kistowska M, Forss-Petter S, Ni G, Colone A, Singhal A, **Berger J,** Xia C, Mori L, De Libero G. Peroxisome-derived lipids are self antigens that stimulate invariant natural killer T cells in the thymus. Nat Immunol. 2012 Mar 18;13(5):474-80. doi: 10.1038/ni.2245.

Wiesinger C, Kunze M, Regelsberger G, Forss-Petter S, **Berger J.** Impaired very long-chain acyl-CoA β-oxidation in human X-linked adrenoleukodystrophy fibroblasts is a direct consequence of ABCD1 transporter dysfunction. J Biol Chem. 2013 Jun 28;288(26):19269-79. doi: 10.1074/jbc.M112.445445.

Weber FD, Wiesinger C, Forss-Petter S, Regelsberger G, Einwich A, Weber WH, Köhler W, Stockinger H, **Berger J.** X-linked adrenoleukodystrophy: very long-chain fatty acid metabolism is severely impaired in monocytes but not in lymphocytes. Hum Mol Genet. 2014 May 15;23(10):2542-50. doi: 10.1093/hmg/ddt645.

Kunze M, Malkani N, Maurer-Stroh S, Wiesinger C, Schmid JA, **Berger J.** Mechanistic insights into PTS2-mediated peroxisomal protein import: the co-receptor PEX5L drastically increases the interaction strength between the cargo protein and the receptor PEX7. J Biol Chem. 2015 Feb 20;290(8):4928-40. doi: 10.1074/jbc.M114.601575.