

Leist, Marcel, Prof. Dr. rer. nat. (PhD)

Date of Birth 05.04.1964
Address Faculty (Fachbereich) of Biology, In-vitro Toxicology and Biomedicine,
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Position Full professor (W3), Head of Department

Education and professional experience

since 2006 Professor for in vitro toxicology and biomedicine (chair founded/endowed by the Doerenkamp-Zbinden foundation)
2000-2006 Neurology and psychiatry drug research in the pharmaceutical company H. Lundbeck A/S (Copenhagen, DK); Head of Department (personnel: ca. 25)
1999 Board certified pharmacologist of the DGPT (German Soc. Pharmacol Toxicol.)
1998 Habilitation; venia legendi in Cell Biology and Toxicology
1995-2000 Group leader (Assoc. Prof.), department of Molecular Toxicology (head: Prof. Dr. Dr. P. Nicotera), University of Konstanz. "Neurotoxicology and cell death"
1994-1995 Research group leader in the department Vitamins/ Atherosclerosis; German Institute of Human Nutrition, Potsdam-Rehbrücke.
1993 PhD thesis (Prof. Dr. A. Wendel, University of Konstanz). "Inflammatory mediators in mouse liver"
1985 -1989 Study of Biochemistry (Tübingen, D) and Toxicology, MSc Toxicology from the University of Surrey, UK

Professional activities

Since 2015 Scientific advisor to the European Food Agency (EFSA) pesticide panel
Since 2013 Scientific advisory board of Swiss Center for Applied Human Toxicology
2012 Chair of University Ethics Commission (institutional review board)
since 2010 Co-director of CAAT-Europe (joint venture with Johns-Hopkins University)
since 2009 Member of the OECD advisory subgroup on developmental neurotoxicity
2008-2016 Chair of the PhD school RTG 1331 - Cell-based mechanisms of tissue destruction and regeneration,
since 2002 Editorial work for ALTEX and J Neurochem

Honors, awards

2017 Achievement award of the German Soc. of Toxicology (GT-Toxicology Award)
2016 Bo Helmstedt Memorial Lecture at Eurotox (Sevilla)
2015 SOT Achievement award (San Diego): Animal welfare and new methods
2015 Federal German (BMEL) award: Animal welfare and new research methods
2014 and 2016 LUSH Award (London): Animal welfare and alternative methods research
2013 Felix Wankel International Research Award: stem cells and animal welfare
2010 State award of Baden-Württemberg for Alternative Methods Research

Scientific output and supervision

Publication of > 150 original peer-reviewed articles, > 50 book chapters and reviews.
Overall citations: > 15000. H-factor: 66; sum of impact points: > 1100 (both Thomson Reuters).
Invited talks at international meetings: > 70; Directly supervised PhD students: > 25



Marcel Leist: example publications

1. Rempel E*, Hölting L*, Waldmann T, Balmer NV, Schildknecht S, Grinberg M, Das Gaspar JA, Shinde V, Stoebe R, Marchan R, van Thriel C, Liebing J, Meisig J, Blüthgen N, Sachinidis A, Rahnenführer J, Hengstler JG*, **Leist M*** (2015) A transcriptome-based classifier to identify developmental toxicants by stem cell testing: design, validation and optimization for histone deacetylase inhibitors. **Arch Toxicol** 89, 1599-1618
2. Krug AK, Gutbier S, Zhao L, Kullmann C, Pörtl D, Ivanova V, Förster S, Jagtap S, Meiser J, Leparo G, Schildknecht S, Adam M, Hiller K, Farhan H, Brunner T, Hartung T, Sachinidis A, **Leist M** (2014) Transcriptional and metabolic adaptation of human neurons to the mitochondrial toxicant MPP+. **Cell Death Disease** 5, e1222
3. Schildknecht S, Pape R, Meiser J, Karreman C, Strittmatter T, Odermatt M, Cirri E, Friemel A, Ringwald M, Pasquarelli N, Ferger B, Brunner T, Marx A, Möller H, Hiller K, **Leist M** (2015) Preferential extracellular generation of the active parkinsonian toxicant MPP+ by transporter-independent export of the intermediate MPDP+. **Antioxid Redox Signal** 23, 1001-1016
4. Balmer NV, Weng M, Zimmer B, Ivanova VN, Chambers SM, Nikolaeva E, Jagtap S, Sachinidis A, Hescheler J, Waldmann T, **Leist M** (2012). Epigenetic changes and disturbed neural development in a human embryonic stem cell-based model relating to the fetal valproate syndrome. **Hum Mol Genet** 21, 4104-4114
5. Zimmer B, Lee G, Balmer NV, Meganathan K, Sachinidis A, Studer L, **Leist M** (2012). Evaluation of developmental toxicants and signaling pathways in a functional test based on the migration of human neural crest cells. **Env Health Perspect**, 120, 1116-1122.
6. Zimmer B, Kuegler PB, Baudis B, Genewsky A, Tanavde V, Koh W, Tan B, Waldmann T, Kadereit S, **Leist M** (2011) Coordinated waves of gene expression during neuronal differentiation of embryonic stem cells as basis for novel approaches to developmental neurotoxicity testing. **Cell Death Differ** 18, 385-395.
7. **Leist M**, Ghezzi P, Grasso G, Bianchi R, Villa P, Fratelli M, Savino C, Bianchi M, Nielsen J, Gerwien J, Kallunki P, Larsen AK, Helboe L, Christensen S, Pedersen LO, Nielsen M, Torup L, Sager T, Sfacteria A, Erbayraktar S, Erbayraktar Z, Gokmen N, Yilmaz O, Cerami-Hand C, Xie Q, Coleman T, Cerami A, Brines M (2004). Derivatives of erythropoietin that are tissue protective but not erythropoietic. **Science**, 305, 239-242.
8. Foghsgaard L, Wissing D, Mauch D, Lademann U, Bastholm L, Boes M, Elling F, Jaattela M*, **Leist M*** (2001). Cathepsin B acts as a dominant execution protease in tumor cell apoptosis induced by tumor necrosis factor. **J Cell Biol**, 153, 999-1009.
9. Schierle GS, Hansson O, **Leist M**, Nicotera P, Widner H, Brundin P (1999). Caspase inhibition reduces apoptosis and increases survival of nigral transplants. **Nat Med**, 5, 97-100.
10. **Leist M**, Single B, Castoldi AF, Kühnle S, Nicotera P (1997). Intracellular adenosine triphosphate (ATP) concentration: a switch in the decision between apoptosis and necrosis. **J. Exp. Med.** 185, 1481-1486.

* = shared senior/first authorship