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<https://pbg.meduniwien.ac.at/forschung/forschung-medizinische-genetik/forschungsgruppen/>

<https://www.gundacker-lab.at/>

<https://exposome.at/>

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### Academic milestones and relevant positions

- From 2012 Associate Professor, Institute of Medical Genetics, Medical University of Vienna
- From 2011 Assistant Professor, Institute of Medical Genetics, Medical University of Vienna
- From 2010 Head of teaching staff Institute of Medical Genetics, organising curriculum (Genetics, Medical Ecology, Biochemistry) and elective courses (Rounds Medical Genetics, Journal Club Medical Genetics, PhD Thesis seminars)
- 2009-2010 University Assistant *post doc*, Inst. Medical Genetics, Medical University of Vienna
- From 2009 Group leader, Institute of Medical Genetics, Medical University Vienna
- 2008 Habilitation (*Venia docendi*) Medical Ecology, Medical University of Vienna
- 2002-2008 University Assistant *post doc*, Center for Public Health, Medical University of Vienna
- 2001-2002 Maternity leave
- 1996-2001 Contract Assistant, Institute of Medical Biology, University of Vienna
- 1996 Dr. rer.nat. (PhD equivalent), Graduation with distinction, University of Vienna
- 1995-1996 Maternity leave
- 1992-1995 Contract Assistant, Institute of Medical Biology, University of Vienna
- 1992 Mag. rer.nat. (MSc equivalent), Graduation with distinction, University of Vienna
- 1985-1990 Diploma Studies of Biology, University of Vienna

### Main areas of research

The focus of my research is on the early life exposome and associated disease risk. Dysfunction of the placenta has both direct and longer-term health effects. We combine human biomonitoring studies in mother-newborn pairs with *in vitro* toxicology. This allows us to study placental physiology and function in the context of prenatal exposure to xenobiotics such as the 'forever' chemicals PFAS. In this way, we are exploring mechanisms underlying adverse birth outcome. Another interest is the study of placental iron metabolism in order to develop improved therapy for preterm infants with low iron levels.

### Research achievements

Partner of Exposome Austria, Research Infrastructure, EIRENE (European research infrastructure programme) <https://exposome.at/>

### Research grants and Prizes

PARC - European Partnership for the Assessment of Risks from Chemicals, EU Horizon Europe, Co-Investigator in WP4 (T4.1 Human biomonitoring), 2022-2027

Health risk of emerging concern: PFAS in the urban water cycle, WWTF - Environmental Systems Research 2020 - Urban Regions, € 649 982 total, € 212 209 (WP), Co-PI in WP3: Toxicity of PFAS and basis for risk assessment, 2021-2024

HBM4EU - Science and policy for a healthy future, EU Horizon 2020, € 70 M total, € 173,000 (WP), 2017-2022. Co-Investigator in WP13 (Exposure-Health relationships) and WP14 (Effect Biomarkers), Chair of HBM4EU Focus Group on PFAS/AOPs (Perfluoroalkyl Substances/Adverse Outcome Pathways) with Environment Agency Austria including organisation of HBM4EU-PFAS Workshops (Vienna 2018, Berlin 2019), Coordinator and PI of NEWDA study: PFAS exposure and birth outcome (HBM4EU: two publications; NEWDA study: three publications)

Iron metabolism of the healthy human term placenta, Life Science Call, Gesellschaft für Forschungsförderung Niederösterreich m.b.H. (GFF), € 300,000, Scientific coordinator and PI, 2018-2021 (one publication)

Mercury kinetics in the human placenta: making the bridge between genotype and phenotype, Life Science Call Gesellschaft für Forschungsförderung Niederösterreich m.b.H. (GFF), € 295,000, Scientific coordinator and PI, 2016-2019 (two publications)

Mercury kinetics in human placenta - Functional proof and localization of candidate proteins, Life Science Call Gesellschaft für Forschungsförderung Niederösterreich m.b.H. (GFF), € 275,000, Scientific coordinator and PI, 2012-2015 (three publications)

Environmental pollutants in mother-child-pairs, EU-EFRE (European Regional Development Fund), € 300,000, PI, € 39,000 (WP) 2010-2012 (one publication)

Outreaching activities: Veronika Fialka Moser Diversity Award (First Place Prize) and two Prizes by the City of Vienna in 2020 and 2021 for NOST, a WNWmed project that supports applicants with a foreign Medical Doctor degree at the Medical University of Vienna.

Member of Austrian Platform for Human Biomonitoring, Environment Agency, Vienna (Advisory body to the Ministry of Environment), Austrian Society of Toxicology (ASTOX), and WNWmed - The Women's Science Network Medicine (Founding member, Board member)

Supervision of 8 Bachelor works, 17 Diploma/Master theses, 5 PhD theses, Co-Supervision of 2 Diploma theses and 3 Dissertations (Univ. of Vienna). Current Lab members: 2 PostDocs, 3 Master students, 1 Technician

Reviewer for European Research Council (ERC), Czech Science Foundation (GACR), Slovenian Research Agency (ARRS), The Research Council of Norway (RCN)

Referee for 25+ scientific journals including Chemosphere, CDC/ATSDR, Environment International, Environmental Health, Environmental Health Perspectives, Environmental Pollution, Environmental Research, Heliyon, Placenta, The Lancet Planetary Health, Reproductive Toxicology, Scientific Reports, Science of the Total Environment, Toxicology Letters

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