



## Curriculum Vitae

### Personal information Harald Hundsberger

#### Work experience

1. Employer: University of Salzburg
  - Start date: 1998
  - End date: 1999
  - Position: PostDoc
  - Activities: Production of human proteins in yeast, research on ribosomal proteins and protein synthesis;
  - Country: Austria
2. Employer: Beckman Coulter Inc
  - Start date: 1999
  - End date: 2005
  - Position: Program Manager
  - Activities: Instrument Development for drug discovery, HTS\_Assays, HCS\_Assays;
  - Country: Austria
3. Employer: UAS Krems
  - Start date: 2005
  - End date:
  - Position: Prof. Biotechnology
  - Activities: Teaching in the field of recombinant protein production & purification, molecular biology and instrumental analytics; research and organization of scientific conferences;
  - Country: Austria
4. Employer: UAS Krems
  - Start date: 2012
  - End date:
  - Position: Department Head
  - Activities: Responsible for 400 students in the field of biotech, Department Size 25 FTE, Coordination of research\_ and international activities; organization of Scientific conferences;
  - Country: Austria
5. Employer: UAS Krems
  - Start date: 2015
  - End date: 2019
  - Position: Vice Rector for Research
  - Activities: Implementation of a quality system for research activities;
  - Country: Austria

#### Education and training

1. Subject: Paracelsus Medical University Salzburg
  - Start date: 2019
  - End date: 2019
  - Qualification: Habilitation
  - Organisation: Experimental Dermatology
  - Country: Austria

#### Additional information

##### Publications

Karl T, Onder K, Kodzius R, Pichová A, Wimmer H, Thür A, Hundsberger H, Löffler M, Klade T, Beyer A, Breitenbach M, Koller L. GRC5 and NMD3 function in translational control of gene expression and interact genetically. *Curr Genet.* 1999 Jan;34(6):419\_29. Oender K, Loeffler M, Doppler E, Eder M, Lach S, Heinrich F, Karl T, Moesl R, Hundsberger H, Klade T, Eckl P, Dickinson JR, Breitenbach M, Koller L. Translational regulator RpL10p/Grc5p interacts physically and functionally with Sed1p, a dynamic component of the yeast cell surface. *Yeast.* 2003 Mar;20(4):281\_94. Oender K, Niedermayr P, Hintner H, Richter K, Koller L, Trost A, Bauer JW, Hundsberger H. Relative quantitation of protein-protein interaction strength within the yeast two\_hybrid system via fluorescence beta\_galactosidase activity detection in a high\_throughput and low\_cost manner. *Assay Drug Dev Technol.* 2006 Dec;4(6):709\_19. Wiesner C, Kopecky J, Pflueger M, Hundsberger H, Entler B, Kleber C, Atzler J, Hrouzek P, Stys D, Lukesova A, Schuett W, Lucas R. Endothelial cell\_based methods for the detection of cyanobacterial anti\_inflammatory and wound\_healing promoting metabolites. *Drug Metab Lett.* 2007 Dec;1(4):254\_60. Hundsberger H, Verin A, Wiesner C, Pflüger M, Dulebo A, Schütt W, Lasters I, Männel DN, Wendel A, Lucas R. TNF: a moonlighting protein at the interface between cancer and infection. *Front Biosci.* 2008 May 1;13:5374\_86. Amatschek S, Lucas R, Eger A, Pflueger M, Hundsberger H, Knoll C, Grosse\_Kracht S, Schuett W, Koszik F, Maurer D, Wiesner C. CXCL9 induces chemotaxis, chemorepulsion and endothelial barrier disruption through CXCR3\_mediated activation of melanoma cells. *Br J Cancer.* 2011 Feb 1;104(3):469\_79. Rid R, Abdel\_Hadi O, Maier R, Wagner M, Hundsberger H, Hintner H, Bauer J, Onder K. From the ORFeome concept to highly comprehensive, full\_genome screening libraries. *Assay Drug Dev Technol.* 2013 Feb;11(1):52\_7. C.J. Maier, R.H. Maier, R. Rid, A. Trost, H. Hundsberger, A. Eger, H. Hintner, J.W. Bauer, and K. Önder (2012). 3. PIM\_1 kinase interacts with the DNA binding domain of the vitamin D receptor: a further kinase implicated in 1,25\_(OH) 2D3 signaling. *BMC Mol. Biol.* (2012)21;13:18. Machicao F, Muresanu DF, Hundsberger H, Pflüger M, Guekht A. Pleiotropic neuroprotective and metabolic effects of Actovegin's mode of action. *J Neurol Sci.* 2012 Nov 15;322(1\_2):222\_7. Kreiseder B, Orel L, Bujnow C, Buschek S, Pflueger M, Schuett W, Hundsberger H, de Martin R, Wiesner C. a\_Catulin downregulates E\_cadherin and promotes melanoma progression and invasion. *Int J Cancer.* 2013 Feb 1;132(3):521\_30. M. Pflüger, A. Kapuscik, R. Lucas, A. Koppensteiner, M. Katzlinger, J. Jokela, A. Eger, N. Jacobi, C. Wiesner, E. Hofmann, K. Önder, J. Kopecky, W. Schütt, and H. Hundsberger (2013). A combined impedance and AlphaLISA\_based approach to identify anti\_inflammatory and barrier\_protective compounds in

human endothelium. *J. Biomol. Screen.* 18 (1):67\_74. Khare V, Lyakhovich A, Dammann K, Lang M, Borgmann M, Tichy B, Pospisilova S, Luciani G, Campregher C, Evstatiev R, Pflueger M, Hundsberger H, Gasche C. Mesalamine modulates intercellular adhesion through inhibition of p\_21 activated kinase\_1. *Biochem Pharmacol.* 2013 Jan 15;85(2):234\_44 R. Rid, J. Herzog, R. H. Maier, H. Hundsberger, A. Eger, H. Hintner, J. W. Bauer, and Kamil Önder (2013). Real-Time Monitoring of Relative Peptide-Protein Interaction Strengths in the Yeast Two-Hybrid System. *Assay Drug Dev. Technol.* 11(4):269\_75. Rid R, Wagner M, Maier CJ, Hundsberger H, Hintner H, Bauer JW, Önder K. Deciphering the calcitriol induced transcriptomic response in keratinocytes: presentation of novel target genes. *J Mol Endocrinol.* 2013 Feb 15;50(2):131\_49 A. Kapucik, P. Hrouzek, M. Kuzma, S. Bartova, P. Novak, J. Jokela, M. Pflüger, A. Eger, H. Hundsberger, and J. Kopecky (2013). A Novel Aeruginosin\_865 from *Nostoc* sp. as a Potent Anti-inflammatory Agent. *ChemBiochem.* 25;14(17):2329\_37 Rid R, Hundsberger H, Önder K. Compound screening and transcriptional profiling in human primary keratinocytes: a brief guideline. *Methods Mol Biol.* 2014;1195:99\_109. A. Pretsch, M. Nagl, K. Schwendinger, B. Kreiseder, M. Wiederstein, D. Pretsch, M. Genov, R. Hollaus, D. Zinssmeister, A. Debbab, H. Hundsberger, A. Eger, P. Proksch, and C. Wiesner (2014). Antimicrobial and anti-inflammatory activities of endophytic fungi *Talaromyces wortmannii* extracts against acne-inducing bacteria. *PLoS One.* 2;9(6):97929. B. Kreiseder, Y.M. Holper\_Schichl, B. Muellauer, N. Jacobi, A. Pretsch, J.A. Schmid, R. de Martin, H. Hundsberger, A. Eger, and C. Wiesner. (2015). Alpha\_catulin contributes to drug\_resistance of melanoma by activating NF\_kB and AP\_1. *PLoS One.* 20;10(3):0119402 J. Herzog, R. Rid, M. Wagner, H. Hundsberger, A. Eger, J. Bauer, and Önder K. (2015). Whole\_transcriptome gene expression profiling in an epidermolysis bullosa simplex Dowling\_Meara model keratinocyte cell line uncovered novel, potential therapeutic targets and affected pathways. *BMC Res Notes.* 15;8:785 E. Hofmann, R. Seeboeck, N. Jacobi, P. Obrist, S. Huter, C. Klein, K. Oender, C. Wiesner, H. Hundsberger, and A. Eger. (2016). The combinatorial approach of laser\_captured microdissection and reverse transcription quantitative polymerase chain reaction accurately determines HER2 status in breast cancer. *Biomark Res.* 4:8 Al\_Harthy T, Abdel\_Jalil R, Zoghaib W, Pflüger M, Hofmann E, Hundsberger H. Design and Synthesis of Benzothiazole Schiff Bases of Potential Antitumor Activity. *Heterocycles.* 2016 Vol 92, No. 7, 2016, pp. 1282 – 1292 Schütz B, Koppensteiner A, Schörghofer D, Kinslechner K, Timelthaler G, Eferl R, Hengstschläger M, Missbichler A, Hundsberger H, Mikula M. Generation of metastatic melanoma specific antibodies by affinity purification. *Sci Rep.* 2016 Nov 17;6:37253. Al\_Harthy T, Zoghaib WM, Pflüger M, Schöpel M, Önder K, Reitsammer M, Hundsberger H, Stoll R, Abdel\_Jalil R. Design, Synthesis, and Cytotoxicity of 5\_Fluoro\_2\_methyl\_6\_(4\_aryl\_piperazin\_1\_yl) Benzoxazoles. *Molecules.* 2016 Sep 27;21(10). Volk K, Breunig SD, Rid R, Herzog J, Bräuer M, Hundsberger H, Klein C, Müller N, Önder K. Structural analysis and interaction studies of acyl\_carrier protein (acpP) of *Staphylococcus aureus*, an extraordinarily thermally stable protein. *Biol Chem.* 2017 Jan 1;398(1):125\_133. H. Hundsberger, A. Koppensteiner, E. Hofmann, D. Ripper D M. Pflüger, V. Stadlmann, CT Klein, B. Kreiseder, M. Katzlinger, A. Eger, F. Forster, A. Missbichler, and C. Wiesner. (2017). A Screening Approach for Identifying Gliadin Neutralizing Antibodies on Epithelial Intestinal Caco\_2 Cells. *SLAS Discov.* 22(8):1035\_1043. Hundsberger H, Önder K, Schuller\_Götzburg P, Virok DP, Herzog J, Rid R. Assembly and use of high\_density recombinant peptide chips for large\_scale ligand screening is a practical alternative to synthetic peptide libraries. *BMC Genomics.* 2017 Jun 8;18(1) N. Jacobi, R. Seeboeck, E. Hofmann, H. Schweiger, V. Smolinska, T. Mohr, A. Boyer, W. Sommergruber, P. Lechner, C. Pichler\_Huebschmann, K. Önder, H. Hundsberger, C. Wiesner, and A. Eger (2017). Organotypic three\_dimensional cancer cell cultures mirror drug responses in vivo: lessons learned from the inhibition of EGFR signaling. *Oncotarget.* 2017 Nov 17;8(64):107423\_107440. K. Kinslechner, B. Schütz, B. Pistek, P. Rapolter, HP. Weitzenböck, H. Hundsberger, W. Mikulits, J. Grillari, C. Röhrli, M. Hengstschläger, Stangl H, Mikula M. Loss of SR\_BI Down\_Regulates MITF and Suppresses Extracellular Vesicle Release in Human Melanoma. *Int J Mol Sci.* 2019 Mar 1;20(5) Hundsberger H, Stierschneider A, Sarne V, Ripper D, Schimon J, Weitzenböck HP, Schild D, Jacobi N, Eger A, Atzler J, Klein CT, Wiesner C. Concentration\_Dependent Pro\_ and Antitumor Activities of Quercetin in Human Melanoma Spheroids: Comparative Analysis of 2D and 3D Cell Culture Models. *Molecules.* 2021 Jan 30;26(3):717. Stierschneider A, Grünstäudl P, Colleselli K, Atzler J, Klein CT, Hundsberger H, Wiesner C. Light\_Inducible Spatio\_Temporal Control of TLR4 and NF\_kB\_Gluc Reporter in Human Pancreatic Cell Line. *Int J Mol Sci.* 2021 Aug 26;22(17):9232. Lucas R, Hadizamani Y, Enkhbaatar P, Csanyi G, Caldwell RW, Hundsberger H, Sridhar S, Lever AA, Hudel M, Ash D, Ushio\_Fukai M, Fukai T, Chakraborty T, Verin A, Eaton DC, Romero M, Hamacher J. Dichotomous Role of Tumor Necrosis Factor in Pulmonary Barrier Function and Alveolar Fluid Clearance. *Front Physiol.* 2022 Feb 21;12:793251. Weitzenböck HP, Gschwendtner A, Wiesner C, Depke M, Schmidt F, Trautinger F, Hengstschläger M, Hundsberger H, Mikula M. Proteome analysis of NRF2 inhibition in melanoma reveals CD44 up\_regulation and increased apoptosis resistance upon vemurafenib treatment. *Cancer Med.* 2022 Feb;11(4):956\_967.

## Projects

- Principal Investigator of research project "Human Cell Based Testsystems for the Characterization of Bioactive Compounds" funded by the FFG, Program COIN (2005\_2009, 1.140.000€).
- Principal Investigator of research project "Migflam\_Identification of anti\_inflammatory peptides" funded by the FFG, Program Bridge (2009\_2013, 280.000€).
- Principal Investigator of the research project Characterization of bioactive compounds from Cyanobacteria" funded by the European extraterritorial fund ETZ (200.000€).
- Principal Investigator of research project "AdsorbTech: Peptide\_based therapeutic apheresis" funded by the FFG, Program Bridge (2012\_2014, 160.000€).
- Co\_Management of research project "Generation of metastatic melanoma specific antibodies" funded by the FFG, Program Bridge (2013\_2016, 490.000€).
- Principal Investigator of research project "The role of NRF2 in the progression of metastatic melanoma" funded by the NÖ Forschungs\_ und Bildungsges.m.b.H., NFB (2016\_2019, 340.000€).
- Scientific Advisor of research project "Etablierung eines humanen gendergerechten Sepsis\_Modellsystems und Entwicklung neuer immunregulierender Peptide" funded by the FFG, Program FEMtech (2012\_2016).
- Production and characterization of camelid antibodies for aphaeresis and dialysis (technology fund Lower Austria, 2018\_2021)
- Principal Investigator of industry\_funded contract research projects (2005 to date, ca. 1.500.000€)\_ characterization of a anti\_gliadin antibody Fragment \_ development of optogenetic cell lines for optimized drug discovery applications

## Memberships

Austrian Association of Molecular Life Sciences and Biotechnology

## Other Relevant Information