

Curriculum vitae

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Main areas of research

Bioanalysis largely based on various forms of chromatography hyphenated with mass spectrometry focussing on the development of novel methods for investigating pathomechanisms and drug effects in humans. A combined analysis of proteins, lipids and metabolites is applied for providing new insights into processes such as inflammation, cancer and tissue regeneration. New methods are established supporting easy and reliable sampling of human individuals such as fingersweat analyses for individual profiling.

Description of academic career and positions held to date

Since 2010/3	Deputy/Head of the Department of Analytical Chemistry, University of Vienna, Austria
Since 2012	Full Professor for Separation Technologies and Bioanalysis at University of Vienna
2003-2012	Group leader of the Clinical Proteomics Laboratories at the Medical University of Vienna
04/2002	Postdoctoral lecture qualification in Oncologic Biochemistry (<i>Venia legend; Habilitation</i>), University of Vienna, Austria
2002	Post-Doc in the group of Prof. Seamus Martin, Trinity College, Dublin, Ireland
1998-2001	Post-Doc in the group of Prof. Rolf Schulte-Hermann, Department of Toxicology, University of Vienna
04/1998	Dr. rer. nat. for Chemistry at University of Vienna
1997	UN Officer (degree: Major) and Acting Chief Inspector for Chemical Team at UNSCOM, Baghdad, Iraq
1995-1998	Research Assistant at the Institute of Cancer Research, Vienna

Funded projects (five most important)

- “Fetocart”: Cartilage Regeneration- a biomimicry approach recapitulating fetal-like regeneration. Bridge Project 7825205 funded by the Österreichische Forschungsförderungsgesellschaft mbH (FFG). 2017-2020. Role: co-PI (EUR 597.342,00).
- Metabolic characterization of blood plasma of patients suffering from chronic inflammatory diseases, metabolic syndrome and tumor cachexia. Project LS14-021 of the Life Science Call 2014 funded by the Government of Lower Austria, 2016-2019. Role: co-PI (EUR 302.430,00).
- „TisQuant“ – Development of an automated cell classification system based on microscopic immunohistochemical images. ERA-SME Project 844198 funded by the Österreichische Forschungsförderungsgesellschaft mbH (FFG). 2014-2017. Role: co-PI (EUR 806.090,00).
- Marine Rhythms of Life: Research Platform of the University of Vienna. 2014-2017 and 2017-2020. Role: Debuty head and co-PI (EUR 568.825,00 + 560.000,00).
- Tendon regeneration versus tendon repair. Sparkling Science Project SPA 05/232 funded by the Austrian Agency for International Cooperation in Education and Research OeAD. 2014 – 2017. Role: co-PI (EUR 168.000,00).

Invited presentations (three selected)

09/2018	Human Proteome Organisation (HUPO) 17 th Annual World Congress, Orlando, Florida: Proteomics and metabolomics identify molecular mechanisms of aging potentially predisposing for chronic lymphocytic leukemia
01/2017	ÖGDV 2017 Science Days, Fuschl am See, Austria: Combined proteomics and lipidomics supports the investigation and discovery of novel pathomechanisms
10/2016	Global Engage's Mass Spectrometry & Proteomics Congress, London, UK: From novel disease mechanisms to predictive biomarkers: combining proteomics and lipidomics for the investigation of metastatic melanoma

Peer review activities, editorships / memberships in academic organisations (five most important)

2001 - present	Ad-hoc referee of more than 20 scientific journals (incl. Allergy, Scientific Reports, Journal of Proteome Research, Electrophoresis, Proteomics, Journal of Proteomics, Carcinogenesis, PlosOne, Molecular Nutrition and Food Research, Archives in Toxicology, Toxicology Letters)
Memberships	American Chemical Society (ACS), Austrian Society of Chemistry (GÖCH); Austrian Society of Toxicology (Austria)

Names and institutional affiliations of the most important international cooperation partners in the last 5 years

Prof. Dr. Isaac Witz, Tel Aviv University, Israel

Prof. Dr. Verena Paulitschke, ETH Zürich, Switzerland

Prof. Dr. Albrecht Reichle, University Clinics Regensburg, Germany

Publication record, 10 selected papers

134 papers in peer reviewed journals, >3400 citations; H-index: 31

1. Mayer, R. L., Schwarzmeier, J. D., Gerner, M. C., Bileck, A., Mader, J. C., Meier-Menches, S. M., Gerner, S. M., Schmetterer, K. G., Pukrop, T., Reichle, A., Slany, A., and Gerner, C. (2018) Proteomics and metabolomics identify molecular mechanisms of aging potentially predisposing for chronic lymphocytic leukemia. *Mol Cell Proteomics* 17, 290-303
2. Kreutz, D., Sinthuvanich, C., Bileck, A., Janker, L., Muqaku, B., Slany, A., and Gerner, C. (2018) Curcumin exerts its antitumor effects in a context dependent fashion. *J Proteomics*
3. Wolrab, D., Fruhauf, P., and Gerner, C. (2017) Direct coupling of supercritical fluid chromatography with tandem mass spectrometry for the analysis of amino acids and related compounds: Comparing electrospray ionization and atmospheric pressure chemical ionization. *Anal Chim Acta* 981, 106-115
4. Tahir, A., Bileck, A., Muqaku, B., Niederstaetter, L., Kreutz, D., Mayer, R. L., Wolrab, D., Meier, S. M., Slany, A., and Gerner, C. (2017) Combined Proteome and Eicosanoid Profiling Approach for Revealing Implications of Human Fibroblasts in Chronic Inflammation. *Anal Chem* 89, 1945-1954
5. Muqaku, B., Eisinger, M., Meier, S. M., Tahir, A., Pukrop, T., Haferkamp, S., Slany, A., Reichle, A., and Gerner, C. (2017) Multi-omics Analysis of Serum Samples Demonstrates Reprogramming of Organ Functions Via Systemic Calcium Mobilization and Platelet Activation in Metastatic Melanoma. *Mol Cell Proteomics* 16, 86-99
6. Meier, S. M., Kreutz, D., Winter, L., Klose, M. H. M., Cseh, K., Weiss, T., Bileck, A., Alte, B., Mader, J. C., Jana, S., Chatterjee, A., Bhattacharyya, A., Hejl, M., Jakupec, M. A., Heffeter, P., Berger, W., Hartinger, C. G., Keppler, B. K., Wiche, G., and Gerner, C. (2017) An Organoruthenium Anticancer Agent Shows Unexpected Target Selectivity For Plectin. *Angew Chem Int Ed Engl* 56, 8267-8271
7. Kreutz, D., Bileck, A., Plessl, K., Wolrab, D., Groessler, M., Keppler, B. K., Meier, S. M., and Gerner, C. (2017) Response Profiling Using Shotgun Proteomics Enables Global Metallodrug Mechanisms of Action To Be Established. *Chemistry* 23, 1881-1890

8. Bileck, A., Mayer, R. L., Kreutz, D., Weiss, T., Taschner-Mandl, S., Meier, S. M., Slany, A., and Gerner, C. (2017) Evaluation of inflammation-related signaling events covering phosphorylation and nuclear translocation of proteins based on mass spectrometry data. *J Proteomics* 152, 161-171
9. Slany, A., Bileck, A., Kreutz, D., Mayer, R. L., Muqaku, B., and Gerner, C. (2016) Contribution of Human Fibroblasts and Endothelial Cells to the Hallmarks of Inflammation as Determined by Proteome Profiling. *Mol Cell Proteomics* 15, 1982-1997
10. Bileck, A., Kreutz, D., Muqaku, B., Slany, A., and Gerner, C. (2014) Comprehensive assessment of proteins regulated by dexamethasone reveals novel effects in primary human peripheral blood mononuclear cells. *J Proteome Res* 13, 5989-6000