

## Curriculum Vitae      **DI Dr. Ulrike Resch**

### Personal

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### Education

10/2008: Graduated as Dr. rer.nat at the Vienna University of Technology

10/2004-10/2008: **Ph.D. thesis: “Role of XIAP in cellular signalling and novel interacting proteins”** at the Department of Vascular Biology and Thrombosis Research, Medical University of Vienna under the provision of Dr. R. de Martin and Dr. R. Mach, Vienna University of Technology, Department of Gene technology and Chemical Engineering.

02/2004: Graduated as Dipl. Ing. at the University of Technology, Graz

02/2003-01/2004: **Diploma thesis: “Hypochlorite-modified low-density Lipoprotein and Apoptosis in human Jurkat T-cells”** at the Department of Medical Biochemistry and Molecular biology, Medical University Graz under the provision of Dr. E. Malle

10/1993-01/2003: Graduated from the Graz University of Technology for Biochemistry, Biotechnology and Food Technology.

09/1991-06/1993: Graduated from the College for Technical Chemistry, Graz. Diploma thesis: “Atherosclerosis and Lp(a)”, literature work).

### Professional Experience and Training

06/2023-present Senior Postdoctoral Researcher and independent group leader at the Department of Vascular Biology and Thrombosis Research, Medical University of Vienna. Projects “EVs for regeneration and reprogramming in liver cancer”, “Source matters- the plasma EV’s proteome close and distant to the crime scene during cardiac arrest”, “For DAMP- or good? EV’s oxidation specific epitopes in inflammation and immunity”, “Role of SERPINA5 in COVID-19 pathology?”, “Role of CTSL in metabolic rewiring of prostate cancer”, “Adaptive mechanisms of pathogenic bacteria to micronanoplastics (MNP) and impact on their host”, “Characterization of Klebsiella pneumoniae OMVs as basis for type-specific vaccines”.

- 01/2023-05/2023 Postdoctoral Research (senior) at the Institute of Genetics, University of Cologne, CECAD, AG Krueger. Projects “Cardiovascular proteomics”, “NMJ-on-a-Chip: high throughput analysis of human co-cultures with focus on neurodegenerative diseases”, “Proteomic profiling of DBS biopsies to uncover proteotypic signatures in Alzheimer, Parkinson, Essential Tremor and Epilepsy”, “Decipher the dynamics of macrophage’s polarization-dependent de-novo synthesized whole cell, soluble and EV-packed proteome utilizing MetRs-based BONCAT and characterize the secretome’s uptake and impact on dermal fibroblasts”, “PTM (phospho, methyl, acetyl) analysis of cardiomyocytes and cardiac tissue”. Supervision of bachelor and master students. Lecturer “Mechanisms of Aging and Aging associated Diseases”.
- 07/2022-12/2022 Postdoctoral Research (senior) at the Department of Cardiac Surgery, Cardiovascular Regenerative Medicine and Tissue Engineering 3D Lab (CURE<sup>3D</sup>), Heinrich-Heine University Düsseldorf, Germany and Guest Scientist at CECAD, University of Cologne, AG Krueger. Project “Comparative protein expression signatures of human heart right and left ventricles in patients admitted to heart transplantation”.
- 03/2019-06/2022 Postdoctoral Research (senior) at the Department of Vascular Biology and Thrombosis Research, Centre of Physiology and Pharmacology, Medical University of Vienna, and Institute of Pathology, Pathology of Laboratory Animals, University of Veterinary Medicine Vienna. Projects: i) “Nuclear Cathepsin L and SerpinA5”, ii) “Deciphering functions of Cathepsin L in prostate cancer by in quantitative (2D-DIGE and shotgun) proteomic approaches”. iii) “Untersuchungen zur Inaktivierung der SARS-CoV-2 aktivierenden Protease TMPRSS2 durch SERPINA5 und andere körpereigene Serpine”, iv) “Comparative characterization of outer membrane vesicles (OMVs) isolated from multidrug resistant *Klebsiella pneumoniae* as basis for development of type-specific vaccines”, v) “Evaluation of oxidative stress biomarkers in subjects with elevated Lp(a)”, vi) “Impact of micronanoplastics (MNPs) on bacterial stress response”.
- 12/2018-02/2019 Freelancing in research collaborations at the Clinical Institute of Laboratory Medicine, Proteomics Core Facility; Medical University of Vienna (proteomics and metaproteogenomics), and Department of Vascular Biology and Thrombosis Research, Centre of Physiology and Pharmacology, Medical University of Vienna (DIA/DDA quantitative shotgun and 2D-DIGE proteomics).
- 06/2018-11/2018: Postdoctoral Research Engineer at the Department of Clinical Microbiology, Unit Virology, Group Anne-Marie Fors-Connolly, project: Deciphering molecular mechanisms underlying thrombosis and bleeding during Haemorrhagic Fever with Renal Syndrome (HFRS).
- 11/2014-5/2018: Postdoctoral Research (senior) at the Department of Vascular Biology and Thrombosis Research, Medical University of Vienna, Project: SFB54-InThro: Activation of endothelial cells by platelets. Gene-and proteomic profiling, translational intellectual input and knowledge-transfer. Quantitative proteomics (SILAC and DIA) of circulating plasma microparticles from liver-cancer patients undergoing partial liver-hepatectomy. Phosphoproteomics of murine platelets and megakaryocytes.
- 06/2013-06/2014: Postdoctoral Research Engineer at the Department of Molecular Biology Umeå University, Molecular Infection Medicine Sweden (MIMS) Group Emmanuelle Marie Charpentier. Project: Host interactions of *Streptococcus pyogenes* MAMPs and PAMPs, Omics-analysis of secreted Extracellular Vesicles.
- 11/2012-06/2013: Freelancing in research collaborations at the Department of Vascular Biology and Thrombosis Research (Prof. Alice Assinger), Department of and

- Department of Nuclear Medicine, Medical University of Vienna; revision of a project proposal; supervision of master students.
- 05/2012-10/2012: Guest Scientist at the University of Umea, Molecular Infection Medicine Sweden, Project: Host-Pathogen interactions and DNA-damage. Functional genomics (lentiviral shRNA gene silencing); Macrophage infection-biology, signal transduction; Supervision of Master and PhD students, Interdisciplinary Project development and pilot experiments. Participation in research grants proposals.
- 07/2011-04/2012: Freelancing in research collaborations at the Department of Vascular Biology and Thrombosis Research Medical University of Vienna. Training in Bioinformatics, Systems Biology and Java-programming. "Omics" data analysis.
- 04/2009-06/2011: Postdoctoral Assistant at the University of Cologne, Dept. of Mouse Genetics and Inflammation; Establishment of SILAC-based quantitative Mass spectrometry. Tissue specific proteome profiling from transgenic mice. Knowledge-transfer workshops on SILAC-MS/MS and analysis of protein-protein interactions. Participation in research grant proposals. Collaborative Project with the Center of Molecular Medicine (CeMM), Vienna; Method optimization for phosphoproteomic workflows. Proteomic-data analysis. Lecturer at the Technikum Wien, Topic: "Modern tools of Molecular Biology and Signal Transduction". Interdisciplinary project initiation, pilot studies.
- 11/2008-04/2009: Postdoctoral Assistant at the Dept. of Vascular Biology and Thrombosis Research, Medical University of Vienna. Revising scientific manuscripts, project planning and pilot studies; Supervising Diploma students and supporting PhD students.
- 10/2004-10/2008: Doctoral Thesis at the Dept. of Vascular Biology and Thrombosis Research, Medical University of Vienna. Yeast two hybrid screening, primary cell culture, protein expression and posttranslational modifications, scientific presentations and contributions at international meetings and journals.
- 02/2003-02/2004: Diploma Thesis at the Dept. of Medical Biochemistry, University Graz; Oxidative Stress, oxidative modifications of lipoproteins and Apoptosis.
- 10/1998-01/2003: Research Assistant at the Dept. of Nuclear Medicine, General Hospital Vienna Group Helmut Sinzinger. Bioassay development Oxidative Stress and Auto-antibodies, characterization of Oxidatively modified lipoproteins. Clinical Studies: Thyroid dysfunction, Lipid-lowering drug intervention studies.
- 10/1993-09/1998: Technical Assistant at the Dept. of Biochemistry, University Graz; Responsibilities: Lipid- and antioxidant profiling of lipoproteins (HPLC, GC, DC), Assay development for the detection of autoantibodies. Monoclonal Antibody generation and characterization, ELISA, Cell Culture.

## Core Competences

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- Techniques: Biochemistry (Signal Transduction, Protein expression, Posttranslational modifications; Enzymatic Assays, Immunoblotting, Immunohistochemistry, ELISA), Molecular Biology (Cloning, Sequencing, PCR, shRNA, Lentivirus, Gene expression analysis), Proteomics (SILAC, Interaction/immuno-proteomics, phosphoproteomics, proteome profiling, clinical proteomics, 2D-DIGE), Bioanalytics: MS (Orbitrap, TimsToF, MALDI), Chromatography (HPLC, nLC, DC, GC), preparative and analytical ultracentrifugation (Lipoproteins, Vesicles).
- Research Focus: Vascular Biology; Inflammation; Innate Immunity; Host-Pathogen-Interaction; Vesicle biogenesis communication; Antibiotic resistance mechanisms, Vaccine

development, Extracellular matrix; Signal Transduction; Post-translational modifications; Ubiquitin Biology; Protein-lipid interactions; Cell biology and multicellular models; Biochemistry; Molecular Biology; Live-Cell Imaging; Oxidative Stress.

Personal:

Very good command in Microsoft Office (Excel, Word, PowerPoint, Access), Adobe, statistical Software (Perseus, SPSS). Basic knowledge in Java-programming and handling of SQL-databases. Very good command in English. Experience in project- and team management, supervision of undergraduates and graduates; competence in initiation, planning and execution of projects; very good ability to work under pressure; highly interested to work in interdisciplinary and multinational teams; good knowledge of national and international funding institutions. Identifying myself with LGBTQIA+ community for 35years.

Reviewer for Journals:

Journal of Cell Science (ISSN 1477-9137), IF 5.235

Metabolism (ISSN: 0026-0495), IF 2.733

Molecular Cancer (ISSN: 1476-4598), IF 5.195

Immunology and Cell Biology (ISSN:1440-1711), IF 4

International Journal of Cardiology (ISSN: 0167-5273), IF 4.039

Frontiers in Physiology (ISSN: 1664-042X), IF 4.755

Frontiers in Cell and Developmental Biology (ISSN 2296-634X), IF 6.081

Frontiers in Immunology (ISSN 1664-3224), IF 7.3

Frontiers in Chemistry (ISSN 2296-2464), IF 5.5

Journal of Vascular Research (ISSN 1018-1172), IF 1.7

Nutrients (ISSN 2072-6643), IF 5.9

Cells (ISSN 2073-4409), IF 4.829



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## Funding track records

- December 2020: CVC Translational Synergy Grant: Evaluation of oxidative stress biomarkers in subjects with elevated Lipoprotein (a). Joint grant awarded to DI Dr. Ulrike Resch (Vascular Biology and Thrombosis Research, Medical University of Vienna) and Dr. Lore Schrutka (Department of Internal Medicine II, Division of Cardiology, Medical University of Vienna).
- May 2019: Medical Scientific Fund of the Major of Vienna, project number 19048, assigned to Prof. Dr. Diethart Schmid and DI Dr. Ulrike Resch. Title: „Comparative characterization of outer membrane vesicles (OMVs) isolated from multidrug resistant Klebsiella pneumoniae as basis for development of type-specific vaccines”.
- May 2018: Innovationscheck, FFG to Omnignostica Forschungs GmbH (U. Resch and W. Wonsich): Title: Haben oxidative Stress Parameter einen prädiktiven Wert für die Leberregeneration und damit auch der Gesundheitsentwicklung von Patienten nach partieller Leberresektion. Research partner: Prof. Alice Assinger, Department of Vascular Biology and Thrombosis Research, Medical University of Vienna.

## Scientific publications-Original Articles

ORCID-ID: 0000 0002 8380 9555

- A.S. Ondracek, T. Afonyushkin, A. Aszlan, S. Taqi, T. Koller, T. Arnter, F. Porsch, U. Resch, S. Sharma, T. Scherz, A. Spittler, M. Haertinger, T.M. Hofbauer, M. Ozsvar-Kosma, V. Seidl, D. Beitzke, M. Krueger, C. Testori, I.M. Lang, C.B. Binder. Malondialdehyde-specific natural IM inhibit NETosis triggered by culprit site-derived extracellular vesicles from myocardial infarction patients. *Eur Heart J.* 2024; ehae584, doi: 10.1093/eurheartj/ehae584, PMID: 39215577.
- L. Brunthaler, T.G. Hammond, D. Pereyra, J. Santol, V. Laferl, U. Resch, M. Aiad, A.S. Janoschek, T. Gruenberger, H. Hackl, P. Starlinger, A. Assinger. HMGB1-Mediated Cell Death- A Crucial Element in Post-Hepatectomy Liver Failure. *Int. J. Mol. Sci.* 2024; 25(13):7150, doi: 10.3390/ijms25137150, PMID: 39000266.
- L. Dhawka, V. Palfini, E. Hambricht, I. Blanco, C. Poon, A. Kahl, U. Resch, R. Bhawal, C. Benakis, V. Balachandran, S. Zhang, C. Iadecola, K. Hochrainer. Post-ischemic ubiquitination at the postsynaptic density reversibly influences the activity of ischemia-relevant kinases. *Commun. Biol.* 2024; 13(1):321. doi: 10.1038/s42003-024-06009-8; PMID: 38480905.
- N. Zlatkov, W. Gunnari, U. Resch. Comparative label-free proteomics of the neonatal meningitis-causing Echerichia coli K1 IHE3034 and RS218 morphotypes. *Microbiol. Resour. Announc.* 2024; 13(2) e0096023. doi: 10.1128/mra.00960-23, PMID: 38289054.
- B. Belakova, N.K. Wedige, E.M. Awad, S. Hess, A. Oszwald, M. Fellner, S.Y. Khan, U. Resch, M. Lipovac, K. Šmejkal, P. Uhrin, J.M. Breuss. Lipophilic Statins Eliminate Senescent Endothelial Cells by inducing Anoikis-Related Cell Death. *Cells.* 2023. 14(12(24): 2836. doi: 10.3390/cells12242836, PMID: 38132158.
- F. Tatzber, W. Wonsich, U. Resch, W. Sthrohmaier, M. Lindschinger, S. Mörkl, G. Cvirn. Thinking beyond Vaccination: Promising Add-On Strategies to Active Immunization and Vaccination in Pandemics- A Mini-Review. *Viruses* 2023; 15(6):1372. doi: 10.3390/v15061372, PMID: 37376671.
- H. Ercan, U. Resch, F. Hsu, G. Mitulovic, A. Bileck, C. Gerner, J.W. Yang, M. Geiger, I. Miller, M. Zellner. A practical and analytical comparative study of gel-based Top-Down and Gel-free Bottom-up proteomics including unbiased proteoform detection. *Cells.* 2023; 12(5):747, doi:10.3390/cells12050747. PMID: 36899884.
- A. Pirabe, W.C. Schrottmaier, S. Heber, A. Schmuckenschlager, S. Treiber, D. Pereyra, J. Santol, E. Pawelka, M. Traugott, C. Schörgenhofer, T. Seitz, M. Karolyi, B. Jilma, U. Resch, A. Zoufaly, A. Assinger. Immunoglobulin G production in COVID-19 -associations with age, outcome, viral persistence, inflammation and pro-thrombotic markers. *J. Infect Public Health.* 2023;16(3):384-392. doi: 10.1016/j.jiph.2023.01.016. PMID: 36702013.

- F. Tatzber, U. Resch, M. Kuperr, C. Bhaduri, W. Wonisch, G. Cvrin. Dry blood spots for monitoring SARS-CoV-2-IgG antibody titres-a pilot study. COJ Biomedical Science&Research 2022. DOI:10.31031/COJBSR.2022.02.000534.
- A. Pirabe, S. Heber, W.C. Schrottmaier, A. Schmuckenschlager, S. Treiber, D. Pereyra, J. Santol, E. Pawelka, M. Traugott, C. Schörghofer, T. Seitz, M. Karolyi, B. Jilma, U. Resch, A. Zoufaly, A. Assinger. Age Related Differences in Monocyte Subsets and Cytokine Pattern during Acute COVID-19-A Prospective Observational Longitudinal Study. Cells. 2021; 10(12):3373, doi: 10.3390/cells10123373, PMID: 34943881.
- B. Moser, B. Hochreiter, B. Basilio, V. Gleitsmann, A. Panhuber, A. Pardo-Garcia, B. Hoesel, M. Salzmann, U. Resch, M. Noreen, JA Schmid. The inflammatory kinase IKK $\alpha$  phosphorylates and stabilizes c-Myc and enhances its activity. Mol Cancer 2021; 20(1):16, doi: 10.1186/s12943-021-010308-8, PMID: 33461590. Longitudinal Study. Cells. 2021; 10(12):3373, doi: 10.3390/cells10123373, PMID: 34943881.
- F. Tatzber, W. Wonisch, G. Balka, A. Marosi, M. Rusvai, U. Resch, M. Lindschinger, S. Moerkl, G. Cvrin. Coating with Hypertonic Saline Improves Virus Protection of Filtering Facepiece Manyfold-Benefit of Salt Impregnation in Times of Pandemic. Int J Environ Res Public Health 2021; 18(14):7406, doi: 10.3390/ijerph18147406. PMID: 34299856.
- F. Tatzber, U. Resch, M. Lindschinger, G. Cvrin, W. Wonisch, Improved protection of filtering facepiece through inactivation of pathogens by hypertonic salt solutions – A possible COVID-19 prevention device. Prev Med Rep 2020; 20:101270, doi: 10.1016/j.pmedr.2020. 101270, PMID: 33282639.
- K. Bekes, G. Mitulovic, N. Meißner, U. Resch, R. Gruber. Saliva proteomic patterns in patients with molar incisor hypomineralization. Sci Rep. 2021;10(1):7560, doi: 10.1038/s41598-020-64614-z, PMID: 32371984.
- F. Tatzber, W. Wonisch, S. Lackner, M. Lindschinger, W. Pursch U. Resch, C. Trummer, M. Murkovic, S. Zelzer, S. Holasek, G. Cyirn. A Micromethod for polyphenol high-throughput screening saves 90 percent reagents and sample volume. Antioxidants (Basel) 2019; 9(1). Pii:E11. Doi: 10.3390/antiox9010011, PMID: 31877807.
- G.J. Schmidt, C.M. Reumiller, H. Ercan, U. Resch, E. Butt, S. Heber, Z. Liutkevičiūtė, J. Basilio, J.A. Schmid, A. Assinger, B. Jilma, M. Zellner. Comparative proteomics reveals unexpected quantitative phosphorylation differences linked to platelet activation state. Sci Rep. 2019; 9(1); 19009.doi:10.1038/s41598-019-55391-5. PMID: 31831789.
- F. Puhm, T. Afonyushkin, G. Obermayer, U. Resch, M. Rohde, T. Penz, M. Schuster, G. Wagner, A. Rendeiro I. Melki, J. Wojta, C. Bock, B. Jilma, N. Mackman, E. Boilard, C.J. Binder. Mitochondria are a subset of extracellular vesicles released by activated monocytes and induce Type I IFN and TNF responses in endothelial cells. Circ. Res. 2019; 125(1); 43-52.doi:10.1161/CIRCRESAHA.118.314601.
- J.A. Tsatsaronis, S. Franch-Arroyo, U. Resch, E. Charpentier. Extracellular Vesicle RNA: A Universal Mediator of Microbial Communication? Trends in Microbiology, DOI:doi.org/10.1016/j.tim.2018.02.009
- B. Hoesel, M. Mussbacher, B. Dikorman, M. Salzmann, A. Assinger, L. Hell, J. Thaler, J. Basilio, B. Moser, U. Resch, H. Paar, N. Mackman, J.A. Schmid. Androgen receptor dampens tissue factor expression via nuclear factor- $\kappa$ B early growth response protein 1. J. Thromb. Haemost. 2018; doi:10.1111/jth.13971
- J. Seigner, J. Basilio, U. Resch, R. de Martin. CD40L and TNF both activate the classical NF- $\kappa$ B pathway, which is not required for the CD40L induced alternative pathway in endothelial cells. Biochem Biophys Res Commun. 2018; 495:1389-1394. doi: 10.1016/j.bbrc.2017.11.160.
- M. Seltenhammer, U. Resch, M. Stichenwirth, J. Seigner, C. Reisinger, W. Vycudilik, D. Schöfer, R. De Martin, J. Sölkner, D.U. Risser. Accumulation of Highly Stable  $\Delta$ FosB-Isoforms and Its Targets

inside the Reward System of Chronic Drug Abusers - A Source of Dependence-Memory and High Relapse Rate? *J Addict Res Ther* 2016; 7:5, DOI10.4175/2155-6105.1000297.

• F. Tatzber, E. Pursch, U. Resch, R. Pfragner, S. Holasek, M. Lindschinger, G. Cvirn, W. Wonisch. Cultivation and immortalization of human B-cells producing a human monoclonal IgM antibody binding to MDA-LDL. Further evidence for formation of atherogenic MDA-LDL adducts in humans in vivo. *Oxidative Medicine and Cellular Longevity* 2017; Article ID:6047142.

• M. Post, A. Cuapio, M. Osl, D. Lehmann, U. Resch, D.M. Davies, M. Bilban, B. Schlechta, W. Eppel, A. Nathwani, D. Stoiber, J. Spanholtz, E. Casanvova, E. Hofer. The Transcription Factor ZNF683/HOBIT Regulates Human NK-Cell Development. *Front Immuno.* 2017; 46; 535.

• F. Tatzber, U. Resch, W. Wonisch, R. Berent, H. Sinzinger. Oxidation injury and local mediator interplay in Marfan syndrome. *Vasa* 2017; 46; 149-150.

• M.K. Ganesan, R. Finsterwalder, H. Leb, U. Resch, K. Neumüller, R. de Martin, P. Petzelbauer. Three-Dimensional Coculture Model to Analyze the Cross Talk Between Endothelial and Smooth Muscle Cells. *Tissue Eng Part C Methods.* 2017; 23; 38-49.

• U. Resch, J.A. Tsatsaronis, A. Le Rhun, G. Stübiger, M. Rohde, S. Kasvandik, S. Holzmeister, P. Tinnefeld, S.N. Wai, E. Charpentier. A Two-Component Regulatory System Impacts Extracellular Membrane-Derived Vesicle Production in Group A Streptococcus. *MBio* 2016; 7; pii:e00207-e00216.

• S.F. Erttmann, A. Härtlova, M. Sloniecka, F.A. Raffi, A. Hossenzadeh, T. Edgren, R. Rofougaran, U. Resch, M. Fällman, T. Ek, N.O. Gekara. Loss of the DNA Damage Repair Kinase ATM Impairs Inflammasome-Dependent Anti-Bacterial Innate Immunity. *Immunity* 2016; 45: 106-118.

• A. Härtlova, S.F. Erttmann, F.A. Raffi, A.M. Schmalz, U. Resch, S. Anugula, S. Lienenklaus, L.M. Nilsson, A. Kröger, J.A. Nilsson, T. Ek, S. Weiss, N.O. Gekara. DNA damage primes the type I interferon system via the cytosolic DNA sensor STING to promote anti-microbial innate immunity. *Immunity* 2015; 42: 332-343.

• U. Resch, A. Cuapio, C. Sturtzel, E. Hofer, R. de Martin, Y.M. Holper-Schichl. Polyubiquitinated tristetraprolin protects from TNF-induced, caspase-mediated apoptosis. *J Biol. Chem.* 2014; 289:25088-25100.

• A. Härtlova, M. Link, J. Balounova, M. Benesova, U. Resch, A. Straskova, M. Sobol, A. Philimonenko, P. Hozak, Z. Krocova, N. Gekara, D. Filipp, J. Stulik. Quantitative proteomics analysis of macrophage-derived lipid rafts reveals induction of autophagy pathway at the early time of *Francisella tularensis* LVS infection. *J Proteome Res.* 2014; 13:796-804.

• J. Basilio, M. Hoeth, Y.M. Holper-Schichl, U. Resch, H. Mayer, R. Hofer-Warbinek, R. de Martin. TNF $\alpha$ -induced down-regulation of Sox18 in endothelial cells is dependent on NF- $\kappa$ B. *Biochem. Biophys Res Commun.* 2013; 442:221-226.

• K. Höpker, H. Hagmann, S. Khurshid, S. Chen, P. Hasskamp, T. Seeger-Nukpezah, K. Schilberg, H. L. Heukamp, T. Lamkemeyer, M.L. Sos, R.K. Thomas, D. Lowery, F. Roels, M. Fischer, M.C. Liebau, U. Resch, T. Kisner, F. Röther, M.P. Bartram, R.U. Müller, F. Fabretti, P. Kurschat, B. Schumacher, M. Gaestel, R.H. Medema, M.B. Yaffe, B. Schermer, H.C. Reinhardt, T. Benzing: AATF/Che-1 acts a phosphorylation-dependent molecular modulator to repress p53-driven apoptosis. *EMBO J.* 2012; 31: 3961-75.

• M. Hoeth, H. Niederleithner, R. Hofer-Warbinek, M. Bilban, H. Mayer, U. Resch, C. Lemberger, O. Wagner, E. Hofer, P. Petzelbauer, R. de Martin: The transcription factor SOX18 regulates the expression of matrix metalloproteinase 7 and guidance molecules in human endothelial cells. *PLoS One* 2012; 7:e30982.



- Y.M.Schichl, U. Resch, R. C.E. Lemberger, D. Stichlberger, R. de Martin: Novel Phosphorylation-dependent ubiquitination of Tristetraprolin by mitogen-activated protein kinase/extracellular signal-regulated kinase kinase kinase 1 (MEKK1) and tumor necrosis factor receptor-associated factor 2 (TRAF2). *J Biol. Chem.*, 2011; 286: 38466-77.
- U. Resch, M. Semlitsch, A. Hammer, H. Susani-Etzerodt, H. Walczak, W. Sattler, E. Malle. Hypochlorite-modified low-density lipoprotein induces the apoptotic machinery in Jurkat T-cell lines. *Biochem. Biophys. Res. Commun.*, 2011; 4:895-900.
- Y.M.Schichl, U. Resch, R. Hofer-Warbinek, R. de Martin: Tristetraprolin impairs NF-kappaB/p65 nuclear translocation. *J Biol. Chem.*, 2009; 284: 29571-29581.
- U. Resch, Y.M.Schichl, G. Winsauer, R. Gudi, K. Prasad, R. de Martin: Siva-1 is a XIAP-interacting protein that balances NFkappaB and JNK signalling to promote apoptosis. *J Cell Sci.*, 2009; 122: 2651-2661.
- G. Winsauer, U. Resch, R. Hofer-Warbinek, Y.M. Schichl, R. de Martin: XIAP regulates bi-phasic NF-kB induction involving physical interaction and ubiquitination of MEKK2. *Cellular Signalling*, 2008; 20: 2107-2112.
- U. Resch, Y.M. Schichl, S. Sattler, R. de Martin: XIAP regulates intracellular ROS by enhancing antioxidant gene expression. *Biochem. Biophys. Res. Comm.* 2008;375:156-161.
- C. Wiesner, G. Winsauer, U. Resch, M. Hoeth, J.A. Schmid, J. van Hengel, F. van Roy, B.R. Binder, R. de Martin: Alpha-catulin, a Rho signalling component, can regulate NF-kappaB through binding to IKK-beta, and confers resistance to apoptosis. *Oncogene*, 2008; 27:2159-2169.
- U. Resch, F. Tatzber, A. Budinsky, H. Sinzinger: Reduction of oxidative stress and modulation of autoantibodies against modified low-density lipoprotein after rosuvastatin therapy. *Br J Clin Pharmacol* 2006;61:262-74.
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### Book chapters and Congress reports

- U. Resch, F. Tatzber: Antibodies to Oxidatively Modified LDL and Atherosclerosis. In: Autoantibodies Research Progress, Q.P. Dubois (Editor), 2008; Chapter 10, 249-269.
- U. Resch, G. Winsauer, R. Hofer-Warbinek, R. de Martin: X-linked inhibitor of apoptosis protein regulates human interleukin-6 in umbilical vein endothelial cells via stimulation of the nuclear factor-kappaB and MAP kinase signalling pathways. Pharmacol. Rep. 2006; 58 Suppl:111-7.

### Posterpresentations on scientific meetings

- 2023:** Comparative proteomic analysis of human heart tissue of over 100 patients undergoing heart transplantation. Cologne Spring meeting 07.-10.03.2023.
- 2021:** Characterization of the salivary protein repertoire of Covid-19 patients during and after disease-a pilot study. ASMS-HUPO ReCONNECT 15-19.11.2021.
- 2020:** Comparative proteomic characterization of outer membrane vesicles (OMVs) isolated from multidrugresistant *Klebsiella pneumoniae* as basis for development of type-specific vaccines. 31<sup>st</sup> MassSpec Forum 2020 Vienna
- 2018:** Analytical Methods to Study Oxidative Damage, Antioxidants and Drugs; Advanced Analytical Chemistry for Life Science. Biaylostok, Poland, 24-26. May 2018. Invited speaker. A micromethod for polyphenol-detection and anti-inflammatory action of grape seed extracts on human vascular endothelial cells.
- 2018:** Joint Meeting on Vascular Biology, Inflammation and Thrombosis. Vienna, 15-16. May 2018. Comparing SILAC and LFQ based quantitative proteomics in platelets. U. Resch, M. Salzmann, A. Assinger, H. Nolete, M. Krueger, J.A. Schmid.
- 2017:** Reactive Oxygen Species and Lipid Peroxidation in Human Health and Disease and Hermann Esterbauer Memorial Meeting. Graz, Austria, 14-15. Sept 2017. Poster: Anti-inflammatory action of polyphenols from grape seed extracts in primary human endothelial cells. U. Resch, W. Wonisch and F. Tatzber.
- 2015:** 15<sup>th</sup> International Conference Tumor Necrosis Factor, Ghent, Belgium, 20-23. May 2015. Poster: Polyubiquitinated Tristetraprolin protects from TNF-induced, Caspase-mediated Apoptosis. U. Resch, A. Cuapio, R. de Martin, Y.M. Schichl.
- 2015:** 3<sup>rd</sup> Vascular Biology Meeting, January 23<sup>rd</sup>, 2015, Medical University of Vienna. Activation of Endothelial Cells by Platelets: Role in Inflammation and Thrombosis. U. Resch, J Basilio, W Schrottmaier, R de Martin.
- 2015:** 15<sup>th</sup> International Conference Tumor Necrosis Factor, 20-23 May 2015, Ghent, Polyubiquitinated Tristetraprolin protects from TNF-induced, Caspase-mediated Apoptosis. U. Resch, A. Cuapio, E. Hofer, R. de Martin, YM Holper-Schichl.
- 2010:** Keystone Symposia, NF-kB in Inflammation and Disease 2010, Jan 5-10, Santa Fe, NM,USA U. Resch, R. Gareus, M. Pasparakis: In-vivo proteomics of the IKK-complex.
- 2007:** Molecular Machines, 32<sup>nd</sup> FEBS Congress 2007, July 07-12, 2007, Vienna, Austria U. Resch, G. Winsauer, R. de Martin: Identification of Siva-1 and PDCD2 as novel XIAP interaction partners.

**2006:** Days of Molecular Medicine 2006, May 24-27, 2006, Stockholm, Sweden.  
U. Resch, G. Winsauer, R. de Martin: Unscrambling XIAP responsive elements on the human IL-6 promoter.

**2002:** European Association of Nuclear Medicine Annual Congress (EANM) Aug. 31st - Sept. 4th 2002 in Austria Center, Vienna, Austria. T. Traub-Weidinger, U. Resch, F. Girschele, P. Schaffarich, C. Poetzi, I. Virgolini, R. Dudczak, S. Li: Effects of thyroid dysfunction on concentration of vascular endothelial growth factor in the blood of patients with differentiated thyroid cancer.

**2002:** First International Meeting of the HNE-Club: 4-Hydroxynonenal and other Lipid Peroxidation Products. July 13th - 15th, 2002 in Faculty of Natural Science, University of Salzburg, Austria.  
U. Resch, F. Tatzber, H. Sinzinger: Lipidperoxidation in thyroid dysfunction. (Talk).

**2002:** 13th Symposium of the Danubian League Against Thrombosis and Hemorrhagic Disorders April 18th - 20th, 2002 in Assisi (Italy).  
U. Resch, G. Hesel, F. Tatzber, H. Sinzinger: Antioxidant status in thyroid malfunction.  
U. Resch, F. Tatzber, H. Sinzinger: Modulation of HDL oxidation by thyroid metabolism. (Talk).  
S. Majtenyi, M. Fleger, U. Resch, H. Sinzinger: Effect of I125 on oxidation behaviour of lipoprotein subpopulations.

**2000:** 12th Symposium of the Danubian League against Thrombosis and Hemorrhagic Disorders April 27th - May 2th, 2000 in Homburg/Saar.  
U. Resch, V. Mellauner, H. Sinzinger: Influence of a selective estrogen receptor modulator (SERM) on oxidation of lipoproteins.

**1999:** 9th International Society of Radiolabeled Blood Elements, ISORBE 1999 Oct. 20th - 23th, 1999 in Rio de Janeiro, Brazil.  
U. Resch, K. Weiss, F. Tatzber, H. Sinzinger: Does radioiodine therapy induce lipoprotein oxidation in-vivo?  
G. Sobal, U. Resch, F. Tatzber, H. Sinzinger: Radiolabelling of low density lipoprotein with different radiotracer: influence on oxidation parameters.

**1999:** 7th Vienna Shock Forum, Nov. 13th - 16th, 1999 in Vienna, Austria.  
F. Tatzber, U. Resch, H. Sinzinger: A rapid and simple method for detection of nanomolar peroxide quantities in biological samples.  
G. Hesel, U. Resch, F. Tatzber, H. Sinzinger: Endogenous peroxide levels and autoantibodies to oxidized LDL in hyper- and hypo-thyroiditis.

**1999:** Annual EVBA Meeting, May 13th - 16th, 1999 in Baden, Austria.  
U. Resch, M. Mehrabi, K. Plesch, H.D. Glogar, F. Tatzber, H. Sinzinger: Preliminary data on oxidation-derived epitopes on human native and ischemic coronaries. (Talk).  
M.R. Mehrabi, C. Ekmekcioglu, F. Tamaddon, K. Plesch, M. Jucewic, R. Hiemetzberger, H.D. Glogar, T. Stefenelli, U. Resch, I.M. Lang: Accumulation of oxidized-LDL in human semilunar valves correlates with coronary atherosclerosis.

**1997:** XIth International Symposium on Atherosclerosis, Oct. 5th - 9th 1997 in Paris, France.  
K. Marangon, U. Resch, B. Herberth, Y. Artur, S. Visvikis, G. Siest: Individual and familial determinants of autoantibodies against oxidized low density lipoproteins (oLab).  
U. Resch, G. Waeg, F. Tatzber and H. Esterbauer: Competition-studies with antioxidantized LDL autoantibodies. 1998: Experimental Biology '98, in San Francisco.  
K. Kostner, S. Banyai, M. Jansen, U. Resch, W.H. Hörl, G. Maurer, K. Derfler, B.M. Winkelhofer-Roob: Effect of immune apheresis on plasma antioxidants.  
J.M. Roob, T. Rabold, G. Khoschsorur, U. Resch, H. Holzer, B.M. Winkelhofer-Roob: Lipid peroxidation and LDL oxidizability in patients on continuous ambulatory peritoneal dialysis (CAPD).

**1996:** Workshop „Oxidative Stress. Molecular mechanisms and pathophysiological consequences of oxidative damage in membranes and lipoproteins.“ July 5th and 6th 1996 in Seggau Castle, Graz, Austria.  
S. Meraji, O. Ziouzenkova, U. Resch, A. Khoschsorur, F. Tatzber, H. Esterbauer: Supplementation with  $\beta$ -carotene and  $\alpha$ -tocopherol in Iranian subjects.  
A. Mißbichler, P.M. Abuja, F. Tatzber, E. Schmidl, W. Wonisch, U. Resch, E Ogris, H. Esterbauer: Cu

2+ -mediated LDL oxidation generates epitopes, which are recognized by human IgG molecules in vitro. U. Resch, F. Tatzber, C. Temmel, W. Wonisch, H. Esterbauer, A. Lapin: Epitopes of oxidized lipoproteins in vivo are partly represented by MDA-LDL and oxidized LDL.