

Curriculum vitae

Univ.-Prof. Dr. Michael Bernhard Fischer

Personal Data

Date of birth

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Current Positions, Employment, and Faculty Appointments

- 2019 - 2021 Member of the Curricula Commission** of the University of Continuing Education Krems, Austria
- 2018 - 2025 Member of the Senate of the University of Continuing Education Krems**
- since 2016 Coordinator and initiator of the PhD-Program 'Regenerative Medicine'**
University of Continuing Education Krems, Austria
- since 2013 Professor of 'Tissue and Organ Replacement'**, Center for Biomedical Technology, University of Continuing Education Krems, Austria
- since 2013 Founding Member and Scientific Board Member**, 'Platform for Advanced Cellular Therapy' (PACT)
- 2013 - 2016 Head of the Center for 'Biomedical Technology'**, University of Continuing Education Krems, Austria
- 2011 - 2013 Vice-Curriculum Director of the Dental University Vienna**
- 2003 - 2013 Group leader of Routine Laboratories and Clinical Studies** at the Clinic for Blood Group Serology and Transfusion Medicine
- 1999 - 2013 Professor for Blood Group Serology and Transfusion Medicine, Leader of the Research Laboratories**, Medical University of Vienna (MUW)
- 1996 - 1997 Converted position to Assistant Professor in Pathology** at HMS
- 1996 Appointed Faculty Member and 'Instructor' of Pathology** at the HMS
- 1994 - 1996 Post-Doctoral Scholarship-** Erwin Schrödinger as well as Max Cade at the Department of Pathology, Harvard Medical School (HMS), Boston MA

Education

- 2011 - 2015 MBA in Health Care Management**
- 2009 - 2011 Specialisation in Hospital Management**, University of Continuing Education
Krems, Austria
- 2010 'Venia docendi' in Blood Group Serology and Transfusion Medicine**
- 1999 - 2013 Specialization in Blood Group Serology and Transfusion Medicine**,
University of Vienna and MUW
- 2008 - 2009 Fellowship in Haematology and Haemostaseology**, Clinic for Internal
Medicine I, MUW
- 2003 - 2004 Fellowship in Surgery**, Clinic for Orthopaedic Surgery, MUW
- 1997 - 1999 Internship and residency**, Vienna Hospital Unions
- 1997 'Venia docendi' in Immunology**
- 1996 - 1997 Faculty member and instructor/Ass. Prof., HMS, Department of
Pathology**, Boston, MA
Specialization in Experimental Pathology
- 1994 - 1996 HMS, Department of Pathology/Post doc**, Boston, MA
Specialization in Experimental Pathology
- 1988 - 1994 Post-Doctoral Fellow at the Institute of Immunology**,
Specialization in Clinical Immunology, University of Vienna, Austria
- 1986 - 1988 Austrian Army Service – HSNS – Sports Company**
- 1980 - 1986 University of Vienna, School of Medicine, Austria, MD in 1986**
- 1972 - 1980 Gymnasium Wien, BRG-17 (highschool)**

Academic and Professional Career

- since 2018 Dual Carrer Model**, University of Continuing Education Krems, Austria &
Medical University of Vienna, Austria
- 2013 - 2018 Professor (§98) of 'Tissue and Organ Replacement'**, Center for Biomedical
Technology, University of Continuing Education Krems, Austria
- 2010 Professor in Blood Group Serology and Transfusion Medicine**
- 1997 Professor in Immunology**, University of Vienna, Austria
- 1996 Instructor and Faculty member, HMS, Department of Pathology**, Boston,
MA

Research (main areas)

Tissue and Organ Replacement

Cellular Therapy

Blood Group Serology and Transfusion Medicine

Clinical Immunology and Transplant Immunology

Experimental Pathology

Honors and Awards

2005 Best Dissertation MUW (Student's award)

2006 Best Dissertation in Medicine of all Austrian Universities ('Auerswald Preis', student's award)

1996 Appointed Faculty Member of the HMS

1996 Max Cade Scholarship

1994 Erwin Schrödinger Scholarship by the FWF

Projects

Lead Partner: INTERREG ATCZ133: Kompetenzzentrum MechanoBiologie in der Regenerativen Medizin

Lead Partner: Life-Science NFB: LS15-004 – Immunregulatorische Fähigkeiten von Mesenchymalen Stammzellen (MSCs).

Partner: OVCAD LSHC-CT-205-018698, EU Commission, Coordinator: Prof. Dr. Robert Zeillinger, MUW.

Partner: Christian Doppler Laboratory for 'Innovative Therapy Approaches in Sepsis', Coordinator: Prof. Dr. DI Viktoria Weber, UWK.

Principal Investigator: Blood Group specific Antibodies in ABO-incompatible Stem Cell Transplantation: ÖNB-Jubiläumsfonds: Projekt Nummer: 14 254.

Principal Investigator: Natural IgM Antibodies in Sepsis: ÖNB-Jubiläumsfonds: Projekt Nummer: 8790.

Principal Investigator: Local Complement C3 Synthesis: ÖNB-Jubiläumsfonds: Projekt Nummer: 6887.

Principal Investigator: Complement in RA: FWF-Project Number: P13 481.

Strategic Partner of ACMIT a Komet-Center of the FFG

Publications (last five years)

Štys, D.; Lonhus, K.; Fischer, M.B.; Rychtáriková, R. (2025). Live Cell Imaging by High-Resolution Quasi-Spectral Microscopy. In: Walter, A.; Slezak, P.; Mueller, R.; Kerckhofs, G.; Bajoghli, B., Bioimaging in Tissue Engineering and Regeneration. Reference Series in Biomedical Engineering: 1-27, Springer, online

Hauser, F.; Naderer, C.; Priglinger, E.; Peterbauer, A.; Fischer, M.B.; Redl, H.; and Jacak, J. (2024). [Single molecule studies of dynamic platelet interactions with endothelial cells](#). Front Bioeng Biotechnol, 12: 1372807

Watrowski, R.; Schuster, E.; Hofstetter, G.; Fischer, M.B.; Mahner, S.; Van Gorp, T.; Polterauer, S.; Zeillinger, R.; Obermayr, E. (2024). [Association of four interleukin-8 polymorphisms \(-251 A>T, +781 C>T, +1633 C>T, +2767 A>T\) with ovarian cancer risk: Focus on menopausal status and endometriosis-related subtypes](#). Biomedicines, 12(2): 321

Watrowski, R.; Schuster, E.; Van Gorp, T.; Hofstetter, G.; Fischer, M.B.; Mahner, S.; Polterauer, S.; Zeillinger, R.; Obermayr, E. (2024). Association of the single nucleotide polymorphisms rs11556218, rs4778889, rs4072111, and rs1131445 of the interleukin-16 gene with ovarian cancer. Int J Mol Sci, 25(19): 10272

Welsch, E.; Bonsting, L.; Holzer, B.; Schuster, E.; Weiß, E.; Zaharie, A-T.; Krainer, M.; Fischer, M.B.; El-Heliebi, A.; Zeillinger, R.; Obermayr, E. (2024). [Multi-marker analysis of circulating tumor cells in localized intermediate/high-risk and metastatic prostate cancer](#). Clin Exp Metastasis, Sep 21: <https://doi.org/10.1007/s10585-024-10313-2>

Bender, M.; Escher, A.; Messner, B.; Rohrich, M.; Fischer, M.B.; Hametner, C.; Laufer, G.; Kertzsch, U.; Zimpfer, D.; Jakubek, S.; Granegger, M. (2023). [An atraumatic mock loop for realistic hemocompatibility assessment of blood pumps](#). IEEE Trans Biomed Eng, Dec 22: 1-12

Summer, S.; Kocsis, A.; Reihs, E.I.; Rothbauer, M.; Lonhus, K.; Stys, D.; Ertl, P.; Fischer, M.B. (2023). Automated analysis of mitochondrial dimensions in mesenchymal stem cells: Current methods and future perspectives. Heliyon, 9: <https://doi.org/10.1016/j.heliyon.2023.e12987>

Welsch, E.; Schuster, E.; Krainer, M.; Marhold, M.; Bartsch, R.; Fischer, M.B.; Hermann, M.; Hastermann, G.; Uher, H.; Sliutz, G.; Anker, B.; Zeillinger, R.; Obermayr, E. (2023). [Comparison of RNA marker panels for circulating tumor cells and evaluation of their prognostic relevance in breast cancer](#). Cancer (Basel), 15(4): 1271

Haider, P.; Kral-Pointner, J.B.; Salzmann, M.; Moik, F.; Bleichert, S.; Schrottmaier, W.C.; Kaun, C.; Brekalo, M.; Fischer, M.B.; Speidl, W.S.; Hengstenberg, C.; Podesser, B.K.; Huber, K.; Pabinger, I.; Knapp, S.; Brombacher, F.; Brostjan, C.; Ay, C.; Wojta, J.; Hohensinner, P.J. (2022). [Interleukin-4 receptor alpha signaling regulates monocyte homeostasis](#). FASEB J, 36(10): e22532

Sauerwein, K.; Geier, C.B.; Stemberger, R.F.; Rossmann, R.; Akyaman, H.; Illes, P.; Fischer, M.B.; Walter, J.E.; Eibl, M.M.; Wolf, H.M. (2022). [Functionally impaired antibody response to booster vaccination with BNT162B2 SARS-CoV-2 mRNA vaccine in COVID IgG responders](#). J Allergy Clin Immunol, Dec 2: S0091-6749(22)01618-9

Sauerwein, K.M.; Geier, C.B.; Stemberger, R.F.; Akyaman, H.; Illes, P.; Fischer, M.B.; Eibl, M.M.; Walter, J.E.; Wolf, H.M. (2022). [Antigen-specific CD4+ T-cell activation in primary antibody deficiency after BNT162b2 mRNA COVID-19 vaccination](#). Front Immunol, 13: 827048

Summer, S.; Rossmannith, E.; Pasztorek, M.; Fiedler, C.; Gröger, M.; Rauscher, S.; Weber V. and Fischer, M.B. (2022). [Mesenchymal stem cells support human vascular endothelial cells to form vascular sprouts in human platelet lysate-based matrices](#). PlosOne, 17(12): e0278895

Bergmann, M.; Heidbreder, A.; Stefani, A.; Raccagni, C.; Brandauer, E.; Rudzki, D.; Fischer, M.B.; Rossmannith, E.; Pasztorek, M.; Löscher, W.N.; Högl, B.; Wanschitz, J.V. (2021). [Signs of sympathetic and endothelial cell activation in the skin of patients with restless legs syndrome](#). Sleep Med, 84: 227-236

Hohensinner, P.J.; Lenz, M.; Haider, P.; Mayer, J.; Richter, M.; Kaun, C.; Goederle, L.; Brekalo, M.; Salzmann, M.; Sharma, S.; Fischer, M.B.; Stojkovic, S.; Ramsdayer, D.; Hengstenberg, C.; Podesser, B.K.; Huber, K.; Binder, C.J.; Wojta, J.; Speidl, W.S. (2021). [Pharmacological inhibition of fatty acid oxidation reduces atherosclerosis progression by suppression of macrophage NLRP3 inflammasome activation](#). Biochem Pharmacol, 190: 114634

Hohensinner, P.J.; Mayer, J.; Kichbacher, J.; Kral-Pointner, J.; Thaler, B.; Kaun, C.; Hell, L.; Haider, P.; Mussbacher, M.; Schmid, J.A.; Stojkovic, S.; Demyanets, S.; Fischer, M.B.; Huber, K.; Wöran, K.; Hengstenberg, C.; Speidl, W.S.; Oehler, R.; Pabinger, I.; Wojta, J. (2021). [Alternative activation of human macrophages enhances tissue factor expression and production of extracellular vesicles](#). Haematologica, 106(2): 454-463

Kocsis, Á.; Pasztorek, M.; Rossmannith, E.; Djinovic, Z.; Mayr, T.; Spitz, S.; Zirath, H.; Ertl, P.; Fischer, M.B. (2021). [Dependence of mitochondrial function on the filamentous actin cytoskeleton in cultured mesenchymal stem cells treated with cytochalasin B](#). J Biosci Bioeng, 132(3): 310-320

Pasztorek, M.; Mrazova, D.; Rossmannith, E.; Walzer, S.; Rauscher, S.; Groeger, M.; Weber, V.; Rychtarikova-Stysova, R.; Stys, D.; and Fischer, M.B. (2021). [Stress fiber formation, mitochondrial morphology and membrane properties of human mesenchymal stem cells cultured in plastic adherence or in spherical aggregates](#). J Regen Med, 10: 1

Dorfer, S.; Strasser, K.; Schröckenfuchs, G.; Bonelli, M.; Bauer, W.; Kittler, H.; Cataisson, C.; Fischer, M.B.; Lichtenberger, B.M.; Handisurya, A. (2020). [Mus musculus papillomavirus 1 is a key driver of skin cancer development upon immunosuppression](#). Am J Transplant, 21(2): 525-539

Haider, P.; Kral-Pointner, J.B.; Mayer, J.; Richter, M.; Kaun, C.; Brostjan, C.; Eilenberg, W.; Fischer, M.B.; Speidl, W.S.; Hengstenberg, C.; Huber, K.; Wojta, J.; Hohensinner, P. (2020). [Neutrophil extracellular trap degradation by differently polarized macrophage subsets](#). Arterioscler Thromb Vasc Biol, 40(9): 2265-2278

Hashemzadeh, H.; Allahverdi, A.; Sedghi, M.; Vaezi, Z.; Tohidi Moghadam, T.; Rothbauer, M.; Fischer, M.B.; Ertl, P.; Naderi-Manesh, H. (2020). [PDMS nano-modified scaffolds for](#)

[improvement of stem cells proliferation and differentiation in microfluidic platform.](#)

Nanomaterials, 10: 668

Rüger B.M.; Buchacher, T.; Dauber, E.M.; Pasztorek, M.; Uhrin, P.; Fischer, M.B.; Breuss, J.M.; Leitner, G.C. (2020). [De novo vessel formation through cross-talk of blood-derived cells and mesenchymal stromal cells in the absence of pre-existing vascular structures.](#) Front Bioeng Biotechnol, 8: 602210