

CURRICULUM VITAE



Personal Data

Ao. Univ. Prof. Dr. med. Winfried Franz PICKL

Date of Birth July 20, 1964
Place of Birth Klagenfurt
Nationality Austria
Spoken
Languages German native speaker, English, Italian
Acad. Degree M.D.
Current Position Associate Professor for Immunology
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Qualification

M.D. and board certified specialist in immunology with 2 ½ years of international research experience at the Department of Molecular Biology and Genetics, Harvard Medical School. At present associate professor, principal investigator and head of the Division of Cellular Immunology and Immunohematology including cellular diagnostics, Institute of Immunology, Medical University of Vienna. Professional skills in molecular and cellular immunology, hematology as well as blood group serology and tissue typing. Extensive experience in project development and management, extended academic teaching experience. Speaker of the Doctoral Program Molecular, Cellular and Clinical Allergology, MCCA.

Main areas of research

Biology of antigen-presentation and T cell activation with a special focus on allergic diseases, clinical immunology and immunodiagnostics.

Scientific Education and Career History

1983 High school degree with distinction, High School for Business Administration, Klagenfurt, Austria
1983-1989 Medical student, University of Vienna Medical School, Vienna, Austria
1989-1991 Doctoral thesis, Institute of Blood Group Serology and Tissue Typing, University of Vienna Medical School, Vienna, Austria
July 1991 M.D. degree, University of Vienna Medical School, Vienna, Austria
1991 Research Fellow, Institute of Blood Group Serology and Tissue Typing, University of Vienna Medical School, Vienna, Austria
1992-1994 Research fellow, Institute of Immunology, University of Vienna Medical School, Vienna, Austria
1994 Training as military assistant doctor, Vienna and Innsbruck medical corps,

	Austrian Armed Forces, Austria
1995	Training in Surgery and Dermatology, Austrian Armed Forces Military Hospital, Vienna, Austria
1995-1997	Research fellow, Institute of Immunology, University of Vienna Medical School, Vienna, Austria (Prof. Walter Knapp)
1996	Assistance professor in immunology, Institute of Immunology, University of Vienna Medical School, Vienna, Austria
1998-2000	Post-doctoral research fellow in molecular biology and genetics, Department of Molecular Biology, Harvard Medical School, Boston, MA (Prof. Brian Seed)
1999	Habilitation in Immunology and Associate Professorship, Institute of Immunology, University of Vienna Medical School, Vienna, Austria
2002	Training in internal medicine and hemato-oncology at the Department of Internal Medicine, Vienna General Hospital, Vienna, Austria (Prof. Lechner)
2002	Board certified specialist in immunology, Austrian Medical Association Head Division of Cellular Immunology and Immunohematology, Institute of Immunology, University of Vienna Medical School, Vienna, Austria
2005	Head cellular diagnostic laboratory, Institute of Immunology, Vienna, Austria
2012-2014	President elect of the Austrian Society for Allergology and Immunology
2014-2016	President of the Austrian Society for Allergology and Immunology http://www.oegai.org/html/
2012-now	Deputy-speaker of the FWF-funded special research program F46 “Towards prevention and therapy of allergy” at the Medical University of Vienna, Austria. http://www.allergy-research-program.at/cms/
2013-now	Speaker of the FWF-funded PhD program “Molecular, cellular and clinical allergology” at the Medical University of Vienna. http://www.phd-mcca.at/
2015	President of the European Congress of Immunology 2015, ECI 2015. http://www.eci-vienna2015.org
2016-2021	Treasurer of the European Federation of Immunological Societies, EFIS, http://www.efis.org
2014-2019	Council Member, International Union of Immunological Societies http://www.iuisonline.org
2018-now	Member International Scientific Council, University of Rijeka, Rijeka, Croatia

Major scientific contributions

1. Studies on dendritic cell biology with a focus on the differentiation of precursors of dendritic cells to mature forms of dendritic cells: First to show that highly purified monocytes can be differentiated towards dendritic cells: (Pickl et al., *J Immunol* 157(9):3850-9, 1996; Pickl et al., *Methods Mol Med* 64:283-96, 2001; Strobl et al., *Blood* 90(4):1425-34, 1997; Strobl et al., *J Immunol* 161(2):740-8, 1998; Oehler et al., *J Exp Med* 187(7):1019-28, 1998).
2. Enveloped viruses are budding from the lipid-raft rich regions of the plasma membrane of infected cells: Basis for the decoration of virus-like nanoparticles with molecules of choice for their use as antigen-presenting platforms and as novel forms of vaccines: (Pickl et al., *J Virol* 75(15):7175-83, 2001; Derdak et al., *Proc Natl Acad Sci U S A* 103(35):13144-9, 2006; Kueng et al., *J Virol* 81(16):8666-76, 2007; Leb et al., *J Allergy Clin Immunol* 124(1):121-8, 2009; Kueng et al., *FASEB J* 24(5):1572-82, 2010; Ketteler et al., *J Virol Methods* 167(2):178-85, 2010; Kueng et al., *Int Arch Allergy Immunol* 154(2):89-110, 2011; Wojta-Stremayr et al., *Sensors* 13(7):8722-49, 2013; Kratzer et al., *Allergy* 74(2):246-260, 2019).
3. Cloning of human allergen-specific T cell receptors and creation of *in vitro* systems for the systematic evaluation of the co-stimulation requirements of T helper cells, their polarization and their differentiation into functional T regulatory cells: (Leb et al., *J Allergy Clin Immunol* 121(1):64-71, 2008; Jahn-Schmid et al., *J Immunol* 181(5):3636-42, 2008; Leitner et al., *J Immunol Methods* 362(1-2):131-41, 2010; Schmetterer et al., *J Allergy Clin Immunol* 127(1):238-45, 2011; Jahn-Schmid et al., *Int Arch Allergy Immunol* 156(1):27-42, 2011;

- Neunkirchner et al., J Immunol 187(8):4077-87, 2011; Roskopf et al., Sci Rep. 6:31580, 2016; Selb et al., J Allergy Clin Immunol 139(1):290-299, 2017).
4. Creation of humanized allergy mice by expression of birch and mugwort specific T cell receptors in HLA-DR transgenic mice: (Neunkirchner et al., EBioMedicine 31:66-78, 2018; Kratzer et al., Allergy 74(2):246-260, 2019).
 5. Identification of new activation antigens on T lymphocytes and characterization of substances influencing T cell activation: (Pickl et al., J Immunol 1;158(5):2107-15, 1997; Waclavicek et al., J Immunol 159(11):5345-54, 1997; Waclavicek et al., J Immunol 161(9):4671-8, 1998; Pickl et al., Tissue Antigens 48(1):15-21, 1996; Schmidt et al., Sci Rep 7:42191, 2017; Prodingler et al., J Leukoc Biol 99(4):583-94, 2016).
 6. Development of diagnostic algorithms based on B lymphocyte subsets for the identification of chronic graft-versus-host disease after bone marrow transplantation: (Greinix et al., Biol Blood Marrow Transplant 21(2):250-8, 2015; Kuzmina et al., Blood 121(10):1886-95, 2013; Kuzmina et al., Blood 117(7):2265-74, 2011; Kuzmina et al., Blood 114(3):744-6, 2009; Greinix et al., Biol Blood Marrow Transplant 14(2):208-19, 2008).

Current research activities

1. Development of virus-like nanoparticle-based allergy vaccines
2. Use of altered peptide ligands for the induction of allergen-specific tolerance
3. Identification of targeted drugs which are able to modulate T helper cell differentiation
4. Creation of chimeric antigen receptors (CARs) targeting allergen-specific T or B lymphocytes or plasma cells
5. Investigation in patients receiving B cell targeted drugs whether allergen-specific B cell memory is long-lived
6. Identification and characterization of patients with known and novel immunodeficiencies

Professional Awards and Honors

1991	Award for the best thesis, Austrian Society for Allergology and Immunology, ÖGAI
1993	National award in Rheumatology, Ministry of Health, Science and Education
1998	Erwin Schrödinger research fellowship, Austrian Science Foundation, FWF
1999	APART research fellowship, Austrian Academy of Sciences, ÖAW
2007	Karl Landsteiner Award of the Austrian Society for Allergology and Immunology

Invited Speaker (representative invitations)

Conference	Title of talk
Symposium of the Collegium Internationale Allergologicum, Jeju, South Korea; October 14-19, 2012	Characterization of allergen-specific T cell responses in allergy mice
2 nd International Molecular Immunology and Immunogenetic Congress, Antalya, Turkey; April 27-30, 2014	Allergy mice: novel concepts, tools and platforms
9 th Federation of African Immunological Societies (FAIS) Conference, Nairobi, Kenya; December 4, 2014	Modulation and control of allergen-specific immune responses: novel concepts, tools and platforms

World Immune Regulation Meeting – IX, Davos, Switzerland; March 21, 2015	Novel humanized mouse-models to study allergen-induced diseases and its therapy
VII World Asthma, Allergy & COPD Forum, Singapore, Singapore; April 28, 2015	Humanized allergic mice
Immunocolombia 2015 – 11 th Congress of the Latin American Association of Immunology, Medellin, Columbia; October 13 -16, 2015	Modulation of allergen-specific immune responses: novel concepts, tools and platforms
Tbilisi School for Molecular Allergology, October 3, 2016; Tbilisi, Georgia	Cellular and humoral interactions during IgE-associated immune reactions
X World Asthma, Allergy & COPD Forum, New York, USA, April 28-May 1, 2017	Non-allergenic virus-like nanoparticles created by targeting of major allergens to the inner leaflet of viral envelopes selectively target T cells
XI National Congress of the SIICA School of Immunology, Bari, Italy; May 27-31, 2017	Immunological basis for allergen-specific immune responses
9th EFIS-EJI South East European Immunology School, Lviv, Ukraine; September 8-11, 2017	Allergic disorders: Update on diagnosis and therapy of IgE-mediated respiratory disorders
European Congress of Immunology, ECI, Amsterdam, The Netherlands, Sept 2-5, 2018	Genetic restriction of antigen-presentation dictates allergic sensitization and disease in humanized mice
International Congress of Immunology, IUIS 2019, Beijing, China, October 20-23	New concepts for the treatment of allergies

Editorial and Reviewer Activities (5 selected activities)

Associate Editor	International Archives of Allergology and Immunology
Editorial Board	European Journal of Immunology
Reviewer	Hematologica
Reviewer	Annals of Hematology
Reviewer	Journal of Allergy and Clinical Immunology
Reviewer	Allergy

Membership in Research Organizations (selected memberships)

Member	Austrian Society for Allergology and Immunology, ÖGAI
Member	American Association of Immunologists, AAI
Council Member	International Union of Immunological Societies, IUIS
Treasurer	European Federation of Immunological Societies, EFIS
Member	European Leukemia Network, ELN
Member	Collegium Internationale Allergologicum, CIA

Externally funded national and international projects (last 10 years)

Funding organization	Number of the project (Funding period)	Research topic of the project	Amount funded in kilo Euro
CDG - Christian Doppler Society, Austria	Immunomodulation Module #4 (2008-2014)	Cloning and characterization of Bet v 1-specific T cell receptors	645
FFG - Austrian Research Promotion Agency	812079 (2006-2011)	Membrane-bound cytokines as novel virus adjuvants	249
FWF - Austrian Science Fund	SFB F1816 (2005-2012)	Rebuilding of the immunological synapse	625
WWTF	UIP 2010 (2011-2015)	Ultracentrifuge	85
FWF - Austrian Science Fund	SFB F4609 (2012-2016)	Modulation and control of allergen-specific T cell responses in humanized allergy mice	394
FWF - Austrian Science Fund (Speaker)	DK W1248 (2013-2016)	Doctoral Program Molecular, Cellular and Clinical Allergology, MCCA	2.954
MUW – Doctoral Program MCCA (Speaker)	UE10207019	Doctoral Program Molecular, Cellular and Clinical Allergology, MCCA	999
MUW – Doctoral Program MCCA (Speaker)	UE10207034	Doctoral Program Molecular, Cellular and Clinical Allergology, MCCA	999
FWF - Austrian Science Fund	SFB F4609 (2016-2020)	Modulation and control of allergen-specific T cell responses in humanized allergy mice	440
FWF - Austrian Science Fund (Speaker)	DK W1248 (2017-2021)	Doctoral Program Molecular, Cellular and Clinical Allergology, MCCA	2.554
MUW – Doctoral Program MCCA (Speaker)	UE10207038	Doctoral Program Molecular, Cellular and Clinical Allergology, MCCA	383
Grand Total			9.174

Publications

total number of scientific publications: **163**
overall impact factor: **924**
overall number of citations: **5.651**
h-index: **43**

10 most important academic publications in the career to date

1. Kratzer, B., C. Köhler, S. Hofer, U. Smole, D. Trapin, J. Iturri, D. Pum, P. Kienzl, A. Elbe-Bürger, P. Gattinger, I. Mittermann, B. Linhart, G. Gadermaier, B. Jahn-Schmid, A. Neunkirchner, R. Valenta, and W. F. Pickl*. 2019. Prevention of allergy by virus-like nanoparticles (VNP) delivering shielded versions of major allergens in a humanized murine allergy model. *Allergy* 74: 246-260. doi: 10.1111/all.13573;
2. Neunkirchner, A., B. Kratzer, C. Köhler, U. Smole, L. F. Mager, K. G. Schmetterer, D. Trapin, V. Leb-Reichl, E. Rosloniec, R. Naumann, L. Kenner, B. Jahn-Schmid, B. Bohle, R. Valenta, and W. F. Pickl *. 2018. Genetic restriction of antigen-presentation dictates allergic sensitization and disease in humanized mice. *EBioMedicine* 31: 66-76. doi: 10.1016/j.ebiom.2018.04.001;
3. Neunkirchner, A., V. M. Leb-Reichl, K. G. Schmetterer, S. Mutschlechner, H. J. Kueng, D. Haiderer, K. Schuch, M. Wallner, B. Jahn-Schmid, B. Bohle, and W. F. Pickl. 2011. Human TCR transgenic Bet v 1-specific Th1 cells suppress the effector function of Bet v 1-specific Th2 cells. *J Immunol* 187: 4077-4087. doi: 10.4049/jimmunol.1003220;
4. Schmetterer, K. G., D. Haiderer, V. M. Leb-Reichl, A. Neunkirchner, B. Jahn-Schmid, H. J. Kung, K. Schuch, P. Steinberger, B. Bohle, and W. F. Pickl. 2011. Bet v 1-specific T-cell receptor/forkhead box protein 3 transgenic T cells suppress Bet v 1-specific T-cell effector function in an activation-dependent manner. *J Allergy Clin Immunol* 127: 238-245, 245 e231-233. doi: 10.1016/j.jaci.2010.10.023;
5. Leb, V. M., B. Jahn-Schmid, H. J. Kueng, K. G. Schmetterer, D. Haiderer, A. Neunkirchner, G. F. Fischer, A. Hartl, J. Thalhamer, P. Steinberger, B. Bohle, B. Seed, and W. F. Pickl. 2009. Modulation of allergen-specific T-lymphocyte function by virus-like particles decorated with HLA class II molecules. *J Allergy Clin Immunol* 124: 121-128. doi: 10.1016/j.jaci.2009.04;
6. Leb, V. M., B. Jahn-Schmid, K. G. Schmetterer, H. J. Kueng, D. Haiderer, A. Neunkirchner, G. F. Fischer, K. Nissler, A. Hartl, J. Thalhamer, B. Bohle, B. Seed, and W. F. Pickl. 2008. Molecular and functional analysis of the antigen receptor of Art v 1-specific helper T lymphocytes. *J Allergy Clin Immunol* 121: 64-71. doi: 10.1016/j.jaci.2007.10.006;
7. Kueng, H. J., V. M. Leb, D. Haiderer, G. Raposo, C. Thery, S. V. Derdak, K. G. Schmetterer, A. Neunkirchner, C. Sillaber, B. Seed, and W. F. Pickl. 2007. General strategy for decoration of enveloped viruses with functionally active lipid-modified cytokines. *J Virol* 81: 8666-8676. doi: 10.1128/JVI.00682-07;
8. Derdak, S. V., H. J. Kueng, V. M. Leb, A. Neunkirchner, K. G. Schmetterer, E. Bielek, O. Majdic, W. Knapp, B. Seed, and W. F. Pickl. 2006. Direct stimulation of T lymphocytes by immunosomes: virus-like particles decorated with T cell receptor/CD3 ligands plus costimulatory molecules. *Proc Natl Acad Sci U S A* 103: 13144-13149. doi: 10.1073/pnas.0602283103;
9. Pickl, W. F., F. X. Pimentel-Muinos, and B. Seed. 2001. Lipid rafts and pseudotyping. *J Virol* 75: 7175-7183. doi: 10.1128/JVI.75.15.7175-7183.2001;
10. Pickl, W. F., O. Majdic, P. Kohl, J. Stockl, E. Riedl, C. Scheinecker, C. Bello-Fernandez, and W. Knapp. 1996. Molecular and functional characteristics of dendritic cells generated from highly purified CD14+ peripheral blood monocytes. *J Immunol* 157: 3850-3859. <http://www.jimmunol.org/content/157/9/3850.long>;

Most important scientific/scholarly research achievements apart from academic publications¹

1. 2013-2021: Speaker of the FWF-funded PhD program “Molecular, cellular and clinical allergology” at the Medical University of Vienna. <http://www.phd-mcca.at/>
2. 2016-2021: Treasurer of the European Federation of Immunological Societies, EFIS, <http://www.efis.org>
3. 2014-2019: Council Member, International Union of Immunological Societies, <http://www.iuisonline.org>
4. 2015: President of the European Congress of Immunology 2015, ECI 2015. <http://www.eci-vienna2015.org>
5. 2014-2016: President of the Austrian Society for Allergology and Immunology <http://www.oegai.org/html/>
6. 1999: APART Fellowship Recipient of the Austrian Science Fund (FWF)
7. 1998: Erwin Schrödinger Fellowship Recipient (for Harvard, USA) of the Austrian Science Fund (FWF)

¹ such as awards, conference papers, keynote speeches, important research projects, research data, software, codes, preprints, exhibitions, knowledge transfers, science communication, licenses, or patents