

Brief curriculum vitae

Name: Hans-Uwe Simon, M.D., Ph.D., Dr. h.c. mult.
Professor of Pharmacology,
Facharzt für Immunologie,
Clinical Immunology FAMH

Birthdate: August 03, 1958; Eisenach, Germany

Citizenship: Germany and Switzerland

Personal: Married, two children

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Home: Weststrasse 11, 3005 Bern, Switzerland
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Education: Friedrich Schiller University Jena (Germany):
1980-1986 Medical School (magna cum laude)
1984 M.Sc.; Dipl.-med. (summa cum laude)
1985 M.D.; Dr. med. (summa cum laude)
1990 Specialization in Immunology (Facharzt)

University of Toronto (Canada), Mount Sinai Hospital and Toronto
General Hospital, Departments of Molecular Biology and Immunology:
1990-1992 Postdoctoral fellowship

University of Zurich (Switzerland):
1996 Venia legendi; PD Dr. med.

University of Jerusalem (Israel), Hadassah Medical School,
Department of Pharmacology:
1996-2001 Ph.D.

University of Bern (Switzerland):
2000-2005 Specialization in Clinical Immunology (FAMH)

**Medical
Licensure:** MD No. 71/86, Gera 1986

Professional Positions in Medical Research and Teaching:

1992-2000	University of Zurich, Swiss Institute of Allergy and Asthma Research, Principle Investigator, Head of Asthma Research
1996-2000	Swiss Institute of Allergy and Asthma Research, Deputy Director, Principal Investigator
2000-2021 and 2023-2024	University of Bern, Director of the Department of Pharmacology, Principal Investigator, Full-Professor
2021-2023	University of Bern, Deputy Director of the Department of Pharmacology, Principal Investigator, Full-Professor
2012-2016	University of Bern, Vice-Dean for Research, Faculty of Medicine
2016-2020	University of Bern, Dean, Faculty of Medicine
2018-2022	Medical University of Moscow – Department of Clinical Immunology and Allergology, Sechenov University, Moscow (Russia), Full-Professor
2021-today	Brandenburg Medical School, Neuruppin, Germany President

Additional Administrative and Advisory Posts:

Treasurer, European Cell Death Society (ECDO), 2000-2005

Member of the Executive Committee of the European Academy of Allergology and
Clinical Immunology (EAACI), 2001-2003

Member of the Central Committee of the Union of the Swiss Societies for Experimental
Biology (USGEB/USSBE), 2002-2007

Member of the Scientific Advisory Board, Society in Science: The Branco Weiss
Fellowship, ETH Zürich, 2002-2008

President, Swiss Society of Pharmacology and Toxicology (SSPT), 2004-2007

Member of the Board, Section of Immunology of the European Academy of Allergology
and Clinical Immunology (EAACI), 2003-2007

Member of the Ethics Committee, European Academy of Allergology and Clinical Immunology (EAACI), 2003-2007

Member of the Scientific Commission, Research Foundation of the University of Bern, 2005-2016

President, Swiss Society of Experimental Pharmacology (SSEP), 2005-2008

President, European Cell Death Society (ECDO), 2007-2009

President, Union of the Swiss Societies for Experimental Biology (USGEB / USSBE), 2007-2010

Member of the Scientific Commission, Swiss Cancer League, 2008-2017

Member of the Advisory Board, *Helmholtz-Zentrum für Umweltforschung GmbH* Leipzig (Germany), 2008-2012

Chairman of the Advisory Board, *Helmholtz-Zentrum für Umweltforschung GmbH* Leipzig (Germany), 2012-2014

Representative of the Mechanisms of Allergy/Asthma/Immunology (MAAI) section of the American Academy of Allergy, Asthma and Immunology (AAAAI), 2011-2015

Chair, committee "Cells and Cytokines" of the American Academy of Allergy, Asthma and Immunology (AAAAI), 2014-2016

Member of the Council of the Collegium Internationale Allergologicum (CIA), 2010-2014

ERASMUS-Coordinator Pharmacology/Pharmacy, University of Bern, since 2011

Co-chair, Committee "Eosinophil, Mast Cell and Basophil Disorders in Allergic Disease", World Allergy Organization (WAO), 2011-2015

Chairman of the Board of Trustees, Department of Clinical Research, Medical Faculty, University of Bern, 2012-2016

President, International Eosinophil Society (IES), 2013-2015

Vice-Chair, Immunopharmacology Section, International Union of Basic and Clinical Pharmacology (IUPHAR), 2013-2021

Chair, Task Force: Experimental Animal Center, University of Bern, 2013-2016

Member of the Scientific Executive Board of SystemsX.ch: The Swiss Initiative in Systems Biology, 2013-2016

Member of the Scientific Advisory Board of the Novartis Foundation, 2013-2017

Member of the Board of Directors, University Hospital Bern (Inselspital), 2016-2020

President, Collegium of the Deans of the Swiss Faculties of Medicine, 2018-2020

President, Scientific Advisory Board of the Novartis Foundation, since 2017

Panel Member, European Research Council (ERC), since 2019

Editorial Work in Scientific Journals:

1.	APOPTOSIS	Section Editor	since 1996
2.	INT. ARCH. ALLERGY IMMUNOL.	Editorial Board	1998-2017
3.	ALLERGY	Advisory Board	1999-2002
4.	ALLERGY	Associate Editor	2003-2010
5.	ALLERGOLOGIE	Editorial Board	since 1999
6.	INT. J. HYG. ENVIRON. HEALTH	Editorial Board	since 2000
7.	EXP. CLIN. ALLERGY	Editorial Board	2001-2009
8.	ALLERGO-JOURNAL	Editorial Board	since 2001
9.	PLANTA MEDICA	Advisory Board	2004-2006
10.	J. ALLERGY CLIN. IMMUNOL.	Editorial Board	2005-2010
11.	CELL DEATH DIFFER.	Section Editor	since 2006
12.	MOL. CELL. PHARMACOL.	Editorial Board	since 2008
13.	ALLERGY	Editor-in-Chief	2010-2018
14.	CELL DEATH DISEASE	Section Editor	2010-2016
15.	FRONTIERS IN ONCOLOGY	Associate Editor	2010-2019
16.	CELL DEATH DISEASE	Editor-in-Chief	since 2016
17.	J. IMMUNOLOGY	Associate Editor	since 2017
18.	INT. ARCH. ALLERGY IMMUNOL.	Editor-in-Chief	since 2018
19.	CELL DEATH DIFFER/DIS/DISCOV	Ethics Committee	since 2020
20.	SEM. IMMUNOPATHOLOGY	Guest Editor	2021

Selected Awards:

Paul Martini Prize

Paul Martini Foundation, Wiesbaden (D), April 1997

Georg Friedrich Götz Prize

University of Zurich, Medical Faculty, Zurich (CH), December 2000

Pfizer Research Prize

Zurich (CH), February 2003

Member of the German National Academy of Sciences Leopoldina, 2009

Member of the Swiss Academy of Medical Sciences, 2013

Doctor honoris causa, University of Ljubljana, December 2017

Phoenix Science Prize, November 2020

Doctor honoris causa, South Ural State Medical University, June 2021

Selected original publications:

(*h*-index: 102; citations: 49'568; Scopus ID number: 7402135360;
ORCID ID number: orcid.org/0000-0002-9404-7736)

1. **H.-U. Simon**, G.B. Mills, S. Hashimoto, K.A. Siminovitch: Evidence for defective transmembrane signaling in B cells from patients with Wiskott-Aldrich syndrome. **J. Clin. Invest.** **90 (1992), 1396-1405.**
2. S. Yousefi, D.R. Green, K. Blaser, **H.-U. Simon**: Protein-tyrosine phosphorylation regulates apoptosis in human eosinophils and neutrophils. **Proc. Natl. Acad. Sci. USA** **91 (1994), 10868-10872.**
3. **H.-U. Simon**, S. Yousefi, C. C. Dommann-Scherrer, D. R. Zimmermann, S. Bauer, J. Barandun, K. Blaser: Expansion of cytokine producing CD4⁺CD8⁻ T cells associated with abnormal Fas expression and hypereosinophilia. **J. Exp. Med.** **183 (1996), 1071-1082.**

Comment in: J. Exp. Med. 183 (1996), 721-724 (Lenardo MJ)

4. S. Yousefi, D. C. Hoessli, K. Blaser, G. B. Mills, **H.-U. Simon**: Requirement of Lyn and Syk tyrosine kinases for the prevention of apoptosis by cytokines in freshly isolated eosinophils. **J. Exp. Med.** **183 (1996), 1407-1414.**

5. M. Roth, M. Nauck, S. Yousefi, M. Tamm, K. Blaser, A.P. Perruchoud, **H.-U. Simon**: Platelet-activating factor exerts mitogenic activity and stimulates expression of interleukin-6 and interleukin-8 in human lung fibroblasts via binding to its functional receptor.
J. Exp. Med. 184 (1996), 191-201.

6. H. Hebestreit, B. Dibbert, I. Balatti, D. Braun, A. Schapowal, K. Blaser, **H.-U. Simon**: Disruption of Fas receptor signaling by nitric oxide in eosinophils.
J. Exp. Med. 187 (1998), 415-425.

7. **H.-U. Simon**, S. Yousefi, B. Dibbert, H. Hebestreit, D.R. Branch, K. Blaser, F. Levi-Schaffer, G.P. Anderson: Role of tyrosine phosphorylation and Lyn tyrosine kinase in Fas receptor-mediated apoptosis in eosinophils.
Blood 92 (1998), 547-557.

8. B. Dibbert, I. Daigle, D. Braun, C. Schranz, M. Weber, K. Blaser, U. Zangemeister-Wittke, A.N. Akbar, **H.-U. Simon**: Role for Bcl-x_L in delayed eosinophil apoptosis mediated by granulocyte-macrophage colony-stimulating factor and interleukin-5.
Blood 92 (1998), 778-783.

9. B. Dibbert, M. Weber, W.H. Nikolaizik, M.H. Schöni, P. Vogt, K. Blaser, **H.-U. Simon**: Cytokine-mediated Bax deficiency associated with delayed neutrophil apoptosis in inflammation.
Proc. Natl. Acad. Sci. USA 96 (1999), 13330-13335.

10. **H.-U. Simon**, S.G. Plötz, R. Dummer, K. Blaser: Abnormal clones of T cells producing interleukin 5 in idiopathic eosinophilia.
N. Engl. J. Med. 341 (1999), 1112-1120.

Comment in: N. Engl. J. Med. 341 (1999), 1141-1143 (Bain BJ)
Comment in: N. Engl. J. Med. 342 (1999), 659-660 (Guitart J)
Comment in: N. Engl. J. Med. 342 (1999), 660 (Roufosse F et al.)
Comment in: N. Engl. J. Med. 342 (1999), 660 (Suzuki R et al.)

11. I. Daigle, S. Yousefi, M. Colonna, D.R. Green, **H.-U. Simon**: Death receptors bind SHP-1 and block cytokine-induced antiapoptotic signaling in neutrophils.
Nat. Med. 8 (2002), 61-67.

12. A. Straumann, H.P. Spichtin, L. Grize, K.A. Bucher, C. Beglinger, **H.-U. Simon**: Natural history of primary eosinophilic esophagitis: A follow-up of 30 adult patients for up to 11.5 years.
Gastroenterology 125 (2003), 1660-1669.

Comment in: Gastroenterology 127 (2004), 364 (Langdon DE)

13. S.G. Plötz*, **H.-U. Simon***, U. Darsow, D. Simon, E. Vassina, S. Yousefi, R. Hein, T. Smith, H. Behrendt, J. Ring: Use of an anti-interleukin-5 antibody in the hypereosinophilic syndrome with eosinophilic dermatitis.
N. Engl. J. Med. 349 (2003), 2334-2339.

*Shared First-Authorship

14. F. Altnauer, S. Martinelli, S. Yousefi, C. Thürig, I. Schmid, E.M. Conway, M.H. Schöni, P. Vogt, C. Mueller, M.F. Fey, U. Zangemeister-Wittke, **H.-U. Simon**: Inflammation-associated cell-cycle-independent block of apoptosis by survivin in terminally differentiated neutrophils.
J. Exp. Med. 199 (2004), 1343-1354.
15. S. von Gunten, S. Yousefi, M. Seitz, S.M. Jakob, T. Schaffner, R. Seger, J. Takala, P.M. Villiger, **H.-U. Simon**: Siglec-9 transduces apoptotic and non-apoptotic death signals into neutrophils depending on the pro-inflammatory cytokine environment.
Blood 106 (2005), 1423-1431.
16. S. von Gunten, A. Schaub, M. Vogel, B.M. Stadler, S. Miescher, **H.-U. Simon**: Immunologic and functional evidence for anti-Siglec-9 autoantibodies in intravenous immunoglobulin (IVIg) preparations.
Blood 108 (2006), 4255-4259.

Comment in: J. Perinatology 27 (2007), 196-197 (Buenz EJ & Howe CL)

17. S. Yousefi, R. Perozzo, I. Schmid, A. Ziemiecki, T. Schaffner, L. Scapozza, T. Brunner, **H.-U. Simon**: Calpain-mediated cleavage of Atg5 switches autophagy to apoptosis.
Nat. Cell Biol. 8 (2006), 1124-1132.
- Comment in: Nature Cell Biology 8 (2006), 1045-1047 (Codogno P & Meijer AJ)
Comment in: Nature Reviews Molecular Cell Biology 7 (2006), 796-797 (Heinrichs A)
18. S. Conus, R. Perozzo, T. Reinheckel, C. Peters, L. Scapozza, S. Yousefi, **H.-U. Simon**: Caspase-8 is activated by cathepsin D initiating neutrophil apoptosis during the resolution of inflammation.
J. Exp. Med. 205 (2008), 685-698.

Comment in: Nature Reviews Immunology 8 (2008), 244 (Tufet M)

Comment in: J. Exp. Med. 205 (2008), 505 (Bashyam H)

19. S. Yousefi, J.A. Gold, N. Andina, J.J. Lee, A.M. Kelly, E. Kozlowski, I. Schmid, A. Straumann, J. Reichenbach, G.J. Gleich, **H.-U. Simon**: Catapult-like release of mitochondrial DNA by eosinophils contributes to antibacterial defense.
Nat. Med. 14 (2008), 949-953.

Comment in: Nature Medicine 14 (2008), 910-912 (Nizet V & Rothenberg ME)

Comment in: Nature Reviews Immunology 8 (2008), 658 (Leavy O)

Comment in: Science 321 (2008), 1021 (PAK)

Comment in: J. Allergy Clin. Immunol. 122 (2008), 661 (Gabbert S)

20. A. Straumann, S. Conus, P. Grzonka, H. Kita, G. Kephart, C. Bussmann, C. Beglinger, D.A. Smith, J. Patel, M. Byrne, **H.-U. Simon**: Anti-interleukin-5 antibody treatment (mepolizumab) in active eosinophilic oesophagitis: a randomized, placebo-controlled, double-blind trial.
Gut 59 (2010), 21-30.

21. A. Straumann, S. Conus, L. Degen, S. Felder, M. Kummer, H. Engel, C. Bussmann, C. Beglinger, A. Schoepfer, **H.-U. Simon**: Budesonide is effective in adolescent and adult patients with active eosinophilic esophagitis.
Gastroenterology 139 (2010), 1526-1537.

Comment in: Gastroenterology 139 (2010), 1429-1430 (Tack J and Carethers JM)

22. B. Geering, U. Gurzeler, E. Federzoni, T. Kaufmann, **H.-U. Simon**: A novel TNFR1-triggered apoptosis pathway mediated by class IA PI3Ks in neutrophils.
Blood 117 (2011), 5953-5962.

23. S. Salemi, S. Yousefi, M.A. Constantinescu, M.F. Fey, **H.-U. Simon**: Autophagy is required for self-renewal and differentiation of adult human stem cells.
Cell Res. 22 (2012), 432-435.

24. D. Maskey, S. Yousefi, I. Schmid, I. Zlobec, A. Perren, R. Friis, **H.-U. Simon**: A novel role for ATG5 in drug-induced mitotic catastrophe independent of autophagy.
Nat. Commun. 4 (2013), 2130.

25. H. Liu, Z. He, T. von Rütte, S. Yousefi, R.E. Hunger, **H.-U. Simon**: Down-regulation of autophagy-related protein 5 (ATG5) contributes to the pathogenesis of early-stage cutaneous melanoma.
Sci. Transl. Med. 5 (2013), 202ra123.

26. A. Soragni, S. Yousefi, C. Stoeckle, A.B. Soriaga, M.R. Sawaya, E. Kozlowski, I. Schmid, S. Radonjic-Hoesli, S. Boutet, G.J. Williams, M. Messerschmidt, M.M. Seibert, D. Cascio, N.A. Zatzepin, M. Burghammer, C. Riek, J.-P. Colletier, R. Riek, D. Eisenberg, **H.-U. Simon**: Toxicity of eosinophil MBP is repressed by intracellular crystallization and promoted by extracellular aggregation.
Mol. Cell 57 (2015), 1011-1021.

27. S. Radonjic-Hoesli, X. Wang, E. de Graauw, C. Stoeckle, B. Styp-Rekowska, R. Hlushchuk, D. Simon, P.J. Spaeth, S. Yousefi, **H.-U. Simon**: Adhesion-induced eosinophil cytolysis requires the RIPK3-MLKL signaling pathway which is counter-regulated by autophagy.
J. Allergy Clin. Immunol. 140 (2017), 1632-1642.

Comment in: J. Allergy Clin. Immunol. 140 (2017), 1548-1549 (Renz H)

28. P. Amini, D. Stojkov, A. Felser, C.B. Jackson, C. Courage, A. Schaller, L. Gelman, M.E. Soriano, J.M. Nuoffer, L. Scorrano, C. Benarafa, S. Yousefi, **H.-U. Simon**: Neutrophil extracellular trap formation requires OPA1-dependent glycolytic ATP production.
Nat. Commun. 9 (2018), 2958.
29. H. Liu, Z. He, N. Germic, H. Ademi, Z. Frangez, A. Felser, J.-M. Nuoffer, C. Bovet, I. Mlinaric-Rascan, I. Zlobec, M. Fiedler, A. Perren, **H.-U. Simon**: ATG12 deficiency leads to tumor cell oncosis owing to diminished mitochondrial biogenesis and reduced cellular bioenergetics.
Cell Death Differ. 27 (2020), 1965-1980.
30. N. Germic, A. Hosseini, D. Stojkov, K. Oberson, M. Claus, C. Benarafa, S. Calzavarini, A. Angelillo-Scherrer, I.C. Arnold, A. Müller, C. Riether, S. Yousefi, **H.-U. Simon**: ATG5 promotes eosinopoiesis, but inhibits eosinophil effector functions.
Blood 137 (2021), 2958-2969.
31. T. Greuter, A. Straumann, Y. Fernandez-Marrero, N. Germic, A. Hosseini, S. Yousefi, D. Simon, M.H. Collins, C. Bussmann, M. Chehade, E.S. Dellon, G.T. Furuta, N. Gonsalves, I. Hirano, F.J. Moawad, L. Biedermann, E. Safroneeva, A.M. Schoepfer, **H.-U. Simon**: Characterization of eosinophilic esophagitis variants by clinical, histological and molecular analyses: a cross-sectional multi-center study.
Allergy 77 (2022), 2520-2533.
32. S. Peng, D. Stojkov, J. Gao, K. Oberson, P. Latzin, C. Casaulta, S. Yousefi, **H.-U. Simon**: Nascent RHOH acts as a molecular brake on actomyosin-mediated effector functions of inflammatory neutrophils.
PLOS Biol. 20 (2022), e3001794.
33. Stojkov D, Claus MJ, Kozlowski E, Oberson K, Schären OP, Benarafa C, Yousefi S, **H.-U. Simon**: NET formation is independent of gasdermin D and pyroptotic cell death.
Sci Signal. 16 (2023), eabm0517.



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