

Curriculum Vitae Eva Maria König, PhD

PERSONAL DATA

<i>Name</i>	Eva Maria König, née Putz
<i>Citizenship</i>	Austria
<i>Date of birth</i>	6 th of August 1983
<i>Place of birth</i>	Bregenz, Austria
<i>Work address</i>	St. Anna Kinderkrebsforschung e.V. / St. Anna Children's Cancer Research Institute (CCRI) Zimmermannplatz 10, 1090 Vienna, Austria
<i>Marital status</i>	Married, one daughter
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FIELDS OF RESEARCH

<i>Keywords</i>	immunology, tumor immunology, natural killer (NK) cells, cytokines, JAK/STAT/SOCS signaling, extracellular matrix, invasion and metastasis, leukemia, melanoma
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EDUCATION

2007-2013	PhD thesis (N094) at the Medical University of Vienna under the supervision of Univ.-Prof. Dr.med.univ. V. Sexl: "Impact of IFNAR1 and STAT1-S727 on NK cell activity and tumor surveillance"
2006-2007	Diploma thesis at the Max Perutz Laboratories, Vienna, under the supervision of a.o.Univ.-Prof. Dr. F. Pittner: "Studies to develop a meat freshness sensor based on nanotechnology"
2001-2007	Diploma studies of Chemistry at the University of Vienna
1994 – 2001	High school "BG Bregenz Blumenstraße" with emphasis on languages

EMPLOYMENTS

Jan. 2019 - current	Principal Investigator at the St. Anna Children's Cancer Research Institute, Vienna
Dec.2017-Dec.2018	Maternity leave
Apr.2017 – Nov.2017	Max Perutz Laboratories / VetMed Uni Vienna (Austria): Post-doctoral fellow in the laboratories of Prof. Thomas Decker (MFPL) and Prof. Veronika Sexl (VetMed Uni)
Mar.2015 – Feb.2017	QIMR Berghofer Institute of Medical Research (QLD, Australia): Post-doctoral fellow in the laboratory of Prof. Mark J. Smyth
Sept.2013 – Feb.2015	VetMed Uni Vienna (Austria): Post-doctoral fellow in the laboratory of Prof. Dr. V. Sexl
2007-2013	MUW/VetMed Uni Vienna (Austria): Pre-doctoral fellow in the laboratory of Prof. Dr. V. Sexl, supervision of trainees and diploma students
Mar.-Jun. 2007	University of Vienna (Austria): scientific assistant, teaching
Sept.-Oct. 2005	Tecnuclear (Buenos Aires, Argentina): internship

ACADEMIC RECOGNITION (excerpt)

<i>Grants</i>	2019: Science Communication Program, Austrian Science Fund (FWF WKP 132; 49,083 €) 2018: Stand-Alone Project, Austrian Science Fund (FWF P32001-B; 341,760 €) 2014: Erwin Schrödinger Fellowship, Austrian Science Fund (FWF J3635; 156,940 €) 2008: DOC-fORTE, Austrian Academy of Science (60,000 €)
<i>Awards</i>	2014: Poster prize at the 6th ÖGMBT Annual Meeting, Vienna, Austria 2014: Armin Tschermak von Seysenegg Price (5,000 €), Gesellschaft der Freunde der VUW 2013: EFIS scholarship, 2 nd Meeting of Mid-Europ. Soc. f. Immunol. and Allergol., Croatia 2011: EFIS-EJI scholarship for EMBO - Signaling in the Immune System Meeting in Siena, Italy 2010: Travel grant to visit Prof. Dr. Ofer Mandelboim's laboratory (Israel) from the Austrian research community 2009: Poster prize at the Natural Killer Cell Symposium in Freiburg, Germany 2007: Merit scholarship sponsored by the bm:bwk
<i>Talks</i>	2019: LBI for Hematology and Oncology KickOff Meeting, Austria: "Towards NK Cell-based Immune Therapy in Ph ⁺ Leukemia and Other Malignant Disorders" 2014: NK2014, Germany: "A novel non-canonical role of STAT1 in NK cells" 2013: 2 nd Meeting of Middle-Europ. Soc. f. Immunol. & Allergol. Croatia: "CDK8-mediated STAT1-S727 phosphorylation restrains NK cell cytotoxicity and tumor surveillance" 2013: 19 th Scientific Symposium of APHAR, Austria: "CDK8-mediated STAT1-S727 phosphorylation restrains NK cell cytotoxicity and tumor surveillance" 2008: 4 th PhD Symposium, Austria: "A license to kill - STAT1 Serine727"
<i>Memberships</i>	APHAR (Austrian Pharmacological Society, since 2008) EATI (European Academy of Tumor Immunology, since 2016) OEGAI (Austrian Society for Allergology and Immunology, since 2011) OEGMBT (Austrian Association of Molecular Life Sciences and Biotechnology, since 2013)
<i>Peer-Reviewing for</i>	Animal Biotechnology, Cancer Research, Frontiers in Immunology, Journal of Immunotherapy of Cancer, Journal of Medicinal Chemistry, Molecules, OncoImmunology, PlosOne, Trends in Immunology

SCIENCE COMMUNICATION ACTIVITIES

<i>2020 - current</i>	Art4Science project; www.art4science.at
<i>2019</i>	Lange Nacht der Kinderkrebsforschung, CCRI
<i>2018</i>	Active participation at the BE OPEN Science & Society Festival of the FWF
<i>2017</i>	Teaching at the VetMed Uni Vienna, Austria: "Neue Therapieansätze in der Tumorthherapie"
<i>2016</i>	High school work experience program at the QIMR Berghofer Institute, Australia

PUBLICATIONS

1. B. Salzer, C.M. Schueller, C.U. Zajc, T. Peters, M.A. Schoeber, B. Kovacic, M.C. Buri, E. Lobner, O. Dushek, J.B. Huppa, C. Obinger, E.M. Putz, W. Holter, M.W. Traxlmayr, M. Lehner. Engineering AvidCARs for combinatorial antigen recognition and reversible control of CAR function. *Nature Communications*, PMID: 32820173, Aug. 2020
2. D. Prinz, K. Klein, J. List, V.M. Knab, I. Menzl, N. Leidenfrost, G. Heller, B. Polić, E.M. Putz, A. Witalisz-Siepracka, V. Sexl, D. Gotthardt. Loss of NKG2D in Murine NK Cells Leads to Increased Perforin Production Upon Long-Term Stimulation With IL-2. *European Journal of Immunology*, PMID: 32052406, Feb. 2020
3. D. Gotthardt, J. Trifinopoulos, V. Sexl, E.M. Putz. JAK/STAT Cytokine Signaling at the Crossroad of NK Cell Development and Maturation. *Frontiers in Immunology*, PMID: 31781102, Nov. 2019
4. E. Porpaczy*, S. Tripolt*, A. Hoelbl-Kovacic*, B. Gisslinger, Z. Bago-Horvath, E. Casanova-Hevia, T. Decker, S. Fajmann, D.A. Fux, S. Gueltekin, G. Heller, H. Herkner, T. Kolbe, E.M. Putz, C. Kornauth, M. Mueller, M. Prchal-Murphy, A.-I. Schiefer, C. Schneckleithner, C. Skrabs, W.R. Sperr, B. Strobl, P. Valent, R. Kralovics, L. Muellauer, I. Simonitsch-Klupp, E. Cappier, E. Raffoux, J.-J. Kiladjan, M.-T. Krauth, P.B. Staber, G. Greiner, G. Hoermann, U. Jaeger*, H. Gisslinger* and V. Sexl*. Aggressive B-cell Lymphomas in Patients With Myelofibrosis Receiving JAK1/2 Inhibitor Therapy. *Blood*, PMID: 29907599, Aug. 2018
5. K. Nakamura, S. Kassem, A. Cleynen, M.-L. Chrétien, C. Guillerey, E.M. Putz, T. Bald, I. Förster, S. Vuckovic, G.R. Hill, S.L. Masters, M. Chesi, P.L. Bergsagel, H. Avet-Loiseau, L. Martinet* and M.J. Smyth*. Dysregulated IL-18 is a key driver of immunosuppression and a possible therapeutic target in the multiple myeloma microenvironment. *Cancer Cell*, PMID: 29551594, Mar. 2018
6. A. Witalisz-Siepracka*, D. Gotthardt*, M. Prchal-Murphy, Z. Didara, I. Menzl, D. Prinz, L. Edlinger, E.M. Putz, V. Sexl. NK cell-specific CDK8 deletion enhances antitumor responses. *Cancer Immunology Research*, PMID: 29386186, Jan. 2018
7. D. Mittal, D. Vijayan, E.M. Putz, A. Roman Aguilera, K. Markey, J. Straube, S. Kazakoff, S. Nutt, K. Takeda, G. Hill, N. Waddell, and M.J. Smyth. NK cell suppression of metastasis partially requires CD103⁺ Batf3-dependent dendritic cells and interleukin-12. *Cancer Immunology Research*, PMID: 29070650, Oct. 2017
8. E.M. Putz, A. Mayfosh, K. Kos, D.S. Barkauskas, L. Town, K.J. Goodall, D.Y. Yee, I.K.H. Poon, N. Baschuk, F. Souza-Fonseca-Guimaraes, M. Hulett* and M.J. Smyth*. Natural killer cell heparanase controls tumor invasion and immune surveillance. *Journal of Clinical Investigations*, PMID: 28581441, June 2017
9. E.M. Putz, C. Guillerey, K. Kos, K. Stannard, K. Miles, R.B. Delconte, K. Takeda, S.E. Nicholson, N. D. Huntington, M.J. Smyth. Targeting cytokine signaling checkpoint CIS activates NK cells to protect from tumor initiation and metastasis. *OncImmunology*, PMID: 28344878, Feb. 2017
10. R. Klose, E. Krzywinska, M. Castells, D. Gotthardt, E.M. Putz, C. Kantari-Mimoun, N. Chikdene, A.K. Meinecke, K. Schrödter, I. Helfrich, J. Fandrey, V. Sexl, C. Stockmann. Targeting VEGF-A in myeloid cells enhances natural killer cell responses to chemotherapy and ameliorates cachexia. *Nature communications*, PMID: 27538380, Aug. 2016
11. E.M. Putz, A. Majoros, D. Gotthardt, M. Prchal-Murphy, E.M. Zebedin-Brandl, D.A. Fux, A. Schlattl, R.D. Schreiber, S. Carotta, M. Müller, C. Gerner, T. Decker* and V. Sexl*. Novel non-canonical role of STAT1 in Natural Killer cell cytotoxicity. *OncImmunology*, PMID: 27757297, May 2016
12. R.B. Delconte*, T.B. Kolesnik*, L.F. Dagley*, J. Rautela, W. Shi, E.M. Putz, K. Stannard, J.G. Zhang, C. Teh, M. Firth, T. Ushiki, C. Andoniou, M.A. Degli-Esposti, P.P. Sharp, C.E. Sanvitale, G. Infusini, N.P. Liau, E.M. Linossi, C.J. Burns, S. Carotta, D.H. Gray, C. Seillet, D.S. Hutchinson, G.T. Belz, A.I. Webb, W.S. Alexander, S.S. Li, A.N. Bullock, J.J. Babon, M.J. Smyth, S.E. Nicholson*, N.D. Huntington*. CIS is a potent checkpoint in NK cell-mediated tumor immunity. *Nature Immunology*, PMID: 27213690, May 2016
13. D. Gotthardt, E.M. Putz, E. Grundschober, M. Prchal-Murphy, E. Straka, P. Kudweis, G. Heller, Z. Bago-Horvath, A. Witalisz-Siepracka, A.A. Cumaraswamy, P.T. Gunning, B. Strobl, M. Mueller, R. Moriggl, C. Stockmann, V. Sexl. STAT5 is a key regulator in NK cells and acts as molecular switch from tumor surveillance to tumor promotion. *Cancer Discovery*, PMID: 26873347, Feb. 2016
14. Y. Krasnova, E.M. Putz, M.J. Smyth, F. Souza-Fonseca-Guimaraes. Bench to bedside: NK cells and control of metastasis. *Clinical Immunology*, PMID: 26476139, Oct. 2015
15. M. Prchal-Murphy*, A. Witalisz-Siepracka*, K.T. Bednarik, E.M. Putz, D. Gotthardt, K. Meissl, V. Sexl, M. Müller, B. Strobl. *In vivo* tumor surveillance by NK cells requires TYK2 but not TYK2 kinase activity. *OncImmunology*, PMID: 26451322, July 2015
16. P. Pathria, D. Gotthardt*, M. Prchal-Murphy*, E.M. Putz*, M. Holcman, M. Schleder, B. Grabner, I. Crncec, J. Svinka, M. Musteanu, T. Hoffmann, M. Filipits, W. Berger, V. Poli, L. Kenner, M. Bilban, E. Casanova, M. Müller, B. Strobl, E. Bayer, T. Mohr, V. Sexl, R. Eferl. Myeloid STAT3 promotes formation of colitis-associated colorectal cancer in mice. *OncImmunology*, PMID: 26137415, Jan. 2015
17. E.M. Putz, D. Gotthardt, V. Sexl. STAT1-S727 - the license to kill. *OncImmunology*, PMID: 25941617, Dec. 2014
18. D. Gotthardt, M. Prchal-Murphy, C. Seillet, A. Glasner, O. Mandelboim, S. Carotta, V. Sexl, E.M. Putz. NK cell development in bone marrow and liver - site matters. *Genes & Immunity*, PMID: 25319498, Oct. 2014

PUBLICATIONS (continued)

19. D. Gotthardt, E.M. Putz, E. Straka, P. Kudweis, M. Biaggio, V. Poli, B. Strobl, M. Müller, V. Sexl. Loss of STAT3 in murine NK cells enhances NK cell-dependent tumor surveillance. *Blood*, PMID: 25185262, Sept. 2014
20. G. Hoermann, K. Blatt, G. Greiner, E.M. Putz, A. Berger, H. Herrmann, S. Cerny-Reiterer, K.V. Gleixner, C. Walz, K. Hoetzenecker, L. Müllauer, A. Reiter, K. Sotlar, V. Sexl, P. Valent, M. Mayerhofer. CD52 is a molecular target in advanced systemic mastocytosis. *FASEB J.*, PMID: 24760752, Apr. 2014
21. E.M. Putz, M.A. Hoelzl, J. Baeck, Z. Bago-Horvath, C. Schuster, B. Reichholf, D. Kern, F. Aberger, V. Sexl, A. Hoelbl-Kovacic. Loss of STAT3 in Lymphoma Relaxes NK Cell-Mediated Tumor Surveillance. *Cancers*, PMID: 24473086, Jan. 2014
22. E.M. Putz, D. Gotthardt, G. Hoermann, A. Csiszar, S. Wirth, A. Berger, E. Straka, D. Rigler, B. Wallner, A.M. Jamieson, W.F. Pickl, E. Zebedin-Brandl, M. Müller, T. Decker and V. Sexl, “CDK8-mediated STAT1-S727 phosphorylation restrains NK cell cytotoxicity and tumor surveillance” *Cell Reports*, PMID: 23933255, Aug. 2013
23. A.D. Köprülü, R. Kastner, S. Wienerroither, C. Lassnig, E.M. Putz, O. Majer, B. Reutterer, V. Sexl, K. Kuchler, M. Müller, T. Decker and W. Ellmeier, “The Tyrosine Kinase Btk Regulates the Macrophage Response to Listeria monocytogenes Infection” *PLoS ONE*, PMID: 23544144, Mar. 2013
24. M. Prchal-Murphy*, E.M. Putz*, M. Freissmuth, V. Sexl and E. Zebedin-Brandl, “Targeting PI3K δ - One man’s meat is another man’s poison” *OncoImmunology*, PMID: 23482629, Jan. 2013
25. T. Mizutani*, N. Neugebauer*, E.M. Putz*, N. Moritz, O. Simma, E. Zebedin-Brandl, D. Gotthardt, W. Warsch, E. Eckelhart, H.P. Kantner, U. Kalinke, S. Lienenklaus, S. Weiss, B. Strobl, M. Müller, V. Sexl and D. Stoiber, “Conditional IFNAR1 ablation reveals distinct requirements of type I IFN signaling for NK cell maturation and tumor surveillance” *OncoImmunology*, PMID:23170251, Oct. 2012
26. E.M. Putz, C. Schuster and V. Sexl, “Bcl-2: Live and let die” *OncoImmunology*, PMID: 22934270, Aug. 2012
27. E.M. Putz*, M. Prchal-Murphy*, O.A. Simma, F. Forster, X. Koenig, H. Stockinger, R.P. Piekorz, M. Freissmuth, M. Müller, V. Sexl and E. Zebedin-Brandl, “PI3K δ Is Essential for Tumor Clearance Mediated by Cytotoxic T Lymphocytes” *PLoS ONE*, PMID: 22808277, Jul. 2012
28. E.M. Putz, E. Zebedin and V. Sexl, “STAT Transcription Factors: Controlling All Aspects of NK Cell Biology” (bookchapter, p. 187-204) in the book: “Jak-Stat Signaling: From Basics to Disease”, editors T. Decker and M. Müller; *Springer*, Online: ISBN 978-3-7091-0891-8, Jun. 2012
29. C. Schuster*, A. Berger*, M.A. Hoelzl, E.M. Putz, A. Frenzel, O. Simma, N. Moritz, A. Hoelbl, B. Kovacic, M. Freissmuth, M. Müller, A. Villunger, L. Müllauer, A.I. Schmatz, E. Porpaczy, U. Jäger, D. Stoiber and V. Sexl, “The cooperating mutation or “second hit” determines the immunological visibility towards MYC-induced murine lymphomas” *Blood*, PMID: 21878673, Aug. 2011
30. A.A. Vitale, A.B. Pomilio, C.O. Cañellas, M.G. Vitale, E.M. Putz and J. Ciprian-Ollivier, “In Vivo Long-Term Kinetics of Radiolabeled *N,N*-Dimethyltryptamine and Tryptamine” *Journal of Nuclear Medicine*, PMID: 21622895, Jun. 2011
31. O. Simma, E. Zebedin, N. Neugebauer, C. Schellack, A. Pilz, S. Chang-Rodriguez, K. Lingnau, E. Weisz, E.M. Putz, W.F. Pickl, T. Felzmann, M. Müller, T. Decker, V. Sexl and D. Stoiber, “Identification of an Indispensable Role for Tyrosine Kinase 2 in CTL-Mediated Tumor Surveillance” *Cancer Research*, PMID: 19118004, Jan. 2009
32. E. Zebedin, O. Simma, C. Schuster, E.M. Putz, S. Fajmann, W. Warsch, E. Eckelhart, D. Stoiber, E. Weisz, J.A. Schmid, W.F. Pickl, C. Baumgartner, P. Valent, R.P. Piekorz, M. Freissmuth and V. Sexl, “Leukemic challenge unmasks a requirement for PI3K δ in NK-cell-mediated tumor surveillance” *Blood*, PMID: 18684865, Aug. 2008

* ... contributed equally