

Curriculum Vitae

Name & Address

Veronika Sexl - Professor, MD

Current Position: Full Professor and Head of the Institute of Pharmacology and Toxicology

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Main Research Interests

My laboratory has a long-standing interest in understanding signaling pathways involved in hematopoiesis, leukemogenesis and NK biology, particularly the role of JAK-STAT signaling in cancer and NK cells. In addition, we have been pioneering recent work on role of the cell cycle kinase CDK6 as transcriptional regulator. We use a broad range of methods and technologies to tackle these questions, ranging from cell and molecular biology techniques using murine and human cells, mouse genetics, leukemia models as well as primary clinical patient material. Hence, we not only perform basic research, but also translational medicine within the field of comparative molecular medicine.

Scientific Education & Career History:

2010	Head of Institute of Pharmacology and Toxicology, Veterinary University of Vienna
2007	Professor for „Signal transduction and molecular targeted therapies“ at the Medical University of Vienna
2002	Medical specialist for Pharmacology and Toxicology – “Facharzt “
2001	Venia Docendi of Pharmacology and Toxicology (Titel: “Signaling pathways involved in growth and transformation”) Extraordinary University Professor for Pharmacology and Toxicology
1998 – 2000	Postdoctoral fellowship, Dept. Biochemistry, St. Jude Children’s Research Hospital, Labor von Prof. James N. Ihle, Memphis, TN
1996 – 1998	Erwin-Schrödinger-Stipendium/postdoctoral fellowship of the FWF, Dept. Tumor Cell Biology, Labor Prof. Charles J. Sherr, St. Jude Children’s Research Hospital, Memphis, TN
1996	Short term fellowship of three months at the laboratory of James Roberts, Fred Hutchinson Cancer Research Center, Seattle, USA
1992 – 1996	Research Associate, Institute of Pharmacology at the University of Vienna
1992	Doctor’s degree (MD)
1991 – 1992	Voluntary dissertation at the Vienna General Hospital: “Characterization and in vitro sensitivity testing of a tumor of unknown origin”
1989 - 1992	Scholarship for extraordinarily success (“Leistungsstipendium”)
1984 - 1992	Study of Medicine at the University of Vienna

Experience in Scientific Management and Organization & Student Supervision

2014 – 2017	PI for the Translational Training Program in Hematology (TRTH) organized by EHA and the American Society of Hematology (ASH)
2017	Co-organizer EMBO meeting: Cell death, inflammation and cancer, Obergurgl

Austria

Supervision of Doctoral (PhD) Thesis Students (past five years – 17 since 2002)

Wolfgang Warsch - PhD Student 2008-2012

“JAK2-STAT5 signaling in BCR-ABL+ leukemia“

Eva Maria Putz - PhD Student 2007-2013

“IFNAR1 & STAT1-S727 in NK cell functions“

Angelika Berger - PhD Student 2009-2015

“Stat5 upstream kinases”

Ruth Scheicher - PhD Student 2010-2015

“The role of Cdk6 and JunB in Erythropoiesis and Leukemogenesis”

Dagmar Gotthardt - PhD Student 2011-2016

“The Role of Stat3 in NK cell development and function”

Florian Bellutti - PhD Student 2012-2016

“CDK6 in hematopoietic stem cell homeostasis”

Eva Grundschober - PhD Student 2012-ongoing

“JAK2/STAT5 in leukemogenesis”

Ingeborg Menzl - PhD Student 2013-ongoing

“Linking cell cycle kinases to STAT”

Leo Edlinger - PhD Student 2013-ongoing

“STAT5 transcription factors and serine phosphorylation”

Sofie Nebenführ - PhD Student 2016-ongoing

“CDK6 and its interactors”

Daniela Prinz - PhD Student 2016-ongoing

“NKG2D in tumor surveillance”

Invited Conference Lectures (5 recent selected)

- 2017.-Second AACR Conference on Hematologic Malignancies: Translating Discoveries to Novel Therapies, Boston, MA, USA
- 2016 - Keystone Symposia Colorado, USA
- 2016 - Kloster Seeon Meeting PCCC, Seeon, GER
- 2016 - Symposium: Translational Immunology, From Target to Therapy, Würzburg, GER
- 2016 - Dotan Hematological conference, Tel Aviv, ISR
- 2014 - Plenary speaker PCM2014 Meeting of Paracoccidioides & Mycoses, Brasilia, BRA
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Honors & Awards

- 2003 – 2005 - Award for Innovative Interdisciplinary Cancer Research, Vienna Fund
- 2004 - Billroth-Award of the Austrian Medical Association
- 2005 - Novartis Prize for Medicine
- 2006 - Alois Sonnleitner Prize of the Austrian Academy of Science (ÖAW)
- 2008 - Großer zentraleuropäischer Preis des Fonds der Stadt Wien für innovative interdisziplinäre Krebsforschung
- 2016 - ERC advanced grant

Most Member of Reviewing Panels, Editorial Boards, Scientific Organizations:

2000 – date Ad hoc referee for scientific journals and funding agencies including Nature, Blood, JCI

2006 – date European Academy of Sciences - Member

2012 – 2015 Member of the European Hematology Association (EHA) Fellowships and Grants Committee

2013 – 2018	Elected Member of the Supervisory Board of the Medical University of Vienna “Unirat”
2014 – date	Austrian delegate for EMBO/EMBL
2015 – date	Editorial Board Member for Blood
2015 – 2019	Member of the EHA Board
since 2016	Elected as Chair of the Senate of the University for Veterinary Medicine Vienna
2016	Elected as Corresponding Member of the Austrian Academy of Science

Important Research Funding (covering last 5 years)

- 2008-2014, WWTF - FACS typing for therapy response - 654 k€
- 2008-2016, FWF – Jak-Stat Signalin in Leukemia – 1.100 k€
- 2012-2017, FWF – Uncoupling CDK6 from p16INK4A – 455 k€
- 2012-2020, FWF - Doctoral program Inflammation and Immunity - 600 k€
- 2013-2020, FWF - Myeloproliferative Neoplasien – 800 k€
- 2016-2019, FWF - CDK8 in NK cells - 450 k€
- 2016-2020, ERC-advanced grant - CDK6 in leukemia – 2.500 k€
- 2017-2020, FWF - JAK-STAT signaling - 400 k€

Key International Collaborators (selection of 5 with joint publications since 2012)

- **Tony Green** University Cambridge, UK arg1000@cam.ac.uk
- **Stefan Fröhling** Nationales. Centrum für Tumorerkrankungen Heidelberg, GER stefan.froehling@nct-heidelberg.de
- **Marcos Malumbres** Centro Nacional de Investigaciones Oncológicas ,Madrid, ESP malumbres@cni.es
- **Todd Fehniger** Washington University School of Medicine in St. Louis, USA tfehnige@wustl.edu
- **Andreas Diefenbach** Johannes Gutenberg-Universität Mainz, GER diefenbach@uni-mainz.de

List of Publications (2012 - 2017)

Overall, has published more than **110** publications with a cumulative IF of around **yx** . Based on Google Scholar the publications received more than **xy** citations, with a current life-time Hirsch **h Index** of **zzzz**

1. Hantschel O, Warsch W, Eckelhart E, Kaupe I, Grebien F, Wagner KU, Superti-Furga G, **Sexl V**. BCR-ABL uncouples canonical JAK2-STAT5 signaling in chronic myeloid leukemia. **Nat Chem Biol**. 2012 Jan 29;8(3):285-93. doi: 10.1038/nchembio.775.
2. Kovacic B, Hoelbl A, Litos G, Alacakaptan M, Schuster C, Fischhuber K, Kerényi MA, Stengl G, Moriggl R, **Sexl V**, Beug H. Diverging fates of cells of origin in acute and chronic leukemia. **EMBO Mol Med**. 2012 Apr;4(4):283-97. doi: 10.1002/emmm.201100208. Epub 2012 Feb 9.
3. Putz EM, Schuster C, **Sexl V**. Bcl-2: Live and let die. **Oncolmmunology**. 2012 Aug 1;1(5):749-750.
4. Kernbauer E, Maier V, Stoiber D, Strobl B, Schneckenleithner C, **Sexl V**, Reichart U, Reizis B, Kalinke U, Jamieson A, Müller M, Decker T. Conditional Stat1 Ablation Reveals the Importance of Interferon Signaling for Immunity to *Listeria monocytogenes* Infection. **PLoS Pathog**. 2012;8(6):e1002763. doi: 10.1371/journal.ppat.1002763. Epub 2012 Jun 14.
5. Hassler MR, Klisaroska A, Kollmann K, Steiner I, Bilban M, Schiefer AI, **Sexl V**, Egger G. Antineoplastic activity of the DNA methyltransferase inhibitor 5-aza-2'-deoxycytidine in anaplastic large cell lymphoma. **Biochimie**. 2012 Nov;94(11):2297-307. doi: 10.1016/j.biochi.2012.05.029. Epub 2012 Jun 9.
6. Putz EM, Prchal-Murphy M, Simma OA, Forster F, Koenig X, Stockinger H, Piekorz RP, Freissmuth M, Müller M, **Sexl V**, Zebedin-Brandl E. PI3K α Is Essential for Tumor Clearance Mediated by Cytotoxic T Lymphocytes. **PLoS One**. 2012;7(7):e40852. doi: 10.1371/journal.pone.0040852. Epub 2012 Jul 13.
7. Mizutani T, Neugebauer N, Putz EM, Moritz N, Simma O, Zebedin-Brandl E, Gotthardt D, Warsch W, Eckelhart E, Kantner HP, Kalinke U, Lienenklaus S, Weiss S, Strobl B, Müller M **Sexl V**, Stoiber D. Conditional IFNAR1 ablation reveals distinct requirements of type I IFN signaling for NK cell maturation and tumor surveillance, **Oncolmmunology**. 2012 Oct 1;1(7):1027-1037.
8. Laimer D, Dolznig H, Kollmann K, Vesely PW, Schlederer M, Merkel O, Schiefer AI, Hassler MR, Heider S, Amenitsch L, Thallinger C, Staber PB, Simonitsch-Klupp I, Artaker M, Lagger S, Turner SD, Pileri S, Piccaluga PP, Valent P, Messana K, Landra I, Weichhart T, Knapp S, Shehata M, Todaro M, **Sexl V**, Höfler G, Piva R, Medico E, Ruggeri BA, Cheng M, Eferl R, Egger G, Penninger JM, Jaeger U, Moriggl R, Inghirami G, Kenner L. PDGFR blockade is a rational and effective therapy for NPM-ALK-driven lymphomas. **Nat Med**. 2012 Nov;18(11):1699-704. doi: 10.1038/nm.2966. Epub 2012 Oct 14.
9. Warsch W, Grundschober E, Berger A, Gille L, Cerny-Reiterer S, Tigan AS, Hoelbl-Kovavic A, Valent P, Moriggl R, **Sexl V**. STAT5 triggers BCR-ABL1 mutation by mediating ROS production in chronic myeloid leukaemia. **Oncotarget**. 2012 Dec;3(12):1669-87
10. Prchal-Murphy M, Putz EM, Freissmuth M, **Sexl V**, Zebedin-Brandl E. Targeting P13K δ : One man's meat is another man's poison. **Oncolmmunology**. 2013 Jan 1;2(1):e22272.
11. Köprülü AD, Kastner R, Wienerroithner S, Lassnig C, Putz EM, Majer O, Reutterer B, **Sexl V**, Kuchler K, Müller M, Decker T, Ellmeier W. The tyrosine kinase Btk regulates the macrophage response to *Listeria monocytogenes* infection. **PLoS One**. 2013;8(3):e60476. doi: 10.1371/journal.pone.0060476. Epub 2013 Mar 27.
12. Huang J, Das SK, Jha P, Al Zoughbi W, Scher S, Claudel T, **Sexl V**, Vesely P, Birner-Gruenberger R, Kratky D, Trauner M, Hoefler G. The PPAR α agonist fenofibrate suppresses B-cell lymphoma in mice by modulating lipid metabolism. **Biochim Biophys Acta**. 2013 Oct;1831(10):1555-65. doi: 10.1016/j.bbali.2013.04.012. Epub 2013 Apr 26.
13. Koromilas, AE; **Sexl, V**. The tumor suppressor function of STAT1 in breast cancer. **JAKSTAT**. 2013 Apr 1;2(2):e23353

14. Kollmann K, Heller G, Schneckenleithner C, Warsch W, Scheicher R, Ott R, Schäfer M, Fajmann S, Schleder M, Schiefer AI, Reichart U, Mayerhofer M, Hoeller C, Zochbauer-Mueller S, Kerjaschki D, Bock C, Kenner L, Hoefler G, Freissmuth M, Green AR, Moriggl R, Busslinger M, Malumbres M, **Sexl V**. A kinase-independent function of CDK6 links the cell cycle to tumor angiogenesis. **Cancer Cell**. 2013 Aug 12;24(2):167-81. doi: 10.1016/j.ccr.2013.07.012.
15. Warsch W, Grundschober E, **Sexl V**. Adding a new facet to STAT5 in CML: multitasking for leukemic cells. **Cell Cycle**. 2013 Jun 15;12(12):1813-4. doi: 10.4161/cc.25116. Epub 2013 Jun 10.
16. Putz EM, Gotthardt D, Hoermann G, Csiszar A, Wirth S, Berger A, Straka E, Rigler D, Wallner B, Jamieson AM, Pickl WF, Zebedin-Brandl EM, Müller M, Decker T, **Sexl V**. CDK8-mediated STAT1-S727 phosphorylation restrains NK cell cytotoxicity and tumor surveillance. **Cell Rep**. 2013 Aug 15;4(3):437-44. doi: 10.1016/j.celrep.2013.07.012. Epub 2013 Aug 8.
17. Warsch W, Walz C, **Sexl V**. JAK of all trades: JAK2-STAT5 as novel therapeutic targets in BCR-ABL1+ chronic myeloid leukemia. **Blood**. 2013 Sep 26;122(13):2167-75. doi: 10.1182/blood-2013-02-485573. Epub 2013 Aug 7.
18. Hannesdóttir L, Tymoszuk P, Parajuli N, Wasmer MH, Philipp S, Daschil N, Datta S, Koller JB, Tripp CH, Stoitzner P, Müller-Holzner E, Wieggers GJ, **Sexl V**, Villunger A, Doppler W. Lapatinib and doxorubicin enhance the Stat1-dependent antitumor immune response. **Eur J Immunol**. 2013 Oct;43(10):2718-29. doi: 10.1002/eji.201242505. Epub 2013 Jul 11.
19. Kollmann K, **Sexl V**. CDK6 and p16INK4A in lymphoid malignancies. **Oncotarget**. 2013 Nov;4(11):1858-9.
20. Richter K, Perriard G, Behrendt R, Schwendener R, **Sexl V**, Dunn R, Kamanaka M, Flavell R, Roers A, Oxenius A. Macrophage an T Cell Produced IL-10 Promotes Viral Chronicity. **PLoS Pathog** . 2013;9(11):e1003735. doi: 10.1371/journal.ppat.1003735. Epub 2013 Nov 7.
21. Sullivan RP, Fogel LA, Leong JW, Schneider SE, Wong R, Romee R, Thai TH, **Sexl V**, Matkovich SJ, Dorn GW 2nd, French AR, Fehniger TA. MicroRNA-155 Tunes Both the Threshold and Extent of NK Cell Activation via Targeting of Multiple Signaling Pathways. **J Immunol**. 2013 Dec 15;191(12):5904-13. doi: 10.4049/jimmunol.1301950. Epub 2013 Nov 13.
22. Kantner HP, Warsch W, Delogu A, Bauer E, Esterbauer H, Casanova E, **Sexl V**, Stoiber D. ETV6/RUNX1 Induces Reactive Oxygen Species and Drives the Accumulation of DNA Damage in B Cells. **Neoplasia**. 2013 Nov; 15(11):1292-300.
23. Berger A, Hoelbl-Kovacic A, Bourgeais J, Hoefling L, Warsch W, Grundschober E, Uras IZ, Gouilleux F, **Sexl V**. PAK-dependent STAT5 serine phosphorylation is required for BCR-ABL-induced leukemogenesis. **Leukemia**. 2014 Mar;28(3):629-41. doi: 10.1038/leu.2013.351. Epub 2013 Nov 22.
24. Putz EM, Hoelzl MA, Baeck J, Bago-Horvath Z, Schuster C, Reihholf B, Kern D, Aberger F, **Sexl V**, Hoelbl-Kovacic A. Loss of STAT3 in Lymphoma Relaxes NK Cell-Mediated Tumor Surveillance. **Cancers (Basel)**. 2014 Jan 27;6(1):193-210. doi: 10.3390/cancers6010193.
25. Kovacic B, Hoelbl-Kovacic A, Fischhuber KM, Leitner NR, Gotthardt D, Casanova E, **Sexl V**, Müller M. Lactotransferrin-Cre reporter mice trace neutrophils, monocytes/macrophages and distinct subtypes of dendritic cells. **Haematologica**. 2014 Jun;99(6):1006-15. doi: 10.3324/haematol.2013.097154. Epub 2014 Feb 21.
26. Klose CS, Flach M, Möhle L, Rogell L, Hoyler T, Ebert K, Fabiunke C, Pfeifer D, **Sexl V**, Fonseca-Pereira D, Domingues RG, Veiga-Fernandes H, Arnold SJ, Busslinger M, Dunay IR, Tanriver Y, Diefenbach A. Differentiation of type 1 ILCs from a common progenitor to all helper-like innate lymphoid cell lineages. **Cell**. 2014 Apr 10;157(2):340-56. doi: 10.1016/j.cell.2014.03.030.
27. Hoermann G, Blatt K, Greiner G, Putz EM, Berger A, Herrmann H, Cerny-Reiterer S, Gleixner KV, Walz C, Hoetzenecker K, Müllauer L, Reiter A, Sotlar K, **Sexl V**, Valent P,

- Mayerhofer M. CD52 is a molecular target in advanced systemic mastocytosis. **FASEB J**. 2014 Aug;28(8):3540-51. doi: 10.1096/fj.14-250894. Epub 2014 Apr 23.
28. Grundschober E, Hoelbl-Kovacic A, Bhagwat N, Kovacic B, Scheicher R, Eckelhart E, Kollmann K, Keller M, Grebien F, Wagner KU, Levine RL, **Sexl V**. Acceleration of Bcr-Abl+ leukemia induced by deletion of JAK2. **Leukemia**. 2014 Sep;28(9):1918-22. doi: 10.1038/leu.2014.152. Epub 2014 May 5.
29. Rodriguez-Diez E, Quereda V, Bellutti F, Prchal-Murphy M, Partida D, Eguren M, Gómez de Cedrón M, Dubus P, Canamero m, Martinez D, **Sexl V**, Malumbres M. Cdk4 and Cdk6 cooperate in counteracting the INK4 family of inhibitors during murine leukemogenesis. **Blood**. 2014 Oct 9;124(15):2380-90. doi: 10.1182/blood-2014-02-555292. Epub 2014 Aug 25.
30. Gotthardt D, Putz EM, Straka E, Kudweis P, Biaggio M, Poli V, Strobl B, Müller M, **Sexl V**. Loss of STAT3 in murine NK cells enhances NK cell-dependent tumor surveillance. **Blood**. 2014 Oct 9; 124(15):2370-9. doi: 10.1182/blood-2014-03-564450. Epub 2014 Sep 2.
31. Gotthardt D, Prchal-Murphy M, Seillet C, Glasner A, Mandelboim O, Carotta S, **Sexl V**, Putz EM. NK cell development in bone marrow and liver: site matters. **Genes Immun**. 2014 Dec;15(8):584-7. doi: 10.1038/gene.2014.55. Epub 2014 Oct 16.
32. Berger A, **Sexl V**, Valent P, Moriggl R. Inhibition of STAT5: A therapeutic option in BCR-ABL1-driven leukemia. **Oncotarget**. 2014 October 30;5(20):9564-9576.
33. Putz EM, Gotthardt D, **Sexl V**. STAT1-S727-license to kill. **Oncoimmunology**. 2014 Oct 14; 3(9):doi: 10.4161/21624011.2014.955441. Epub 2014 Dec 8.
34. Nivarthi H, Prchal-Murphy M, Swoboda A, Hager M, Schleder M, Kenner L, Tuckermann J, **Sexl V**, Moriggl R, Ermakova O. Stat5 gene dosage in T cells modulates CD8+ T cell homeostasis and attenuates contact hypersensitivity response in mice. **Allergy**. 2015 Jan;70(1):67-79. doi: 10.1111/all.12535. Epub 2014 Nov 30.
35. Scheicher R, Hoelbl-Kovacic A, Bellutti F, Tigan AS, Prchal-Murphy M, Heller G, Schneckenleithner C, Salazar-Roa M, Zöchbauer-Müller S, Zuber J, Malumbres M, Kollmann K, **Sexl V**. CDK6 as a key regulator of hematopoietic and leukemic stem cell activation. **Blood**. 2015 Jan 1;125(1):90-101. doi: 10.1182/blood-2014-06-584417. Epub 2014 Oct 23.
36. Schneckenleithner C, Hoelbl-Kovacic A, **Sexl V**. Modeling BCR/ABL-driven malignancies in the mouse. **Methods Mol Biol**. 2015;1267:263-82. doi: 10.1007/978-1-4939-2297-0_12.
37. Pathria P, Gotthardt D, Prchal-Murphy M, Putz EM, Holcman M, Schleder M, Grabner B, Crncec I, Svinka J, Musteanu M, Hoffmann T, Filipits M, Berger W, Poli V, Kenner L, Bilban M, Casanova E, Müller M, Strobl B, Bayer E, Mohr T, **Sexl V**, Eferl R. Myeloid STAT3 promotes formation of colitis-associated colorectal cancer in mice. **Oncoimmunology**. 2015 Jan 22;4(4): doi: 10.1080/2162402X.2014.998529.
38. Sullivan RP, Leong JW, Schneider SE, Ireland AR, Berrien-Elliott MM, Singh A, Schappe T, Jewell BA, **Sexl V**, Fehniger TA. MicroRNA-15/16 Antagonizes Myb To Control NK Cell Maturation. **J Immunol**. 2015 Sep 15;195(6):2806-17. doi: 10.4049/jimmunol.1500949. Epub 2015 Aug 12.
39. Prchal-Murphy M, Witalisz-Siepracka A, Bednarik KT, Putz EM, Gotthardt D, Meissl K, **Sexl V**, Müller M, Strobl B. In vivo tumor surveillance by NK cells requires TYK2 but not TYK2 kinase activity. **Oncoimmunology**. 2015 May 26;4(11): doi: 10.1080/2162402X.2015.1047579.
40. Tigan AS, Bellutti F, Kollmann K, Tebb G, **Sexl V**. CDK6-a review of the past and a glimpse into the future: from cell-cycle control to transcriptional regulation. **Oncogene**. 2016 Jun 16;35(24):3083-91. doi: 10.1038/onc.2015.407. Epub 2015 Oct 26.
41. Sadovnik I, Hoelbl-Kovacic A, Herrmann H, Eisenwort G, Cerny-Reiterer S, Warsch W, Hoermann G, Greiner G, Blatt K, Peter B, Stefanzi G, Berger D, Bilban M, Herndlhofer S, Sill H, Sperr WR, Streubel B, Mannhalter C, Holyoake TL, **Sexl V**, Valent P. Identification of CD25 as STAT5-Dependent Growth-Regulator of Leukemic Stem Cells in Ph+ CML. **Clin**

Cancer Res. 2016 Apr 15;22(8):2051-61. doi: 10.1158/1078-0432.CCR-15-0767. Epub 2015 Nov 25.

42. Park HJ, Li J, Hannah R, Biddie S, Leal-Cervantes AI, Kirschner K, Flores Santa Cruz D, **Sexl V**, Göttgens B, Green AR. Cytokine-induced megakaryocytic differentiation is regulated by genome-wide loss of a uSTAT transcriptional program. **EMBO J.** 2016 Mar 15;35(6):580-94. doi: 10.15252/embj.201592383. Epub 2015 Dec 23.

43. Schiefer AI, Kornauth C, Simonitsch-Klupp I, Skrabs C, Masel EK, Streubel B, Vanura K, Walter K, Migschitz B, Stoiber D, **Sexl V**, Raderer M, Chott A, da Silva MG, Cabecadas J, Müllauer L, Jäger U, Porpaczy E. Impact of Single or Combined Genomic Alterations of TP53, MYC, and BCL2 on Survival of Patients With Diffuse Large B-Cell Lymphomas: A Retrospective Cohort Study. **Medicine** (Baltimore). 2015 Dec;94(52):e2388. doi: 10.1097/MD.0000000000002388.

44. Gotthardt D, Putz EM, Grundschober E, Prchal-Murphy M, Straka E, Kudweis P, Heller G, Bago-Horvath Z, Witalisz-Siepracka A, Cumaraswamy AA, Gunning PT, Strobl B, Müller M, Moriggl R, Stockmann C, **Sexl V**. Stat5 is a key regulator in NK cells and acts as molecular switch from tumor surveillance to tumor promotion. **Cancer Discovery.** 2016 Apr;6(4):414-29. doi: 10.1158/2159-8290.CD-15-0732. Epub 2016 Feb 12.

45. Bothur E, Raifer H, Haftmann C, Stittrich AB, Brüstle A, Brenner D, Bollig N, Bieringer M, Kang CH, Reinhard K, Camara B, Huber M, Visekruna A, Steinhoff U, Repenning A, Bauer UM, **Sexl V**, Radbruch A, Sparwasser T, Meshreghi MF, Wah Mak T, Lohoff M. Antigen receptor-mediated depletion of FOXP3 in induced regulatory T-lymphocytes via PTPN2 and FOXO1. **Nat Commun.** 2015; 13:6 :8576. doi : 10.1038/ncomms9576.

46. Majoros A, Platanitis E, Szappanos D, Cheon H, Vogl C, Stark GR, **Sexl V**, Schreiber R, Schindler C, Müller M, Decker T. Response to interferons and antibacterial innate immunity in the absence of tyrosine –phosphorylated STAT1. **EMBO Rep.** 2016 Mar;17(3):367-82. doi: 10.15252/embr.201540726. Epub 2016 Feb 12.

47. Bauer E, Schlederer M, Scheicher R, Horvath J, Aigner P, Schiefer AI, Kain R, Regele H, Hoermann G, Steiner G, Kenner L, **Sexl V**, Villunger A, Moriggl R, Stoiber D. Cooperation of ETV6/RUNX1 and BCL2 enhances immunoglobulin production and accelerates glomerulonephritis in transgenic mice. **Oncotarget.** 2016 Mar 15;7(11):12191-205. doi: 10.18632/oncotarget.7687.

48. Kazemi Z, Bergmayr C, Prchal-Murphy M, Javaheri T, Themann M, Pham HT, Strohmaier W, **Sexl V**, Freissmuth M, Zebedin-Brandl E. Repurposing treprostinil for enhancing hematopoietic progenitor cell transplantation. **Mol Pharmacol.** 2016 Jun;89(6):630-44. doi: 10.1124/mol.116.103267. Epub 2016 Mar 17.

49. Uras IZ, Walter GJ, Scheicher R, Bellutti F, Prchal-Murphy M, Tigan AS, Valent P, Heidel FH, Kubicek S, Scholl C, Fröhling S, **Sexl V**. Palbociclib treatment of FLT3-ITD+ AML cells uncovers a kinase-dependent transcriptional regulation of FLT3 and PIM1 by CDK6. **Blood.** 2016 Jun 9;127(23):2890-902. doi: 10.1182/blood-2015-11-683581. Epub 2016 Apr 20.

50. Bottos A, Gotthardt D, Gill JW, Gattelli A, Frei A, Tzankov A, **Sexl V**, Wodnar-Filipowicz A, Hynes NE. Decreased NK-cell tumour immunosurveillance consequent to JAK inhibition enhances metastasis in breast cancer models. **Nat Commun.** 2016 Jul 13;7:12258. doi: 10.1038/ncomms12258.

51. Klose R, Krzywinska E, Castells M, Gotthardt D, Putz EM, Kantari-Mimoun C, Chikdene N, Meinecke AK, Schrödter K, Helfrich I, Fandrey J, **Sexl V**, Stockmann C. Targeting VEGF-A in myeloid cells enhances natural killer cell responses to chemotherapy and ameliorates cachexia. **Nat Commun.** 2016 Aug 19;7:12528. doi: 10.1038/ncomms12528.

52. Sochalska M, Schuler F, Weiss JG, Prchal-Murphy M, **Sexl V**, Villunger A. MYC selects against reduced BCL2A1/A1 protein expression during B cell lymphomagenesis. **Oncogene.** 2016 Oct 3. doi: 10.1038/onc.2016.362. [Epub ahead of print]

53. Putz EM, Majoros A, Gotthardt D, Prchal-Murphy M, Zebedin-Brandl EM, Fux DA, Schlattl A, Schreiber RD, Carotta S, Müller M, Gerner C, Decker T, **Sexl V**. Novel non-

canonical role of STAT1 in Natural Killer cell cytotoxicity. **Oncoimmunology**. 2016 May 19;5(9):e1186314.

54. Greiner G, Witzeneder N, Berger A, Schmetterer K, Eisenwort G, Schiefer AI, Roos S, Popow-Kraupp T, Müllauer L, Zuber J, **Sexl V**, Kenner L, Sperr WR, Valent P, Mayerhofer M, Hoermann G. CCL-2 is a KIT D816V-dependent Modulator of the Bone Marrow Microenvironment in Systemic Mastocytosis. **Blood**. 2017 Jan 19;129(3):371-382. doi: 10.1182/blood-2016-09-739003. Epub 2016 Nov 16.

55. Freund P, Kerenyi MA, Hager M, Wagner T, Wingelhofer B, Pham HTT, Elabd M, Han X, Valent P, Gouilleux F, **Sexl V**, Krämer OH, Groner B, Moriggl R. O-GlcNAcylation of STAT5 controls tyrosine phosphorylation and oncogenic transcription in STAT5-dependent malignancies. **Leukemia** advance online publication 10 February 2017; doi: 10.1038/leu.2017.4.

56. Lenartić M, Jelenčić V, Zafirova B, Ožanić M, Marečić V, Jurković S, **Sexl V**, Šantić M, Wensveen FM, Polić B. NKG2D Promotes B1a Cell Development and Protection against Bacterial Infection. **J Immunol**. 2017 Feb 15;198(4):1531-1542. doi: 10.4049/jimmunol.1600461. Epub 2017 Jan 13.

57. Linke M, Pham HT, Katholnig K, Schnöller T, Miller A, Demel F, Schütz B, Rosner M, Kovacic B, Sukhbaatar N, Niederreiter B, Blüml S, Kuess P, **Sexl V**, Müller M, Mikula M, Weckwerth W, Haschemi A, Susani M, Hengstschläger M, Gambello MJ, Weichhart T. Chronic signaling via the metabolic checkpoint kinase mTORC1 induces macrophage granuloma formation and marks sarcoidosis progression. **Nat Immunol**. 2017 Mar;18(3):293-302. doi: 10.1038/ni.3655. Epub 2017 Jan 16.

58. Gotthardt D, **Sexl V**. STATs in NK-Cells: The Good, the Bad, and the Ugly. **Front Immunol**. 2017 Jan 18;7:694. doi: 10.3389/fimmu.2016.00694. eCollection 2016.

59. Uras IZ, Scheicher RM, Kollmann K, Glösmann M, Prchal-Murphy M, Tigan AS, Fux AD, Altamura S, Neves J, Muckenthaler M, Bennett KL, Kubicek S, Hinds PW, von Lindern M, **Sexl V**. Cdk6 contributes to cytoskeletal stability in erythroid cells. **Haematologica**. 2017, in press

10 Most Important Career Publications (only as first or corresponding author)

1. Kovacic, B., Stoiber, D., Moriggl, R., Weisz, E., Ott, R.G., Kreibich, R., Levy, D.E., Beug, H., Freissmuth, M., and **Sexl, V.** (2006). STAT1 acts as a tumor promoter for leukemia development. **Cancer Cell** 10(1), 77–87, Jul. 2006, doi: <http://dx.doi.org/10.1016/j.ccr.2006.05.025>.

2. Hoelbl, A., Schuster, C., Kovacic, B., Zhu, B., Wickre, M., Hoelzl, M.A., Fajmann, S., Grebien, F., Warsch, W., Stengl, G., Hennighausen, L., Poli, V., Beug, H., Moriggl, R., and **Sexl, V.** (2010). Stat5 is indispensable for the maintenance of bcr/abl-positive leukaemia. **EMBO Mol Med** 2(3), 98–110, doi: 10.1002/emmm.201000062.

3. Warsch, W., Kollmann, K., Eckelhart, E., Fajmann, S., Cerny-Reiterer, S., Hölbl, A., Gleixner, K.V., Dworzak, M., Mayerhofer, M., Hoermann, G., Herrmann, H., Sillaber, C., Egger, G., Valent, P., Moriggl, R., and **Sexl, V.** (2011). High STAT5 levels mediate imatinib resistance and indicate disease progression in chronic myeloid leukemia. **Blood** Mar 24, 117(12):3409-20. doi: 10.1182/blood-2009-10-248211..

4. Kollmann, K., Heller, G., Ott, R.G., Scheicher, R., Zebedin-Brandl, E., Schnecklenleithner, C., Simma, O., Warsch, W., Eckelhart, E., Hoelbl, A., Bilban, M., Zöchbauer-Müller, S., Malumbres, M., and **Sexl, V.** (2011). c-JUN promotes BCR-ABL – induced lymphoid leukemia by inhibiting methylation of the 5' J region of Cdk6. **Blood** Apr 14, 117(15):4065-75. doi: 10.1182/blood-2010-07-299644.

5. Hantschel, O., Warsch, W., Eckelhart, E., Kaupe, I., Grebien, F., Wagner, K.U., Superti-Furga, G., and **Sexl, V.** (2012). BCR-ABL uncouples canonical JAK2-STAT5 signaling in chronic myeloid leukemia. **Nat Chem Biol** Jan 29, 8(3):285-93. doi: 10.1038/nchembio.775.

6. Kollmann, K., Heller, G., Schneckenleithner, C., Warsch, W., Scheicher, R., Ott, R.G., Schäfer, M., Fajmann, S., Schleder, M., Schiefer, A.I., Reichart, U., Mayerhofer, M., Hoeller, C., Zöchbauer-Müller, S., Kerjaschki, D., Bock, C., Kenner, L., Hoefler, G., Freissmuth, M., Green, A.R., Moriggl, R., Buslinger, M., Malumbres, M., and **Sexl, V.** (2013). A kinase-independent function of CDK6 links the cell cycle to tumor angiogenesis. **Cancer Cell** Aug 12, 24(2):167-81. doi: 10.1016/j.ccr.2013.07.012.
7. Putz, E.M., Gotthardt, D., Hoermann, G., Csiszar, A., Wirth, S., Berger, A., Straka, E., Rigler, D., Wallner, B., Jamieson, A., Pickl, W.F., Zebedin-Brandl, E., Müller, M., Decker, T., and **Sexl, V.** (2013). CDK8-mediated STAT1-S727 phosphorylation restrains NK cell cytotoxicity and tumor surveillance. **Cell Rep** Aug 15, 4(3):437-44. doi: 10.1016/j.celrep.2013.07.012.
8. Berger, A., Hoelbl-Kovacic, A., Bourgeois, J., Hoefling, L., Warsch, W., Grundschober, E., Uras, I., Menzl, I., Putz, E.M., Hoermann, G., Schuster, C., Fajmann, S., Leitner, E., Kubicek, S., Moriggl, R., Gouilleux, F., and **Sexl, V.** (2014). PAK-dependent STAT5 serine phosphorylation is required for BCR-ABL-induced leukemogenesis. **Leukemia** 28 (3), pp. 629–41, Mar. 2014, doi: 10.1038/leu.2013.351.
9. Scheicher, R., Hoelbl-Kovacic, A., Bellutti, F., Tigan, A.S., Prchal-Murphy, M., Heller, G., Schneckenleithner, C., Salazar-Roa, M., Zöchbauer-Müller, S., Zuber, J., Malumbres, M., Kollmann, K., and **Sexl, V.** (2015). CDK6 as a key regulator of hematopoietic and leukemic stem cell activation. **Blood** Jan 1, 125(1):90-101. doi: 10.1182/blood-2014-06-584417.
10. Gotthardt D, Putz EM, Grundschober E, Prchal-Murphy M, Straka E, Kudweis P, Heller G, Bago-Horvath Z, Witalisz-Siepracka A, Cumaraswamy AA, Gunning PT, Strobl B, Muller M, Moriggl R, Stockmann C, **Sexl V.** STAT5 is a key regulator in NK cells and acts as a molecular switch from tumor surveillance to tumor promotion. **Cancer Discovery** 2016; Cancer Discov. 2016 Apr;6(4):414-29, doi: 10.1158/2159-8290