

## Curriculum Vitae

### Personal details

Prof. Dr. Julia Kzhyshkowska, maiden name Tsupa

Date and place of birth:

February 18, 1967, Moscow, Russian Federation.



### Current appointment

Professor and head of the group Cell and Molecular Biology of Innate Immunity  
at the Medical Faculty Mannheim, Ruprecht- Karls University of Heidelberg,  
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### Education and academic degrees

<b>20.07.2010</b>	Professorship at the University of Heidelberg
<b>18.07.2007</b>	Habilitation at the Medical Faculty, University of Heidelberg. “Privat-Dozent (PD)”, <i>Venia Legendi</i> “Cell and molecular biology”
<b>31.10.1997</b>	October 31, 1997: PhD in biology in Biology/Oncology, Cancer Research Centre, Russian Academy of Medical Sciences, Moscow.
<b>15.06.1989</b>	M.Sc. in biology/biochemistry with honours Lomonosov Moscow State University, Biological Faculty, Department of Molecular Biology and Virology.

### Professional appointments

<b>2008- current</b>	Head of the Group Cell and Molecular Biology of Innate Immunity Senior lecturer (since July 2010 - professor) at the University of Heidelberg, Medical Faculty Mannheim.
<b>2001 - 2008</b>	Junior group leader and lecturer at the University of Heidelberg, Medical Faculty Mannheim.
<b>July 1997- July 2001</b>	Staff scientist, postdoc at the University of Regensburg, Institute for Medical Microbiology and Hygiene, Regensburg, Germany
<b>1994-1997</b>	Research associate/staff scientist at the Oncogenic Virus Immunology Lab, Institute of Carcinogenesis, Blokhin Cancer Research Centre, Russian Academy of Medical Sciences, Moscow
<b>1991-1993</b>	Maternity leave
<b>1989-1994</b>	Junior researcher/staff scientist at the Oncogenic Virus Immunology Lab, Institute of Carcinogenesis, Blokhin Cancer Research Centre, Russian Academy of Medical Sciences, Moscow

## **Reviewer and editorial activities**

<b>Scientific Foundations</b>	Expert-evaluator for European Commission, Frame Programs 6 and 7 (FP6, FP7) Expert-evaluator for The Icelandic Centre for Research –RANNIS The Broad Medical Research Program “Inflammatory Bowel disease grants” (USA) Biotechnology and Biological Sciences Research Council (UK)
<b>Editorial experience</b>	Since 2009: Member of the Editorial board of Immunobiology. Since 2010: Section Editor of Immunobiology 2009: Editor of the Special Issue of Immunobiology “Vesicular traffic in immune cells” 2010/2011: Editor of the Special Issue of Immunobiology “Cardiovascular Immunology”, in progress Since 2010 Editorial Board Member of for TheScientificWorldJOURNAL’s Cell Biology domain
<b>Peer-review for Scientific Journals</b>	BBA - Molecular Cell Research (ELS) Biochemical Journal, Cellular and Molecular Life Sciences. Circulation Research, European Journal of Gastroenterology & Hepatology European Journal of Immunology, Experimental and Molecular Pathology; Experimental Dermatology FEBS Letters Immunobiology International Journal of Cancer, Journal of Immunology, Journal of Leukocyte Biology, Journal of Neurochemistry, Journal of Reproductive Immunology, Leukemia Research, Respiratory Research

## **Membership**

- European Society for Mathematical and Theoretical Biology (ESMTB)
- Society for Leukocyte Biology (SLB)
- European Macrophage and Dendritic Cell Society (EMDS)
- European Life Scientist Organisation (ELSO)
- German Immunological Society (DGfI)
- Federation of European Biochemical Societies- FEBS
- German Society for Cell biology (DGZ)
- German Society for Biochemistry and Molecular Biology (GBM)
- Deutsche Hochschulverband (German Highschool Society)

## Faculty membership in specialized teaching programs

1. Faculty member of the international Graduate school 880 “Vascular Medicine” organized by the University of Heidelberg, Medical Faculty Mannheim (Germany) and the University of Groningen (Netherlands) (since 2004)
2. Faculty member of Master class program “Translational Medical Research” organized by the University of Heidelberg, Medical Faculty Mannheim (since 2008). Member of the steering committee and module coordinator “Vascular Medicine”.
3. Faculty member of 7<sup>th</sup> John Humphrey Advance Summer Programme in Immunology “The interface between immunology and medicine”, organised by British Society for Immunology and Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry; Moscow Sept 5-9, 2005

## Publications

### Original research papers

1. Schledzewski K, Géraud C, Arnold B, Wang S, Gröne H-S, Kempf T, Wollert K, Straub B, Schirmacher P, Demory A, Schönhaber H, Gratchev A, Dietz L, Thierse H-J, et al, Julia **Kzhyshkowska J\***, and Goerdt S\*. Deficiency of murine liver sinusoidal scavenger receptors stabilin-1/-2 causes glomerulofibrotic nephropathy via impaired hepatic blood clearance. Accepted for publication in the *Journal of Clinical Investigation*. (\*equal last authorship).
2. Schmieder A, Schledzewski K, Michel J, Tuckerman J, Tome L, Sticht C, Nicolay J, Gkaniatsou C, Demory A, Faulhaber J, **Kzhyshkowska J**, Geraud C, Goerdt S. Synergistic activation by p38MAPK and glucocorticoids signalling mediates induction of M2-like tumor-associated macrophages expressing the novel CD20 homolog MS4A8A. *Int J Cancer*. 2010 Sep 7. [Epub ahead of print].
3. Popova A, **Kzhyshkowska J**, Nurgazieva D, Goerdt S, Gratchev A. Pro- and anti-inflammatory control of M-CSF-mediated macrophage differentiation. *Immunobiology*. 2010 Jun 15. [Epub ahead of print]. Fuentes-Duculan J, Suárez-Fariñas M, Zaba LC, Nogales KE, Pierson KC, Mitsui H, Pensabene CA, **Kzhyshkowska J**, Krueger JG, Lowes MA. Subpopulations of CD163 positive macrophages are classically activated in psoriasis. *J Invest Dermatol*. 2010 Jun 17. [Epub ahead of print].
4. Werno C, Menrad H, Weigert A, Dehne N, Goerdt S, Schledzewski K, **Kzhyshkowska J**, Brüne B. Knockout of Hif-1alpha in tumor-associated macrophages enhances M2 polarization and attenuates their pro-angiogenic responses. *Carcinogenesis*. 2010 Apr 28. [Epub ahead of print]
5. Zhang J, Gratchev A, Riabov V, Mamidi S, Schmutzlermaier C, Krusell L, Kremmer E, Workman G, Sage EH, Jalkanen S, Goerdt S, **Kzhyshkowska J**. Novel GGA-binding site is required for intracellular sorting mediated by stabilin-1. *Mol Cell Biol*, 2009 Nov;29(22):6097-105.
6. Park SY, Jung MY, Lee SJ, Kang KB, Riabov V, Gratchev A, **Kzhyshkowska J\***, Kim I-S\*. Stabilin-1 mediates phosphatidylserine-dependent clearance of cell corpse in alternatively activated macrophages. *J Cell Sci*. 2009 Sep 15;122(Pt 18):3365-73 (\*equal last authorship).
7. Karikoski M, Irjala H, Maksimow M, Miiuniemi M, Granfors K, Hernesniemi S, Elimä K, Moldenhauer G, Schledzewski K, **Kzhyshkowska J**, Goerdt S, Salmi M, and Jalkanen S. Clever-1/Stabilin-1 regulates lymphocyte migration within lymphatics and leukocyte entrance to sites of inflammation. *Eur J Immun*, 2009 Dec;39(12):3477-87.
8. Mosig S, Rennert K, Krause S, **Kzhyshkowska J**, Neunübel K, Heller R, and Funke H. Different functions of CD14<sup>++</sup>CD16<sup>-</sup> and CD14<sup>+</sup>CD16<sup>+</sup> monocyte subsets in the handling of LDL in patients with Familial Hypercholesterolemia: Potential Function of CD14<sup>+</sup>CD16<sup>+</sup> monocytes in detoxification of oxidized LDL. *FASEB Journal*, 2009 Mar;23(3):866-74.

9. Gratchev A\*, **Kzhyshkowska J\***, Kannookadan S, Ochsenreiter M, Popova A, Yu X, Muller-Molinet I, Gooi LM, Goerdt S. Activation of a TGF-beta-specific multistep gene expression program in mature M2 macrophages requires glucocorticoid-mediated surface expression of TGF-beta receptor II. *Journal of Immunology* 2008 May 15;180(10):6553-65 (\*equal contribution).
10. **Kzhyshkowska J**, Gratchev A, Schmuttermaier C, Brundiers H, Krusell L, Mamidi S, Zhang J, Workman G, Sage EH, Anderle C, Sedlmayr P, and Goerdt S. Alternatively activated macrophages regulate extracellular levels of the hormone placental lactogen via receptor-mediated uptake and transcytosis. *J Immunol*, 2008 Mar 1;180(5):3028-37.
11. Klein D, Demory A, Peyre F, Kroll J, Augustin H, Helfrich W, **Kzhyshkowska J**, Schledzewski K, Arnold B, Goerdt S. Wnt2 acts as a cell type-specific, autocrine growth factor in rat hepatic sinusoidal endothelial cells cross-stimulating the VEGF pathway. *Hepatology*, 2008 Mar;47(3):1018-31.
12. Gratchev A, Schmuttermaier C, Mamidi S, Gooi L, Goerdt S, **Kzhyshkowska J**. Expression of osteoarthritis marker YKL-39 is stimulated by transforming growth factor beta (TGF-beta) and IL-4 in differentiating macrophages. *Biomarker Insights*, 2008, 39-44.
13. **Kzhyshkowska J**, Mamidi S, Gratchev A, Kremmer E, Schmuttermaier C, Krusell L, Haus G, Utikal J, Schledzewski K, Scholtze J, Goerdt S. Novel stabilin-1 interacting chitinase-like protein (SI-CLP) is up-regulated in alternatively activated macrophages and secreted via lysosomal pathway. *Blood* 2006; 107(8):3221-3228.
14. **Kzhyshkowska J**, Workman G, Cardo-Vila M, Arap W, Pasqualini R, Gratchev A, Krusell L, Goerdt S, Sage EH. Novel function of alternatively activated macrophages: Stabilin-1-mediated clearance of SPARC. *J Immunol* 2006; 176(10):5825-5832.
15. Luo Q, Nieves E, **Kzhyshkowska J**, Angeletti RH. Endogenous TGF-beta receptor-mediated smad signaling complexes analyzed by mass spectrometry. *Mol Cell Proteomics* 2006 Jul;5(7):1245-60.
16. Martens JH\*, **Kzhyshkowska J\***, Falkowski-Hansen M, Schledzewski K, Gratchev A, Mansmann U, Schmuttermaier C, Dippel E, Koenen W, Riedel F, Sankala M, Tryggvason K, Kobzik L, Moldenhauer G, Arnold B, Goerdt S. Differential expression of a gene signature for scavenger/lectin receptors by endothelial cells and macrophages in human lymph node sinuses, the primary sites of regional metastasis. *J Pathol* 2006; 208(4):574-589. (\*equal contribution).
17. Schledzewski K\*, Falkowski M\*, Moldenhauer G, Metharom P, **Kzhyshkowska J**, Ganss R, Demory A, Falkowska-Hansen B, Kurzen H, Ugurel S, Geginat G, Arnold B, Goerdt S. Lymphatic endothelium-specific hyaluronan receptor LYVE-1 is expressed by stabilin-1(+), F4/80(+), CD11b(+) macrophages in malignant tumours and wound healing tissue in vivo and in bone marrow cultures in vitro: implications for the assessment of lymphangiogenesis. *J Pathol* 2006; 209(1):67-77. (\*equal contribution).
18. Utikal J, Gratchev A, Muller-Molinet I, Oerther S, **Kzhyshkowska J**, Arens N, Grobholz R, Kannookadan S, Goerdt S. The expression of metastasis suppressor MIM/MTSS1 is regulated by DNA methylation. *Int J Cancer* 2006 Nov 15;119(10):2287-93.
19. Gratchev A, **Kzhyshkowska J**, Kothe K, Muller-Molinet I, Kannookadan S, Utikal J, Goerdt S. Mphi1 and Mphi2 can be re-polarized by Th2 or Th1 cytokines, respectively, and respond to exogenous danger signals. *Immunobiology* 2006; 211(6-8):473-486.
20. Gratchev A, **Kzhyshkowska J**, Utikal J, Goerdt S. Interleukin-4 and dexamethasone counterregulate extracellular matrix remodelling and phagocytosis in type-2 macrophages. *Scand J Immunol* 2005; 61(1):10-17.
21. Hansen B, Longati P, Elvevold K, Nedredal GI, Schledzewski K, Olsen R, Falkowski M, **Kzhyshkowska J**, Carlsson F, Johansson S, Smedsrød B, Goerdt S, Johansson S, McCourt P. Stabilin-1 and stabilin-2 are both directed into the early endocytic pathway in hepatic sinusoidal endothelium via interactions with clathrin/AP-2, independent of ligand binding. *Exp Cell Res* 2005; 303(1):160-173.
22. **Kzhyshkowska J**, Gratchev A, Brundiers H, Mamidi S, Krusell L, Goerdt S. Phosphatidylinositide 3-kinase activity is required for stabilin-1-mediated endosomal transport of acLDL. *Immunobiology* 2005; 210(2-4):161-173..

23. **Kzhyshkowska J**, Gratchev A, Martens JH, Pervushina O, Mamidi S, Johansson S Schledzewski K, Hansen B, He X, Tang J, Nakayama K, Goerdt S. Stabilin-1 localizes to endosomes and the trans-Golgi network in human macrophages and interacts with GGA adaptors. *J Leukoc Biol* 2004; 76(6):1151-1161.
24. Gratchev A, **Kzhyshkowska J**, Duperrier K, Utikal J, Velten FW, Goerdt S. The receptor for interleukin-17E is induced by Th2 cytokines in antigen-presenting cells. *Scand J Immunol* 2004; 60(3):233-237.
25. **Kzhyshkowska J**, Kremmer E, Hofmann M, Wolf H, Dobner T. Protein arginine methylation during lytic adenovirus infection. *Biochem J* 2004; 383(Pt 2):259-265.
26. **Kzhyshkowska J**, Rusch A, Wolf H, Dobner T. Regulation of transcription by the heterogeneous nuclear ribonucleoprotein E1B-AP5 is mediated by complex formation with the novel bromodomain-containing protein BRD7. *Biochem J* 2003; 371(Pt 2):385-393.
27. Politz O, Gratchev A, McCourt PA, Schledzewski K, Guillot P, Johansson S, Svineng G, Franke P, Kannicht C, **Kzhyshkowska J**, Longati P, Velten FW, Johansson S, and Goerdt S. Stabilin-1 and -2 constitute a novel family of fasciclin-like hyaluronan receptor homologues. *Biochem J* 2002; 362(Pt 1):155-164.
28. Lebedev I, Bolorma V, **Kzhyshkowska J**, Ostashkin AS, Il'in KV, Miandina GI, Piagai PE, Itkes AV. Integration of the type D Mason-Pfizer monkey virus into the human chromosome. *Mol Biol (Mosk)* 2002; 36(6):1012-1014.
29. Endter C, **Kzhyshkowska J**, Stauber R, Dobner T. SUMO-1 modification required for transformation by adenovirus type 5 early region 1B 55-kDa oncoprotein. *Proc Natl Acad Sci U S A* 2001; 98(20):11312-11317.
30. **Kzhyshkowska J**, Schutt H, Liss M, Kremmer E, Stauber R, Wolf H, Dobner T. Heterogeneous nuclear ribonucleoprotein E1B-AP5 is methylated in its Arg-Gly-Gly (RGG) box and interacts with human arginine methyltransferase HRMT1L1. *Biochem J* 2001; 358(Pt 2):305-314.
31. Ilyin KV, **Kzhyshkowska JG**, Imamova LR, Mashkova TD, Ostashkin AS, Kiselev AV, Gordina GA, Kurmashow VI, Itkes AV. Type D retrovirus specific sequences in lymphocytes of the children with Burkitt-type lymphoma and their parents. *Immunol Lett* 2001; 78(1):51-54.
32. Imamova LR, **Kzhyshkowska YG**, Ostashkin AS, Itkes AV, Il'in KV. Human spontaneous laryngeal carcinoma HEp-2 cells are chronically infected with SRV-1 virus, a variant of simian type D retrovirus. *Bull Exp Biol Med* 2000; 129(6):584-586.
33. **Kzhyshkowska JG**, Kiselev AV, Gordina GA, Kurmashow VI, Portjanko NM, Ostashkin AS, Ilyin KV. Markers of type D retroviruses in children with Burkitt's-type lymphoma. *Immunol Lett* 1996; 53(2-3):101-104.
34. Il'in KV, **Kzhyshkowska I**, Koposov PV, Morozov VA. Possibility of transfer of genetic information of type D retroviruses from lymphocytes of patients with B-cells lymphosarcomas into Raji cells. *Bull Exp Biol Med* 1996; 122(10):446-448.

## Reviews/book chapters

1. **Kzhyshkowska J**. Multifunctional receptor stabilin-1 in homeostasis and disease. *ScientificWorldJournal*. 2010 Oct 12;10:2039-53.
2. **Kzhyshkowska J**, Krusell L. Cross-talk between endocytic clearance and secretion in macrophages. *Immunobiology*, 2009 Jul;214(7):576-93.
3. **Kzhyshkowska J**, The Role of Macrophages in Inflammation and Cancer: New Processes Mediated by Stabilin-1. *Akt Dermatol* 2008; 34:72-84. In German
4. **Kzhyshkowska J**, Marciniak-Czochra A, Gratchev A. Perspectives of mathematical modeling for understanding of intracellular signaling and vesicular trafficking in macrophages. *Immunobiology*, 2008;212(9-10):813-25.
5. **Kzhyshkowska J**, Gratchev A and Goerdt S. Human chitinases and chitinase-like proteins as indicators for inflammation and cancer. *Biomarker Insights* 2007;2 128:146.
6. **Kzhyshkowska J**, Gratchev A, Goerdt S. Stabilin-1, a homeostatic scavenger receptor with multiple functions. *J Cell Mol Med* 2006; 10(3):635-649.

7. Dobner T, **Kzhyshkowska J.** Nuclear export of adenovirus RNA. *Curr Top Microbiol Immunol* 2001; 259:25-54.

#### Other publications

1. **Kzhyshkowska J**, Gordon S. Editorial for the Immunobiology Special Issue “Vesicular trafficking in immune cells”, 2009 Jul;214(7):493-4.
2. **Kzhyshkowska J.** Chitinase-like lectins in humans. Invited book chapter. Nova Science Publishers Inc. N.Y., USA Book title “Binomium Chitin-Chitinase: New Research with biological, nutritional and health finalities”, 2009
3. **Kzhyshkowska J**, Zhang J. GGA1 Targeted Proteins Database 1 (2008), [22660], 10.2970/tpdb.2009.222.
4. **Kzhyshkowska J**, Kremmer E, Goerdt S.”GL008 is a novel human macrophage putative chemokine upregulated by Th2 cytokines and corticoids in donor-dependent manner”. PCT-Application (international). 2005. Patent application No PCT/EP2005/008646. Applicant GSF-Forschungsz. f. Umwelt u. Gesundh., GmbH.