

Martin Zenke, PhD, Professor of Cell Biology

Extended Research Profile

Personal Data

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| Name and Academic Title | Zenke, Martin - Univ.-Prof. Dr. rer. nat. 07.08.1953 in Korbach/Waldeck (Germany) |
| Current Position | Full Professor of Cell Biology (C4), Chairman and Director of Institute for Biomedical Engineering – Cell Biology, RWTH Aachen University |

Affiliation

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| Institution | RWTH Aachen University |
| Institute/Department Address | Institute for Biomedical Engineering, Department of Cell Biology RWTH Aachen University Medical School Pauwelsstrasse 30 52074 Aachen Helmholtz Institute for Biomedical Engineering RWTH Aachen University Pauwelsstrasse 20 52074 Aachen +49-241-80-80760 (office) +49-241-80-82008 (Fax) martin.zenke@rwth-aachen.de (email) www.molcell.de www.stemcellfactory.de |

University Education

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|-------------|---|
| 1979 - 1982 | Graduate studies in Molecular and Cell Biology, Institute for Virus Research, German Cancer Research Center (DKFZ), Heidelberg, Germany |
| 1972 – 1978 | Studies in Chemistry/Biochemistry and Medicine, Philipps-University, Marburg, Germany |

Academic Qualifications

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| 1992 | Lecture qualification (Habilitation) in Molecular Genetics, Faculty of Life Sciences, Vienna University, Vienna, Austria |
| 1982 | PhD, Faculty of Life Sciences, Ruprecht-Karls-University, Heidelberg, Germany |
| 1978 | Diplom (Master), Chemistry/Biochemistry, Philipps-University, Marburg, Germany |

Scientific Career

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| since 2003 | Professor Cell Biology (C4) and Chairman, Institute for Biomedical Engineering, Department of Cell Biology, Faculty of Medicine and Helmholtz Institute for Biomedical Engineering, RWTH Aachen University, Aachen, Germany |
| 2011 - 2014 | Managing Director Helmholtz Institute for Biomedical Engineering (3 years term), RWTH Aachen University, Aachen, Germany |
| 1995 - 2003 | Research Group Leader (C3), Max-Delbrück-Center for Molecular Medicine (MDC), Berlin, Germany |
| 1988 - 1995 | Junior Scientist and Group Leader, Institute of Molecular Pathology (IMP), Vienna, Austria |
| 1985 - 1988 | EMBL Fellow and Staff Scientist, Differentiation Programme, European Molecular Biology Laboratory (EMBL), Heidelberg, Germany |
| 1982 - 1985 | Postdoctoral Fellow (DFG), Université Louis Pasteur, Faculté de Médecine, Strasbourg, France |

Martin Zenke, PhD, Professor of Cell Biology

Extended Research Profile

Functions (Selection)

Member of Editorial Board *Journal Biological Chemistry* (since 2015)

Member of “Gene Technology Monitoring Group”, Berlin-Brandenburg Academy of Sciences and Humanities, BBAW, Berlin, Germany (since 2013)

Initiator, Coordinator and Project Leader *StemCellFactory* (www.stemcellfactory.de) “Automatic Production, Expansion and Differentiation of Induced Pluripotent Stem Cells (iPS Cells)” (since 2010)

Member of “Central Ethics Committee for Stem Cell Research”, Federal Ministry of Education and Research (BMBF) and Federal Ministry of Health (BMG), Berlin, Germany (since 2008)

Secondary affiliation at the Faculty of Mathematics, Computer Science and Natural Sciences, RWTH Aachen University, Aachen, Germany (since 2005)

Member of Steering Committee “Stem Cell Network North Rhine-Westphalia”, Ministry of Innovation, Science and Research of the Federal State of North Rhine-Westphalia, Düsseldorf, Germany (since 2004)

Project leader, Clinical Research Unit CRU 344, “Untangling and targeting mechanism of myelofibrosis in myeloproliferative neoplasms (MPN)”, Aachen, Germany (2020-2022)

Project leader, BMBF Program “Chronic Pain”, Research Network Bio2Treat, Aachen, Germany (2019-2022)

Project Leader (jointly with R. C. Zhao, Beijing, China), NSFC/DFG Sino-German Joint Funding Program “Molecular Principles of Stem Cell Biology” (2010-2014)

Chairman, Evaluation Committee, Norwegian Stem Programme, Research Council of Norway, Oslo, Norway (2010)

Project Leader (jointly with Mat Daemen, Maastricht University, The Netherlands), Euregio Cardiovascular International Research Training Group DFG GRK1508 (EuCAR) “Arterial Remodelling” (2008-2013)

Member of Steering Committee and Project Leader, DFG Priority Programme 1356 “Pluripotency and Cellular Reprogramming” (2006-2014)

Member of Executive Board, Interdisciplinary Center for Clinical Research Aachen (IZKF Aachen), Faculty of Medicine, RWTH Aachen University, Aachen, Germany (2005-2014)

Project Leader, SFB 542 „Molecular Mechanisms in Inflammation: Cytokines, Signal Transduction and Pathological Consequences“, Aachen, Germany (2005-2011)

Project Leader, BMBF Program on “Cell-based Regenerative Therapies“ (2005-2008)

Member of Steering Committee “Stem Cell Network North Rhine-Westphalia”, Ministry of Innovation, Science and Research of the Federal State of North Rhine-Westphalia, Düsseldorf, Germany (since 2004)

Project Leader, BMBF Program on “Tissue Engineering“, Research Network AescuLife (2003-2006)

Project Leader (jointly with Petr Bartunek, Prague), Volkswagen Foundation, “Nuclear hormone receptors in normal and malignant hematopoiesis“ (2002-2005)

Project Leader, DFG Priority Programme 1109 “Embryonic and Tissue-specific Stem Cells – Regenerative Systems for Cell and Tissue Repair“ (2001-2007)

Project Leader, Helmholtz Society Strategic Fonds, “Immune Therapy and Gene Therapy of Cancer” (2000-2003)

Project Leader, Edward Jenner Institute for Vaccine Research (EJIVR) and Medical Research Council (MRC), UK, “Towards Dendritic Cell Targeted Vaccines“ (1999-2002)

Project Leader, SFB 506 “Recombinant Nucleic Acids and Proteins for Tumor Therapy“, Berlin, Germany (1997-2003)

Project Leader, DFG Graduate Programme 426, “The Molecular Basis of Therapy“, Berlin, Germany (1998-2001)

Martin Zenke, PhD, Professor of Cell Biology

Extended Research Profile

Project Leader, German Research Foundation (DFG), "Gene Expression in Antigen Presenting Dendritic Cells" (1998-2000)

Project Leader (jointly with Michal Dvorak, Prague), Howard Hughes Medical Institute (HHMI), "v-Myb and c-Myb in Growth Control and Differentiation" (1995-2000)

Project Leader, Austrian Science Fund (FWF), Vienna, Austria, "ErbA Function in Red Blood Cells" (1992-1995)

Supervisor of PhD, master and bachelor theses (>100, not listed), member of numerous PhD Thesis committees and hiring commissions, lecturer for undergraduate and graduate studies in biology.

Ad hoc Review Activities (Journals, selection):

Genes & Development, EMBO Journal, Blood, Development, EMBO Reports, Nature Biotech., Nature Rev. Mol. Cell Biol., Genome Biol., J. Gene Med., Gene, J. Mol. Med., J. Cell Sci., Int. J. Biochem. Cell Biol., Oncogene, Differentiation, Cancer Letters, Immunobiology, Proc. Nat. Acad. Sci. USA, BBA, Cells Tissues Organs, Mol. Thera., PLoS Biology, Exp. Hematol., J. Biochem., J. Immunol., PLoS ONE, Trends Biotechn., Exp. Opin. Biol. Ther., Stem Cells; Eur. J. Cell Biol., Dev. Biol., Nucl. Acid Res., Stem Cells Dev., PLoS Genomics, J. Biol. Chem., Scientific Reports, Immunity, J. Exp Med., Nature Commun., Nature Immunol., Stem Cell Reports

Ad hoc Review Activities (Institutions, selection):

European Commission, Brussels, Belgium; German Research Foundation (DFG), Bonn, Germany; Human Frontier Science Program (HFSP), Strasbourg, France; Ministere de la Recherche de la France, Paris, France; NOW-Council, Earth and Life, Den Haag, The Netherlands; Boehringer Ingelheim Fonds, Ingelheim, Germany; Austrian Science Fund (FWF), Vienna, Austria; Center National de la Recherche Scientifique (CNRS), Paris, France; National Medical Research Council (NMRC) Singapur; Norwegian Research Council, Oslo, Norway; Spanish Ministry of Science and Innovation, Madrid, Spain; Medical Research Council (MRC), London, UK; Alexander von Humboldt Foundation, Bonn, Germany; Melinda and Bill Gates Foundation, Seattle, USA; European Research Council (ERC), Brussels, Belgium

Past and Current 3rd Party Funding

Alexander von Humboldt Foundation
Austrian Science Fund (FWF)
Edward Jenner Institute for Vaccine Research (now Jenner Institute)
European Union (EU)
Federal Ministry of Education and Research (BMBF)
German Federal State North Rhine-Westphalia
German Research Foundation (DFG)
Howard Hughes Medical Institute (HHMI)
Volkswagen Foundation

Memberships

American Association for the Advancement of Science (AAAS)
American Society for Biochemistry and Molecular Biology (ASBMB)
German Society for Biochemistry and Molecular Biology (GBM)
German Society for Cell Biology (DGZ)
German Society for Immunology (DGfI)
German Stem Cell Network (GSCN)
International Society for Stem Cell Research (ISSCR)
Society of German Chemists (GDCh)

Extended List of Key Publications

- Li, Z., Schulz, M. H., Look, T., Begemann, M., Zenke, M., and Costa, I. G. (2019). Identification of transcription factor binding sites using ATAC-seq. *Genome Biology* 20, 45.
- Meents, J. E., Bressan, E., Sontag, S., Foerster, A., Hautvast, P., Rösseler, C., Hampl, M., Schüler, H., Goetzke, R., Chi Le, T. K., Kleggetveit, I. P., Le Cann, K., Kerth, C., Rush, A. M., Rogers, M., Kohl, Z., Schmelz, M., Wagner, W., Jørum, E., Namer, B., Winner, B., Zenke, M., and Lampert, A. (2019). The role of Nav1.7 in human nociceptors: insights from human iPS cell-derived sensory neurons of erythromelalgia patients. *Pain*, Jan 31 2019, Epub ahead of print.
- Zenke, M., Marx-Stölting and Schickl, H., Editors (2018). *Stem Cell Research – Current scientific and societal developments*. Nomos Publisher, Baden-Baden, Germany.
- Capucha, T., Koren, N., Nassar, M., Heyman, O., Nir, T., Levy, M., Zilberman-Schapira, G., Zelentova, K., Eli-Berchoer, L., Zenke, M., Hieronymus, T., Wilensky, A., Bercovier, H., Elinav, E., Clausen, B. E., and Hovav, A.-H. (2018). Sequential BMP7/TGF- β 1 signaling and microbiota instruct mucosal Langerhans cell differentiation. *J. Exp. Med.* 215, 481-500.
- Sontag, S., Förster, M., Seré, K., and Zenke, M. (2017). Differentiation of human induced pluripotent stem cells (iPS cells) and embryonic stem cells (ES cells) into human dendritic cell (DC) subsets. *Bio-Protocols* 7, e2419, 2017.
- Sontag, S., Förster, M., Qin, J., Wanek, P., Mitzka, S., Schüler, H. M., Koschmieder, S., Rose-John, S., Seré, K., and Zenke, M. (2017). Modelling IRF8 deficient human hematopoiesis and dendritic cell development with engineered induced pluripotent stem cells. *Stem Cells* 35, 898-908.
- Allhoff, M., F. Pires, J., Seré, K., Zenke, M., and G. Costa, I. (2016). Differential peak calling of ChIP-seq signals with replicates with THOR. *Nucleic Acids Res.* 44, e153.
- Sechi, A., Freitas, J. M. G., Wünnemann, P., Töpel, A., Paschoalin, R. T., Ullmann, S., Schröder, R., Aydin, G., Rütten, S., Böker, A., Zenke, M., and Pich A. (2016). Surface-grafted nanogel arrays direct cell adhesion and motility. (cover story). *Adv. Mater. Interfaces* 3, 1600455.
- Gusmão, E. G., Allhoff, M., Zenke, M., and Costa, I. G. (2016). Analysis of computational footprinting methods for DNase sequencing experiments. *Nature Methods* 13, 303-309.
- Gamper, I., Fleck, D., Barlin, M., Spehr, M., El Sayad, S., Kleine, H., Maxeiner, S., Schalla, C., Aydin, Hoss, M., Litchfield, D. W., Lüscher, B., Zenke, M., and Sechi, A. (2016). GAR22 β regulates cell migration, sperm motility, and axoneme structure. *Mol. Biol. Cell* 27, 277-294.
- Lin, Q., Chauvistré, H., Costa, I. G., Gusmão, E. G., Mitzka, S., Haenzelmann, S., Baying, B., Klisch, T., Moriggl, R., Hennuy, B., Smeets, H., Hoffmann, K., Benes, V., Seré, K., and Zenke, M. (2015). Epigenetic program and transcription factor circuitry of dendritic cell development. *Nucleic Acids Res.* 43, 9680-9693.
- Capucha, T., Mizraji, G., Segev, H., Blecher-Gonen, R., Winter, D., Khalaileh, A., Tabib, Y., Attal, T., Nassar, M., Zelentsova, K., Kisos, H., Zenke, M., Seré, K., Hieronymus, T., Burstyn-Cohen, T., Amit, I., Wilensky, A. and Hovav, A. H. (2015). Distinct murine mucosal Langerhans cell subsets develop from pre-dendritic cells and monocytes. *Immunity* 43, 369-381.
- Lenz, M., Goetzke, R., Schenk, A., Schubert, C., Veeck, J., Hemeda, H., Koschmieder, S., Zenke, M., Schuppert, A., and Wagner, W. (2014). Epigenetic biomarker for quality control of pluripotent stem cells. *Sci. Rep.* 5, 8973.
- Allhoff, M., Seré, K., Chauvistré, H., Lin, Q., Zenke, M., and Costa, I. G. (2014). Detecting differential peaks in ChIP-seq signals with ODIN. *Bioinformatics* 30, 3467-3475.
- Frobel, J., Hemeda, H., Lenz, M., Abagnale, G., Jousssen, S., Denecke, B., Saric, T., Zenke, M., and Wagner, W. (2014). Epigenetic rejuvenation of mesenchymal stromal cells derived from induced pluripotent stem cells. *Stem Cell Reports* 3, 414-422.
- Wang, X., Qin, J., Zhao, R. C., and Zenke, M. (2014). Reduced immunogenicity of induced pluripotent stem cells derived from Sertoli cells. *PLoS ONE* 9, e106110.
- Gusmão, E. G., Dieterich, C., Zenke, M., and Costa, I. G. (2014). Detection of active transcription factor binding sites with the combination of DNase hypersensitivity and histone modifications. *Bioinformatics* 30, 3143-3151.

Martin Zenke, PhD, Professor of Cell Biology

Extended Research Profile

- Qin, J., Sontag, S., Lin, Q., Mitzka, S., Leisten I., Schneider, R. K., Wang, X., Jauch, A., Peitz, M., Brüstle, O., Wagner, W., Zhao, R. C., and Zenke, M. (2014). Cell fusion enhances mesendodermal differentiation of human induced pluripotent stem cells. *Stem Cells Dev.* 23, 2875-2882.
- Chauvistré, H., Küstermann, C., Rehage, N., Klisch, T., Mitzka, S., Felker, P., Rose-John, S., Zenke, M., and Seré, K. M. (2014). Dendritic cell development requires histone deacetylase activity. *Eur. J. Immunol.* 44, 2478-2488.
- Hieronimus, T., Zenke, M., Baek, J.-H. and Seré, K. (2015). The clash of Langerhans cell homeostasis in skin: should I stay or should I go? *Semin. Cell Dev. Biol.* 41, 30-38.
- Ding, X., Wang, X., Sontag, S., Qin, J., Wanek, P., Lin, Q., and Zenke, M. (2014). The polycomb protein Ezh2 impacts on induced pluripotent stem cell generation. *Stem Cells Dev.* 23, 931-940.
- Séré, K., Baek, J.-H., Ober-Blöbaum, J., Müller-Newen, G., Tacke, F., Yokota, Y., Zenke, M., and Hieronymus, T. (2012). Two distinct types of Langerhans cells populate the skin during steady state and inflammation. *Immunity* 37, 905-919.
- Baek, J.-H., Birchmeier, C., Zenke, M., and Hieronymus, T. (2012). The HGF receptor/Met tyrosine kinase is a key regulator of dendritic cell migration in skin immunity. *J. Immunol.* 189, 1699-1707.
- Séré, K. M., Lin, Q., Felker, P., Rehage, N., Klisch, T., Ortseifer, I., Hieronymus, T., Rose-John, S., and Zenke, M. (2012). Dendritic cell lineage commitment is instructed by distinct cytokine signals. *Eur. J. Cell Biol.* 91, 515-523.
- Ding, X., Lin, Q., Ensenat-Waser, R., Rose-John, S., and Zenke, M. (2012). Polycomb group protein Bmi1 promotes hematopoietic cell development from embryonic stem cells. *Stem Cells Dev.* 21, 121-132.
- Neuss, S., Denecke, B., Gan, L., Lin, Q., Bovi, M., Apel, C., Wöltfe, M., Dhanasingh, A., Salber, J., Knüchel, R., and Zenke, M. (2011). Transcriptome analysis of MSC and MSC-derived osteoblasts on Resomer LT706 and PCL: Impact of biomaterial substrate on osteogenic differentiation. *PLoS ONE*, e23195.
- Ko, K., Reinhardt, P., Tapia, N., Schneider, R. K., Araúzo-Bravo, M. J., Han, D. W., Greber, B., Kim, J., Kliesch, S., Zenke, M., and Schöler, H. R. (2011). Evaluating the potential of putative pluripotent cells derived from human testis. *Stem Cells* 29, 1304-1309.
- Felker, P., Seré, K., Lin, Q., Becker, C., Hristov, M., Hieronymus, T., and Zenke, M. (2010). TGF- β 1 accelerates dendritic cell differentiation from common dendritic cell progenitors and directs subset specification towards conventional dendritic cells. *J. Immunol.* 185, 5326-5335.
- Ko, K., Araúzo-Bravo, M. J., Tapia, N., Kim, J., Lin, Q., Bernemann, C., Han, D. W., Gentile, L., Reinhardt, P., Greber, B., Schneider, R. K., Kliesch, S., Zenke, M., and Schöler, H. R. (2010). Human adult germline stem cells in question. *Nature* 465, E1; discussion E3.
- Shokouhi, B., Coban, C., Hasirci, V., Aydin, E., Dhanasingh, A., Shi, N., Koyama, S., Akira, S., Zenke, M., and Sechi, A. S. (2010). The role of multiple Toll-like receptor signaling cascades on interactions between biomedical polymers and dendritic cells. *Biomaterials* 31, 5759-5771.
- Ko, K., Tapia, N., Wu, G., Kim, J. B., Araúzo Bravo, M. J., Sasse, P., Glaser, T., Ruau, D., Han, D. W., Greber, B., Hausdörfer, K., Sebastiano, V., Stehling, M., Fleischmann, B. K., Brüstle, O., Zenke, M., and Schöler, H. R. (2009). Induction of pluripotency in adult unipotent germline stem cells. *Cell Stem Cell* 5, 87-96.
- Gamper, I., Koh, K.-R., Ruau, D., Ullrich, K., Bartunkova, J., Piroth, D., Hacker, C., Bartunek, P., and Zenke, M. (2009). GAR22: A novel target gene of thyroid hormone receptor causes growth inhibition in human erythroid cells. *Exp. Hematol.* 37, 539-548.
- Kim, J. B., Sebastiano, V., Wu, G., Araúzo-Bravo, M. J., Sasse, P., Gentile, L., Ko, K., Ruau, D., Ehrlich, M., van den Boom, D., Meyer, J., Hübner, K., Bernemann, C., Ortmeier, C., Zenke, M., Fleischmann, B. K., Zaehres, H., and Schöler, H. R. (2009). Oct4-induced pluripotency in adult neural stem cells. *Cell* 136, 411-419.
- Kim, J. B., Zaehres, H., Wu, G., Gentile, L., Ko, K., Sebastiano, V., Araúzo-Bravo, M. J., Ruau, D., Han, D. W., Zenke, M., and Schöler, H. R. (2008). Pluripotent stem cells derived from adult neural stem cells by reprogramming with two factors. *Nature* 454, 646-650.
- Ruau, D., Ensenat-Waser, C., Dinger, T. C., Vallabhapurapu, D. S., Rolletschek, A., Hacker, C., Hieronymus, T., Wobus, A. M., Müller, A. M., and Zenke, M. (2008). Pluripotency associated genes are reactivated by chromatin modifying agents in neurosphere cells. *Stem Cells* 26, 920-926.

Martin Zenke, PhD, Professor of Cell Biology

Extended Research Profile

- Neuss, S., Apel, C., Buttler, P., Denecke, B., Dhanasingh, A., Ding, X., Grafahrend, D., Gröger, A., Hemmrich, K., Herr, A., Jahnen-Dechent, W., Mastitskaya, S., Perez-Bouza, A., Rosewick, S., Salber, J., Wöltje, M., and Zenke, M. (2008). Assessment of stem cell/biomaterial interactions for stem cell-based tissue engineering. *Biomaterials* 29, 302-313.
- Ju, X.-S., Ruau, D., Jääntti, P., Seré, K., Becker, C., Wiercinska, E., Bartz, C., Erdmann, B., Dooley, S., and Zenke, M. (2007). Transforming growth factor β 1 (TGF- β 1) up regulates interferon regulatory factor 8 (IRF-8) during dendritic cell development. *Eur. J. Immunol.* 37, 1174-1183. [Highlight]
- Becker, C., Hodenius, M., Blendinger, G., Sechi, A. S., Hieronymus, T., Muller-Schulte, D., Schmitz-Rode, T., and Zenke, M. (2007). Uptake of magnetic nanoparticles into cells for cell tracking. *J. Magn. Magn. Mater.* 311, 234-237.
- Ruau, D., Ju, X.-S., and Zenke, M. (2006). Genomics of TGF- β 1 signaling in stem cell commitment and dendritic cell development. *Cell. Immunol.* 244, 116-120.
- Schmittwolf, C., Kirchhof, N., Jauch, A., Dürr, M., Harder, F., Zenke, M., and Müller, A. M. (2005). In vivo haematopoietic activity is induced in neurosphere cells by chromatin-modifying agents. *EMBO J.* 24, 554-566.
- Hieronymus, T., Gust, T. C., Kirsch, R. D., Jorgas, T., Blendinger, G., Goncharenko, M., Supplitt, K., Rose-John, S., Müller, A. M., and Zenke, M. (2005). Progressive and controlled development of mouse dendritic cells from Flt3⁺CD11b⁺ progenitors in vitro. *J. Immunol.* 174, 2552-2562.
- Koh, K.-R., Janz, M., Lemke, B., Stirling, D., Dörken, B., Zenke, M., and Lentzsch, S. (2005). Immunomodulatory derivative of thalidomide induces a shift in lineage commitment by suppressing erythropoiesis and promoting myelopoiesis. *Blood* 105, 3833-3840.
- Ju, X.-S., Hacker, C., Scherer, B., Redecke, V., Berger, T., Schuler, A., Wagner, H., Lipford, G. B., and Zenke, M. (2004). Immunoglobulin-like transcripts ILT2, ILT3 and ILT7 are expressed in human dendritic cells and down-regulated following activation. *Gene* 331, 159-164.
- Gust, T. C., Diebold, S. S., Cotten, M., and Zenke, M. (2004). RNA containing adenovirus/polyethylenimine transfer complexes effectively transduce dendritic cells and induce antigen-specific T cell responses. *J. Gene Med.* 6, 464-470.
- Bartunek, P., Kralova, J., Blendinger, G., Dvorak, M., and Zenke, M. (2003). GATA-1 and c-myb crosstalk during red blood cell differentiation through GATA-1 binding sites in the c-myb promoter. *Oncogene* 22, 1927-1935.
- Hacker, C., Kirsch, R. D., Ju, X.-S., Hieronymus, T., Gust, T. C., Kuhl, C., Jorgas, T., Kurz, S. M., Rose-John, S., Yokota, Y., and Zenke, M. (2003). (cover story). Transcriptional profiling identifies Id2 function in dendritic cell development. *Nature Immunol.* 4, 380-386.
- Ju, X.-S., Hacker, C., Madruga, J., Kurz, S. M., Knespel, S., Blendinger, G., Rose-John, S., and Zenke, M. (2003). Towards determining the differentiation program of antigen presenting dendritic cells by transcriptional profiling with DNA microarrays. *Eur. J. Cell Biol.*, 82, 75-86.
- Kurz, S. M., Diebold, S. S., Hieronymus, T., Gust, T. C., Bartunek, P., Sachs, M., Birchmeier, W., and Zenke, M. (2002). The impact of c-met/scatter factor receptor on dendritic cell migration. *Eur. J. Immunol.* 32, 1832-1838.
- Bartunek, P., Pajer, P., Karafiat, V., Blendinger, G., Dvorak, M., and Zenke, M. (2002). bFGF signalling and Myb cooperate in sustained growth of primitive erythroid progenitors. *Oncogene* 21, 400-410.
- Koritschoner, N. P., Madruga, M., Knespel, S., Blendinger, B., Anzinger, B., Otto, A., Zenke, M., and Bartunek, P. (2001). The nuclear orphan receptor TR4 promotes proliferation of myeloid progenitor cells. *Cell Growth Differ.* 12, 563-572.
- Karafiat, V., Dvorakova, M., Pajer, P., Kralova, J., Horejsi, Z., Cermak, V., Bartunek, P., Zenke, M. and Dvorak, M. (2001). The leucine zipper region of Myb oncoprotein regulates commitment of hematopoietic progenitors. *Blood* 98, 3668-3676.
- Heikenwälder, M. F., Koritschoner, N. P., Pajer, P., Chaboissier, M.-C., Kurz, S. M., Briegel, K. S., Bartunek, P., and Zenke, M. (2001). Molecular cloning, expression and regulation of the avian tubby-like protein 1 (*tulp1*) gene. *Gene* 273, 131-139.
- Koritschoner, N. P., Alvarez-Dolado, M., Kurz, S. M., Heikenwälder, M. F., Hacker, C., Vogel, F., Munoz, A., and Zenke, M. (2001). Thyroid hormone regulates the obesity gene tub. *EMBO Reports* 2, 499-504.

Martin Zenke, PhD, Professor of Cell Biology

Extended Research Profile

- Diebold, S. S., Cotten, M., Koch, N., and Zenke, M. (2001). MHC class II presentation of endogenously expressed antigens by transfected dendritic cells. *Gene Ther.* 8, 487-493, 2001.
- Koritschoner, N. P., Bartunek, P., Knespel, S., Blendinger, G., and Zenke, M. (1999). The fibroblast growth factor receptor FGFR-4 as a new ligand dependent modulator of erythroid cell proliferation. *Oncogene* 18, 5904-5914.
- Diebold, S. S., Kursa, M., Wagner, E., Cotten, M., and Zenke, M. (1999). Mannose polyethylenimine (ManPEI) conjugates for targetted DNA delivery into dendritic cells. *J. Biol. Chem.* 274, 19087-19094.
- Madruga, J., Koritschoner, N. P., Diebold, S. S., Kurz, S. M., Knespel, S., and Zenke, M. (1999). Polarised expression pattern of focal contact proteins in highly motile antigen presenting dendritic cells. *J. Cell. Sci.*, 112, 1685-1696.
- Diebold, S. S., Lehmann, H., Kursa, M., Wagner, E., Cotten, M., and Zenke, M. (1999). Efficient gene delivery into human dendritic cells by adenovirus polyethylenimine (Ad/PEI) and mannose polyethylenimine (ManPEI) transfection. *Hum. Gene Ther.* 10, 775-786.
- Panzenböck, B., Bartunek, P., Mapara, M., and Zenke, M. (1998). Growth and differentiation of human stem cell factor/erythropoietin-dependent erythroid progenitor cells in vitro. *Blood* 92, 3658-3668.
- Bartunek, P., and Zenke, M. (1998). Retinoid X receptor and c-erbA/thyroid hormone receptor regulate erythroid cell growth and differentiation. *Mol. Endo.* 12, 1269-1279.
- Bartunek, P., Karafiat, V., Dvorakova, M., Zahorova, V., Mandikova, S. Zenke, M., and Dvorak, M. (1997). The Myb leucine zipper is essential for leukemogenicity of the v-Myb Protein. *Oncogene* 15, 2939-2949.
- Briegel, K., Bartunek, P., Stengl, G., Lim, K.-C., Beug, H., Engel, J. D., and Zenke, M. (1996). Regulation and function of transcription factor GATA-1 during red blood cell differentiation. *Development* 122, 3839-3850.
- Boehmelt, G., Madruga, J., Dörfler, P., Briegel, K., Schwarz, H., Enrietto, P., and Zenke, M. (1995). Dendritic cell progenitor is transformed by a conditional v-rel estrogen receptor fusion protein v-relER. *Cell* 80, 341-352.
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