

Dr. rer. nat. Inga Weßels
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Research Experience

- March 2015*
until today **Principal Investigator – Zinc in Inflammatory Disease**, Institute of Immunology, RWTH Aachen University

<https://www.ukaachen.de/kliniken-institute/institut-fuer-immunologie/forschung/ag-zink-und-entzuendung-im-angeborenen-immunsystem.html>
- September 2015* **Research Visit**, Department of Animal Science – Animal Nutrition and Physiology, Aarhus University/Foulum, Denmark, Professor Damgaard
- September 2012*
until February 2015 **Postdoctoral research associate**, Food Science and Human Nutrition Department (FSHN), University of Florida, USA, Professor Robert Cousins
- February 2012*
until August 2012 **Postdoctoral research associate**, Institute of Immunology, RWTH Aachen University, Professor Lothar Rink
- November 2007*
until January 2012 **PhD project**, RWTH Aachen University, Institute of Immunology, Professor Lothar Rink, „Epigenetic Changes in the IL-1 β und TNF α Promoters during Cell Differentiation and during Zinc Deficiency“
- March 2007*
until October 2007 **M.Sc. project**, RWTH Aachen University, Institute of Immunology, Dr. rer. nat. Peter Uciechowski, „Epigenetic Changes in the IL-1 β Promoter during Cell Differentiation“
- April 2005*
until July 2005 **B.Sc. project**, RWTH Aachen University, Professor Jörg Mey, „Intracellular Translocation of Retinoid Acid Receptors in Schwann cells“

Academic Qualifications

<i>January 2012</i>	Dr. rer. nat. , RWTH Aachen University, Professor Lothar Rink, Grade: summa cum laude.
<i>October 2007</i>	M.Sc. in Molecular Biotechnology , RWTH Aachen University, Dr. rer. nat. Peter Uciechowski
<i>July 2005</i>	B.Sc. in Molecular Biotechnology , RWTH Aachen University, Professor Jörg Mey
<i>2002</i>	Abitur , Bilingual: German-English

Grants

<i>April 2017</i>	Trainee grant (COST Action TD1304, Oviedo, Spain)
<i>November 2016 until October 2018</i>	START grant (RWTH Aachen)
<i>May 2016</i>	Travel grant (DAAD, ISZB meeting and travel were postponed from Turkey 2016 to Cypres 2017)
<i>November 2015</i>	Travel grant (COST action TD1304, Antalya, Turkey)
<i>August until September 2015</i>	Short Term Scientific Mission (STSM, COST action TD1304)
<i>September 2012 until August 2014</i>	DFG-Fellowship (WE 5329/1-1)
<i>May 2008 until April 2011</i>	PhD scholarship , German Academic Scholarship Foundation

Trainings

<i>June 2018</i>	Training session Microscale Thermophoresis (MST) , Institute for Biology I, Aachen, Germany
<i>June 2018</i>	Application Seminar: Expand Your Research With Flow Cytometry , Aachen, Germany
<i>February until March 2018</i>	Medical Didactic Basic Course Teaching I: Basic course for medical didactic
<i>September 2017</i>	Workshop on terms, strategies and quality control in element analysis and element

	speciation , GMS meeting, Aachen, Germany
<i>April 2017</i>	Training School in Mass Spectrometry , Oviedo, Spain
<i>February 2016</i>	Scientific Presenting , Universitätsklinikum of the RWTH Aachen University
<i>November 2015</i>	STSM Dissemination, Conference and Skills Workshop , Antalya, Turkey
<i>July 2015</i>	Leadership Management Seminar
<i>June 2015</i>	BD FACS Canto II Training School , Heidelberg, Germany
<i>March 2015</i>	FELASA B Training , RWTH Aachen University Hospital

Other Qualifications

<i>Scientific methods</i>	Eukaryotic cell culture , including isolation and differentiation hematopoietic stem cells from cord blood
	Trace element analyses , including atomic absorption and mass spectrometry, genetically encoded FRET-based probes, flow cytometry
	Mouse models , including cecal ligation and puncture and acute lung injury models
<i>Scientific methods (continued)</i>	Epigenetic assays , including CHART Assay, bisulfide sequencing and methylation specific PCR
	Scientific questionnaires , including dietary recalls and food frequency questionnaires
<i>Guest Editing</i>	Special Issue GMS Meeting 2017, Journal of Trace Elements in Medicine and Biology (JTEMB)
<i>Scientific refereeing</i>	Journal of Trace Elements in Medicine and Biology (JTEMB), Elsevier
	Handbook of Epigenetics , Elsevier
	International Journal of Environmental Research and Public Health , MDPI
	Nutrients , MDPI
<i>Conference organization</i>	33. Joint Annual Meeting of the German Society for Minerals and Trace Elements (GMS) with Zinc-UK and Zinc-Net Training School (Organizing committee)
<i>Membership</i>	International Society of Zinc Biology (ISZB)

Zinc-Net

Staff Council for Academic Staff, University Hospital
RWTH Aachen

Language skills

German (native), English (proficient), French (basic)

Hobbies

Running (ultra-marathon), cycling, hiking, climbing,
wind-surfing, cooking, dancing, traveling, reading

Key Publications ¹

Kloubert, V., Blaabjerg, K., Dalgaard, T. S., Poulsen, H. D., Rink, L., and **Wessels, I.**: Influence of zinc supplementation on immune parameters in weaned pigs, *J Trace Elements Med and Biol*, 49, 231–240, doi:10.1016/j.jtemb.2018.01.006, 2018.

Wessels, I. (2017): *Epigenetics and Minerals. An Overview*. Vinood Patel, Victor Preedy (Eds.): *Handbook of Nutrition, Diet, and Epigenetics*. Cham: Springer International Publishing, pp. 1–19. Doi.org/10.1007/978-3-319-31143-2_48-1.

Wessels, I.; Cousins, R. J. (2015): *Zinc dyshomeostasis during polymicrobial sepsis in mice involves zinc transporter Zip14 and can be overcome by zinc supplementation*. *Am. J Physiol Gastrointest Liver Physiol* 309 (9), G768-G778. DOI: 10.1152/ajpgi.00179.2015.

Wessels, I.; Haase, H.; Engelhardt, G.; Rink, L.; Uciechowski, P. (2013): *Zinc deficiency induces production of the proinflammatory cytokines IL-1beta and TNFalpha in promyeloid cells via epigenetic and redox-dependent mechanisms*. *J Nutr Biochem*. 24 (1), pp. 289–297. DOI: 10.1016/j.jnutbio.2012.06.007.

Mey, J., Schrage, K., **Wessels, I.**, Vollpracht-Crijns, I.: Effects of inflammatory cytokines IL-1beta, IL-6, and TNFalpha on the intracellular localization of retinoid receptors in Schwann cells. *Glia* 55: 152-164. 2007

Aachen, October 2018

¹ To increase international accessibility, “Weßels” was altered to “Wessels”.