

Univ.-Prof. Dr. med. Gesine Hansen

Professor and Chairwoman

Center of Pediatrics and Adolescent Medicine
Department Pediatric Pneumology, Allergology Neonatology
Hannover Medical School (MHH)
Carl-Neuberg-Str. 1, D-30625 Hannover, Germany

Phone: + 49 511 532-9138

Fax: + 49 511 532-9125

E-mail: Hansen.Gesine@mh-hannover.de

Homepage: www.mh-hannover.de



Undergraduate and Postgraduate Training

1985-1992	Medical School, University of Bochum and Charing Cross and Westminster Medical School, London, UK
1992	Doctorate of Medicine, Department Microbiology and Virology, University of Bochum
1992	License as MD
1993-1997	Resident and Fellow, Department of Pediatrics, University of Düsseldorf
1997-1999	Research Associate, Department of Immunology and Transplantation Biology, Stanford University, CA, USA
1999-2003	Senior Consultant (Oberärztin), Pediatrics, MLU, University of Halle
2001	Habilitation and <i>venia legendi</i> in Pediatrics, University of Halle

Academic and Research Posts

2001-2006	Head Research Group "Immune regulatory mechanisms in allergic asthma", Federal Ministry of Education and Research (BMBF)
2003-2005	Professor of Pediatrics (C3 professorship), Vice Chair Department of Pediatrics, Halle
2005-present	Professor of Pediatrics (W3 professorship), Chair Center of Pediatrics and Department of Pediatric Pneumology, Allergology and Neonatology, MHH
2009-2014	Speaker, Collaborative Research Center 587 "Immune regulation of the lung in infection and allergy", German Research Foundation (DFG)
2013-present	Management Board, German Center for Lung Research, DZL, BREATH (BMBF)
2019-present	Speaker, Else Kröner-Fresenius-Forschungskolleg for Physician Scientists TITUS- The First Thousand Days of Life – Early Priming and Prevention
2019-present	Deputy Speaker, Cluster of Excellence 2155- RESIST-Resolving Infection Susceptibility

Other Scientific Roles

2006-present	Commission for Drugs in Children and Adolescents, Federal Ministry of Health
2004-2008	Executive Committee Member, International Society of Pediatric Pneumology
2008-2015	President, International Society of Pediatric Pneumology (GPP)
2008-2015	Executive Committee Member, Society of Pediatric Allergology
2008-2013	Advisory Board Member, Program of Medical Genome Research (BMBF)
2016-2024	Member, Review Board Commission, Germany Research Foundation (DFG)
2020-2024	Appointed Member Selection Committee Alexander von Humboldt Professorship

Honors, Awards and Prizes

2000	International Young Investigator Award, Munich, Germany
2001	Johannes Wenner Award, Int. Society of Pediatric Pneumology, Bern, Switzerland
2001	Arthur Schlossmann Award, Society of Pediatrics, Germany
2002	Wilhelm-Roux-Research Award, Martin-Luther-University, Halle, Germany
2002	Adalbert-Czerny-Award, German Society of Pediatrics, Leipzig, Germany
2003	International Pharmacia Allergy Research Award, Vancouver, Canada
2007	Karl Hansen Award, German Society for Allergy & Clin Immunology, Lübeck, Germany
2013	Eva Luise Köhler Research Award for Rare Diseases, Berlin, Germany
2013	Member, Leopoldina, National Academy of Sciences

Research Fields

- Perinatal Immune Priming
- Immune Tolerance
- Allergies
- Respiratory Infections in Children
- Cell Therapy in Rare Pulmonary Diseases

Patents

PCT/EP2009/067384 (issued): Nachweiskonjugat und Verfahren zur polychromatischen Analyse
EP17195522.2 (pending): Diagnostics and therapy for human respiratory syncytial virus (hRSV)

Selected original publications out of 110

Jirno, A. C., Busse, M., Happle, C., Skuljec, J., Daluge, K., Habener, A., Grychtol, R., DeLuca, D. S., Breiholz, O. D., Prinz, I. and **Hansen, G.**, IL-17 regulates DC migration to the peribronchial LNs and allergen presentation in experimental allergic asthma. **Eur J Immunol** 2020. 28;21(1):28.

Bickes, M. S., Pirr, S., Heinemann, A. S., Fehlhaber, B., Halle, S., Vollger, L., Willers, M., Richter, M., Bohne, C., Albrecht, M., Langer, M., Pfeifer, S., Jonigk, D., Vieten, G., Ure, B., von Kaisenberg, C., Forster, R., von Kockritz-Blickwede, M., **Hansen, G.** and Viemann, D., Constitutive TNF-alpha signaling in neonates is essential for the development of tissue-resident leukocyte profiles at barrier sites. **FASEB J** 2019: fj201900796R.

Happle, C., Jirno, A. C., Meyer-Bahlburg, A., Habener, A., Hoymann, H. G., Hennig, C., Skuljec, J. and **Hansen, G.**, B cells control maternofetal priming of allergy and tolerance in a murine model of allergic airway inflammation. **J Allergy Clin Immunol** 2018. 141: 685-696 e686.

Happle, C., Lachmann, N., Ackermann, M., Mirenska, A., Gohring, G., Thomay, K., Mucci, A., Hetzel, M., Glomb, T., Suzuki, T., Chalk, C., Glage, S., Dittrich-Breiholz, O., Trapnell, B., Moritz, T. and **Hansen, G.**, Pulmonary Transplantation of Human Induced Pluripotent Stem Cell-derived Macrophages Ameliorates Pulmonary Alveolar Proteinosis. **Am J Respir Crit Care Med** 2018. 198: 350-360.

Skuljec, J., Cabanski, M., Surdziel, E., Lachmann, N., Brenning, S., Pul, R., Jirno, A. C., Habener, A., Visic, J., Daluge, K., Hennig, C., Moritz, T., Happle, C. and **Hansen, G.**, Monocyte/macrophage lineage commitment and distribution are affected by the lack of regulatory T cells in scurfy mice. **Eur J Immunol** 2016. 46: 1656-1668.

Jirno, A. C., Daluge, K., Happle, C., Albrecht, M., Dittrich, A. M., Busse, M., Habener, A., Skuljec, J. and **Hansen, G.**, IL-27 Is Essential for Suppression of Experimental Allergic Asthma by the TLR7/8 Agonist R848 (Resiquimod). **J Immunol** 2016. 197: 4219-4227.

Thome, U. H., Genzel-Boroviczeny, O., Bohnhorst, B., Schmid, M., Fuchs, H., Rohde, O., Avenarius, S., Topf, H. G., Zimmermann, A., Faas, D., Timme, K., Kleinlein, B., Buxmann, H., Schenk, W., Segerer, H., Teig, N., Gebauer, C., Hentschel, R., Heckmann, M., Schlosser, R., Peters, J., Rossi, R., Rascher, W., Bottger, R., Seidenberg, J., **Hansen, G.**, Zernickel, M., Alzen, G., Dreyhaupt, J., Mucche, R., Hummler, H. D. and Group, P. S., Permissive hypercapnia in extremely low birthweight infants (PHELBI): a randomised controlled multicentre trial. **Lancet Respir Med** 2015. 3: 534-543.

Happle C, Lachmann N, Skuljec J, Wetzke M, Ackermann, M, Brenning S, Mucci A, Jirno AC, Groos S, Mirenska A, Hennig C, Rodt T, Bankstahl JP, Schwerk N, Moritz T, **Hansen G.** Pulmonary transplantation of macrophage progenitors as effective and long-lasting therapy for hereditary pulmonary alveolar proteinosis. **Science Transl Med.** 2014. 6: 250ra113. DOI: 10.1126/scitranslmed.3009750.

Lachmann N, Happle C, Ackermann M, Luttge D, Wetzke M, Merkert S, Hetzel M, Kensah G, Jara-Avaca M, Mucci A, Skuljec J, Dittrich AM, Pfaff N, Brenning S, Schambach A, Steinemann D, Gohring G, Cantz T, Martin U, Schwerk N, **Hansen G***, Moritz T* (*equal contribution). Gene correction of human induced pluripotent stem cells repairs the cellular phenotype in pulmonary alveolar proteinosis. **Am J Respir Crit Care Med.** 2014. 189: 167-182. DOI: 10.1164/rccm.201306-1012OC.

Hennig C, Ilginus C, Boztug K, Skokowa J, Marodi L, Szaflarska A, Sass M, Pignata C, Kilic SS, Caragol I, Baumann U, Klein C, Welte K, **Hansen G**. High-content cytometry and transcriptomic biomarker profiling of human B-cell activation. **J Allergy Clin Immunol**. 2014. 133: 172-180 e171-110. DOI: 10.1016/j.jaci.2013.06.047.

Dijkstra D, Hennig C, Witte T, **Hansen G**. Basophils from humans with systemic lupus erythematosus do not express MHC-II. **Nature Medicine**. 2012. 18: 488-489; 489-490. DOI: 10.1038/nm.2663.

Polte T, Hennig C, **Hansen G**. Allergy prevention starts before conception: maternofetal transfer of tolerance protects against the development of asthma. **J Allergy Clin Immunol**. 2008. 122: 1022-1030 e1025. DOI: 10.1016/j.jaci.2008.09.014.

Polte T, Foell J, Werner C, Hoymann HG, Braun A, Burdach S, Mittler RS, **Hansen G**. CD137- mediated immunotherapy for allergic asthma. **J Clin Invest**. 2006. 116: 1025-1036. DOI: 10.1172/JCI23792.

Polte T, Behrendt AK, **Hansen G**. Direct evidence for a critical role of CD30 in the development of allergic asthma. **J Allergy Clin Immunol**. 2006. 118: 942-948. DOI: 10.1016/j.jaci.2006.07.014.

Hofmann, H. S., **Hansen, G.**, Burdach, S., Bartling, B., Silber, R. E. and Simm, A., Discrimination of human lung neoplasm from normal lung by two target genes. **Am J Respir Crit Care Med** 2004. 170: 516-519.

Hansen, G., Jin, S., Umetsu, D. T. and Conti, M., Absence of muscarinic cholinergic airway responses in mice deficient in the cyclic nucleotide phosphodiesterase PDE4D. **Proc Natl Acad Sci U S A** 2000. 97: 6751-6756.

Rebagliato, M., Cuttini, M., Broggin, L., Berbik, I., de Vonderweid, U., **Hansen, G.**, Kaminski, M., Kollee, L. A., Kucinkas, A., Lenoir, S., Levin, A., Persson, J., Reid, M., Saracci, R. and Group, E. S., Neonatal end-of-life decision making: Physicians' attitudes and relationship with self-reported practices in 10 European countries. **JAMA** 2000. 284: 2451-2459.

Hansen, G., McIntire, J. J., Yeung, V. P., Berry, G., Thorbecke, G. J., Chen, L., DeKruyff, R. H. and Umetsu, D. T., CD4(+) T helper cells engineered to produce latent TGF-beta1 reverse allergen-induced airway hyperreactivity and inflammation. **J Clin Invest** 2000. 105: 61-70.

Cuttini, M., Nadai, M., Kaminski, M., **Hansen, G.**, de Leeuw, R., Lenoir, S., Persson, J., Rebagliato, M., Reid, M., de Vonderweid, U., Lenard, H. G., Orzalesi, M. and Saracci, R., End-of-life decisions in neonatal intensive care: physicians' self-reported practices in seven European countries. EURONIC Study Group. **Lancet** 2000. 355: 2112-2118.

Hansen G, Berry G, DeKruyff RH, Umetsu DT. Allergen-specific Th1 cells fail to counterbalance Th2 cell-induced airway hyperreactivity but cause severe airway inflammation. **J Clin Invest** 1999. 103:175-183. DOI: 10.1172/JCI5155.