

Ansprechpartner Schaub, München

A switch in regulatory T cells through farm exposure during immune maturation in childhood. Schröder PC, Illi S, Casaca VI, Lluís A, Böck A, Roduit C, Depner M, Frei R, Genuneit J, Pfefferle PI, Roponen M, Weber J, Braun-Fahrländer C, Riedler J, Dalphin JC, Pekkanen J, Lauener R, von Mutius E, Schaub B; PASTURE study group. *Allergy*. 2017 Apr;72(4):604-615. doi: 10.1111/all.13069.

Exposure to nonmicrobial N-glycolylneuraminic acid protects farmers' children against airway inflammation and colitis. Frei R, Ferstl R, Roduit C, Ziegler M, Schiavi E, Barcik W, Rodriguez-Perez N, Wirz OF, Wawrzyniak M, Pugin B, Nehrbass D, Jutel M, Smolinska S, Konieczna P, Bieli C, Loeliger S, Waser M, Pershagen G, Riedler J, Depner M, Schaub B, Genuneit J, Renz H, Pekkanen J, Karvonen AM, Dalphin JC, van Hage M, Doekes G, Akdis M, Braun-Fahrländer C, Akdis CA, von Mutius E, O'Mahony L, Lauener RP; Prevention of Allergy Risk factors for Sensitization in Children Related to Farming and Anthroposophic Lifestyle (PARSIFAL); Protection Against Allergy Study in Rural Environments (PASTURE)/Mechanisms of Early Protective Exposures on Allergy Development (EFRAIM); study groups. *J Allergy Clin Immunol*. 2017 Jun 17. pii: S0091-6749(17)30994-6. doi: 10.1016/j.jaci.2017.04.051.

Phenotypes of Atopic Dermatitis Depending on the Timing of Onset and Progression in Childhood. Roduit C, Frei R, Depner M, Karvonen AM, Renz H, Braun-Fahrländer C, Schmausser-Hechfellner E, Pekkanen J, Riedler J, Dalphin JC, von Mutius E, Lauener RP; and the PASTURE study group, Hyvärinen A, Kirjavainen P, Remes S, Roponen M, Dalphin ML, Kaulek V, Ege M, Genuneit J, Illi S, Kabesch M, Schaub B, Pfefferle PI, Doekes G. *JAMA Pediatr*. 2017 Jul 1;171(7):655-662. doi: 10.1001/jamapediatrics.2017.0556.

Latent class analysis reveals clinically relevant atopy phenotypes in 2 birth cohorts. Hose AJ, Depner M, Illi S, Lau S, Keil T, Wahn U, Fuchs O, Pfefferle PI, Schmausser-Hechfellner E, Genuneit J, Lauener R, Karvonen AM, Roduit C, Dalphin JC, Riedler J, Pekkanen J, von Mutius E, Ege MJ; MAS; PASTURE study group mit Schaub B.. *J Allergy Clin Immunol*. 2017 Jun;139(6):1935-1945.e12. doi: 10.1016/j.jaci.2016.08.046.

Skin prick tests and specific IgE in 10-year-old children: Agreement and association with allergic diseases. Chauveau A, Dalphin ML, Mauny F, Kaulek V, Schmausser-Hechfellner E, Renz H, Riedler J, Pekkanen J, Karvonen AM, Lauener R, Roduit C, Vuitton DA, von Mutius E, Dalphin JC; PASTURE Study Group. *Allergy*. 2017 Sep;72(9):1365-1373. doi: 10.1111/all.13148.

Enhanced T helper 1 and 2 cytokine responses at birth associate with lower risk of middle ear infections in infancy. Bergroth E, Roponen M, Karvonen AM, Keski-Nisula L, Remes S, Riedler J, Roduit C, Dalphin JC, Kaulek V, Loss GJ, Lauener R, Hirvonen MR, Genuneit J, Schmausser-Hechfellner E, Renz H, Pfefferle PI, Krauss-Etschmann S, Schaub B, von Mutius

E, Pekkanen J; PASTURE Study Group. *Pediatr Allergy Immunol.* 2017 Feb;28(1):53-59. doi: 10.1111/pai.12658.

Reciprocal regulation of the IL9 locus by counteracting activities of transcription factors IRF1 and IRF4. Campos Carrascosa L, Klein M, Kitagawa Y, Lückel C, Marini F, König A, Guralnik A, Raifer H, Hagner-Benes S, Rädler D, Böck A, Kang C, Lohoff M, Garn H, Schaub B, Berberich-Siebelt F, Sakaguchi S, Bopp T, Huber M. *Nat Commun.* 2017 May 12;8:15366. doi: 10.1038/ncomms15366.

Ansprechpartner Hansen, Hannover

B cell subsets are modulated during allergic airway inflammation but are not required for the development of respiratory tolerance in a murine model.

Habener A, Behrendt AK, Skuljec J, Jirno AC, Meyer-Bahlburg A, Hansen G. *Eur J Immunol.* 2017 Mar;47(3):552-562. doi: 10.1002/eji.201646518.

IL-27 Is Essential for Suppression of Experimental Allergic Asthma by the TLR7/8 Agonist R848 (Resiquimod).

Jirno AC, Daluege K, Happle C, Albrecht M, Dittrich AM, Busse M, Habener A, Skuljec J, Hansen G. *J Immunol.* 2016 Dec 1;197(11):4219-4227.

Chimeric Antigen Receptor-Redirected Regulatory T Cells Suppress Experimental Allergic Airway Inflammation, a Model of Asthma

Skuljec J, Chmielewski M, Happle C, Habener A, Busse M, Hinrich A, Hansen G *Front. Immunol.*, 12 September 2017 <https://doi.org/10.3389/fimmu.2017.01125>

B cells control maternofetal priming of allergy and tolerance in a murine model of allergic airway inflammation.

Happle C, Jirno AC, Meyer-Bahlburg A, Habener A, Hoymann HG, Hennig C, Skuljec J, Hansen G. *J Allergy Clin Immunol.* 2017 Jun 7. pii: S0091-6749(17)30920-X. doi: 10.1016/j.jaci.2017.03.051.

Ansprechpartner Alcazar, Köln

Novel role of NPY in neuroimmune interaction and lung growth after intrauterine growth restriction. Thangaratnarajah C, Dinger K, Vohlen C, Klaudt C, Nawabi J, Lopez Garcia E, Kwapiszewska G, Dobner J, Nüsken KD, van Koningsbruggen-Rietschel S, von Hörsten S, Dötsch J, Alejandre Alcázar MA. *Am J Physiol Lung Cell Mol Physiol*. 2017 Sep 1;313(3):L491-L506. doi: 10.1152/ajplung.00432.2016.

Renal Metabolic Programming is Linked to the Dynamic Regulation of a Leptin-Klf15 Axis and Akt/AMPK α Signaling in Male Offspring of Obese Dams. Kasper P, Vohlen C, Dinger K, Mohr J, Hucklenbruch-Rother E, Janoschek R, Köth J, Matthes J, Appel S, Dötsch J, Alejandre Alcazar MA. *Endocrinology*. 2017 Jul 27. doi: 10.1210/en.2017-00489.

Role of LTBP-4 in alveolarization, angiogenesis and fibrosis in lungs. Bultmann-Mellin I, Dinger K, Debuschewitz C, Loewe KMA, Melcher Y, Plum MTW, Appel S, Rappl G, Willenborg S, Schauss AC, Jüngst C, Krüger M, Dressler S, Nakamura T, Wempe F, Alejandre Alcázar MA, Sterner-Kock A. *Am J Physiol Lung Cell Mol Physiol*. 2017 Jul 6;ajplung.00031.2017. doi: 10.1152/ajplung.00031.2017.

Ansprechpartner Krause, Kiel

Novel therapeutic roles for surfactant-inositols and -phosphatidylglycerols in a neonatal piglet ARDS model. A translational study. Spengler D, Winoto-Morbach S, Kupsch S, Vock C, Blöchle K, Frank S, Rintz N, Diekötter M, Janga H, Weckmann M, Fuchs S, Schromm AB, Fehrenbach H, Schütze S, Krause MF. *Am J Physiol Lung Cell Mol Physiol*. 2017 Aug 31;ajplung.00128.2017. doi: 10.1152/ajplung.00128.2017.

Ansprechpartner Mall, Heidelberg

Cigarette smoke causes acute airway disease and exacerbates chronic obstructive lung disease in neonatal mice. Jia J, Conlon TM, Ballester Lopez C, Seimetz M, Bednorz M, Zhou-Suckow Z, Weissmann N, Eickelberg O, Mall MA, Yildirim AÖ. *Am J Physiol Lung Cell Mol Physiol*. 2016 Sep 1;311(3):L602-10.

Disruption of the Hepcidin/Ferroportin Regulatory System Causes Pulmonary Iron Overload and Restrictive Lung Disease. Neves J, Leitz D, Kraut S, Brandenberger C, Agrawal R, Weissmann N, Mühlfeld C, Mall MA, Altamura S, Muckenthaler MU. *EBioMedicine*. 2017 Jun;20:230-239. doi: 10.1016/j.ebiom.2017.04.036.

Gene signature driving invasive mucinous adenocarcinoma of the lung. Guo M, Tomoshige K, Meister M, Muley T, Fukazawa T, Tsuchiya T, Karns R, Warth A, Fink-Baldauf IM, Nagayasu T, Naomoto Y, Xu Y, Mall MA, Maeda Y. *EMBO Mol Med*. 2017 Apr;9(4):462-481.

Comparison of Lung Clearance Index and Magnetic Resonance Imaging for Assessment of Lung Disease in Children with Cystic Fibrosis. Stahl M, Wielpütz MO, Graeber SY, Joachim C, Sommerburg O, Kauczor HU, Puderbach M, Eichinger M, Mall MA. *Am J Respir Crit Care Med*. 2017 Feb 1;195(3):349-359.

Ansprechpartner Markus Weckmann und Matthias Kopp, Lübeck

ALX receptor ligands define a biochemical endotype for severe asthma. Ricklefs I, Barkas I, Duvall MG, Cernadas M, Grossman NL, Israel E, Bleecker ER, Castro M, Erzurum SC, Fahy JV, Gaston BM, Denlinger LC, Mauger DT, Wenzel SE, Comhair SA, Coverstone AM, Fajt ML, Hastie AT, Johansson MW, Peters MC, Phillips BR, Levy BD; National Heart Lung and Blood Institute's Severe Asthma Research Program-3 Investigators. *JCI Insight*. 2017 Jul 20;2(14). pii: 93534. doi: 10.1172/jci.insight.93534.

Natural killer cell-mediated inflammation resolution is disabled in severe asthma. Duvall MG, Barnig C, Cernadas M, Ricklefs I, Krishnamoorthy N, Grossman NL, Bhakta NR, Fahy JV, Bleecker ER, Castro M, Erzurum SC, Gaston BM, Jarjour NN, Mauger DT, Wenzel SE, Comhair SA, Coverstone AM, Fajt ML, Hastie AT, Johansson MW, Peters MC, Phillips BR, Israel E, Levy BD; National Heart, Lung, and Blood Institute's Severe Asthma Research Program-3 Investigators. *Sci Immunol*. 2017 Mar 10;2(9). pii: eaam5446. doi: 10.1126/sciimmunol.aam5446

SiMA: A simplified migration assay for analyzing neutrophil migration. Weckmann M, Becker T, Nissen G, Pech M, Kopp MV. *Cytometry A*. 2017 Jul;91(7):675-685. doi: 10.1002/cyto.a.23114.

Tumstatin regulates the angiogenic and inflammatory potential of airway smooth muscle extracellular matrix. Harkness LM, Weckmann M, Kopp M, Becker T, Ashton AW, Burgess JK. *J Cell Mol Med*. 2017 Jun 13. doi: 10.1111/jcmm.13232.

Novel therapeutic roles for surfactant-inositols and -phosphatidylglycerols in a neonatal piglet ARDS model. A translational study. Spengler D, Winoto-Morbach S, Kupsch S, Vock C, Blöchle K, Frank S, Rintz N, Diekötter M, Janga H, Weckmann M, Fuchs S, Schromm AB, Fehrenbach H, Schütze S, Krause MF. *Am J Physiol Lung Cell Mol Physiol*. 2017 Aug 31;ajplung.00128.2017. doi: 10.1152/ajplung.00128.2017.

Ansprechpartner Latzin, Bern

Effects of gasoline and ethanol-gasoline exhaust exposure on human bronchial epithelial and natural killer cells in vitro. Roth M, Usemann J, Bisig C, Comte P, Czerwinski J, Mayer ACR, Beier K, Rothen-Rutishauser B, Latzin P, Müller L. *Toxicol In Vitro*. 2017 Aug 24;45(Pt 1):101-110. doi: 10.1016/j.tiv.2017.08.016.

Exposure to silver nanoparticles affects viability and function of natural killer cells, mostly via the release of ions. Müller L, Steiner SK, Rodriguez-Lorenzo L, Petri-Fink A, Rothen-Rutishauser B, Latzin P. *Cell Biol Toxicol*. 2017 Jul 18. doi: 10.1007/s10565-017-9403-z.