

CURRICULUM VITAE

Name: Erika von Mutius, MD MSc

Working address: Helmholtz Munich
German Research Center for Environmental Health
Institute of Asthma and Allergy Prevention
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Germany
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Date of birth: May 14, 1957

Place of birth: Bonn, Germany

Nationality: German

Education and posts:

- since 10/2021 Head of the Department "Environmental Health Center" at Helmholtz Munich
- since 07/2017 Director of the Institute of Asthma and Allergy Prevention at Helmholtz Munich
- 2017 – 2023 Director of the site CPC-M within the German Centre for Lung Research, DZL e.V.
- 2017 – 2023 Member of the Board of Directors of the German Centre for Lung Research, DZL e.V.
- 1993 – 2023 Head of the Asthma and Allergy Department of the University Children's Hospital Munich
- 2005 Certification in Pediatric Pulmonology
- 2004 Professor of Pediatric Allergology, Ludwig Maximilian University Munich
- June 2000 Graduation as a Master of Science in Epidemiology, Harvard School of Public Health, Boston, U.S.A.
- Summer 1997 / 1999 Training in Clinical Effectiveness at the Harvard School of PublicHealth, Boston, U.S.A.
- 1993 – 2000 Deputy Head of the Outpatient Clinic of the University Children's Hospital Munich
- 1992 – 93 Research fellowship at the Respiratory Sciences Center, University of Arizona, Tucson, U.S.A., with F.D. Martinez

1984 – 92	Internship, Residency and Assistant in the Departments of General Pediatrics, Neonatal and Pediatric Intensive Care, University Children's Hospital Munich, Germany
1978 – 84	Medical School, University of Munich (LMU), Germany

International and National Memberships:

Member of the European Respiratory Society (ERS). Past chairman of the Pediatric Respiratory Epidemiology Assembly within that society

Member of the European Academy of Allergology and Clinical Immunology (EAACI)

Member of the European Society for Pediatric Allergy and Clinical Immunology (ESPACI)

Member of the Leopoldina - German National Academy of Sciences

Member of the German Society of Pediatrics

Member of Academia Europaea

Member of Editorial Boards:

Editorial Board of The Journal of Allergy and Clinical Immunology: In Practice, since 2018

Member of the International Advisory Board of “The Lancet Respiratory Medicine” since 2013

Past member of the Editorial Board of the New England Journal of Medicine 2006-2018

Past Associate Editor of the Journal of Allergy and Clinical Immunology 2010-2015

Past member of the Editorial Board of the Journal of Allergy and Clinical Immunology 2003-2008

Past Associate Editor of the European Respiratory Journal 1999-2004

Past member of the Editorial Board of Pediatric Pulmonology

Past member of the Editorial Board of Clinical and Experimental Allergy

Past member of the Editorial Board of Thorax

Past member of the Editorial Board of Sozialpädiatrie, Kinder- und Jugendheilkunde

Past member of the Editorial Board of “Kinder- und Jugendmedizin”

Past member of the Editorial Board of Allergologie

Member of Scientific Advisory Boards

Since 2021 Member of the HpVac Scientific Advisory Board, Geneva, Switzerland

Since 2021 Member of the OM Pharma Scientific Advisory Board, Geneva, Switzerland

Since 2020 Member of the BEAMS External Scientific Advisory Board (ESAB), University of Arizona, U.S.A.

Since 2019 Member of the Scientific Advisory Board of the Excellence Cluster RESIST – Resolving Infection Susceptibility, Medical School, Hannover, Germany

Since 2018 Member of the International Scientific & Societal Advisory Board (ISSAB) of Utrecht Life Sciences (ULS), University of Utrecht, The Netherlands

Since 2018 Member of External Review Panel of the Faculty of Veterinary Science, University of Utrecht, The Netherlands

Since 2018 Member of the Selection Committee for the Gottfried Wilhelm Leibniz Award of the Deutsche Forschungsgemeinschaft (German Research Foundation – DFG), Germany

Since May 2014 Member of the International Advisory Board of Asthma UK Centre for Applied Research (AUKCAR)

Past Member of the Scientific Advisory Board of the Children's Respiratory and Environmental Workgroup (CREW), Wisconsin, U.S.A., 2018-2023

Past member of the Permanent Senate Commission on Key Questions in Clinical Research (SCCR) of the German Research Foundation (DFG)

Past member of the Scientific Advisory Board of the CHILD (Canadian Healthy Infant Longitudinal Development) study, McMaster University, Hamilton, Canada

Past member of the Scientific Advisory Board of CREAL (Centre de Recerca en Epidemiologia Ambiental), Institut Municipal d'Investigació Mèdica (IMIM), Barcelona, Spain (2007-2012)

Past member of the Scientific Advisory Board of ISAAC (The International Study of Asthma and Allergies in Childhood), 1991-2012

Awards:

Bavarian Maximilian Order for Science and Art from the State of Bavaria in recognition of lifetime achievements, 2023

Honorary Professor in the Centre for Genomics and Child Health within Bilzard Institute, Queen Mary University of London, 2021

Balzan Prize for Pathophysiology of Respiration: From Basic Sciences to the Bedside, Research Group of Erika von Mutius, Klaus Rabe, Werner Seeger and Tobias Welte, 2019

Lucie Adelsberger Medal of the German Society for Pediatric Allergology and Environmental Medicine (GPA), 2018

President's Award in Recognition of Outstanding Achievements Towards the Understanding of the Development of Asthma and Allergies, 16th International Congress on Pediatric Pulmonology, Lisbon, Portugal, 2017

Fellow of the European Respiratory Society (FERS), 2015

Annual Margaret Turner Warwick Respiratory Lecture, 2015

Gottfried-Wilhelm-Leibniz Prize of the German Research Foundation, 2013

Daniel Bovet Award for Improving treatment and prevention of allergic diseases, European Academy of Allergy and Clinical Immunology, 2011

Doctor Honoris Causa from the University of Helsinki, 2010

Advanced Investigators Grant of the European Research Council, 2010

Medal of the University of Helsinki for distinguished guests, 2008

"Profile: Erika von Mutius: reshaping the landscape of asthma research" Lancet, 2008

European Medal from the State of Bavaria in recognition of excellence in research on the European level, 2008

Jeffrey M. Drazen Visiting Professorship, Harvard Medical School, 2007

Research award of the German Paediatric Society for Allergology and Environmental Medicine, 2007

Jack Pepys Lecture at the Meeting of British Society for Allergy and Clinical Immunology, 2006

Robert Sauer Award of the Bavarian Academy of Science, 2004

Award of the Ludwig Maximilian University Munich, Germany, for the best „Habilitation“, the equivalent of a PhD thesis, at this university for the last 4 years, July 2000

Recipient of the Elliot Ellis Lectureship at the 1999 American Academy of Allergy, Asthma and Immunology Annual Meeting

Award of the European Respiratory Society for Paediatric Respiratory Research in Europe, 1996

Publications

1.) Papers in peer reviewed journals:

1. von Mutius E, Nicolai T, Lehmacher W, Reitmeir P, Stiepel E. Gibt es Risikofaktoren der stenosierenden Laryngitis? Monatsschr Kinderheilkd, 1989;137:716-21.
2. von Mutius E, Nicolai T, Stiepel E, Frentzel-Beyme R, Reitmeir P, Wulff A, Lehmacher W, von Loeffelholz E, Berbig B, Adam D. Prävalenz von kindlichem Asthma bronchiale und Allergien in München. Münch Med Wschr 1989;131:850-2.
3. Berbig B, von Mutius E, Nicolai T, Stiepel E, Adam D. Untersuchungen zu einem multiallergenen Teststempel im Vergleich zum Prick-Test. Allergologie 1991;2:51-7.
4. Wjst M, Dold S, Reitmeir P, Wulff A, Nicolai T, von Mutius E. Schützt Stillen vor Asthma und Allergien? Ergebnisse der Münchner Asthma- und Allergiestudie. Monatsschr Kinderheilkd 1992;140:769-74.
5. Dold S, Reitmeir P, Wjst M, von Mutius E. Auswirkungen des Passivrauchens auf den kindlichen Respirationstrakt. Monatsschr Kinderheilkd 1992;140:763-8.
6. Dold S, Wjst M, von Mutius E, Reitmeir P, Stiepel E. Genetic risk for asthma, allergic rhinitis, and atopic dermatitis. Arch Dis Child 1992;67:1018-22.
7. Wjst M, Dold S, Reitmeir P, Stiepel E, von Mutius E. Month of birth and allergic disease at the age of 10. Clin Exp Allergy 1992;22:1026-31.
8. von Mutius E, Fritzsch Ch, Weiland SK, Roell G, Magnussen H. Prevalence of asthma and allergic disorders among children in united Germany: a descriptive comparison. Br Med J 1992;305;1395-1399.
9. Weiland SK, Kugler J, von Mutius E, Schmitz N, Fritzsch C, Wahn U, Keil U. Die Sprache asthma-kranker Kinder: eine Untersuchung zur Symptombeschreibung. Monatsschr Kinderheilkd 1993;141:878-82.
10. Nicolai T, von Mutius E, Reitmeir P, Wjst M. Reactivity to cold air hyperventilation in normal and asthmatic children in a survey of 5697 school children in Southern Bavaria. Am Rev Resp Dis 1993;147:565-72.
11. von Mutius E, Nicolai T, Martinez FD. Prematurity as a risk factor for asthma in preadolescent children. J Ped 1993;123:223-29.
12. Wjst M, Reitmeir P, Dold S, Wulff A, Nicolai T, von Loeffelholz-Colberg E, von Mutius E. Road traffic and adverse effects on respiratory health in children. Br Med J 1993;307:596-600.

13. Wjst M, Dold S, Reitmeir P, Wulff A, Nicolai T, von Mutius E. Evaluation of cold air challenge data in a population sample using a model of bronchial hyperreactivity and disposition to bronchial obstruction. *Ped Pulmonol* 1993; 15:339-44.
14. Fritzsch C, von Mutius E, Weiland SK, Röll G, Magnussen H. Prävalenz asthmatischer und allergischer Erkrankungen bei Schulkindern - ein Vergleich zwischen Leipzig und München. *Allergo J* 1994;3:11-6.
15. von Mutius E, Martinez FD, Fritzsch C, Nicolai T, Reitmeir P, Thiemann HH. Skin test reactivity and number of siblings. *Br med J* 1994;308:692-5.
16. von Mutius E, Martinez FD, Fritzsch C, Nicolai T, Reitmeir P, Thiemann HH. Prevalence of asthma and atopy in two areas of West and East Germany. *Am J Resp Crit Care Med* 1994; 149:358-64.
17. Schulz A, Tuch T, Brand P, Schulz H, Erdl R, von Mutius E, Reinhardt D, Heyder J. Aerosol bolus dispersion in the respiratory tract of children. *Exp Lung Res* 1994;20:119-30.
18. Wjst M, Dold S, Reitmeir P, Fritzsch C, von Mutius E, Thiemann HH. Pertussis infection and allergic sensitization. *Ann Allergy* 1994;73:450-4.
19. Wjst M, Dold S, Roell G, Reitmeir P, Fritzsch C, von Mutius E, Thiemann HH. Bronchial hyperreactivity and history of wheezing in children. *Eur J Pediatr* 1994;153:682-6.
20. von Mutius E, Sherrill DL, Fritzsch Ch, Martinez FD, Lebowitz MD. Air pollution and upper respiratory symptoms in children from East Germany. *Eur Resp J* 1995;8:723-8.
21. Schulz H, Schulz A, Brand P, Tuch T, von Mutius E, Erdl R, Reinhardt D, Heyder J. Aerosol bolus dispersion and effective airway diameters in mildly asthmatic children. *Eur Resp J* 1995;8:566-73.
22. von Mutius E, Nicolai T. Familial aggregation of asthma in a South Bavarian population. *Am J Respir Crit Care Med* 1996;153:1266-72.
23. von Mutius E, Illi S, Nicolai T, Martinez FD. Relation of indoor heating with asthma, allergic sensitization, and bronchial responsiveness in South Bavarian children. *Br Med J* 1996; 312:1448-50.
24. Rosenecker J, Harms HK, Bertele RM, Pohl-Kopppe A, von Mutius E, Adam D, Nicolai T. Adenovirus infection in cystic fibrosis patients: implications for the use of adenoviral vectors for gene transfer. *Infection* 1996;24:5-8.
25. Nicolai T, v Mutius E. Risk of asthma in children with a history of croup. *Acta Paediatrica* 1996;85:1295-9.

26. Nicolai T, Bellach B, von Mutius E, Thefeld W, Hoffmeister H. Increased prevalence of sensitization against aeroallergens in adults in West- compared to East-Germany. *Clin Exp Allergy* 1997;27:886-92.
27. Buss M, von Mutius E, Müller KM, Nicolai Th, Döhleman C. Pulmonale Hypertonie als letale Komplikation einer exogen allergischen Alveolitis. *Monatsschr Kinderheilkd* 1997;145:901-5.
28. Illi S, Garcia-Marcos L, Hernando V, Guillen JJ, Liese A, von Mutius E. Reproducibility of skin prick test results in epidemiological studies: a comparison of two devices. *Allergy* 1998;53:353-8.
29. Strachan D, Sibbald B, Weiland S, Ait-Khaled N, Anabwani G, Anderson HR, Asher MI, Beasley R, Björksten B, Burr M, Clayton T, Crane J, Ellwood P, Keil U, Lai C, Mallol J, Martinez F, Mitchell E, Montefort S, Pearce N, Robertson C, Shah J, Stewart A, von Mutius E, Williams H. Worldwide variations in prevalence of symptoms of allergic rhinoconjunctivitis in children: the International Study of Asthma and Allergies in Childhood (ISAAC). *Ped Allerg Immunol* 1997; 8: 161-76.
30. ISAAC Steering Committee (Writing Committee: Asher MI, Anderson HR, Stewart AW, Crane J). Worldwide variations in the prevalence of asthma symptoms: the International Study of Asthma and Allergies in Childhood (ISAAC). *Eur Resp J* 1998;12:315-35.
31. ISAAC Steering Committee (Writing Committee: Beasley R, Keil U, von Mutius E, Pearce N). Worldwide variations in the prevalence of atopic diseases: the International Study of Asthma and Allergies in Childhood (ISAAC). *Lancet* 1998; 351: 1225-32.
32. Williams, H., C. Robertson, A. Stewart, N. Ait-Khaled, G. Anabwani, R. Anderson, I. Asher, R. Beasley, B. Bjorksten, M. Burr, T. Clayton, J. Crane, P. Ellwood, U. Keil, C. Lai, J. Mallol, F. Martinez, E. Mitchell, S. Montefort, N. Pearce, J. Shah, B. Sibbald, D. Strachan, E. von Mutius, and S. Weiland. Worldwide variations in the prevalence of symptoms of atopic eczema in the International Study of Asthma and Allergies in Childhood. *J Allergy Clin Immunol* 1998;103:125-38.
33. von Mutius E, Weiland SK, Fritzsch C, Duhme H, Keil U. Increasing prevalence of hay fever and atopy among children in Leipzig, East Germany. *Lancet* 1998;351:862-6.
34. von Mutius E, Weiland SK, Fritzsch C, Duhme H, Keil U. Increase of allergy in East Germany - reply. *Lancet* 1998;351:1814.
35. von Mutius E, Weiland SK, Fritzsch C, Duhme H, Keil U. Prevalence of hay fever and consumption of margarine in East Germany – reply. *Lancet* 1998;352:318.
36. Nicolai T, Illi S, von Mutius E. Dampness at home in childhood is a risk factor for bronchial hyperreactivity in adolescence. *Thorax* 1998;53:1035-40.

37. Kabesch M, Schaal W, Nicolai T, von Mutius E . Lower prevalence of asthma and atopy in Turkish children living in Germany. *Eur Resp J* 1999;13:577-82.
38. Kabesch M, Schaal W, Nicolai T, von Mutius E. Asthma bronchiale bei türkischen und deutschen Schulkindern: Häufigkeit, Schweregrad und Behandlung. *Monatsschr Kinderheilkd* 1999;147:328-32.
39. Weiland SK, von Mutius E, Hüsing A, Asher MI. Intake of trans fatty acids and prevalence of childhood asthma and allergies in Europe. *Lancet* 1999;353:2040-1.
40. von Mutius E, Illi S, Hirsch T, Leupold W, Keil U, Weiland S. Frequency of infections in the first years of life and risk of asthma, atopy and airway hyperresponsiveness among schoolage children. *Eur Resp J* 1999;14:4-11.
41. von Ehrenstein O, von Mutius E, Illi S, Baumann L, Böhm O, von Kries R. Reduced risk of hay fever and asthma among children of farmers. *Clin Exp Allergy* 2000; 30:187-93.
42. von Kries R, Hermann M, Grunert VP, von Mutius E. Is obesity a risk factor for childhood asthma ? *Allergy* 2001;56:318-22.
43. Niggemann B, Illi S, Madloch C, Völkel K, Lau S, Bergmann R, von Mutius E, Wahn U and the MAS-Study Group. Bronchial histamine challenges in 7 year old children: a PC₂₀FEV₁ below 1.0 mg/ml discriminates between symptomatic and non-symptomatic children. *Eur Resp J* 2001;17:246-53.
44. Liese AD, Weiland SK, Hirsch T, von Mutius E, Leupold W, Keil U. Inverse association of overweight and breast feeding in 9-10 year old children in Germany. *Int J Obes Relat Metab Disord*. 2001 Nov;25(11):1644-50.
45. Niggemann B, Illi S, Madloch C, Volkel K, Lau S, Bergmann R, von Mutius E, Wahn U; MAS-Study Group. Multicentre Allergy Study. Histamine Challenges discriminate between symptomatic and asymptomatic children. MAS-Study Group. Multicentre Allergy Study. *Eur Respir J*. 2001;17:246-53.
46. Renz H, von Mutius E, Illi S, Wolkers F, Hirsch T, Weiland SK. TH-1 / TH-2 immune response profiles differ between atopic children in East and West Germany. *J Allergy Clin Immunol* 2002;320:338-42.
47. von Ehrenstein OS, von Mutius E, Maier E, Hirsch T, Schaal W, Carr D, Roscher AA, Olgemöller B, Nicolai T, Weiland SK. Lung function of school children with low levels of Alpha₁-Antitrypsin and tobacco smoke exposure. *Eur Respir J*. 2002;19:1099-106.
48. Illi S, von Mutius E, Lau S, Bergmann R, Niggemann B, Sommerfeld C, Wahn U and the MAS Study Group. Early childhood infectious diseases and the development of asthma up to school age: a birth cohort study. *Br Med J* 2001;322:390-5.

49. Ellwood P, Asher MI, Björksten B, Burr M, Pearce N, Robertson CF and the ISAAC Phase One Study Group. Diet and asthma, allergic rhinoconjunctivitis and atopic eczema symptom prevalence: an ecological analysis of the International Study of Asthma and Allergies in Childhood (ISAAC) data. *Eur Respir J* 2001;17:436-43.
50. Nicolai T, Illi S, Tenbörg J, Kiess W, von Mutius E. Puberty and prognosis of asthma and bronchial hyperreactivity. *Pediatr Allergy Immunol* 2001;12:142-48.
51. Wahn U, von Mutius E. Childhood risk factors for atopy and the importance of early intervention. *J Allergy Clin Immunol*. 2001;107:567-74.
52. von Mutius E, Schwartz K, Neas LM, Dockery D, Weiss ST. Relation of body mass index to asthma and atopy in children: the National health and Nutrition Examination Study III. *Thorax* 2001;56:0-3.
53. Beimfohr C, Maziak W, von Mutius E, Hense HW, Leupold W, Hirsch T, Keil U, Weiland SK. The use of anti-asthmatic drugs in children: results of a community-based survey in Germany. *J Pharmacoepidemiol and drug safety* 2001;10:315-21.
54. Riedler J, Braun-Fahrländer C, Eder W, Schreuer M, Waser M, Maisch S, Carr D, Schierl R, Nowak D, von Mutius E and the ALEX Study Team. Early life exposure to farming provides protection against the development of asthma and allergy. *Lancet* 2001;358:1129-33.
55. von Mutius E. Infection: friend or foe in the development of atopy and asthma ? The epidemiological evidence. *Eur Respir J* 2001;18:872-881.
56. Kusser B, Braun A, Praun M, Illi S, von Mutius E, Roscher AA. Polymorphisms of the bradykinin B2 receptor gene and childhood asthma. *Biol Chem* 2001;382:885-9.
57. Illi S, von Mutius E, Lau S, Nickel R, Niggemann B, Sommerfeld C, Wahn U and the MAS Study Group. The pattern of atopic sensitization is associated with the development of asthma in childhood. *J Allergy Clin Immunol* 2001;108:709-14.
58. Maziak W, von Mutius E, Beimfohr C, Hirsch T, Leupold W, Keil U, Weiland SK. The management of childhood asthma in the community. *Eur Respir J* 2002;20:1476-82.
59. Carr D, von Ehrenstein O, Weiland S, Wagner C, Wellie O, Nicolai T, von Mutius E. Modeling annual benzene, toluene, NO₂, and soot concentrations on the basis of road traffic characteristics. *Environ Res* 2002;90:111-8.
60. Braun-Fahrländer C, Riedler J, Herz U, Eder W, Waser M, Grize L, Maisch S, Carr D, Gerlach F, Bufe A, Lauener RP, Schierl R, Renz H, Nowak D, von Mutius E; Allergy and Endotoxin Study Team. Environmental exposure to endotoxin and its relation to asthma in school-age children. *N Engl J Med* 2002;347:869-77.
61. Lauener RP, Birchler T, Adamski J, Braun-Fahrländer C, Bufe A, Herz U, von Mutius E, Nowak D, Riedler J, Waser M, Sennhauser FH; ALEX study group. Expression of

- CD14 and Toll-like receptor 2 in farmers' and non-farmers' children. Lancet 2002;360:465-6.
62. Kabesch M, Peters W, Carr D, Leupold W, Weiland SK, von Mutius E. Association between polymorphisms in caspase recruitment domain containing protein 15 and allergy in two German populations. J Allergy Clin Immunol 2003;111:813-7.
 63. Nicolai T, Carr D, Weiland SK, Duhme H, von Ehrenstein O, Wagner C, von Mutius E. Urban traffic and pollutant exposure related to respiratory outcomes and atopy in a large sample of children. Eur Respir J 2003;21:956-63.
 64. Nicolai T, Pereszlenyiova-Bliznakova L, Illi S, Reinhardt D, von Mutius E. Longitudinal follow-up of the changing gender ratio in asthma from childhood to adulthood: role of delayed manifestation in girls. Pediatr Allergy Immunol 2003;14:280-3.
 65. Oberle D, von Mutius E, von Kries R. Childhood asthma and continuous exposure to cats since the first year of life with cats allowed in the child's bedroom. Allergy 2003; 58:1033-6.
 66. Allen M, Heinzmann A, Noguchi E, Abecasis G, Broxholme J, Ponting CP, Bhattacharyya S, Tinsley J, Zhang Y, Holt R, Jones EY, Lench N, Carey A, Jones H, Dickens NJ, Dimon C, Nicholls R, Baker C, Xue L, Townsend E, Kabesch M, Weiland SK, Carr D, von Mutius E, Adcock IM, Barnes PJ, Lathrop GM, Edwards M, Moffatt MF, Cookson WO. Positional cloning of a novel gene influencing asthma from chromosome 2q14. Nat Genet 2003;35:258-63.
 67. Kabesch M, Tzotcheva I, Carr D, Hofler C, Weiland SK, Fritzsch C, von Mutius E, Martinez FD. A complete screening of the IL4 gene: novel polymorphisms and their association with asthma and IgE in childhood. J Allergy Clin Immunol 2003;112:893-8.
 68. von Ehrenstein OS, Maier EM, Weiland SK, Carr D, Hirsch T, Nicolai T, Roscher AA, von Mutius E. Alpha1 antitrypsin and the prevalence and severity of asthma. Arch Dis Child 2004;89:230-1.
 69. Eder W, Klimecki W, Yu L, von Mutius E, Riedler J, Braun-Fahrländer C, Nowak D, Martinez FD; ALEX Study Team. Toll-like receptor 2 as a major gene for asthma in children of European farmers. J Allergy Clin Immunol 2004;113:482-8.
 70. Foliaki S, Nielsen SK, Bjorksten B, von Mutius E, Cheng S, Pearce N. Antibiotic sales and the prevalence of symptoms of asthma, rhinitis, and eczema: The International Study of Asthma and Allergies in Childhood (ISAAC). Int J Epidemiol 2004;33:558-63.
 71. Bolte G, Schmidt M, Maziak W., Keil U, Nasca P, von Mutius E, Weiland SK. The relation of markers of fetal growth with asthma, allergies and serum immunoglobulin E levels in children at age 5-7 years. Clin Exp Allergy 2004;34:381-8.

72. Waser M, Schierl R, von Mutius E, Maisch S, Carr D, Riedler J, Eder W, Schreuer M, Nowak D, Braun-Fahrlander C; ALEX Study Team. Determinants of endotoxin levels in living environments of farmer's children and their peers from rural areas. *Clin Exp Allergy* 2004;34:389-97.
73. Zutavern A, von Mutius E, Harris J, Mills P, Moffatt S, White C, Cullinan P. The introduction of solids in relation of asthma and eczema. *Arch Dis Child* 2004;89:303-8.
74. Kabesch M, Hoefler C, Carr D, Leupold W, Weiland SK, von Mutius E. Glutathione S transferase deficiency and passive smoking increase childhood asthma. *Thorax* 2004;59:569-73.
75. Holt PG, Sly PD Martinez FD, Weiss ST, Björksten B, von Mutius E, Wahn U. Drug development strategies for asthma: in search of a new paradigm. *Nat Immunol* 2004;5:695-8.
76. Maziak W, von Mutius E, Keil U, Hirsch T, Leupold W, Rzehak P, Behrens T, Weiland SK. Predictors of health care utilization in children with asthma in the community. *Pediatr Allergy Immunol* 2004;15:166-71.
77. Kabesch M, Carr D, Weiland SK, von Mutius E. Association between polymorphisms in serine protease inhibitor, kazal type 5 and asthma phenotypes in a large German population sample. *Clin Exp Allergy* 2004;34:340-5.
78. Wong GWK, Ko FWS, Hui DSC, Fok TF, Carr D, von Mutius E, Zhong NS, Chen YZ, Lai CKW. Factors associated with difference in prevalence of asthma in children from three cities in China: multicentre epidemiological survey. *Brit Med J* 2003;329:486-90.
79. Radon K, Windstetter D, Eckart J, Dressel H, Leitritz L, Reichert J, Schmid M, Pramli G, Schosser M, von Mutius E, Nowak D. Farming exposure in childhood, exposure to markers of infections and the development of atopy in rural subjects. *Clin Exp Allergy* 2004;34:1178-1183.
80. van Strien RT, Engel R, Holst O, Bufe A, Eder W, Waser M, Braun-Fahrlander C, Riedler J, Nowak D, von Mutius E; ALEX Study Team. Microbial exposure of rural school children, as assessed by levels of N-acetyl-muramic acid in mattress dust, and its association with respiratory health. *J Allergy Clin Immunol* 2004;113:860-7.
81. Weiland SK, Björksten B, Brunekreef B, Cookson WO, von Mutius E, Strachan DP. Phase II of the International Study of Asthma and Allergies in Childhood (ISAAC II) rationale and methods. *Eur Respir J* 2004;24:406-12.
82. Illi S, von Mutius E, Lau S, Nickel R, Gruber C, Niggemann B, Wahn U; Multicenter Allergy Study Group. The natural course of atopic dermatitis from birth to age 7 years and the association with asthma. *J Allergy Clin Immunol* 2004;113:925-31.

83. Radon K, Windstetter D, Eckart J, Dressel H, Leitritz L, Reichert J, Schmid M, Praml G, von Mutius E, Nowak D. Kontakt zu landwirtschaftlichen Betrieben und Toxoplasma-gondii-Infektionen. *Allergo Journal* 2004;13:524-527.
84. Schedel M, Carr D, Klopp N, Woitsch B, Illig T, Stachel D, Schmid I, Fritzsch C, Weiland SK, von Mutius E, Kabesch M. A signal transducer and activator of transcription 6 haplotype influences the regulation of serum IgE levels. *J Allergy Clin Immunol*. 2004;114:1100-5.
85. Waser M, von Mutius E, Riedler J, Nowak D, Maisch S, Carr D, Eder W, Teboew G, Schierl R, Schreuer M, Braun-Fahrländer C and the ALEX Study team. Exposure to pets, and the association with hay fever, asthma, and atopic sensitization in rural children. *Allergy* 2005;60:177-84.
86. Liese AD, Hirsch Th, von Mutius E, Weiland SK. Prevalence and dietary correlates of overweight and obesity in former East and West German children. *Eur J Public Health*. 2006 Oct;16(5):526-31.
87. Kormann MSD, Carr D, Klopp N, Illig T, Leupold W, Fritzsch C, Weiland SK, von Mutius E, Kabesch M. G-Protein coupled receptor polymorphisms are associated with asthma in a large German population. *Am J Respir Crit Care Med* 2005;171:1358-62.
88. Üblagger E, Schreuer M, Eder W, von Mutius E, Benz M.R., Braun-Fahrländer C, Moeller A, Brunekreef B, Schram D, Wickman M, Swartz J and Pershagen G, Riedler J on behalf of the PARSIFAL study group. Validation of questions on asthma and wheeze in farming and anthroposophic children. *Clin Exp Allergy* 2005; 35:1033–1039.
89. Melén E, Bruce S, Doekes G, Kabesch M, Laitinen T, Lauener R, Lindgren C, Riedler J, Scheynius A, van Hage-Hamsten M, Kere J, Pershagen G, Wickman M, Nyberg F, and the PARSIFAL Genetics study group. G-protein-coupled receptor for asthma susceptibility (GPRA) haplotypes are associated with childhood allergy and asthma - the PARSIFAL and BAMSE studies. *Am J Respir Crit Care Med* 2005;171:1089-95.
90. Eder W, Klimecki W, Yu L, von Mutius E, Riedler J, Braun-Fahrländer C, Nowak D, Martinez FD and the ALEX Study Team. Opposite effects of CD14/-260 on serum IgE levels in children raised in different environments. *J Allergy Clin Immunol* 2005; 116:601-7.
91. Zöllner IK, Weiland SK, Piechotowski I, Gabrio T, von Mutius E, Link B, Pfaff G, Kouros B, Wuthe J. No increase in the prevalence of asthma, allergies, and atopic sensitisation among children in Germany: 1992-2001. *Thorax* 2005;60:545-548.
92. Radon K, Windstetter D, Solfrank S, von Mutius E, Nowak D, Schwarz HP and the CAT study group. Exposure to farming environments in early life and type 1 diabetes mellitus: A case-control study. *Diabetes* 2005;54:3212–3216.

93. Schram-Bijkerk D, Doeke G, Douwes J, Boeve M, Riedler J, Üblagger E, von Mutius E, Benz MR, Pershagen G, van Hage M, Scheynius A, Braun-Fahrländer C, Waser M, Brunekreef B, on behalf of the PARSIFAL study group. Bacterial and fungal agents in house dust and wheeze in children - the PARSIFAL study. *Clin Exp Allergy* 2005;35:1272-8.
94. Zutavern A, Hirsch T, Leupold W, Weiland S, Keil U, von Mutius E. Atopic dermatitis, extrinsic atopic dermatitis and the hygiene hypothesis: Results from a cross-sectional study. *Clin Exp Allergy*, 2005; 35:1301–1308.
95. Flöistrup H, Swartz J, Bergström A, Alm JS, Scheynius A, van Hage M, Waser M, Braun-Fahrländer C, Schram-Bijkerk D, Huber M, Zutavern A, von Mutius E, Üblagger E, Riedler J, Michels KB, Pershagen G, and the PARSIFAL study group. Allergic disease and sensitisation in Steiner school children. *J Allergy Clin Immunol* 2006;117: 59-66.
96. Bolte G, Kompauer I, Fobker M, Cullen P, Keil U, von Mutius E, Weiland SK. Fatty acids in serum cholesteryl esters in relation to asthma and lung function in children. *Clin Exp Allergy* 2006; 36:293–302.
97. Peters M, Kauth M, Schwarze J, Körner-Rettberg C, Riedler J, Nowak D, Braun-Fahrländer C, von Mutius E, Buflé A, Holst O and the ALEX Study Group. Inhalation of stable dust extract prevents allergen induced airway inflammation and hyper-responsiveness. *Thorax* 2006;61:134-9.
98. Schedel M, Depner M, Schoen C, Weiland S, Vogelberg C, Niggemann B, Lau S, Fritzsch C, Illig T, Klopp N, Wahn U, von Mutius E, Nickel R, Kabesch M. The role of ADAM33, A disintegrin and metalloprotease 33, in Asthma and BHR in two German populations. *Respir Res*. 2006 Jun 19;7:91.
99. Schram-Bijkerk D; Doeke G; Boeve M; Douwes J; Riedler J; Üblagger E; von Mutius E; Benz M; Pershagen G; Wickman M; Alfvén T; Braun-Fahrländer C; Waser M; Brunekreef B on behalf of the PARSIFAL study group. Exposure to microbial components and allergens in population studies: A comparison of two house dust collection methods applied by participants and fieldworkers. *Indoor Air* 2006 Dec;16: 414-25.
100. Radon K, Riu E, Dressel H, Windstetter D, Weinmayr G, Weiland S, Vogelberg C, Scharrer EM, Leupold W, von Mutius E, Nowak D. Adolescents' jobs and the course of dermatitis symptoms throughout puberty. *Scand J Work Environ Health* 2006; 32:132-7.
101. Radon K, Huemmer S, Dressel H, Windstetter D, Weinmayr G, Weiland S, Riu E, Vogelberg C, Leupold W, von Mutius E, Goldberg M, Nowak D. Do respiratory symptoms predict job choices in teenagers? *Eur Respir J* 2006; 27: 774–778.
102. Kabesch M, Schedel M, Carr D, Woitsch B, Fritzsch C, Weiland SK, von Mutius E. IL-4/IL-13 pathway genetics strongly influence serum IgE levels and childhood asthma. *J Allergy Clin Immunol*. 2006;117:69-74.

103. Ege MJ, Bieli C, Frei R, van Strien RT, Riedler J, Üblagger E, Schram-Bijkerk D, Brunekreef B, van Hage M, Scheynius A, Pershagen G, Benz MR, Lauener R, von Mutius E, Braun-Fahrlander C and the PARSIFAL Study team. Prenatal farm exposure is related to the expression of receptors of the innate immunity and to atopic sensitization in school-age children. *J Allergy Clin Immunol.* 2006;117:817-23.
104. Liese AD, Hirsch T, von Mutius E, Weiland SK. Burden of overweight in Germany: prevalence differences between former East and West German children. *Eur J Public Health.* 2006 Oct;16(5):526-31.
105. Asher MI, Montefort S, Björkstén B, Lai CKW, Strachan DP, Weiland SK, Williams H and the ISAAC Phase Three Study Group. Worldwide time trends in the prevalence of symptoms of asthma, allergic rhinoconjunctivitis and eczema in childhood - ISAAC Phase Three. *Lancet.* 2006 Aug 26;368(9537):733-43.
106. Illi S, von Mutius E, Lau S, Niggemann B, Grüber C, Wahn U and on behalf of the Multicentre Allergy Study (MAS) group. Perennial allergen sensitisation early in life and chronic asthma in children: a birth cohort study. *Lancet* 2006; 368: 763-770.
107. Genuneit J, Weinmayr G, Radon K, Dressel H, Windstetter D, Rzehak P, Vogelberg C, Leupold W, Nowak D, von Mutius E, Weiland SK. Smoking and the incidence of asthma during adolescence: results of a large cohort study in Germany. *Thorax.* 2006 Jul;61(7):572-8.
108. Karadag B, Ege M, Bradley JE, Braun-Fahrlander C, Riedler J, Nowak D, von Mutius E. The role of parasitic infections in atopic diseases in rural schoolchildren. *Allergy.* 2006 Aug;61(8):996-1001.
109. Stern DA, Riedler J, Nowak D, Braun-Fahrlander C, Swoboda I, Balic N, Chen KW, Vrtala S, Gronlund H, van Hage M, Valenta R, Spitzauer S, Von Mutius E, Vercelli D. Exposure to a farming environment has allergen-specific protective effects on TH2-dependent isotype switching in response to common inhalants. *J Allergy Clin Immunol.* 2007 Feb;119(2):351-8.
110. Waser M, Michels KB, Bieli C, Flöistrup H, Pershagen G, von Mutius E, Ege M, Riedler J, Schram-Bijkerk D, Brunekreef B, van Hage M, Lauener R, Braun-Fahrlander C; PARSIFAL Study team. Inverse association of farm milk consumption with asthma and allergy in rural and suburban populations across Europe. *Clin Exp Allergy.* 2007 May;37(5):661-70.
111. Moffatt MF, Kabesch M, Liang L, Dixon AL, Strachan D, Heath S, Depner M, von Berg A, Bufe A, Rietschel E, Heinzmann A, Simma B, Frischer T, Willis-Owen SA, Wong KC, Illig T, Vogelberg C, Weiland SK, von Mutius E, Abecasis GR, Farrall M, Gut IG, Lathrop GM, Cookson WO. Genetic variants regulating ORMDL3 expression contribute to the risk of childhood asthma. *Nature.* 2007 Jul 26; 448(7152):470-3.

112. Douwes J, Travier N, Huang K, Cheng S, Mckenzie J, Le gros G, von Mutius E, Pearce N. Lifelong farm exposure may strongly reduce the risk of asthma in adults. *Allergy*. 2007 Oct;62(10):1158-65.
113. Büchele G, Rzehak P, Weinmayr G, Keil U, Leupold W, von Mutius E, Weiland SK. Assessing bronchial responsiveness to hypertonic saline using the stepwise protocol of Phase Two of the International Study of Asthma and Allergies in Childhood (ISAAC II). *Pediatr Pulmonol*. 2007;42:131-40.
114. Ege MJ, Frei R, Bieli C, Schram-Bijkerk D, Waser M, Benz MR, Weiss G, Nyberg F, van Hage M, Pershagen G, Brunekreef B, Riedler J, Lauener R, Braun-Fahrlander C, von Mutius E; PARSIFAL Study team. Not all farming environments protect against the development of asthma and wheeze in children. *J Allergy Clin Immunol*. 2007;119:1140-7.
115. Weinmayr G, Weiland SK, Björkstén B, Brunekreef B, Büchele G, Cookson WO, Garcia-Marcos L, Gotua M, Gratiou C, van Hage M, von Mutius E, Riikjärv MA, Rzehak P, Stein RT, Strachan DP, Tsanakas J, Wickens K, Wong GW; ISAAC Phase Two Study Group. Atopic sensitization and the international variation of asthma symptom prevalence in children. *Am J Respir Crit Care Med*. 2007 Sep 15; 176(6):565-74.
116. Vogelberg C, Hirsch T, Radon K, Dressel H, Windstetter D, Weinmayr G, Weiland SK, von Mutius E, Nowak D, Leupold W. Leisure time activity and new onset of wheezing during adolescence. *Eur Respir J*. 2007 Oct;30(4):672-6.
117. E. Riu, H. Dressel, D. Windstetter, G. Weinmayr, S. Weiland, C. Vogelberg, W. Leupold, E. von Mutius, D. Nowak and K. Radon. First months of employment and new onset of rhinitis in adolescents. *Eur Respir J* 2007; 30: 549–555.
118. Radon K, Windstetter D, Poluda AL, Muellera B, von Mutius E, Koletzko S and the Chronische Autoimmunerkrankungen und Kontakt zu Tieren (Chronic Autoimmune Disease and Animal Contact) Study Group. Contact With Farm Animals in Early Life and Juvenile Inflammatory Bowel Disease: A Case-Control Study. *Pediatrics* 2007; 120; 354-361.
119. Pinto LA, Steudemann L, Depner M, Klopp N, Illig T, Weiland SK, von Mutius E, Kabesch M. STAT1 gene variations, IgE regulation and atopy. *Allergy*. 2007 Dec; 62(12): 1456-61.
120. Karadag B, Ege MJ, Scheynius A, Waser M, Schram-Bijkerk D, van Hage M, Pershagen G, Brunekreef B, Riedler J, Braun-Fahrlander C, von Mutius E; PARSIFAL Study Team. Environmental determinants of atopic eczema phenotypes in relation to asthma and atopic sensitization. *Allergy*. 2007 Dec; 62(12):1387-93.
121. Bieli C, Eder W, Frei R, Braun-Fahrlander C, Klimecki W, Waser M, Riedler J, von Mutius E, Scheynius A, Pershagen G, Doeke G, Lauener R, Martinez FD; PARSIFAL study group. A polymorphism in CD14 modifies the effect of farm milk

- consumption on allergic diseases and CD14 gene expression. *J Allergy Clin Immunol.* 2007 Dec; 120(6):1308-15.
122. Flohr C, Weiland SK, Weinmayr G, Björkstén B, Bråbäck L, Brunekreef B, Büchele G, Clausen M, Cookson WO, von Mutius E, Strachan DP, Williams HC; the ISAAC Phase Two Study Group. The role of atopic sensitization in flexural eczema: Findings from the International Study of Asthma and Allergies in Childhood Phase Two. *J Allergy Clin Immunol.* 2008 Jan; 121(1):141-147.e4.
 123. Schedel M, Pinto LA, Schaub B, Rosenstiel P, Cherkasov D, Cameron L, Klopp N, Illig T, Vogelberg C, Weiland SK, von Mutius E, Lohoff M, Kabesch M. IRF-1 Gene Variations Influence IgE Regulation and Atopy. *Am J Respir Crit Care Med.* 2008 Mar 15; 177(6):613-21.
 124. Korthals M, Ege MJ, Tebbe CC, von Mutius E, Bauer J. Application of PCR-SSCP for molecular epidemiological studies on the exposure of farm children to bacteria in environmental dust. *J Microbiol Methods.* 2008 Apr; 73(1):49-56.
 125. Williams H, Stewart A, von Mutius E, Cookson W, Anderson HR; International Study of Asthma and Allergies in Childhood Phase One and Three Study Groups. Is eczema really on the increase worldwide? *J Allergy Clin Immunol.* 2008 Apr; 121(4):947-54.e15.
 126. Orsmark-Pietras C, Melén E, Vendelin J, Bruce S, Laitinen A, Laitinen LA, Lauener R, Riedler J, von Mutius E, Doeke G, Wickmann M, van Hage M, Pershagen G, Scheynius A, Nyberg F, Kere J; the PARISFAL Genetics Study Group. Biological and genetic interaction between Tenascin C and Neuropeptide S receptor 1 in allergic diseases. *Hum Mol Genet.* 2008 Jun 1; 17(11):1673-82.
 127. Korthals M, Ege M, Lick S, von Mutius E, Bauer J. Occurrence of Listeria spp. In mattress dust of farm children in Bavaria. *Environ Res.* 2008 Jul; 107(3):299-304.
 128. Weidinger S, O'Sullivan M, Illig T, Baurecht H, Depner M, Rodriguez E, Ruether A, Klopp N, Vogelberg C, Weiland SK, McLean WH, von Mutius E, Irvine AD, Kabesch M. Filaggrin mutations, atopic eczema, hay fever, and asthma in children. *J Allergy Clin Immunol.* 2008 May; 121(5):1203-1209.e1.
 129. Weidinger S, Gieger C, Rodriguez E, Baurecht H, Mempel M, Klopp N, Gohlke H, Wagenpfell S, Ollert M, Ring J, Behrendt H, Heinrich J, Novak N, Bieber T, Krämer U, Berdel D, von Berg A, Bauer CP, Herbarth O, Koletzko S, Prokisch H, Mehta D, Meitinger T, Depner M, von Mutius E, Liang L, Moffatt M, Cookson W, Kabesch M, Wichmann HE, Illig T. Genome-wide scan on total serum IgE levels identifies FCER1A as novel susceptibility locus. *PLoS Genet.* 2008 Aug; 4(8):e1000166.
 130. Beasley R, Clayton T, Crane J, von Mutius E, Lai CKW, Montefort S, Stewart A and the ISAAC Phase Three Study Group. Paracetamol use in infancy and later childhood and risk of asthma, rhinoconjunctivitis and eczema in 6 to 7 year old children: ISAAC Phase Three. *Lancet.* 2008 Sep 20; 372(9643):1039-48.

131. Michels KB, Waser M, Ary E, Rosenlund H, von Mutius E, Riedler J, Schram D, Pershagen G, Braun-Fahrlander & the PARISFAL Study Group. Validation of a questionnaire to assess dietary habits among 5–13-year old school children of farmers and anthroposophic families. *Journal of Nutritional & Environmental Medicine* 2008; 17(3): 157–168.
132. Pfefferle PI, Sel S, Ege MJ, Büchele G, Blümer N, Krauss-Etschmann S, Herzum I, Albers CE, Lauener RP, Roponen M, Hirvonen MR, Vuitton DA, Riedler J, Brunekreef B, Dolphin JC, Braun-Fahrlander C, Pekkanen J, von Mutius E, Renz H; PASTURE Study Group. Cord blood allergen-specific IgE is associated with reduced IFN-gamma production by cord blood cells: the Protection against Allergy-Study in Rural Environments (PASTURE) Study. *J Allergy Clin Immunol.* 2008 Oct;122(4):711-6.
133. Schaub B, Liu J, Schleich I, Höppler S, Sattler C, von Mutius E. Impairment of T helper and T regulatory cell responses at birth. *Allergy.* 2008 Nov;63(11):1438-47.
134. Grüber C, Warner J, Hill D, Bauchau V; EPAAC Study Group. Early atopic disease and early childhood immunization—is there a link? *Allergy.* 2008 Nov;63(11):1464-72.
135. Ege MJ, Herzum I, Büchele G, Krauss-Etschmann S, Lauener RP, Bitter S, Roponen M, Remes S, Vuitton DA, Riedler J, Brunekreef B, Dolphin JC, Braun-Fahrlander C, Pekkanen J, Renz H, von Mutius E; PASTURE Study Group. Specific IgE to allergens in cord blood is associated with maternal immunity to Toxoplasma gondii and rubella virus. *Allergy.* 2008 Nov;63(11):1505-11.
136. Bieli C, Frei R, Schickinger V, Steinle J, Bommer C, Loeliger S, Braun-Fahrlander C, von Mutius E, Pershagen G, Lauener R. Gene expression measurements in the context of epidemiological studies. *Allergy.* 2008 Dec;63(12):1633-6.
137. Suttner K, Ruoss I, Rosenstiel P, Depner M, Pinto LA, Schedel M, Adamski J, Illig T, Schreiber S, von Mutius E, Kabesch M. HLX1 gene variants influence the development of childhood asthma. *J Allergy Clin Immunol.* 2009 Jan;123(1):82-88.e6.
138. Bruce S, Nyberg F, Melén E, James A, Pulkkinen V, Orsmark-Pietras C, Bergström A, Dahlén B, Wickman M, von Mutius E, Doeke G, Lauener R, Riedler J, Eder W, van Hage M, Pershagen G, Scheynius A, Kere J. The protective effect of farm animal exposure on childhood allergy is modified by NPSR1 polymorphisms. *J Med Genet.* 2009 Mar;46(3):159-67.
139. Rosenlund H, Bergström A, Alm JS, Swartz J, Scheynius A, van Hage M, Johansen K, Brunekreef B, von Mutius E, Ege MJ, Riedler J, Braun-Fahrlander C, Waser M, Pershagen G; PARISFAL Study Group. Allergic disease and atopic sensitization in children in relation to measles vaccination and measles infection. *Pediatrics.* 2009 Mar;123(3):771-8.

140. Pinto LA, Depner M, Steudemann L, Klopp N, Illig T, von Mutius E, Kabesch M. IL15 gene variants are not associated with asthma and atopy. *Allergy*. 2009 Apr;64(4):643-6.
141. Kormann MS, Ferstl R, Depner M, Klopp N, Spiller S, Illig T, Vogelberg C, von Mutius E, Kirschning CJ, Kabesch M. Rare TLR2 mutations reduce TLR2 receptor function and can increase atopy risk. *Allergy*. 2009 Apr;64(4):636-42.
142. Schaub B, Liu J, Höppler S, Schleich I, Huehn J, Olek S, Wieczorek G, Illi S, von Mutius E. Maternal farm exposure modulates neonatal immune mechanisms through regulatory T cells. *J Allergy Clin Immunol*. 2009 Apr;123(4):774-82.e5.
143. Nagel G, Büchele G, Weinmayr G, Björkstén B, Chen YZ, Wang H, Nystad W, Saraclar Y, Bråbäck L, Batllés-Garrido J, Garcia-Hernandez G, Weiland SK; ISAAC Phase II Study Group. Effect of breastfeeding on asthma, lung function and bronchial hyperreactivity in ISAAC Phase II. *Eur Respir J*. 2009 May; 33(5):993-1002.
144. Ganguly K, Depner M, Fattman C, Bein K, Oury TD, Wesselkamper SC, Borchers MT, Schreiber M, Gao F, von Mutius E, Kabesch M, Leikauf GD, Schulz H. Superoxide dismutase 3, extracellular (SOD3) variants and lung function. *Physiol Genomics*. 2009 May 13;37(3):260-7.
145. Suttner K, Depner M, Klopp N, Illig T, Vogelberg C, Adamski J, von Mutius E, Kabesch M. Genetic variants in the GATA3 gene are not associated with asthma and atopic diseases in German children. *J Allergy Clin Immunol*. 2009 May;123(5):1179-81.
146. Suttner K, Rosenstiel P, Depner M, Schedel M, Pinto LA, Ruether A, Adamski J, Klopp N, Illig T, Vogelberg C, Schreiber S, von Mutius E, Kabesch M. TBX21 gene variants increase childhood asthma risk in combination with HLX1 variants. *J Allergy Clin Immunol*. 2009 May;123(5):1062-8, 1068.e1-8.
147. Sudre B, Vacheyrou M, Braun-Fahrländer C, Normand AC, Waser M, Reboux G, Ruffaldi P, von Mutius E, Piarroux R; PASTURE study group. High levels of grass pollen inside European dairy farms: a role for the allergy-protective effects of environment? *Allergy*. 2009 Jul;64(7):1068-73.
148. Bousquet J, Burney PG, Zuberbier T, Cauwenberge PV, Akdis CA, Bindslev-Jensen C, Bonini S, Fokkens WJ, Kauffmann F, Kowalski ML, Lodrup-Carlsen K, Mullol J, Nizankowska-Mogilnicka E, Papadopoulos N, Toskala E, Wickman M, Anto J, Auvergne N, Bachert C, Bousquet PJ, Brunekreef B, Canonica GW, Carlsen KH, Gjomarkaj M, Haahtela T, Howarth P, Lenzen G, Lotvall J, Radon K, Ring J, Salapatas M, Schünemann HJ, Szczeklik A, Todo-Bom A, Valovirta E, von Mutius E, Zock JP. GA2LEN (Global Allergy and Asthma European Network) addresses the allergy and asthma 'epidemic'. *Allergy*. 2009 Jul;64(7):969-77.
149. Ekelund E, Bradley M, Weidinger S, Jovanovic DL, Johanson C, Lindgren CM, Todorova A, Jakob T, Illig T, von Mutius E, Braun-Fahrländer C, Doekes G, Riedler

- J, Scheynius A, Pershagen G, Kockum I, Kere J. Lack of Association between Neuropeptide S Receptor 1 Gene (NPSR1) and Eczema in Five European Populations. *Acta Derm Venereol* 2009; 89: 115–121.
150. Karvonen AM, Hyvärinen A, Roponen M, Hoffmann M, Korppi M, Remes S, von Mutius E, Nevalainen A, Pekkanen J. Confirmed moisture damage at home, respiratory symptoms and atopy in early life: a birth-cohort study. *Pediatrics*. 2009 Aug;124(2):e329-38.
151. Ellwood P, Williams H, Aït-Khaled N, Björkstén B, Robertson C and the ISAAC Phase III Study Group. Translation of questions: the International Study of Asthma and Allergies in Childhood (ISAAC) experience. *Int J Tuberc Lung Dis* 2009; 13(9):1174–1182.
152. Cameron L, Depner M, Kormann M, Klopp N, Illig T, von Mutius E, Kabesch M. Genetic variation in CRTh2 influences development of allergic phenotypes. *Allergy*. 2009 Oct;64(10):1478-85.
153. Flohr C, Weinmayr G, Weiland SK, Addo-Yobo E, Annesi-Maesano I, Björkstén B, Bråbäck L, Büchele G, Chico M, Cooper P, Clausen M, El Sharif N, Martinez Gimeno A, Mathur RS, von Mutius E, Morales Suarez-Varela M, Pearce N, Svabe V, Wong GW, Yu M, Zhong NS, Williams HC; ISAAC Phase Two Study Group. How well do questionnaires perform compared with physical examination in detecting flexural eczema? Findings from the International Study of Asthma and Allergies in Childhood (ISAAC) Phase Two. *Br J Dermatol*. 2009 Oct;161(4):846-53.
154. Heinzerling LM, Burbach GJ, Edenharter G, Bachert C, Bindslev-Jensen C, Bonini S, Bousquet J, Bousquet-Rouanet L, Bousquet PJ, Bresciani M, Bruno A, Burney P, Canonica GW, Darsow U, Demoly P, Durham S, Fokkens WJ, Giavi S, Gjomarkaj M, Gramiccioni C, Haahtela T, Kowalski ML, Magyar P, Muraközi G, Orosz M, Papadopoulos NG, Röhnl C, Stingl G, Todo-Bom A, von Mutius E, Wiesner A, Wöhrl S, Zuberbier T. GA(2)LEN skin test study I: GA(2)LEN harmonization of skin prick testing: novel sensitization patterns for inhalant allergens in Europe. *Allergy*. 2009 Oct;64(10):1498-506.
155. Burbach GJ, Heinzerling LM, Edenharter G, Bachert C, Bindslev-Jensen C, Bonini S, Bousquet J, Bousquet-Rouanet L, Bousquet PJ, Bresciani M, Bruno A, Canonica GW, Darsow U, Demoly P, Durham S, Fokkens WJ, Giavi S, Gjomarkaj M, Gramiccioni C, Haahtela T, Kowalski ML, Magyar P, Muraközi G, Orosz M, Papadopoulos NG, Röhnl C, Stingl G, Todo-Bom A, von Mutius E, Wiesner A, Wöhrl S, Zuberbier T. GA(2)LEN skin test study II: clinical relevance of inhalant allergen sensitizations in Europe. *Allergy*. 2009 Oct;64(10):1507-15.
156. Bousquet PJ, Burbach G, Heinzerling LM, Edenharter G, Bachert C, Bindslev-Jensen C, Bonini S, Bousquet-Rouanet L, Demoly P, Bresciani M, Bruno A, Gjomarkaj M, Canonica GW, Darsow U, Durham S, Fokkens WJ, Giavi S, Gramiccioni C, Papadopoulos NG, Haahtela T, Kowalski ML, Magyar P, Muraközi G, Orosz M, Röhnl C, Stingl G, Todo-Bom A, von Mutius E, Wiesner A, Wöhrl S, Bousquet J,

Zuberbier T. GA2LEN skin test study III: minimum battery of test inhalent allergens needed in epidemiological studies in patients. *Allergy*. 2009 Nov;64(11):1656-62.

157. Foliaki S, Pearce N, Björkstén B, Mallol J, Montefort S, von Mutius E; International Study of Asthma and Allergies in Childhood Phase III Study Group. Antibiotic use in infancy and symptoms of asthma, rhinoconjunctivitis, and eczema in children 6 and 7 years old: International Study of Asthma and Allergies in Childhood Phase III. *J Allergy Clin Immunol*. 2009 Nov;124(5):982-9.
158. Pfefferle PI, Büchele G, Blümer N, Roponen M, Ege MJ, Krauss-Etschmann S, Genuneit J, Hyvärinen A, Hirvonen MR, Lauener R, Pekkanen J, Riedler J, Dolphin JC, Brunekreef B, Braun-Fahrländer C, von Mutius E, Renz H; on behalf of the PASTURE Study Group. Cord blood cytokines are modulated by maternal farming activities and consumption of farm dairy products during pregnancy: The PASTURE Study. *J Allergy Clin Immunol*. 2010 Jan;125(1):108-115.e3.
159. Conrad ML, Ferstl R, Teich R, Brand S, Blümer N, Yildirim AO, Patrascan CC, Hanuszkiewicz A, Akira S, Wagner H, Holst O, von Mutius E, Pfefferle PI, Kirschning CJ, Garn H, Renz H. Maternal TLR signaling is required for prenatal asthma protection by the nonpathogenic microbe *Acinetobacter lwoffii* F78. *J Exp Med*. 2009 Dec 21;206(13):2869-77.
160. Weinmayr G, Genuneit J, Nagel G, Björkstén B, van Hage M, Priftanji A, Cooper P, Rijkjärv MA, von Mutius E, Tsanakas J, Forastiere F, Doekes G, Garrido JB, Suarez-Varela MM, Bråbäck L, Strachan DP; the ISAAC Phase Two Study Group*. International variations in associations of allergic markers and diseases in children: ISAAC Phase Two. *Allergy*. 2010 Jun 1;65(6):766-75.
161. Rochat MK, Ege MJ, Plabst D, Steinle J, Bitter S, Braun-Fahrländer C, Dolphin JC, Riedler J, Roponen M, Hirvonen MR, Büchele G, Renz H, Lauener R, Krauss-Etschmann S, von Mutius E; the PASTURE Study group. Maternal vitamin D intake during pregnancy increases gene expression of ILT3 and ILT4 in cord blood. *Clin Exp Allergy*. 2010 May;40(5):786-94.
162. Sleiman PM, Flory J, Imielinski M, Bradfield JP, Annaiah K, Willis-Owen SA, Wang K, Rafaels NM, Michel S, Bonnelykke K, Zhang H, Kim CE, Frackelton EC, Glessner JT, Hou C, Otieno FG, Santa E, Thomas K, Smith RM, Glaberson WR, Garris M, Chiavacci RM, Beaty TH, Ruczinski I, Orange JM, Allen J, Spergel JM, Grundmeier R, Mathias RA, Christie JD, von Mutius E, Cookson WO, Kabesch M, Moffatt MF, Grunstein MM, Barnes KC, Devoto M, Magnusson M, Li H, Grant SF, Bisgaard H, Hakonarson H. Variants of DENND1B associated with asthma in children. *N Engl J Med*. 2010 Jan 7;362(1):36-44.
163. Genuneit J, Cantelmo JL, Weinmayr G, Wong GW, Cooper PJ, Riikjärv MA, Gotua M, Kabesch M, von Mutius E, Forastiere F, Crane J, Nystad W, El-Sharif N, Battles-Garrido J, García-Marcos L, García-Hernández G, Morales-Suarez-Varela M, Nilsson L, Bråbäck L, Saraçlar Y, Weiland SK, Cookson WO, Strachan D, Moffatt MF; ISAAC Phase 2 Study Group. A multi-centre study of candidate genes for wheeze

and allergy: the International Study of Asthma and Allergies in Childhood Phase 2. *Clin Exp Allergy*. 2009 Dec;39(12):1875-88.

164. Pinto LA, Depner M, Klopp N, Illig T, Vogelberg C, von Mutius E, Kabesch M. MMP-9 gene variants increase the risk for non-atopic asthma in children. *Respir Res*. 2010 Feb 24;11:23.
165. Radon K, Windstetter D, Poluda D, Häfner R, Thomas S, Michels H, von Mutius E. Exposure to animals and risk of oligoarticular juvenile idiopathic arthritis: a multicenter case-control study. *BMC Musculoskeletal Disord*. 2010 Apr 20;11:73.
166. Nagel G, Weinmayr G, Kleiner A, Garcia-Marcos L, Strachan DP; ISAAC Phase Two Study Group. Effect of diet on asthma and allergic sensitisation in the International Study on Allergies and Asthma in Childhood (ISAAC) Phase Two. *Thorax*. 2010 Jun;65(6):516-22.
167. Büchele G, Genuneit J, Weinmayr G, Björkstén B, Gehring U, von Mutius E, Priftanji A, Stein RT, Addo-Yobo EO, Priftis KN, Shah JR, Forastiere F, Svabe V, Crane J, Nystad W, García-Marcos L, Saraçlar Y, El-Sharif N, Strachan DP; ISAAC Phase Two Study Group. International variations in bronchial responsiveness in children: findings from ISAAC phase two. *Pediatr Pulmonol*. 2010 Aug;45(8):796-806.
168. Peters M, Kauth M, Scherner O, Gehlhar K, Steffen I, Wentker P, von Mutius E, Holst O, Buße A. Arabinogalactan isolated from cowshed dust extract protects mice from allergic airway inflammation and sensitization. *J Allergy Clin Immunol*. 2010 Sep;126(3):648-56.e1-4.
169. Ellwood P, Asher MI, Stewart AW; ISAAC Phase III Study Group. The impact of the method of consent on response rates in the ISAAC time trends study. *Int J Tuberc Lung Dis*. 2010 Aug;14(8):1059-65.
170. Peters AS, Kellberger J, Vogelberg C, Dressel H, Windstetter D, Weinmayr G, Genuneit J, Nowak D, von Mutius E, Radon K. Prediction of the incidence, recurrence, and persistence of atopic dermatitis in adolescence: a prospective cohort study. *J Allergy Clin Immunol*. 2010 Sep;126(3):590-5.e1-3.
171. Moffatt MF, Gut IG, Demenais F, Strachan DP, Bouzigon E, Heath S, von Mutius E, Farrall M, Lathrop M, Cookson WO; GABRIEL Consortium. A large-scale, consortium-based genomewide association study of asthma. *N Engl J Med*. 2010 Sep 23;363(13):1211-21.
172. Liu J, Lluis A, Illi S, Layland L, Olek S, von Mutius E, Schaub B. T regulatory cells in cord blood--FOXP3 demethylation as reliable quantitative marker. *PLoS One*. 2010 Oct 12;5(10):e13267.
173. Rochat MK, Illi S, Ege MJ, Lau S, Keil T, Wahn U, von Mutius E; Multicentre Allergy Study (MAS) group. Allergic rhinitis as a predictor for wheezing onset in school-aged children. *J Allergy Clin Immunol*. 2010 Dec;126(6):1170-5.e2.

174. Michel S, Liang L, Depner M, Klopp N, Ruether A, Kumar A, Schedel M, Vogelberg C, von Mutius E, von Berg A, Bufo A, Rietschel E, Heinzmann A, Laub O, Simma B, Frischer T, Genuneit J, Gut IG, Schreiber S, Lathrop M, Illig T, Kabesch M. Unifying candidate gene and GWAS Approaches in Asthma. *PLoS One*. 2010 Nov 12;5(11):e13894.
175. Beasley RW, Clayton TO, Crane J, Lai CK, Montefort SR, Mutius E, Stewart AW; ISAAC Phase Three Study Group. Acetaminophen use and risk of asthma, rhinoconjunctivitis, and eczema in adolescents: International Study of Asthma and Allergies in Childhood Phase Three. *Am J Respir Crit Care Med*. 2011 Jan 15;183(2):171-8.
176. Roduit C, Wohlgensinger J, Frei R, Bitter S, Bieli C, Loeliger S, Büchele G, Riedler J, Dolphin JC, Remes S, Roponen M, Pekkanen J, Kabesch M, Schaub B, von Mutius E, Braun-Fahrländer C, Lauener R; PASTURE Study Group. Prenatal animal contact and gene expression of innate immunity receptors at birth are associated with atopic dermatitis. *J Allergy Clin Immunol*. 2011 Jan;127(1):179-85, 185.e1.
177. Ege MJ, Strachan DP, Cookson WO, Moffatt MF, Gut I, Lathrop M, Kabesch M, Genuneit J, Büchele G, Sozanska B, Boznanski A, Cullinan P, Horak E, Bieli C, Braun-Fahrländer C, Heederik D, von Mutius E; GABRIELA Study Group. Gene-environment interaction for childhood asthma and exposure to farming in Central Europe. *J Allergy Clin Immunol*. 2011 Jan;127(1):138-44, 144.e1-4. 4.
178. Ege MJ, Mayer M, Normand AC, Genuneit J, Cookson WO, Braun-Fahrländer C, Heederik D, Piarroux R, von Mutius E; GABRIELA Transregio 22 Study Group. Exposure to environmental microorganisms and childhood asthma. *N Engl J Med*. 2011 Feb 24;364(8):701-9.
179. Naumann A, Söderhäll C, Fölster-Holst R, Baurecht H, Harde V, Müller-Wehling K, Rodríguez E, Ruether A, Franke A, Wagenpfeil S, Novak N, Mempel M, Kalali BN, Allgaever M, Koch J, Gerhard M, Melén E, Wahlgren CF, Kull I, Stahl C, Pershagen G, Lauener R, Riedler J, Doeke G, Scheynius A, Illig T, von Mutius E, Schreiber S, Kere J, Kabesch M, Weidinger S. A comprehensive analysis of the COL29A1 gene does not support a role in eczema. *J Allergy Clin Immunol*. 2011 May;127(5):1187-94.e7.
180. Liu J, Rädler D, Illi S, Klucker E, Turan E, von Mutius E, Kabesch M, Schaub B. TLR2 polymorphisms influence neonatal regulatory T cells depending on maternal atopy. *Allergy*. 2011 Aug;66(8):1020-9.
181. Normand AC, Sudre B, Vacheyrou M, Depner M, Wouters IM, Noss I, Heederik D, Hyvärinen A, Genuneit J, Braun-Fahrländer C, von Mutius E, Piarroux R; the GABRIEL-A Study Group. Airborne cultivable microflora and microbial transfer in farm buildings and rural dwellings. *Occup Environ Med*. 2011 Nov;68(11):849-855.
182. Lluis A, Schedel M, Liu J, Illi S, Depner M, von Mutius E, Kabesch M, Schaub B. Asthma-associated polymorphisms in 17q21 influence cord blood ORMDL3 and

GSDMA gene expression and IL-17 secretion. *J Allergy Clin Immunol.* 2011 Jun;127(6):1587-94.e6.

183. Heinrich S, Peters A, Kellberger J, Ellenberg D, Genuneit J, Nowak D, Vogelberg C, von Mutius E, Weinmayr G, Radon K. Study on occupational allergy risks (SOLAR II) in Germany: design and methods. *BMC Public Health.* 2011 May 11;11:298.
184. Roussel S, Sudre B, Reboux G, Waser M, Büchele G, Vacheyrou M, Dalphin JC, Millon L, Braun-Fahrländer C, von Mutius E, Piarroux R. Exposure to moulds and actinomycetes in Alpine farms: a nested environmental study of the PASTURE cohort. *Environ Res.* 2011 Aug;111(6):744-50.
185. Brand S, Teich R, Dicke T, Harb H, Yildirim AÖ, Tost J, Schneider-Stock R, Waterland RA, Bauer UM, von Mutius E, Garn H, Pfefferle PI, Renz H. Epigenetic regulation in murine offspring as a novel mechanism for transmaternal asthma protection induced by microbes. *J Allergy Clin Immunol.* 2011 Sep;128(3):618-25.e1-7.
186. Genuneit J, Büchele G, Waser M, Kovacs K, Debinska A, Boznanski A, Strunz-Lehner C, Horak E, Cullinan P, Heederik D, Braun-Fahrländer C, von Mutius E; GABRIELA Study Group. The GABRIEL Advanced Surveys: study design, participation and evaluation of bias. *Paediatr Perinat Epidemiol.* 2011 Sep;25(5):436-47.
187. Loss G, Apprich S, Waser M, Kneifel W, Genuneit J, Büchele G, Weber J, Sozanska B, Danielewicz H, Horak E, van Neerven RJ, Heederik D, Lorenzen PC, von Mutius E, Braun-Fahrländer C; GABRIELA study group. The protective effect of farm milk consumption on childhood asthma and atopy: The GABRIELA study. *J Allergy Clin Immunol.* 2011 Oct;128(4):766-773.e4.
188. Flohr C, Nagel G, Weinmayr G, Kleiner A, Strachan DP, Williams HC; ISAAC Phase Two Study Group. Lack of evidence for a protective effect of prolonged breastfeeding on childhood eczema: lessons from the International Study of Asthma and Allergies in Childhood (ISAAC) Phase Two. *Br J Dermatol.* 2011 Dec;165(6):1280-9.
189. Kellberger J, Dressel H, Vogelberg C, Leupold W, Windstetter D, Weinmayr G, Genuneit J, Heumann C, Nowak D, von Mutius E, Radon K. Prediction of the incidence and persistence of allergic rhinitis in adolescence: A prospective cohort study. *J Allergy Clin Immunol.* 2012 Feb;129(2):397-402.e3.
190. Brunekreef B, Von Mutius E, Wong GK, Odhiambo JA, Clayton TO; the ISAAC Phase Three Study Group. Early life exposure to farm animals and symptoms of asthma, rhinoconjunctivitis and eczema: an ISAAC Phase Three Study. *Int J Epidemiol.* 2012 Jun;41(3):753-761.
191. Casaca VI, Illi S, Suttner K, Schleich I, Ballenberger N, Klucker E, Turan E, von Mutius E, Kabesch M, Schaub B. TBX21 and HLX1 Polymorphisms Influence Cytokine Secretion at Birth. *PLoS One.* 2012;7(1):e31069.

192. Ellwood P, Asher MI, Stewart AW, Aït-Khaled N, Mallol J, Strachan D; ISAAC Phase III Time Trends Study Group. The challenges of replicating the methodology between Phases I and III of the ISAAC programme. *Int J Tuberc Lung Dis.* 2012 May;16(5):687-93.
193. Holbreich M, Genuneit J, Weber J, Braun-Fahrländer C, Waser M, von Mutius E. Amish children living in northern Indiana have a very low prevalence of allergic sensitization. *J Allergy Clin Immunol.* 2012 Jun;129(6):1671-3.
194. Roduit C, Frei R, Loss G, Büchele G, Weber J, Depner M, Loeliger S, Dolphin ML, Roponen M, Hyvärinen A, Riedler J, Dolphin JC, Pekkanen J, von Mutius E, Braun-Fahrländer C, Lauener R; Protection Against Allergy—Study in Rural Environments study group. Development of atopic dermatitis according to age of onset and association with early-life exposures. *J Allergy Clin Immunol.* 2012 Jul;130(1):130-136.e5.
195. Illi S, Depner M, Genuneit J, Horak E, Loss G, Strunz-Lehner C, Büchele G, Boznanski A, Danielewicz H, Cullinan P, Heederik D, Braun-Fahrländer C, von Mutius E; GABRIELA Study Group. Protection from childhood asthma and allergy in Alpine farm environments—the GABRIEL Advanced Studies. *J Allergy Clin Immunol.* 2012 Jun;129(6):1470-7.e6.
196. Stöcklin L, Loss G, von Mutius E, Genuneit J, Horak E, Braun-Fahrländer C; on behalf of the GABRIELA study group. Health-related quality of life does not explain the protective effect of farming on allergies. *Pediatr Allergy Immunol.* 2012 Sep;23(6):519-521.
197. Mustonen K, Keski-Nisula L, Vaarala O, Pfefferle PI, Renz H, Riedler J, Dolphin JC, Buechele G, Lauener R, Braun-Fahrländer C, von Mutius E, Pekkanen J; the PASTURE Study Group. Few associations between high-sensitivity C-reactive protein and environmental factors in 4.5-year-old children. *Pediatr Allergy Immunol.* 2012 Sep;23(6):522-528.
198. Loss G, Apprich S, Kneifel W, von Mutius E, Genuneit J, Braun-Fahrländer C; GABRIEL Study Group. Short communication: appropriate and alternative methods to determine viable bacterial counts in cow milk samples. *J Dairy Sci.* 2012 Jun;95(6):2916-8.
199. Fuchs O, Genuneit J, Latzin P, Büchele G, Horak E, Loss G, Sozanska B, Weber J, Boznanski A, Heederik D, Braun-Fahrländer C, Frey U, von Mutius E; GABRIELA Study Group. Farming environments and childhood atopy, wheeze, lung function, and exhaled nitric oxide. *J Allergy Clin Immunol.* 2012 Aug;130(2):382-388.e6.
200. Karvonen AM, Hyvärinen A, Gehring U, Korppi M, Doeke G, Riedler J, Braun-Fahrländer C, Bitter S, Schmid S, Keski-Nisula L, Roponen M, Kaulek V, Dolphin JC, Pfefferle PI, Renz H, Büchele G, von Mutius E, Pekkanen J. Exposure to microbial agents in house dust and wheezing, atopic dermatitis and atopic sensitization in early childhood: a birth cohort study in rural areas. *Clin Exp Allergy.* 2012 Aug;42(8):1246-56.

201. Brunekreef B, Von Mutius E, Wong G, Odhiambo J, García-Marcos L, Foliaki S; The ISAAC Phase Three Study Group. Exposure to Cats and Dogs, and Symptoms of Asthma, Rhinoconjunctivitis, and Eczema. *Epidemiology*. 2012 Sep;23(5):742-750.
202. Loss G, Bitter S, Wohlgensinger J, Frei R, Roduit C, Genuneit J, Pekkanen J, Roponen M, Hirvonen MR, Dolphin JC, Dolphin ML, Riedler J, von Mutius E, Weber J, Kabesch M, Michel S, Braun-Fahrländer C, Lauener R; PASTURE study group. Prenatal and early-life exposures alter expression of innate immunity genes: The PASTURE cohort study. *J Allergy Clin Immunol*. 2012 Aug;130(2):523-530.e9.
203. Ballenberger N, Lluis A, von Mutius E, Illi S, Schaub B. Novel statistical approaches for non-normal censored immunological data: analysis of cytokine and gene expression data. *PLoS One*. 2012;7(10):e46423.
204. Toncheva AA, Suttner K, Michel S, Klopp N, Illig T, Balschun T, Vogelberg C, von Berg A, Buflé A, Heinemann A, Laub O, Rietschel E, Simma B, Frischer T, Genuneit J, von Mutius E, Kabesch M. Genetic variants in Protocadherin-1, bronchial hyperresponsiveness, and asthma subphenotypes in German children. *Pediatr Allergy Immunol*. 2012 Nov;23(7):636-41.
205. Nagel G, Weinmayr G, Flohr C, Kleiner A, Strachan DP; ISAAC Phase Two Study Group. Association of pertussis and measles infections and immunizations with asthma and allergic sensitization in ISAAC Phase Two. *Pediatr Allergy Immunol*. 2012 Dec;23(8):737-46.
206. Ege MJ, Mayer M, Schwaiger K, Mattes J, Pershagen G, van Hage M, Scheynius A, Bauer J, von Mutius E. Environmental bacteria and childhood asthma. *Allergy*. 2012 Dec;67(12):1565-71.
207. Rochat MK, Laubender RP, Kuster D, Braendli O, Moeller A, Mansmann U, von Mutius E, Wildhaber J. Spirometry reference equations for central European populations from school age to old age. *PLoS One*. 2013;8(1):e52619.
208. Acevedo N, Sääf A, Söderhäll C, Melén E, Mandelin J, Pietras CO, Ezer S, Karisola P, Vendelin J, Gennäs GB, Yli-Kauhaluoma J, Alenius H, von Mutius E, Doeke G, Braun-Fahrländer C, Riedler J, van Hage M, D'Amato M, Scheynius A, Pershagen G, Kere J, Pulkkinen V. Interaction between retinoid acid receptor-related orphan receptor alpha (RORA) and neuropeptide S receptor 1 (NPSR1) in asthma. *PLoS One*. 2013;8(4):e60111.
209. Mitchell EA, Beasley R, Björkstén B, Crane J, García-Marcos L, Keil U; ISAAC Phase Three Study Group. The association between BMI, vigorous physical activity and television viewing and the risk of symptoms of asthma, rhinoconjunctivitis and eczema in children and adolescents: ISAAC Phase Three. *Clin Exp Allergy*. 2013 Jan;43(1):73-84.
210. Raedler D, Illi S, Pinto LA, von Mutius E, Illig T, Kabesch M, Schaub B. IL10 polymorphisms influence neonatal immune responses, atopic dermatitis, and wheeze at age 3 years. *J Allergy Clin Immunol*. 2013 Mar;131(3):789-96.

211. Depner M, Ege MJ, Genuneit J, Pekkanen J, Roponen M, Hirvonen MR, Dolphin JC, Kaulek V, Krauss-Etschmann S, Riedler J, Braun-Fahrländer C, Roduit C, Lauener R, Pfefferle PI, Weber J, von Mutius E; PASTURE Study Group. Atopic sensitization in the first year of life. *J Allergy Clin Immunol*. 2013 Mar;131(3):781-8.
212. Michel S, Busato F, Genuneit J, Pekkanen J, Dolphin JC, Riedler J, Mazaleyrat N, Weber J, Karvonen AM, Hirvonen MR, Braun-Fahrländer C, Lauener R, von Mutius E, Kabesch M, Tost J; PASTURE study group. Farm exposure and time trends in early childhood may influence DNA methylation in genes related to asthma and allergy. *Allergy*. 2013 Mar;68(3):355-64.
213. Hagner S, Harb H, Zhao M, Stein K, Holst O, Ege MJ, Mayer M, Matthes J, Bauer J, von Mutius E, Renz H, Heine H, Pfefferle PI, Garn H. Farm-derived Gram-positive bacterium *Staphylococcus sciuri* W620 prevents asthma phenotype in HDM- and OVA-exposed mice. *Allergy*. 2013 Mar;68(3):322-9.
214. Mallol J, Crane J, von Mutius E, Odhiambo J, Keil U, Stewart A; ISAAC Phase Three Study Group. The International Study of Asthma and Allergies in Childhood (ISAAC) Phase Three: a global synthesis. *Allergol Immunopathol (Madr)*. 2013 Mar-Apr;41(2):73-85.
215. Ellwood P, Asher MI, García-Marcos L, Williams H, Keil U, Robertson C, Nagel G; ISAAC Phase III Study Group. Do fast foods cause asthma, rhinoconjunctivitis and eczema? Global findings from the International Study of Asthma and Allergies in Childhood (ISAAC) phase three. *Thorax*. 2013 Apr;68(4):351-60.
216. Genuneit J, Strachan DP, Büchele G, Weber J, Loss G, Sozanska B, Boznanski A, Horak E, Heederik D, Braun-Fahrländer C, von Mutius E; GABRIELA study group. The combined effects of family size and farm exposure on childhood hay fever and atopy. *Pediatr Allergy Immunol*. 2013 May;24(3):293-8.
217. Mustonen K, Orivuori L, Keski-Nisula L, Hyvärinen A, Pfefferle PI, Riedler J, Dolphin JC, Genuneit J, Lauener R, Roduit C, Braun-Fahrländer C, Weber J, Schaub B, von Mutius E, Pekkanen J, Vaarala O; PASTURE Study Group. Inflammatory response and IgE sensitization at early age. *Pediatr Allergy Immunol*. 2013 Jun;24(4):395-401.
218. Stöcklin L, Loss G, von Mutius E, Weber J, Genuneit J, Horak E, Sozanska B, Danielewicz H, Cullinan P, Heederick D, Braun-Fahrländer C; GABRIEL study group. Health-related quality of life in rural children living in four European countries: the GABRIEL study. *Int J Public Health*. 2013 Jun;58(3):355-66.
219. MacNeill SJ, Sozanska B, Danielewicz H, Debinska A, Kosmeda A, Boznanski A, Illi S, Depner M, Strunz-Lehner C, Waser M, Büchele G, Horak E, Genuneit J, Heederik D, Braun-Fahrländer C, von Mutius E, Cullinan P; GABRIELA study group. Asthma and allergies: is the farming environment (still) protective in Poland? The GABRIEL Advanced Studies. *Allergy*. 2013 Jun;68(6):771-9.

220. Weinmayr G, Gehring U, Genuneit J, Büchele G, Kleiner A, Siebers R, Wickens K, Crane J, Brunekreef B, Strachan DP; ISAAC Phase Two Study Group. Dampness and moulds in relation to respiratory and allergic symptoms in children: results from Phase Two of the International Study of Asthma and Allergies in Childhood (ISAAC Phase Two). *Clin Exp Allergy*. 2013 Jul;43(7):762-74.
221. Janke T, Schwaiger K, Ege M, Fahn C, von Mutius E, Bauer J, Mayer M. Analysis of the fungal flora in environmental dust samples by PCR-SSCP method. *Curr Microbiol*. 2013 Aug;67(2):156-69.
222. Bringolf-Isler B, Graf E, Waser M, Genuneit J, von Mutius E, Loss G, Kriemler S, Braun-Fahrländer C. Association of physical activity, asthma, and allergies: a cohort of farming and nonfarming children. *J Allergy Clin Immunol*. 2013 Sep;132(3):743-746.e4.
223. Casaca VI, Illi S, Klucker E, Ballenberger N, Schedel M, von Mutius E, Kabesch M, Schaub B. STAT6 polymorphisms are associated with neonatal regulatory T cells and cytokines and atopic diseases at 3 years. *Allergy*. 2013 Oct;68(10):1249-58.
224. Orivuori L, Loss G, Roduit C, Dolphin JC, Depner M, Genuneit J, Lauener R, Pekkanen J, Pfefferle P, Riedler J, Roponen M, Weber J, von Mutius E, Braun-Fahrländer C, Vaarala O; PASTURE Study Group. Soluble immunoglobulin A in breast milk is inversely associated with atopic dermatitis at early age: the PASTURE cohort study. *Clin Exp Allergy*. 2014 Jan;44(1):102-12.
225. Nwaru BI, Virtanen SM, Alfthan G, Karvonen AM, Genuneit J, Lauener RP, Dolphin JC, Hyvärinen A, Pfefferle P, Riedler J, Weber J, Roduit C, Kaulek V, Braun-Fahrländer C, von Mutius E, Pekkanen J; PASTURE study group. Serum vitamin E concentrations at 1 year and risk of atopy, atopic dermatitis, wheezing, and asthma in childhood: the PASTURE study. *Allergy*. 2014 Jan;69(1):87-94.
226. Depner M, Fuchs O, Genuneit J, Karvonen AM, Hyvärinen A, Kaulek V, Roduit C, Weber J, Schaub B, Lauener R, Kabesch M, Pfefferle PI, Frey U, Pekkanen J, Dolphin JC, Riedler J, Braun-Fahrländer C, von Mutius E, Ege MJ; PASTURE Study Group. Clinical and epidemiologic phenotypes of childhood asthma. *Am J Respir Crit Care Med*. 2014 Jan 15;189(2):129-38.
227. Lluis A, Depner M, Gaugler B, Saas P, Casaca VI, Raedler D, Michel S, Tost J, Liu J, Genuneit J, Pfefferle P, Roponen M, Weber J, Braun-Fahrländer C, Riedler J, Lauener R, Vuitton DA, Dolphin JC, Pekkanen J, von Mutius E, Schaub B; Protection Against Allergy: Study in Rural Environments Study Group. Increased regulatory T-cell numbers are associated with farm milk exposure and lower atopic sensitization and asthma in childhood. *J Allergy Clin Immunol*. 2014 Feb;133(2):551-559.e10.
228. Illi S, Weber J, Zutavern A, Genuneit J, Schierl R, Strunz-Lehner C, von Mutius E. Perinatal influences on the development of asthma and atopy in childhood. *Ann Allergy Asthma Immunol*. 2014 Feb;112(2):132-139.e1

229. Frei R, Roduit C, Bieli C, Loeliger S, Waser M, Scheynius A, van Hage M, Pershagen G, Doekes G, Riedler J, von Mutius E, Sennhauser F, Akdis CA, Braun-Fahrländer C, Lauener RP; as part of the PARSIFAL study team. Expression of genes related to anti-inflammatory pathways are modified among farmers' children. *PLoS One*. 2014 Mar 6;9(3):e91097.
230. Lluis A, Ballenberger N, Illi S, Schieck M, Kabesch M, Illig T, Schleich I, von Mutius E, Schaub B. Regulation of TH17 markers early in life through maternal farm exposure. *J Allergy Clin Immunol*. 2014 Mar;133(3):864-71.
231. Scholtens S, Postma DS, Moffatt MF, Panasevich S, Granell R, Henderson AJ, Melén E, Nyberg F, Pershagen G, Jarvis D, Ramasamy A, Wjst M, Svanes C, Bouzigon E, Demenais F, Kauffmann F, Siroux V, von Mutius E, Ege MJ, Braun-Fahrländer C, Genuneit J; GABRIELA study group, Brunekreef B, Smit HA, Wijga AH, Kerkhof M, Curjuric I, Imboden M, Thun GA, Probst-Hensch N, Freidin MB, Bragina Elu, Deev IA, Puzyrev VP, Daley D, Park J, Becker A, Chan-Yeung M, Kozyrskyj AL, Pare P, Marenholz I, Lau S, Keil T, Lee YA, Kabesch M, Wijmenga C, Franke L, Nolte IM, Vonk J, Kumar A, Farrall M, Cookson WO, Strachan DP, Koppelman GH, Boezen HM. Novel childhood asthma genes interact with in utero and early-life tobacco smoke exposure. *J Allergy Clin Immunol*. 2014 Mar;133(3):885-8.
232. Haahtela T, Burbach GJ, Bachert C, Bindslev-Jensen C, Bonini S, Bousquet J, Bousquet-Rouanet L, Bousquet PJ, Bresciani M, Bruno A, Canonica GW, Darsow U, Demoly P, Durham SR, Fokkens WJ, Giavi S, Gjomarkaj M, Gramiccioni C, Kowalski ML, Losonczy G, Orosz M, Papadopoulos NG, Stingl G, Todo-Bom A, von Mutius E, Köhli A, Wöhrl S, Järvenpää S, Kautiainen H, Petman L, Selroos O, Zuberbier T, Heinzerling LM. Clinical relevance is associated with allergen-specific wheal size in skin prick testing. *Clin Exp Allergy*. 2014 Mar;44(3):407-16.
233. Roduit C, Frei R, Depner M, Schaub B, Loss G, Genuneit J, Pfefferle P, Hyvärinen A, Karvonen AM, Riedler J, Dalphin JC, Pekkanen J, von Mutius E, Braun-Fahrländer C, Lauener R; the PASTURE study group. Increased food diversity in the first year of life is inversely associated with allergic diseases. *J Allergy Clin Immunol*. 2014 Apr;133(4):1056-64.
234. Böcking C, Harb H, Ege MJ, Zehethofer N, Fischer K, Krauß J, Holst O, Nüsing RM, Lindner B, von Mutius E, Renz H, Garn H, Pfefferle PI. Bioavailability and allergoprotective capacity of milk-associated conjugated linoleic acid in a murine model of allergic airway inflammation. *Int Arch Allergy Immunol*. 2014;163(3):234-42
235. Mitchell EA, Clayton T, García-Marcos L, Pearce N, Foliaki S, Wong G; ISAAC Phase Three Study Group. Birthweight and the risk of atopic diseases: the ISAAC Phase III study. *Pediatr Allergy Immunol*. 2014 May;25(3):264-70.
236. Leppänen HK, Nevalainen A, Vepsäläinen A, Roponen M, Täubel M, Laine O, Rantakokko P, von Mutius E, Pekkanen J, Hyvärinen A. Determinants, reproducibility, and seasonal variation of ergosterol levels in house dust. *Indoor Air*. 2014 Jun;24(3):248-59. Erratum in: *Indoor Air*. 2020 May;30(3):553.

237. Orivuori L, Mustonen K, Roduit C, Braun-Fahrländer C, Dolphin JC, Genuneit J, Lauener R, Pfefferle P, Riedler J, Weber J, von Mutius E, Pekkanen J, Vaarala O; PASTURE Study Group. Immunoglobulin A and immunoglobulin G antibodies against β -lactoglobulin and gliadin at age 1 associate with immunoglobulin E sensitization at age 6. *Pediatr Allergy Immunol*. 2014 Jun;25(4):329-37.
238. Karvonen AM, Hyvärinen A, Rintala H, Korppi M, Täubel M, Doekes G, Gehring U, Renz H, Pfefferle PI, Genuneit J, Keski-Nisula L, Remes S, Lampi J, von Mutius E, Pekkanen J. Quantity and diversity of environmental microbial exposure and development of asthma: a birth cohort study. *Allergy*. 2014 Aug;69(8):1092-101
239. Kellberger J, Peters-Weist AS, Heinrich S, Pfeiffer S, Vogelberg C, Roller D, Genuneit J, Weinmayr G, von Mutius E, Heumann C, Nowak D, Radon K. Predictors of work-related sensitisation, allergic rhinitis and asthma in early work life. *Eur Respir J*. 2014 Sep;44(3):657-65.
240. Horak E, Morass B, Ulmer H, Genuneit J, Braun-Fahrländer C, von Mutius E; GABRIEL Study Group. Prevalence of wheezing and atopic diseases in Austrian schoolchildren in conjunction with urban, rural or farm residence. *Wien Klin Wochenschr*. 2014 Sep;126(17-18):532-6
241. Fuerstes E, Butland BK, Ross Anderson H, Carlsten C, Strachan DP, Brauer M; ISAAC Phase Three Study Group. Childhood intermittent and persistent rhinitis prevalence and climate and vegetation: a global ecologic analysis. *Ann Allergy Asthma Immunol*. 2014 Oct;113(4):386-92.e9.
242. Kreißl S, Radon K, Dressel H, Genuneit J, Kellberger J, Nowak D, von Mutius E, Weiland SK, Weinmayr G, Windstetter D, Vogelberg C. Body mass index change and atopic diseases are not always associated in children and adolescents. *Ann Allergy Asthma Immunol*. 2014 Oct;113(4):440-4.e1
243. Raedler D, Ballenberger N, Klucker E, Böck A, Otto R, Prazeres da Costa O, Holst O, Illig T, Buch T, von Mutius E, Schaub B. Identification of novel immune phenotypes for allergic and nonallergic childhood asthma. *J Allergy Clin Immunol*. 2015 Jan;135(1):81-91.
244. Kallionpää H, Laajala E, Öling V, Härkönen T, Tillmann V, Dorshakova NV, Ilonen J, Lähdesmäki H, Knip M, Lahesmaa R; DIABIMMUNE Study Group. Standard of hygiene and immune adaptation in newborn infants. *Clin Immunol*. 2014 Nov;155(1):136-47.
245. Loss G, Depner M, Ulfman LH, van Neerven RJ, Hose AJ, Genuneit J, Karvonen AM, Hyvärinen A, Kaulek V, Roduit C, Weber J, Lauener R, Pfefferle PI, Pekkanen J, Vaarala O, Dolphin JC, Riedler J, Braun-Fahrländer C, von Mutius E, Ege MJ; PASTURE study group. Consumption of unprocessed cow's milk protects infants from common respiratory infections. *J Allergy Clin Immunol*. 2015 Jan;135(1):56-62.e2.

246. Reinert-Hartwall L, Honkanen J, Salo HM, Nieminen JK, Luopajarvi K, Harkonen T, Veijola R, Simell O, Ilonen J, Peet A, Tillmann V, Knip M, Vaarala O; DIABIMMUNE Study Group; DIABIMMUNE Study Group. Th1/Th17 Plasticity Is a Marker of Advanced β Cell Autoimmunity and Impaired Glucose Tolerance in Humans. *J Immunol.* 2015 Jan 1;194(1):68-75.
247. Braithwaite I, Stewart AW, Hancox RJ, Beasley R, Murphy R, Mitchell EA; ISAAC Phase Three Study Group; ISAAC Phase Three Study Group. Fast-food consumption and body mass index in children and adolescents: an international cross-sectional study. *BMJ Open.* 2014 Dec 8;4(12):e005813.
248. Weber J, Illi S, Nowak D, Schierl R, Holst O, von Mutius E, Ege MJ. Asthma and the hygiene hypothesis. Does cleanliness matter? *Am J Respir Crit Care Med.* 2015 Mar 1;191(5):522-9.
249. Kostic AD, Gevers D, Siljander H, Vatanen T, Hyötyläinen T, Hämäläinen AM, Peet A, Tillmann V, Pöhö P, Mattila I, Lähdesmäki H, Franzosa EA, Vaarala O, de Goffau M, Harmsen H, Ilonen J, Virtanen SM, Clish CB, Orešič M, Huttenhower C, Knip M; DIABIMMUNE Study Group, Xavier RJ. The dynamics of the human infant gut microbiome in development and in progression toward type 1 diabetes. *Cell Host Microbe.* 2015 Feb 11;17(2):260-73.
250. Orivuori L, Mustonen K, de Goffau MC, Hakala S, Paasela M, Roduit C, Dolphin JC, Genuneit J, Lauener R, Riedler J, Weber J, von Mutius E, Pekkanen J, Harmsen HJ, Vaarala O; PASTURE Study Group. High level of fecal calprotectin at age 2 months as a marker of intestinal inflammation predicts atopic dermatitis and asthma by age 6. *Clin Exp Allergy.* 2015 May;45(5):928-39.
251. von Hertzen L, Beutler B, Bienenstock J, Blaser M, Cani PD, Eriksson J, Färkkilä M, Haahtela T, Hanski I, Jenmalm MC, Kere J, Knip M, Kontula K, Koskenvuo M, Ling C, Mandrup-Poulsen T, von Mutius E, Mäkelä MJ, Paunio T, Pershagen G, Renz H, Rook G, Saarela M, Vaarala O, Veldhoen M, de Vos WM. Helsinki alert of biodiversity and health. *Ann Med.* 2015 May;47(3):218-25.
252. Leppänen HK, Täubel M, Roponen M, Vepsäläinen A, Rantakokko P, Pekkanen J, Nevalainen A, von Mutius E, Hyvärinen A. Determinants, reproducibility, and seasonal variation of bacterial cell wall components and viable counts in house dust. *Indoor Air.* 2015 Jun;25(3):260-72.
253. Valkonen M, Wouters IM, Täubel M, Rintala H, Lenters V, Vasara R, Genuneit J, Braun-Fahrländer C, Piarroux R, von Mutius E, Heederik D, Hyvärinen A. Bacterial Exposures and Associations with Atopy and Asthma in Children. *PLoS One.* 2015 Jun 29;10(6):e0131594.
254. Wei J, Gerlich J, Genuneit J, Nowak D, Vogelberg C, von Mutius E, Radon K. Hormonal factors and incident asthma and allergic rhinitis during puberty in girls. *Ann Allergy Asthma Immunol.* 2015 Jul;115(1):21-27.e2.

255. Peet A, Hämäläinen AM, Kool P, Ilonen J, Knip M, Tillmann V; DIABIMMUNE Study Group. Circulating IGF1 and IGFBP3 in relation to the development of β-cell autoimmunity in young children. *Eur J Endocrinol*. 2015 Aug;173(2):129-37.
256. Hancox RJ, Stewart AW, Braithwaite I, Beasley R, Murphy R, Mitchell EA; ISAAC Phase Three Study Group. Association between breastfeeding and body mass index at age 6-7 years in an international survey. *Pediatr Obes*. 2015 Aug;10(4):283-7.
257. Schuijs MJ, Willart MA, Vergote K, Gras D, Deswarre K, Ege MJ, Madeira FB, Beyaert R, van Loo G, Bracher F, von Mutius E, Chanez P, Lambrecht BN, Hammad H. Farm dust and endotoxin protect against allergy through A20 induction in lung epithelial cells. *Science*. 2015 Sep 4;349(6252):1106-10.
258. Martikainen MV, Kääriö H, Karvonen A, Schröder PC, Renz H, Kaulek V, Dalphin JC, von Mutius E, Schaub B, Pekkanen J, Hirvonen MR, Roponen M. Farm exposures are associated with lower percentage of circulating myeloid dendritic cell subtype 2 at age 6. *Allergy*. 2015 Oct;70(10):1278-87.
259. Subbarao P, Anand SS, Becker AB, Befus AD, Brauer M, Brook JR, Denburg JA, HayGlass KT, Kobor MS, Kollmann TR, Kozyrskyj AL, Lou WY, Mandhane PJ, Miller GE, Moraes TJ, Pare PD, Scott JA, Takaro TK, Turvey SE, Duncan JM, Lefebvre DL, Sears MR; CHILD Study investigators. The Canadian Healthy Infant Longitudinal Development (CHILD) Study: examining developmental origins of allergy and asthma. *Thorax*. 2015 Oct;70(10):998-1000.
260. Weinmann T, Gerlich J, Heinrich S, Nowak D, Gerdes J, Schlichtiger J, von Mutius E, Schaub B, Vogelberg C, Roller D, Radon K. Establishing a birth cohort to investigate the course and aetiology of asthma and allergies across three generations - rationale, design, and methods of the ACROSSOLAR study. *BMC Public Health*. 2015 Dec 4;15(1):1210.
261. Kääriö H, Nieminen JK, Karvonen AM, Huttunen K, Schröder PC, Vaarala O, von Mutius E, Pfefferle PI, Schaub B, Pekkanen J, Hirvonen MR, Roponen M. Circulating Dendritic Cells, Farm Exposure and Asthma at Early Age. *Scand J Immunol*. 2016 Jan;83(1):18-25
262. Kääriö H, Huttunen K, Karvonen AM, Schaub B, von Mutius E, Pekkanen J, Hirvonen MR, Roponen M. Exposure to a farm environment is associated with T helper 1 and regulatory cytokines at age 4.5 years. *Clin Exp Allergy*. 2016 Jan;46(1):71-7.
263. Gozdz J, Holbreich M, Metwali N, Thorne PS, Sperling AI, Martinez FD, Ober C, von Mutius E, Vercelli D. Amish and Hutterite Environmental Farm Products Have Opposite Effects on Experimental Models of Asthma. *Ann Am Thorac Soc*. 2016 Mar;13 Suppl 1:S99.
264. Wei J, Gerlich J, Vogelberg C, von Mutius E, Windstetter D, Genuneit J, Weinmayr G, Nowak D, Radon K. Do young adults with atopic dermatitis avoid harmful

- workplace exposure at their first job? A prospective cohort study. *Int Arch Occup Environ Health.* 2016 Apr;89(3):397-406.
265. Sarnowski C, Sugier PE, Granell R, Jarvis D, Dizier MH, Ege M, Imboden M, Laprise C, Khusnutdinova EK, Freidin MB, Cookson WO, Moffatt M, Lathrop M, Siroux V, Ogorodova LM, Karunas AS, James A, Probst-Hensch NM, von Mutius E, Pin I, Kogevinas M, Henderson AJ, Demenais F, Bouzigon E. Identification of a new locus at 16q12 associated with time to asthma onset. *J Allergy Clin Immunol.* 2016 Apr 6. pii: S0091-6749(16)30016-1.
 266. Loss GJ, Depner M, Hose AJ, Genuneit J, Karvonen AM, Hyvärinen A, Roduit C, Kabesch M, Lauener R, Pfefferle PI, Pekkanen J, Dolphin JC, Riedler J, Braun-Fahrländer C, von Mutius E, Ege MJ; PASTURE (Protection against Allergy Study in Rural Environments) Study Group. The Early Development of Wheeze. Environmental Determinants and Genetic Susceptibility at 17q21. *Am J Respir Crit Care Med.* 2016 Apr 15;193(8):889-97.
 267. Kirchner B, Pfaffl MW, Dumpler J, von Mutius E, Ege MJ. microRNA in native and processed cow's milk and its implication for the farm milk effect on asthma. *J Allergy Clin Immunol.* 2016 Jun;137(6):1893-1895.e13.
 268. Brick T, Schober Y, Böcking C, Pekkanen J, Genuneit J, Loss G, Dolphin JC, Riedler J, Lauener R, Nockher WA, Renz H, Vaarala O, Braun-Fahrländer C, von Mutius E, Ege MJ, Pfefferle PI; PASTURE study group. ω-3 fatty acids contribute to the asthma-protective effect of unprocessed cow's milk. *J Allergy Clin Immunol.* 2016 Jun;137(6):1699-1706.e13.
 269. de Jong SE, Selman MH, Adegnika AA, Amoah AS, van Riet E, Kruize YC, Raynes JG, Rodriguez A, Boakye D, von Mutius E, Knulst AC, Genuneit J, Cooper PJ, Hokke CH, Wuhrer M, Yazdanbakhsh M. IgG1 Fc N-glycan galactosylation as a biomarker for immune activation. *Sci Rep.* 2016 Jun 16;6:28207.
 270. Weber A, Herr C, Hendrowarsito L, Meyer N, Nennstiel-Ratzel U, von Mutius E, Bolte G, Colon D, Kolb S; GME Study Group. No further increase in the parent reported prevalence of allergies in Bavarian preschool children: Results from three cross-sectional studies. *Int J Hyg Environ Health.* 2016 Jul;219(4-5):343-8.
 271. Stein MM, Hrusch CL, Gozdz J, Igartua C, Pivniouk V, Murray SE, Ledford JG, Marques dos Santos M, Anderson RL, Metwali N, Neilson JW, Maier RM, Gilbert JA, Holbreich M, Thorne PS, Martinez FD, von Mutius E, Vercelli D, Ober C, Sperling AI. Innate Immunity and Asthma Risk in Amish and Hutterite Farm Children. *N Engl J Med.* 2016 Aug 4;375(5):411-21.
 272. Chauveau A, Dolphin ML, Kaulek V, Roduit C, Pugin A, von Mutius E, Vuitton DA, Dolphin JC. Disagreement between Skin Prick Tests and Specific IgE in Early Childhood. *Int Arch Allergy Immunol.* 2016;170(2):69-74.
 273. Schröder PC, Casaca VI, Illi S, Schieck M, Michel S, Böck A, Roduit C, Frei R, Lluis A, Genuneit J, Pfefferle P, Roponen M, Weber J, Braun-Fahrländer C, Riedler J,

- Lauener R, Vuitton DA, Dolphin JC, Pekkanen J, von Mutius E, Kabesch M, Schaub B; PASTURE Study group. IL-33 polymorphisms are associated with increased risk of hay fever and reduced regulatory T cells in a birth cohort. *Pediatr Allergy Immunol*. 2016 Nov;27(7):687-695.
274. Simre K, Uibo O, Peet A, Tillmann V, Kool P, Hämäläinen AM, Härkönen T, Siljander H, Virtanen S, Ilonen J, Knip M, Uibo R; DIABIMMUNE Study Group. Exploring the risk factors for differences in the cumulative incidence of coeliac disease in two neighboring countries: the prospective DIABIMMUNE study. *Dig Liver Dis*. 2016 Nov;48(11):1296-1301
275. Birzele LT, Depner M, Ege MJ, Engel M, Kublik S, Bernau C, Loss GJ, Genuneit J, Horak E, Schloter M, Braun-Fahrländer C, Danielewicz H, Heederik D, von Mutius E, Legatzki A. Environmental and mucosal microbiota and their role in childhood asthma. *Allergy*. 2017 Jan;72(1):109-119.
276. Mueller-Rompa S, Janke T, Schwaiger K, Mayer M, Bauer J, Genuneit J, Braun-Fahrländer C, Horak E, Boznanski A, von Mutius E, Ege MJ; GABRIELA study group. Identification of fungal candidates for asthma protection in a large population-based study. *Pediatr Allergy Immunol*. 2017 Feb;28(1):72-78.
277. Bergroth E, Roponen M, Karvonen AM, Keski-Nisula L, Remes S, Riedler J, Roduit C, Dolphin 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. Enhanced T helper 1 and 2 cytokine responses at birth associate with lower risk of middle ear infections in infancy. *Pediatr Allergy Immunol*. 2017 Feb;28(1):53-59.
278. Boutin S, Depner M, Stahl M, Graeber SY, Dittrich SA, Legatzki A, von Mutius E, Mall M, Dalpke AH. Comparison of Oropharyngeal Microbiota from Children with Asthma and Cystic Fibrosis. *Mediators Inflamm*. 2017;2017:5047403.
279. Depner M, Ege MJ, Cox MJ, Dwyer S, Walker AW, Birzele LT, Genuneit J, Horak E, Braun-Fahrländer C, Danielewicz H, Maier RM, Moffatt MF, Cookson WO, Heederik D, von Mutius E, Legatzki A. Bacterial microbiota of the upper respiratory tract and childhood asthma. *J Allergy Clin Immunol*. 2017 Mar;139(3):826-834.e13.
280. Schröder PC, Illi S, Casaca VI, Lluis A, Böck A, Roduit C, Depner M, Frei R, Genuneit J, Pfefferle PI, Roponen M, Weber J, Braun-Fahrländer C, Riedler J, Dolphin JC, Pekkanen J, Lauener R, von Mutius E, Schaub B; PASTURE study group. A switch in regulatory T cells through farm exposure during immune maturation in childhood. *Allergy*. 2017 Apr;72(4):604-615.
281. van den Bruck R, Weil PP, Ziegenhals T, Schreiner P, Juranek S, Gödde D, Vogel S, Schuster F, Orth V, Dörner J, Pembaur D, Röper M, Störkel S, Zirngibl H, Wirth S, Jenke ACW, Postberg J, Boy N, Heringer J, Haege G, Glahn EM, Hoffmann GF, Garbade SF, Burgard P, Kölker S, Chao CM, Yahya F, Moiseenko A, Shrestha A, Ahmadvand N, Quantius J, Wilhelm J, El-Agha E, Zimmer KP, Bellusci S, Staufner C,

Kölker S, Prokisch H, Hoffmann GF, Seeliger S, Müller M, Hippe A, Steinkraus H, Wauer R, Lachmann B, Hofmann SR, Hedrich CM, Zierk J, Arzideh F, Haeckel R, Rascher W, Rauh M, Metzler M, Thieme S, Bandoła J, Richter C, Ryser M, Jamal A, Ashton MP, von Bonin M, Kuhn M, Hedrich CM, Bonifacio E, Berner R, Brenner S, Hammersen J, Has C, Naumann-Bartsch N, Stachel D, Kiritsi D, Söder S, Tardieu M, Metzler M, Bruckner-Tuderman L, Schneider H, Bohne F, Langer D, Cencic R, Eggermann T, Zechner U, Pelletier J, Zepp F, Enklaar T, Prawitt D, Pech M, Weckmann M, Heinsen FA, Franke A, Happle C, Dittrich AM, Hansen G, Fuchs O, von Mutius E, Oliver BG, Kopp MV, Paret C, Russo A, Theruvath J, Keller B, El Malki K, Lehmann N, Wingerter A, Neu MA, Aslihan GA, Wagner W, Sommer C, Pietsch T, Seidmann L, Faber J, Schreiner F, Ackermann M, Michalik M, Rother E, Bilkei-Gorzo A, Racz I, Bindila L, Lutz B, Dötsch J, Zimmer A, Woelfle J, Fischer HS, Ullrich TL, Bührer C, Czernik C, Schmalisch G, Stein R, Hofmann SR, Hagenbuchner J, Kiechl-Kohlendorfer U, Obexer P, Ausserlechner MJ, Loges NT, Frommer AT, Wallmeier J, Omran H, Öner-Sieben S, Gimpfl M, Rozman J, Irmler M, Beckers J, De Angelis MH, Roscher A, Wolf E, Ensenauer R, Nemes K, Frühwald M, Hasselblatt M, Siebert R, Kordes U, Kool M, Wang H, Hardy H, Refai O, Barwick KES, Zimmerman HH, Weis J, Baple EL, Crosby AH, Cirak S, Hellmuth C, Uhl O, Standl M, Heinrich J, Thiering E, Koletzko B, Blümel L, Kerl K, Picard D, Frühwald MC, Liebau MC, Reifenberger G, Borkhardt A, Hasselblatt M, Remke M, Tews D, Wabitsch M, Fischer-Posovszky P, Westhoff MA, Nonnenmacher L, Langhans J, Schneele L, Trenkler N, Debatin KM. Abstracts of the 52nd Workshop for Pediatric Research : Frankfurt, Germany. 27-28 October 2016. Mol Cell Pediatr. 2017 May;4(Suppl 1):5.

282. 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, Dolphin JC, Riedler J, Pekkanen J, von Mutius E, Ege MJ; MAS.; PASTURE study groups. Latent class analysis reveals clinically relevant atopy phenotypes in 2 birth cohorts. *J Allergy Clin Immunol.* 2017 Jun;139(6):1935-1945.e12.
283. Roduit C, Frei R, Depner M, Karvonen AM, Renz H, Braun-Fahrländer C, Schmausser-Hechfellner E, Pekkanen J, Riedler J, Dolphin JC, von Mutius E, Lauener RP; and the PASTURE study group, Hyväriinen A, Kirjavainen P, Remes S, Roponen M, Dolphin ML, Kaulek V, Ege M, Genuneit J, Illi S, Kabesch M, Schaub B, Pfefferle PI, Doeke G. Phenotypes of Atopic Dermatitis Depending on the Timing of Onset and Progression in Childhood. *JAMA Pediatr.* 2017 Jul 1;171(7):655-662.
284. Braithwaite IE, Stewart AW, Hancox RJ, Murphy R, Wall CR, Beasley R, Mitchell EA; ISAAC Phase Three Study Group. Body mass index and vigorous physical activity in children and adolescents: an international cross-sectional study. *Acta Paediatr.* 2017 Aug;106(8):1323-1330.
285. Brick T, Ege M, Boeren S, Böck A, von Mutius E, Vervoort J, Hettinga K. Effect of Processing Intensity on Immunologically Active Bovine Milk Serum Proteins. *Nutrients.* 2017 Aug 31;9(9). pii: E963.
286. Chauveau A, Dolphin 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, Dolphin JC; PASTURE Study Group. Skin prick tests and specific IgE in 10-year-old children: Agreement and association with allergic diseases. *Allergy*. 2017 Sep;72(9):1365-1373.
287. Twardziok M, Schröder PC, Krusche J, Casaca VI, Illi S, Böck A, Loss GJ, Kabesch M, Toncheva AA, Roduit C, Depner M, Genuneit J, Renz H, Roponen M, Weber J, Braun-Fahrlander C, Riedler J, Lauener R, Vuitton DA, Dolphin JC, Pekkanen J, von Mutius E, Schaub B; PASTURE Study Group; Hyvärinen A, Karvonen AM, Kirjavainen PV, Remes S, Kaulek V, Dolphin ML, Ege M, Pfefferle PI, Doeke G. Asthmatic farm children show increased CD3(+)CD8(low) T-cells compared to non-asthmatic farm children. *Clin Immunol*. 2017 Oct;183:285-292.
288. Herrera R, Berger U, Genuneit J, Gerlich J, Nowak D, Schlotz W, Vogelberg C, von Mutius E, Weinmayr G, Windstetter D, Weigl M, Radon K. Chronic Stress in Young German Adults: Who Is Affected? A Prospective Cohort Study. *Int J Environ Res Public Health*. 2017 Oct 31;14(11):1325. doi: 10.3390/ijerph14111325. PMID: 29088088; PMCID: PMC5707964.
289. Weber A, Fuchs N, Kutzora S, Hendrowarsito L, Nennstiel-Ratzel U, von Mutius E, Herr C, Heinze S; GME Study Group. Exploring the associations between parent-reported biological indoor environment and airway-related symptoms and allergic diseases in children. *Int J Hyg Environ Health*. 2017 Nov;220(8):1333-1339.
290. Demenais F, Margaritte-Jeannin P, Barnes KC, Cookson WOC, Altmüller J, Ang W, Barr RG, Beaty TH, Becker AB, Beilby J, Bisgaard H, Bjornsdottir US, Bleeker E, Bønnelykke K, Boomsma DI, Bouzigon E, Brightling CE, Brossard M, Brusselle GG, Burchard E, Burkart KM, Bush A, Chan-Yeung M, Chung KF, Couto Alves A, Curtin JA, Custovic A, Daley D, de Jongste JC, Del-Rio-Navarro BE, Donohue KM, Duijts L, Eng C, Eriksson JG, Farrall M, Fedorova Y, Feenstra B, Ferreira MA; Australian Asthma Genetics Consortium (AAGC) collaborators, Freidin MB, Gajdos Z, Gauderman J, Gehring U, Geller F, Genuneit J, Gharib SA, Gilliland F, Granell R, Graves PE, Gudbjartsson DF, Haahtela T, Heckbert SR, Heederik D, Heinrich J, Heliövaara M, Henderson J, Himes BE, Hirose H, Hirschhorn JN, Hofman A, Holt P, Hottenga J, Hudson TJ, Hui J, Imboden M, Ivanov V, Jaddoe VWV, James A, Janson C, Jarvelin MR, Jarvis D, Jones G, Jonsdottir I, Jousilahti P, Kabesch M, Kähönen M, Kantor DB, Karunas AS, Khusnutdinova E, Koppelman GH, Kozyrskyj AL, Kreiner E, Kubo M, Kumar R, Kumar A, Kuokkanen M, Lahousse L, Laitinen T, Laprise C, Lathrop M, Lau S, Lee YA, Lehtimäki T, Letort S, Levin AM, Li G, Liang L, Loehr LR, London SJ, Loth DW, Manichaikul A, Marenholz I, Martinez FJ, Matheson MC, Mathias RA, Matsumoto K, Mbarek H, McArdle WL, Melbye M, Melén E, Meyers D, Michel S, Mohamdi H, Musk AW, Myers RA, Nieuwenhuis MAE, Noguchi E, O'Connor GT, Ogorodova LM, Palmer CD, Palotie A, Park JE, Pennell CE, Pershagen G, Polonikov A, Postma DS, Probst-Hensch N, Puzyrev VP, Raby BA, Raitakari OT, Ramasamy A, Rich SS, Robertson CF, Romieu I, Salam MT, Salomaa V, Schlünssen V, Scott R, Selivanova PA, Sigsgaard T, Simpson A, Siroux V, Smith LJ, Solodilova M, Standl M, Stefansson K, Strachan DP, Stricker BH, Takahashi A, Thompson PJ, Thorleifsson G, Thorsteinsdottir U, Tiesler CMT, Torgerson DG, Tsunoda T, Uitterlinden AG, van der Valk RJP, Vaysse A, Vedantam S, von Berg A, von Mutius

- E, Vonk JM, Waage J, Wareham NJ, Weiss ST, White WB, Wickman M, Widén E, Willemsen G, Williams LK, Wouters IM, Yang JJ, Zhao JH, Moffatt MF, Ober C, Nicolae DL. Multiancestry association study identifies new asthma risk loci that colocalize with immune-cell enhancer marks. *Nat Genet.* 2018 Jan;50(1):42-53.
291. Frei R, Ferstl R, Roduit C, Dipl-Ing MZ, 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, Dolphin JC, van Hage M, Doeke G, Akdis M, Braun-Fahrländer C, Akdis CA, von Mutius E, O'Mahony L, Lauener RP; PARISFAL; PASTURE/EFRAIM; study groups. Exposure to non-microbial N-Glycolylneuraminic acid protects farmers' children against airway inflammation and colitis. *J Allergy Clin Immunol.* 2018 Jan;141(1):382-390.e7.
292. Landgraf-Rauf K, Boeck A, Siemens D, Klucker E, Vogelsang V, Schmidt S, Kunze S, Weissenbacher C, Graessel A, Schmidt-Weber C, von Mutius E, Schedel M, Schaub B. IRF-1 SNPs influence the risk for childhood allergic asthma: A critical role for pro-inflammatory immune regulation. *Pediatr Allergy Immunol.* 2018 Feb;29(1):34-41.
293. Kutzora S, Weber A, Heinze S, Hendrowarsito L, Nennstiel-Ratzel U, von Mutius E, Fuchs N, Herr C; GME Study Group. Asthmatic/wheezing phenotypes in preschool children: Influential factors, health care and urban-rural differences. *Int J Hyg Environ Health.* 2018 Mar;221(2):293-299.
294. Renz H, Adkins BD, Bartfeld S, Blumberg RS, Farber DL, Garssen J, Ghazal P, Hackam DJ, Marsland BJ, McCoy KD, Penders J, Prinz I, Verhasselt V, von Mutius E, Weiser JN, Wesemann DR, Hornef MW. The neonatal window of opportunity-early priming for life. *J Allergy Clin Immunol.* 2018 Apr;141(4):1212-1214.
295. Müller-Rompa SEK, Markevych I, Hose AJ, Loss G, Wouters IM, Genuneit J, Braun-Fahrländer C, Horak E, Boznanski A, Heederik D, von Mutius E, Heinrich J, Ege MJ; GABRIELA Study Group. An approach to the asthma-protective farm effect by geocoding: Good farms and better farms. *Pediatr Allergy Immunol.* 2018 May;29(3):275-282.
296. van der Vlugt LEPM, Eger K, Müller C, Ninaber DK, Zarcone MC, Amatngalim GD, Bracher F, von Mutius E, Smits HH, Hiemstra PS. Farm dust reduces viral load in human bronchial epithelial cells by increasing barrier function and antiviral responses. *J Allergy Clin Immunol.* 2018 May;141(5):1949-1952.e8.
297. Karvonen AM, Tischer C, Kirjavainen PV, Roponen M, Hyvänen A, Illi S, Mustonen K, Pfefferle PI, Renz H, Remes S, Schaub B, von Mutius E, Pekkanen J. Early age exposure to moisture damage and systemic inflammation at the age of 6 years. *Indoor Air.* 2018 May;28(3):450-458.
298. Gerlich J, Benecke N, Peters-Weist AS, Heinrich S, Roller D, Genuneit J, Weinmayr G, Windstetter D, Dressel H, Range U, Nowak D, von Mutius E, Radon K, Vogelberg

- C. Pregnancy and perinatal conditions and atopic disease prevalence in childhood and adulthood. *Allergy*. 2018 May;73(5):1064-1074.
299. Herrera R, Markevych I, Berger U, Genuneit J, Gerlich J, Nowak D, Schlotz W, Vogelberg C, von Mutius E, Weinmayr G, Windstetter D, Weigl M, Heinrich J, Radon K. Greenness and job-related chronic stress in young adults: a prospective cohort study in Germany. *BMJ Open*. 2018 Jun 4;8(6):e021599. doi: 10.1136/bmjopen-2018-021599. PMID: 29866734; PMCID: PMC5988169.
 300. Fuchs O, Bahmer T, Weckmann M, Dittrich AM, Schaub B, Rösler B, Happle C, Brinkmann F, Ricklefs I, König IR, Watz H, Rabe KF, Kopp MV, Hansen G, von Mutius E; ALLIANCE Study Group as part of the German Centre for Lung Research (DZL). The all age asthma cohort (ALLIANCE) - from early beginnings to chronic disease: a longitudinal cohort study. *BMC Pulm Med*. 2018 Aug 20;18(1):140. Erratum in: *BMC Pulm Med*. 2018 Nov 7;18(1):165.
 301. Saglani S, Gregory LG, Manghera AK, Branchett WJ, Uwadiae F, Entwistle LJ, Oliver RA, Vasilious JE, Sherburn R, Lui S, Puttur F, Vöhringer D, Walker SA, Buckley J, Grychotol R, Fainardi V, Denney L, Byrne A, von Mutius E, Bush A, Lloyd CM. Inception of early-life allergen-induced airway hyperresponsiveness is reliant on IL-13(+)CD4(+) T cells. *Sci Immunol*. 2018 Sep 7;3(27). pii: eaan4128.
 302. Boeck A, Landgraf-Rauf K, Vogelsang V, Siemens D, Prazeres da Costa O, Klucker E, von Mutius E, Buch T, Mansmann U, Schaub B. Ca(2+) and innate immune pathways are activated and differentially expressed in childhood asthma phenotypes. *Pediatr Allergy Immunol*. 2018 Dec;29(8):823-833.
 303. Gorlanova O, Illi S, Toncheva AA, Usemann J, Latzin P, Kabesch M, Dolphin JC, Lauener R, Pekkanen JR, Von Mutius E, Riedler J, Kuehni CE, Röösli M, Frey U; BILD and PASTURE study groups. Protective effects of breastfeeding on respiratory symptoms in infants with 17q21 asthma risk variants. *Allergy*. 2018 Dec;73(12):2388-2392.
 304. Silverwood RJ, Rutter CE, Mitchell EA, Asher MI, Garcia-Marcos L, Strachan DP, Pearce N; ISAAC Phase Three Study Group. Are environmental risk factors for current wheeze in the International Study of Asthma and Allergies in Childhood (ISAAC) phase three due to reverse causation? *Clin Exp Allergy*. 2019 Apr;49(4):430-441.
 305. Roduit C, Frei R, Ferstl R, Loeliger S, Westermann P, Rhyner C, Schiavi E, Barcik W, Rodriguez-Perez N, Wawrzyniak M, Chassard C, Lacroix C, Schmausser-Hechfellner E, Depner M, von Mutius E, Braun-Fahrlander C, Karvonen AM, Kirjavainen PV, Pekkanen J, Dolphin JC, Riedler J, Akdis C, Lauener R, O'Mahony L; PASTURE/EFRAIM study group. High levels of butyrate and propionate in early life are associated with protection against atopy. *Allergy*. 2019 Apr;74(4):799-809.
 306. Rutter CE, Silverwood RJ, Williams HC, Ellwood P, Asher I, Garcia-Marcos L, Strachan DP, Pearce N, Langan SM; ISAAC Phase Three Study Group. Are

Environmental Factors for Atopic Eczema in ISAAC Phase Three due to Reverse Causation? *J Invest Dermatol.* 2019 May;139(5):1023-1036.

307. Schmidt F, Hose AJ, Mueller-Rompa S, Brick T, Hämäläinen AM, Peet A, Tillmann V, Niemelä O, Siljander H, Knip M, Weber J, von Mutius E, Ege MJ; DIABIMMUNE Study Group. Development of atopic sensitization in Finnish and Estonian children: A latent class analysis in a multicenter cohort. *J Allergy Clin Immunol.* 2019 May;143(5):1904-1913.e9.
308. Weinmayr G, Jaensch A, Ruelius AK, Forastiere F, Strachan DP; ISAAC Phase Two Study Group. Can environment or allergy explain international variation in prevalence of wheeze in childhood? *Eur J Epidemiol.* 2019 May;34(5):509-520.
309. Morales E, Strachan D, Asher I, Ellwood P, Pearce N, Garcia-Marcos L; ISAAC phase III study group; ISAAC Phase Three Study Group. Combined impact of healthy lifestyle factors on risk of asthma, rhinoconjunctivitis and eczema in school children: ISAAC phase III. *Thorax.* 2019 Jun;74(6):531-538.
310. Metzler S, Frei R, Schmaußer-Hechfellner E, von Mutius E, Pekkanen J, Karvonen AM, Kirjavainen PV, Dolphin JC, Divaret-Chauveau A, Riedler J, Lauener R, Roduit C; PASTURE/EFRAIM study group. Association between antibiotic treatment during pregnancy and infancy and the development of allergic diseases. *Pediatr Allergy Immunol.* 2019 Jun;30(4):423-433.
311. Forster F, Weinmann T, Gerlich J, Schlotz W, Weinmayr G, Genuneit J, Windstetter D, Vogelberg C, von Mutius E, Nowak D, Radon K. Work-related stress and incident asthma and rhinitis: results from the SOLAR study. *Int Arch Occup Environ Health.* 2019 Jul;92(5):673-681.
312. Seroogy CM, VanWormer JJ, Olson BF, Evans MD, Johnson T, Cole D, Barnes KL, Koepel TK, Dresen A, Meece J, Gangnon RE, Keifer MC, Bendixsen CG, Gern JE; Entire WISC Study Team. Respiratory health, allergies, and the farm environment: design, methods and enrollment in the observational Wisconsin Infant Study Cohort (WISC): a research proposal. *BMC Res Notes.* 2019 Jul 16;12(1):423.
313. Kirjavainen PV, Karvonen AM, Adams RI, Täubel M, Roponen M, Tuoresmäki P, Loss G, Jayaprakash B, Depner M, Ege MJ, Renz H, Pfefferle PI, Schaub B, Lauener R, Hyvärinen A, Knight R, Heederik DJJ, von Mutius E, Pekkanen J. Author Correction: Farm-like indoor microbiota in non-farm homes protects children from asthma development. *Nat Med.* 2019 Aug;25(8):1319.
314. Weinmann T, Forster F, von Mutius E, Vogelberg C, Genuneit J, Windstetter D, Nowak D, Radon K, Gerlich J. Association Between Occupational Exposure to Disinfectants and Asthma in Young Adults Working in Cleaning or Health Services: Results From a Cross-Sectional Analysis in Germany. *J Occup Environ Med.* 2019 Sep;61(9):754-759.
315. Horak E, Morass B, Ulmer H, Genuneit J, Braun-Fahrländer C, von Mutius E; GABRIEL Study Group. Correction to: Prevalence of wheezing and atopic diseases

in Austrian schoolchildren in conjunction with urban, rural or farm residence. *Wien Klin Wochenschr.* 2019 Sep;131(17-18):448.

316. Sugier PE, Sarnowski C, Granell R, Laprise C, Ege MJ, Margaritte-Jeannin P, Dizier MH, Minelli C, Moffatt MF, Lathrop M, Cookson WOCM, Henderson AJ, von Mutius E, Kogevinas M, Demenais F, Bouzigon E. Genome-wide interaction study of early-life smoking exposure on time-to-asthma onset in childhood. *Clin Exp Allergy.* 2019 Oct;49(10):1342-1351.
317. Mustonen N, Siljander H, Peet A, Tillmann V, Häkkinen T, Ilonen J, Hyöty H, Knip M; DIABIMMUNE Study Group. Early childhood infections and the use of antibiotics and antipyretic-analgesics in Finland, Estonia and Russian Karelia. *Acta Paediatr.* 2019 Nov;108(11):2075-2082.
318. Janke T, Schwaiger K, Ege M, Fahn C, von Mutius E, Bauer J, Mayer M. Correction to: Analysis of the Fungal Flora in Environmental Dust Samples by PCR-SSCP Method. *Curr Microbiol.* 2019 Nov;76(11):1386.
319. Hrusch CL, Stein MM, Gozdz J, Holbreich M, Von Mutius E, Vercelli D, Ober C, Sperling AI. T-cell phenotypes are associated with serum IgE levels in Amish and Hutterite children. *J Allergy Clin Immunol.* 2019 Nov;144(5):1391-1401.e10.
320. Karvonen AM, Kirjavainen PV, Täubel M, Jayaprakash B, Adams RI, Sordillo JE, Gold DR, Hyvärinen A, Remes S, von Mutius E, Pekkanen J. Indoor Bacterial Microbiota and the Development of Asthma by 10.5 years of age. *J Allergy Clin Immunol.* 2019 Nov;144(5):1402-1410.
321. Brick T, Hose A, Wawrzetzka K, von Mutius E, Roduit C, Lauener R, Riedler J, Karvonen AM, Pekkanen J, Divaret-Chauveau A, Dolphin JC, Ege MJ; PASTURE study group. Parents know it best: prediction of asthma and lung function by parental perception of early wheezing episodes. *Pediatr Allergy Immunol.* 2019 Dec;30(8):795-802.
322. Kolberg L, Forster F, Gerlich J, Weinmayr G, Genuneit J, Windstetter D, Vogelberg C, von Mutius E, Nowak D, Drexler H, Schäfer T, Radon K. Nickel allergy is associated with wheezing and asthma in a cohort of young German adults: results from the SOLAR study. *ERJ Open Res.* 2020 Feb 3;6(1):00178-2019. doi: 10.1183/23120541.00178-2019.
323. Wolff PT, Götschke M, Rakotozanany A, Robinson AL, Wolff LK, von Mutius E, Illi S. High prevalence of wheeze and atopy in rural Malagasy children. *Allergy.* 2020 Sep;75(9):2363-2365. doi: 10.1111/all.14303. Epub 2020 Apr 19.
324. Abdo M, Watz H, Veith V, Kirsten AM, Biller H, Pedersen F, von Mutius E, Kopp MV, Hansen G, Waschki B, Rabe KF, Trinkmann F, Bahmer T. Small airway dysfunction as predictor and marker for clinical response to biological therapy in severe eosinophilic asthma: a longitudinal observational study. *Respir Res.* 2020 Oct 21;21(1):278. doi: 10.1186/s12931-020-01543-5.

325. Depner M, Taft DH, Kirjavainen PV, Kalanetra KM, Karvonen AM, Peschel S, Schmausser-Hechfellner E, Roduit C, Frei R, Lauener R, Divaret-Chauveau A, Dolphin JC, Riedler J, Roponen M, Kabesch M, Renz H, Pekkanen J, Farquharson FM, Louis P, Mills DA, von Mutius E; PASTURE study group, Ege MJ. Maturation of the gut microbiome during the first year of life contributes to the protective farm effect on childhood asthma. *Nat Med.* 2020 Nov;26(11):1766-1775. doi: 10.1038/s41591-020-1095-x. Epub 2020 Nov 2.
326. Veit C, Herrera R, Weinmayr G, Genuneit J, Windstetter D, Vogelberg C, von Mutius E, Nowak D, Radon K, Gerlich J, Weinmann T. Long-term effects of asthma medication on asthma symptoms: an application of the targeted maximum likelihood estimation. *BMC Med Res Methodol.* 2020 Dec 16;20(1):307. doi: 10.1186/s12874-020-01175-9.
327. Bahmer T, Krauss-Etschmann S, Buschmann D, Behrends J, Watz H, Kirsten AM, Pedersen F, Waschki B, Fuchs O, Pfaffl MW, von Mutius E, Rabe KF, Hansen G, Kopp MV, König IR, Bartel S. RNA-seq-based profiling of extracellular vesicles in plasma reveals a potential role of miR-122-5p in asthma. *Allergy.* 2021 Jan;76(1):366-371. doi: 10.1111/all.14486. Epub 2020 Jul 17.
328. Krautembacher N, Kabesch M, Horak E, Braun-Fahrlander C, Genuneit J, Boznanski A, von Mutius E, Theis F, Fuchs C, Ege MJ; GABRIELA, PASTURE study groups. Asthma in farm children is more determined by genetic polymorphisms and in non-farm children by environmental factors. *Pediatr Allergy Immunol.* 2021 Feb;32(2):295-304. doi: 10.1111/pai.13385. Epub 2020 Oct 15.
329. Ruohutula T, Kondrashova A, Lehtonen J, Oikarinen S, Hämäläinen AM, Niemelä O, Peet A, Tillmann V, Nieminen JK, Ilonen J, Knip M, Vaarala O, Hyöty H; DIABIMMUNE Study Group. Immunomodulatory Effects of Rhinovirus and Enterovirus Infections During the First Year of Life. *Front Immunol.* 2021 Feb 11;11:567046. doi: 10.3389/fimmu.2020.567046.
330. Holz O, Waschki B, Watz H, Kirsten A, Abdo M, Pedersen F, Weckmann M, Fuchs O, Dittrich AM, Hansen G, Kopp MV, von Mutius E, Rabe KF, Hohlfeld JM, Bahmer T; ALLIANCE Study Group. Breath volatile organic compounds and inflammatory markers in adult asthma patients: negative results from the ALLIANCE cohort. *Eur Respir J.* 2021 Feb 11;57(2):2002127. doi: 10.1183/13993003.02127-2020.
331. Forster F, Kreißl S, Wengenroth L, Vogelberg C, von Mutius E, Schaub B, Nowak D, Weinmann T, Radon K, Gerlich J. Third Follow-Up of the Study on Occupational Allergy Risks (SOLAR III) in Germany: Design, Methods, and Initial Data Analysis. *Front Public Health.* 2021 Mar 4;9:591717. doi: 10.3389/fpubh.2021.591717.
332. Abdo M, Waschki B, Kirsten AM, Trinkmann F, Biller H, Herzmann C, von Mutius E, Kopp M, Hansen G, Rabe KF, Bahmer T, Watz H; ALLIANCE study group. Persistent Uncontrolled Asthma: Long-Term Impact on Physical Activity and Body Composition. *J Asthma Allergy.* 2021 Mar 12;14:229-240. doi: 10.2147/JAA.S299756.

333. Weckmann M, Thiele D, Liboschik L, Bahmer T, Pech M, Dittrich AM, Fuchs O, Happel C, Schaub B, Ricklefs I, Rabe KF, von Mutius E, Hansen G, König IR, Kopp MV; ALLIANCE Study Group. Cytokine levels in children and adults with wheezing and asthma show specific patterns of variability over time. *Clin Exp Immunol.* 2021 Apr;204(1):152-164. doi: 10.1111/cei.13550. Epub 2020 Dec 15.
334. Hose AJ, Pagani G, Karvonen AM, Kirjavainen PV, Roduit C, Genuneit J, Schmaußer-Hechfellner E, Depner M, Frei R, Lauener R, Riedler J, Schaub B, Fuchs O, von Mutius E, Divaret-Chauveau A, Pekkanen J, Ege MJ. Excessive Unbalanced Meat Consumption in the First Year of Life Increases Asthma Risk in the PASTURE and LUKAS2 Birth Cohorts. *Front Immunol.* 2021 Apr 27;12:651709. doi: 10.3389/fimmu.2021.651709.
335. Abdo M, Uddin M, Goldmann T, Marwitz S, Bahmer T, Holz O, Kirsten AM, Trinkmann F, von Mutius E, Kopp M, Hansen G, Rabe KF, Watz H, Pedersen F; ALLIANCE study group. Raised sputum extracellular DNA confers lung function impairment and poor symptom control in an exacerbation-susceptible phenotype of neutrophilic asthma. *Respir Res.* 2021 Jun 3;22(1):167. doi: 10.1186/s12931-021-01759-z.
336. Abdo M, Trinkmann F, Kirsten AM, Biller H, Pedersen F, Waschki B, Von Mutius E, Kopp M, Hansen G, Rabe KF, Bahmer T, Watz H; ALLIANCE study group. The Relevance of Small Airway Dysfunction in Asthma with Nocturnal Symptoms. *J Asthma Allergy.* 2021 Jul 13;14:897-905. doi: 10.2147/JAA.S313572.
337. Peschel S, Müller CL, von Mutius E, Boulesteix AL, Depner M. NetCoMi: network construction and comparison for microbiome data in R. *Brief Bioinform.* 2021 Jul 20;22(4):bbaa290. doi: 10.1093/bib/bbaa290.
338. Abdo M, Trinkmann F, Kirsten AM, Pedersen F, Herzmann C, von Mutius E, Kopp MV, Hansen G, Waschki B, Rabe KF, Watz H, Bahmer T; Study Group. Small Airway Dysfunction Links Asthma Severity with Physical Activity and Symptom Control. *J Allergy Clin Immunol Pract.* 2021 Sep;9(9):3359-3368.e1. doi: 10.1016/j.jaip.2021.04.035. Epub 2021 Apr 27.
339. Maison N, Herbrüggen H, Schaub B, Schuberger C, Foth S, Grychtol R, Abdo M, Watz H, Nikolaizik W, Rabe KF, Kopp MV, Hansen G, von Mutius E, Bahmer T, Omony J; ALLIANCE study group. Impact of imposed social isolation and use of face masks on asthma course and mental health in pediatric and adult patients with recurrent wheeze and asthma. *Allergy Asthma Clin Immunol.* 2021 Sep 16;17(1):93. doi: 10.1186/s13223-021-00592-9.
340. Skevaki C, Tafo P, Eiringhaus K, Timmesfeld N, Weckmann M, Happel C, Nelson PP, Maison N, Schaub B, Ricklefs I, Fuchs O, von Mutius E, Kopp MV, Renz H, Hansen G, Dittrich AM; ALLIANCE Study Group. Allergen extract- and component- based diagnostics in children of the ALLIANCE asthma cohort. *Clin Exp Allergy.* 2021 Oct;51(10):1331-1345. doi: 10.1111/cea.13964. Epub 2021 Jun 26.

341. Weckmann M, Bahmer T, Sand JM, Rank Rønnnow S, Pech M, Vermeulen C, Faiz A, Leeming DJ, Karsdal MA, Lunding L, Oliver BGG, Wegmann M, Ulrich-Merzenich G, Juergens UR, Duhn J, Laumonnier Y, Danov O, Sewald K, Zissler U, Jonker M, König I, Hansen G, von Mutius E, Fuchs O, Dittrich AM, Schaub B, Happle C, Rabe KF, van de Berge M, Burgess JK, Kopp MV; ALLIANCE Study Group as part of the German Centre for Lung Research (DZL). COL4A3 is degraded in allergic asthma and degradation predicts response to anti-IgE therapy. *Eur Respir J.* 2021 Dec 9;58(6):2003969. doi: 10.1183/13993003.03969-2020.
342. Eckert JK, Kahle J, Böck A, Zeber K, Urner K, Greiner W, Kreimeier S, Beyer K, Dobbertin-Welsch J, Hamelmann E, Gellhaus I, Schorlemer C, Kabesch M, Kheiruddin P, von Mutius E, Depner M, Walter D, Hansen G, DeStefano S, Schnadt S, Schaub B; CHAMP Consortium. Childhood Allergy and tolerance: Biomarkers and Predictors (CHAMP) and quality of life. *Pediatr Allergy Immunol.* 2022 Jan;33(1):e13652. doi: 10.1111/pai.13652. Epub 2021 Aug 30. PMID: 34396594.
343. Margaritte-Jeannin P, Budu-Aggrey A, Ege M, Madore AM, Linhard C, Mohamdi H, von Mutius E, Granell R, Demenais F, Laprise C, Bouzigon E, Dizier MH. Identification of OCA2 as a novel locus for the co-morbidity of asthma-plus-eczema. *Clin Exp Allergy.* 2022 Jan;52(1):70-81. doi: 10.1111/cea.13972. Epub 2021 Jul 3. PMID: 34155719.
344. Stampfli M, Frei R, Divaret-Chauveau A, Schmausser-Hechfellner E, Karvonen AM, Pekkanen J, Riedler J, Schaub B, von Mutius E, Lauener R, Roduit C; Protection against Allergy-Study in Rural Environments Study Group. Inverse associations between food diversity in the second year of life and allergic diseases. *Ann Allergy Asthma Immunol.* 2022 Jan;128(1):39-45. doi: 10.1016/j.anai.2021.10.005. Epub 2021 Oct 12. PMID: 34648974.
345. Pali-Schöll I, Bianchini R, Afify SM, Hofstetter G, Winkler S, Ahlers S, Altemeier T, Mayerhofer H, Hufnagl K, Korath ADJ, Pranger C, Widhalm R, Hann S, Wittek T, Kasper-Giebl A, Pacios LF, Roth-Walter F, Vercelli D, von Mutius E, Jensen-Jarolim E. Secretory protein beta-lactoglobulin in cattle stable dust may contribute to the allergy-protective farm effect. *Clin Transl Allergy.* 2022 Feb 12;12(2):e12125. doi: 10.1002/clt2.12125. PMID: 35169442.
346. Illi S, Depner M, Pfefferle PI, Renz H, Roduit C, Taft DH, Kalanetra KM, Mills DA, Farquharson FM, Louis P, Schmausser-Hechfellner E, Divaret-Chauveau A, Lauener R, Karvonen AM, Pekkanen J, Kirjavainen PV, Roponen M, Riedler J, Kabesch M, Schaub B, von Mutius E; PASTURE Study Group. Immune Responsiveness to LPS Determines Risk of Childhood Wheeze and Asthma in 17q21 Risk Allele Carriers. *Am J Respir Crit Care Med.* 2022 Mar 15;205(6):641-650. doi: 10.1164/rccm.202106-1458OC. PMID: 34919021.
347. Taft DH, Lewis ZT, Nguyen N, Ho S, Masarweh C, Dunne-Castagna V, Tancredi DJ, Huda MN, Stephensen CB, Hinde K, von Mutius E, Kirjavainen PV, Dolphin JC, Lauener R, Riedler J, Smilowitz JT, German JB, Morrow AL, Mills DA. *Bifidobacterium* Species Colonization in Infancy: A Global Cross-Sectional

- Comparison by Population History of Breastfeeding. *Nutrients*. 2022 Mar 29;14(7):1423. doi: 10.3390/nu14071423. PMID: 35406036.
348. Forster F, Ege MJ, Gerlich J, Weinmann T, Kreißl S, Weinmayr G, Genuneit J, Nowak D, von Mutius E, Vogelberg C, Radon K. Trajectories of asthma and allergy symptoms from childhood to adulthood. *Allergy*. 2022 Apr;77(4):1192-1203. doi: 10.1111/all.15075. Epub 2021 Sep 14. PMID: 34473346.
 349. Maison N, Peck A, Illi S, Meyer-Buehn M, von Mutius E, Hübner J, von Both U. The rising of old foes: impact of lockdown periods on "non-SARS-CoV-2" viral respiratory and gastrointestinal infections. *Infection*. 2022 Apr;50(2):519-524. doi: 10.1007/s15010-022-01756-4. Epub 2022 Jan 25. PMID: 35076891.
 350. Wahn U, Lau S, Eigenmann P, Melen E, Krauss-Etschmann S, Lex C, Matricardi P, Schaub B, Halken S, Ege M, Jackson D, Hamelmann E, Szépfalusi Z, Garcia AN, von Mutius E. Early priming of asthma and respiratory allergies: Future aspects of prevention: A statement by the European Forum for Education and Research in Allergy and Airway Disease (EUFOREA) and the EAACI-Clemens von Pirquet Foundation. *Pediatr Allergy Immunol*. 2022 Apr;33(4):e13773. doi: 10.1111/pai.13773. PMID: 35470937.
 351. Abdo M, Pedersen F, Kirsten AM, Veith V, Biller H, Trinkmann F, von Mutius E, Kopp M, Hansen G, Rabe KF, Bahmer T, Watz H; ALLIANCE study group. Longitudinal Impact of Sputum Inflammatory Phenotypes on Small Airway Dysfunction and Disease Outcomes in Asthma. *J Allergy Clin Immunol Pract*. 2022 Jun;10(6):1545-1553.e2. doi: 10.1016/j.jaip.2022.02.020. Epub 2022 Mar 5. PMID: 35257957.
 352. Herrera-Luis E, Ortega VE, Ampleford EJ, Sio YY, Granell R, de Roos E, Terzikhan N, Vergara EE, Hernandez-Pacheco N, Perez-Garcia J, Martin-Gonzalez E, Lorenzo-Diaz F, Hashimoto S, Brinkman P; U-BIOPRED Study Group, Jorgensen AL, Yan Q, Forno E, Vijverberg SJ, Lethem R, Espuela-Ortiz A, Gorenjak M, Eng C, González-Pérez R, Hernández-Pérez JM, Poza-Guedes P, Sardón O, Corcuera P, Hawkins GA, Marsico A, Bahmer T, Rabe KF, Hansen G, Kopp MV, Rios R, Cruz MJ, González-Barcala FJ, Olaguibel JM, Plaza V, Quirce S, Canino G, Cloutier M, Del Pozo V, Rodriguez-Santana JR, Korta-Murua J, Villar J, Potočnik U, Figueiredo C, Kabesch M, Mukhopadhyay S, Pirmohamed M, Hawcutt DB, Melén E, Palmer CN, Turner S, Maitland-van der Zee AH, von Mutius E, Celedón JC, Brusselle G, Chew FT, Bleeker E, Meyers D, Burchard EG, Pino-Yanes M. Multi-ancestry genome-wide association study of asthma exacerbations. *Pediatr Allergy Immunol*. 2022 Jun;33(6):e13802. doi: 10.1111/pai.13802.
 353. Kutzora S, Herrera Reyes D, Weinberger A, Huß J, Nennstiel U, von Mutius E, Herr C, Heinze S. Medical care and treatment of children with asthmatic or wheezing health outcomes and urban-rural differences in Bavaria - a cross-sectional study. *J Asthma*. 2022 Jul;59(7):1343-1352. doi: 10.1080/02770903.2021.1926487. Epub 2021 May 24. PMID: 33998939.

354. Banzon TM, von Mutius E, Phipatanakul W. The Microbiome in Clinical Allergy and Immunology: Emerging Role as Friend and Foe. *J Allergy Clin Immunol Pract*. 2022 Sep;10(9):2252-2253. doi: 10.1016/j.jaip.2022.06.024. PMID: 36087941.
355. Maison N, Omony J, Illi S, Thiele D, Skevaki C, Dittrich AM, Bahmer T, Rabe KF, Weckmann M, Happle C, Schaub B, Meyer M, Foth S, Rietschel E, Renz H, Hansen G, Kopp MV, von Mutius E, Grychtol R; ALLIANCE Study Group; ALLIANCE Study Group; Fuchs O, Roesler B, Welchering N, Kohistani-Greif N, Kurz J, Landgraf-Rauf K, Laubhahn K, Liebl C, Ege M, Hose A, Zeitlmann E, Berbig M, Marzi C, Schaubberger C, Zissler U, Schmidt-Weber C, Ricklefs I, Diekmann G, Liboschik L, Voigt G, Sultansei L, Nissen G, König IR, Kirsten AM, Pedersen F, Watz H, Waschki B, Herzmann C, Abdo M, Biller H, Gaede KI, Bovermann X, Steinmetz A, Husstedt BL, Nitsche C, Veith V, Szewczyk M, Brinkmann F, Malik A, Schwerk N, Dopfer C, Price M, Jirmo AC, Habener A, DeLuca DS, Gaedcke S, Liu B, Calveron MR, Weber S, Schildberg T, van Koningsbruggen-Rietschel S, Alcazar M. T2-high asthma phenotypes across lifespan. *Eur Respir J*. 2022 Sep 29;60(3):2102288. doi: 10.1183/13993003.02288-2021. PMID: 35210326; PMCID: PMC9520028.
356. Lemmel S, Weckmann M, Wohlers A, Jirmo AC, Grychtol R, Ricklefs I, Nissen G, Bachmann A, Singh S, Caicedo J, Bahmer T, Hansen G, Von Mutius E, Rabe KF, Fuchs O, Dittrich AM, Schaub B, Happle C, Carpenter AE, Kopp MV, Becker T; ALLIANCE Study Group as part of the German Centre for Lung Research (DZL). *In vitro* neutrophil migration is associated with inhaled corticosteroid treatment and serum cytokines in pediatric asthma. *Front Pharmacol*. 2022 Oct 11;13:1021317. doi: 10.3389/fphar.2022.1021317. PMID: 36304163; PMCID: PMC9593213.
357. Strieker S, Weinmann T, Gerlich J, von Mutius E, Nowak D, Radon K, Wengenroth L. Farm living and allergic rhinitis from childhood to young adulthood: Prospective results of the GABRIEL study. *J Allergy Clin Immunol*. 2022 Nov;150(5):1209-1215.e2. doi: 10.1016/j.jaci.2022.05.027. Epub 2022 Jun 29. PMID: 35779667.
358. Habener A, Grychtol R, Gaedcke S, DeLuca D, Dittrich AM, Happle C, Abdo M, Watz H, Pedersen F, König IR, Thiele D, Kopp MV, von Mutius E, Bahmer T, Rabe KF, Meyer-Bahlburg A, Hansen G; ALLIANCE Study Group as part of the German Center for Lung Research (DZL); Fuchs O, Roesler B, Welchering N, Kohistani-Greif N, Kurz J, Landgraf-Rauf K, Laubhahn K, Maison N, Liebl C, Schaub B, Ege M, Illi S, Hose A, Zeitlmann E, Berbig M, Marzi C, Schaubberger C, Zissler U, Schmidt-Weber C, Ricklefs I, Diekmann G, Liboschik L, Voigt G, Sultansei L, Weckmann M, Nissen G, Kirsten AM, Waschki B, Herzmann C, Biller H, Gaede KI, Bovermann X, Steinmetz A, Husstedt BL, Nitsche C, Veith V, Szewczyk M, Brinkmann F, Malik A, Schwerk N, Dopfer C, Price M, Jirmo AC, Liu B, Calveron MR, Weber S, Foth S, Skevaki C, Renz H, Meyer M, Schildberg T, Rietschel E, van Koningsbruggen-Rietschel S, Alcazar M. IgA+ memory B-cells are significantly increased in patients with asthma and small airway dysfunction. *Eur Respir J*. 2022 Nov 3;60(5):2102130. doi: 10.1183/13993003.02130-2021. PMID: 35595320; PMCID: PMC9630610.
359. Pechlivanis S, Depner M, Kirjavainen PV, Roduit C, Täubel M, Frei R, Skevaki C, Hose A, Barnig C, Schmausser-Hechfellner E, Ege MJ, Schaub B, Divaret-Chauveau

- A, Lauener R, Karvonen AM, Pekkanen J, Riedler J, Illi S, von Mutius E; PASTURE Study Group. Continuous Rather Than Solely Early Farm Exposure Protects From Hay Fever Development. *J Allergy Clin Immunol Pract.* 2023 Feb;11(2):591-601. doi: 10.1016/j.jaip.2022.10.035. Epub 2022 Nov 7. PMID: 36356926; PMCID: PMC9907754.
360. Weinmann T, Forster F, Hell K, Gerlich J, Wengenroth L, Schlotz W, Vogelberg C, von Mutius E, Nowak D, Radon K. Work-related stress and atopic dermatitis: Results from the study on occupational allergy risks. *J Occup Environ Hyg.* 2023 Feb;20(2):109-119. doi: 10.1080/15459624.2022.2151604. Epub 2023 Jan 24. PMID: 36441057.
361. Nitsche C, Frauchiger BS, Thiele D, Oestreich MA, Husstedt BL, Grychtol RM, Maison N, Foth S, Meyer M, Jakobs N, Bahmer T, Hansen G, von Mutius E, Kopp M. Quality Control of Nitrogen Multiple Breath Washout in a Multicenter Pediatric Asthma Study. *Klin Padiatr.* 2023 Mar;235(2):66-74. English. doi: 10.1055/a-1976-9232. Epub 2023 Jan 19. PMID: 36657454.
362. Divaret-Chauveau A, Mauny F, Hose A, Depner M, Dolphin ML, Kaulek V, Barnig C, Schaub B, Schmausser-Hechfellner E, Renz H, Riedler J, Pekkanen J, Karvonen AM, Täubel M, Lauener R, Roduit C, Vuitton DA, von Mutius E, Demoulin-Alexikova S; PASTURE study group. Trajectories of cough without a cold in early childhood and associations with atopic diseases. *Clin Exp Allergy.* 2023 Apr;53(4):429-442. doi: 10.1111/cea.14257. Epub 2022 Dec 1. PMID: 36453463.
363. Abdo M, Kirsten AM, von Mutius E, Kopp M, Hansen G, Rabe KF, Watz H, Trinkmann F, Bahmer T; ALLIANCE study group. Minimal clinically important difference for impulse oscillography in adults with asthma. *Eur Respir J.* 2023 May 5;61(5):2201793. doi: 10.1183/13993003.01793-2022. PMID: 36758985; PMCID: PMC10160799.
364. Grychtol R, Riemann L, Gaedcke S, Liu B, DeLuca D, Förster R, Maison N, Thiele D, Jakobs N, Bahmer T, Meyer M, Foth S, Weber S, Rietschel E, Rabe KF, Kopp MV, von Mutius E, Dittrich AM, Hansen G; ALLIANCE Study Group as part of the German Center for Lung Research (DZL). Validation of the Asthma Severity Scoring System (ASSESS) in the ALLIANCE Cohort. *J Allergy Clin Immunol.* 2023 Jun;151(6):1525-1535.e4. doi: 10.1016/j.jaci.2023.01.027. Epub 2023 Feb 15. PMID: 36804993.
365. Thürmann L, Klös M, Mackowiak SD, Bieg M, Bauer T, Ishaque N, Messingschlager M, Herrmann C, Röder S, Bauer M, Schäuble S, Faessler E, Hahn U, Weichenhan D, Mücke O, Plass C, Borte M, von Mutius E, Stangl GI, Lauener R, Karvonen AM, Divaret-Chauveau A, Riedler J, Heinrich J, Standl M, von Berg A, Schaaf B, Herberth G, Kabesch M, Eils R, Trump S, Lehmann I. Global hypomethylation in childhood asthma identified by genome-wide DNA-methylation sequencing preferentially affects enhancer regions. *Allergy.* 2023 Jun;78(6):1489-1506. doi: 10.1111/all.15658. Epub 2023 Feb 10. PMID: 36704932.
366. Schrumpf JA, Ninaber DK, Müller C, Rankl B, von Mutius E, Smits HH, Hiemstra PS. Farm dust reduces mucin production in rhinovirus-infected primary bronchial

- epithelial cells. *Pediatr Allergy Immunol.* 2023 Aug;34(8):e14008. doi: 10.1111/pai.14008. PMID: 37622253.
367. Maison N, Omony J, Rinderknecht S, Kolberg L, Meyer-Bühn M, von Mutius E, Hübner J, von Both U. Old foes following new ways?-Pandemic-related changes in the epidemiology of viral respiratory tract infections. *Infection.* 2023 Aug 29. doi: 10.1007/s15010-023-02085-w. Epub ahead of print. PMID: 37644253.
368. Marques Dos Santos M, Pivniouk V, Rankl B, Walker A, Pagani G, Hertkorn N, Schmitt-Kopplin P, Müller C, Bracher F, Merl-Pham J, Hauck SM, Schloter M, Michael AN, Anderson D, Honeker L, Gozdz J, Pivniouk O, Ober C, Holbreich M, Martinez FD, Snyder SA, von Mutius E, Vercelli D. Asthma-protective agents in dust from traditional farm environments. *J Allergy Clin Immunol.* 2023 Sep;152(3):610-621. doi: 10.1016/j.jaci.2023.05.013. Epub 2023 Jun 2. PMID: 37271318.
369. Melén E, Lambrecht BN, Lloyd CM, Rothenberg ME, Kabashima K, Luciani F, Coquet JM, Ober C, Nawijn MC, Platts-Mills T, von Mutius E. A conversation on allergy: recognizing the past and looking to the future. *Immunol Cell Biol.* 2023 Sep 9. doi: 10.1111/imcb.12688. Epub ahead of print. PMID: 37688499.
370. Jutel M, Agache I, Zemelka-Wiacek M, Akdis M, Chivato T, Del Giacco S, Gajdanowicz P, Gracia IE, Klimek L, Lauferma A, Ollert M, O'Mahony L, Schwarze J, Shamji MH, Skypala I, Palomares O, Pfaar O, Torres MJ, Bernstein JA, Cruz AA, Durham SR, Galli SJ, Gómez RM, Guttman-Yassky E, Haahtela T, Holgate ST, Izuhara K, Kabashima K, Larenas-Linnemann DE, von Mutius E, Nadeau KC, Pawankar R, Platts-Mills TAE, Sicherer SH, Park HS, Vieths S, Wong G, Zhang L, Bilò MB, Akdis CA. Nomenclature of allergic diseases and hypersensitivity reactions: Adapted to modern needs: An EAACI position paper. *Allergy.* 2023 Oct 10. doi: 10.1111/all.15889. Epub ahead of print. PMID: 37814905.
371. Shahrokny P, Maison N, Riemann L, Ehrmann M, DeLuca D, Schuchardt S, Thiele D, Weckmann M, Dittrich AM, Schaub B, Brinkmann F, Hansen G, Kopp MV, von Mutius E, Rabe KF, Bahmer T, Hohlfeld JM, Grychtol R, Holz O. Increased breath naphthalene in children with asthma and wheeze of the All Age Asthma Cohort (ALLIANCE). *J Breath Res.* 2023 Oct 12;18(1). doi: 10.1088/1752-7163/acf23e. PMID: 37604132.

2.) Review articles / editorials:

1. von Mutius E. Luftschadstoffe und Atemwegserkrankungen im Kindesalter. Öff.Gesundh.-Wes 1988;50:325-8.
2. Oberbauer B, Nicolai T, von Mutius E. Asthma bronchiale im Kindesalter. Teil I: klinische Erscheinungsformen, Diagnose und Grundregeln der Therapie. Fortschr Med 1993;111:457-60.
3. Oberbauer B, Nicolai T, von Mutius E. Asthma bronchiale im Kindesalter. Teil II: Stufenplan der medikamentösen Therapie. Fortschr Med 1993;111:473-5.
4. Nicolai T, von Mutius E, Reitmeir P, Wjst M. Kaltluft-Hyperventilations-provokation. Pneumologie 1993;47:67-8.
5. von Mutius E, Urbanek R. Untersuchung der bronchialen Hyperreagibilität und Epidemiologie des Asthma bronchiale im Kindesalter. Pneumologie 1993;47:73-5.
6. von Mutius E. Passivrauchen - Auswirkungen auf den kindlichen Respirationstrakt. In: Kinderarzt und Umwelt. Jahrbuch 1993/94, S. 90-97. Hrsgb. K.E.v.Mühlendahl.
7. von Mutius E, Pforte A. Asthma bronchiale. Internist, 1994;35:232-8.
8. von Mutius E. Atopy and bronchial hyperresponsiveness in children. ACI News 1995;7: 179-82.
9. von Mutius E. Progression of allergy and asthma through childhood to adolescence. Thorax 1996;51:1-3.
10. von Mutius E. Epidemiology of asthma: ISAAC—International Study of Asthma and Allergies in Childhood. Pediatr Allergy Immunol 1996;7(9 Suppl):54-6.
11. von Mutius E. Umweltfaktoren bei der Entstehung von Asthma und allergischen Erkrankungen in Ost- und Westdeutschland. Rundgespräche der Kommission für Ökologie, 1996;11:131-41.
12. von Mutius E. Genetik oder Umwelt ? (Editorial). München Med Wschr 1996;138:115.
13. von Mutius E. Progression of allergy and asthma through childhood to adolescence. Thorax. 1996; 51 Suppl 1:S3-6.
14. von Mutius E. Atopie und Asthma bronchiale im Kindesalter. Eine Einführung. Allergologie 1996;19:302-9.
15. Nicolai T, von Mutius E. Respiratory hypersensitivity and environmental factors: East and West Germany. Toxicology letters 1996;86:105-13.
16. von Mutius E. Infection and Pollution. Pediatr Pulmonol Suppl. 1997;16:203-4.

17. von Mutius E. Epidemiology of Asthma: ISAAC - International Study of Asthma and Allergies in Childhood. *Pediatr Allergy Immunol* 1996;7 (Suppl):54-6.
18. Nicolai T, von Mutius E. Pollution and the development of allergy: the East and West Germany story. *Arch Toxicol Suppl*. 1997;19:201-6.
19. von Mutius E. Towards prevention. *Lancet* 1997;350 (suppl II):14-7.
20. von Mutius E. Epidemiologie des Asthma bronchiale im Kindesalter. *Pneumologie* 1997;51:949-61.
21. von Mutius E. Indoor and Outdoor Air Pollution and Childhood Asthma. *Ped Pulmonology* 1997;16(Suppl):86-7.
22. von Mutius E. Infection and Pollution. *Ped Pulmonology* 1997;16(Suppl):203-4.
23. von Mutius E, Mrach M, Oberneder B. Wenn Kinder mit Heuschnupfen in die Praxis kommen. Behandlungsmöglichkeiten, die man bei allergischer Rhinokonjunktivitis nutzen kann. *Forschung und Praxis* 1997;234:6-8.
24. Wahn U, Bergmann R, Lau S, von Mutius E. Environmental factors in the development of atopy and asthma in children. *Asthma and Allergic Diseases: Physiology, Immunopharmacology, and Treatment* 1998: 47- 56.
25. von Mutius E. Determinants of childhood asthma and atopy in West and East Germany. *Eur Respir Review* 1998;8:145-7.
26. von Mutius E. The natural history of asthma from pre-birth to adulthood. *Eur Respir Review* 1998;8:308-11.
27. von Mutius E. Allergy and the environment. *Allergy*. 1999;54 Suppl 56:16-7.
28. von Mutius E, Weiland SK, Keil U für das ISAAC Steering Committee. Die Internationale Studie zu Asthma und Allergien im Kindesalter (ISAAC): Forschungsstrategie und Methoden der Phase II: *Allergologie* 1999;22:283-8.
29. Weiland SK, von Mutius E, Keil U für das ISAAC Steering Committee. Die International Study of Asthma and Allergies in Childhood (ISAAC): Forschungsstrategie, Methoden und Ausblick: *Allergologie* 1999;22:275-82.
30. von Mutius E. Asthma und Infekte: Risiko oder Schutz? *Schweiz Med Wochenschr* 1998;128:1833-9.
31. von Mutius E. The influence of birth order on the expression of atopy in families: a gene-environment interaction? (Editorial). *Clin Exp Allergy* 1998;28:1454-6.
32. von Mutius E. The rising trends in asthma and allergic disease. *Clin Exp Allergy*. 1998 Nov;28 Suppl 5:45-9; discussion 50-1.

33. von Mutius E. The rising trends in asthma and allergic disease. *Clin Exp Allergy* 1998;28:45-9.
34. von Mutius E. Sensibilisierung auf Küchenschaben. Ein neues Allergieproblem in Industriestaaten ? *MMW-Fortschr Med* 1999;22:41.
35. von Mutius E. Allergy and the environment. *Allergy* 1999;56(Suppl):18-20.
36. von Mutius E. Role of immunisations and infections for the development of atopy. *Rev Fr Allergol* 1999;39:649-52.
37. Sterk PJ, Buist SA, Woolcock AJ, Marks GB, Platts-Mills TAE, von Mutius E, Bousquet J, Frew AJ, Pauwels RA, Ait-Khaled N, Hill SL, Partridge MR. The message from the World Asthma Meeting. *Eur Respir J* 1999;14;1435-53.
38. von Mutius E. The environmental predictors of allergic diseases. *J Allergy Clin Immunol* 2000;105:9-19.
39. Kabesch M, von Mutius E. Adverse health effects of environmental tobacco smoke exposure in childhood. *ACI International* 2000;12;146-52.
40. von Mutius E. Statistical / design methods. *Am J Respir Crit Care Med* 2000;162:S34-5.
41. von Mutius E. Presentation of new GINA guidelines for pediatrics. *Clin Exp Allergy* 2000;30(suppl):6-10.
42. von Mutius E. The burden of childhood asthma. *Arch Dis Child* 2000;82:0-3.
43. von Mutius E. Ein traditioneller bäuerlicher Lebensstil - Schutzfaktor vor Allergien? (Editorial). (A traditional farming life style - does it confer protection against allergies?). *Dtsch Med Wschr* 2000;125:
44. von Mutius E. Augmentation de prévalence de l'asthme et des allergies. *AER* 2000;3:123-8.
45. von Mutius E. Paediatric origins of adult lung disease. *Thorax* 2001;56:153-7.
46. von Mutius E. Rolle der Allergenexposition für die Entstehung allergischer Erkrankungen. *Allergologie* 2000.
47. von Mutius E. The burden of childhood asthma. *Arch Dis Child*. 2000;82 Suppl 2:II2-5.
48. von Mutius E. Presentation of new GINA guidelines for paediatrics. The Global Initiative on Asthma. *Clin Exp Allergy* 2000;30 Suppl 1:6-10.
49. von Mutius E. A traditional farming environment – a prophylactic factor against allergies. *Dtsch Med Wochenschr*. 2000;125:923.

50. Wahn U, von Mutius E. Childhood risk factors for atopy and the importance of early intervention. *J Allergy Clin Immunol* 2001;107:567-74.
51. von Mutius E. Peut-on modifier l'histoire naturelle de l'asthme ? *Rev Fr Allergol Immunol Clin* 2000;40:689-94.
52. von Mutius E. The environmental predictors of allergic disease. *J Allergy Clin Immunol*. 2000;105:9-19.
53. von Mutius E. Epidemiologie des Asthma bronchiale. *Monatsschr Kinderheilkd* 2001;149:86-93.
54. Hirsch T, Weiland SK, von Mutius E. Pollenflug und allergische Sensibilisierung gegen Frühblüher bei Kindern in München und Dresden. (Pollen count and allergic sensitization against early pollinators in children in Munich and Dresden.) *Pneumologie* 2001;55:223.
55. von Mutius E. Is asthma really linked to atopy? (Editorial). *Clin Exp Allergy* 2001;31:1651-2.
56. von Mutius E. The increase in asthma can be ascribed to cleanliness. (Pro/Con editorial) *Am J Respir Crit Care* 2001;164:1-4.
57. von Mutius E. Paediatric origins of adult lung disease. *Thorax*. 2001;56:153-7. Review.
58. Oberle D, von Kries R, von Mutius E. Asthma and breast feeding. *Thorax* 2001;56:896.
59. Hirsch T, Weiland SK, von Mutius E. Pollen count and allergic sensitization against early pollinators in children in Munich and Dresden. *Pneumologie*. 2001;55:223.
60. von Mutius E. Childhood experiences take away your breath as a young adult (editorial). *Am J Respir Crit Care Med*. 2002; 165:1467-8.
61. von Mutius E. Environmental factors influencing the development and progression of pediatric asthma. *J Allergy Clin Immunol*. 2002; 109(6 Suppl):S525-32.
62. Kabesch M, von Mutius E. Prevention of asthma in childhood. *Dtsch Med Wochenschr*. 2002; 127:1506-8.
63. Wahn U, von Mutius E. Childhood risk factors for atopy and the importance of early intervention. *J Allergy Clin Immunol*. 2001;107:567-74.
64. Lau S, Nickel R, Niggemann B, Gruber C, Sommerfeld C, Illi S, Kulig M, Forster J, Wahn U, Groeger M, Zepp F, Kamin W, Bieber I, Tacke U, Wahn V, Bauer CP, Bergmann R, von Mutius E; MAS Group. The development of childhood asthma: lessons from the German Multicentre Allergy Study (MAS). *Pediatr Respir Rev*. 2002;3:265-72.

65. Illi S, von Mutius E. House-dust mite allergen exposure and the development of asthma in children. *Ann Allergy Asthma Immunol*. 2003;90:6-7.
66. Nickel R, Lu S, Niggemann B, Gruber C, von Mutius E, Illi S, Kulig M, Wahn U, MAS-Group. Messages from the German Multicentre Allergy Study. *Pediatr Allergy Immunol*. 2002; 13 Suppl 15:7-10.
67. von Mutius E. A conundrum of modern times that's still unresolved. *Eur Respir J*. 2003;22:719-20.
68. Nowak D, von Mutius E. Bronchial asthma in children and adults: risk factors, diagnosis and standard treatment. *Dtsch Med Wochenschr*. 2004;129:509-16.
69. Eder W, von Mutius E. Hygiene hypothesis and endotoxin: what is the evidence? *Curr Opin Allergy Clin Immunol*. 2004;4:113-17.
70. von Mutius E. Influences in allergy: epidemiology and the environment. *J Allergy Clin Immunol*. 2004;113:373-9.
71. Nowak D, Suppli Ulrik C, von Mutius E. Asthma and atopy: has peak prevalence been reached? *Eur Respir J*. 2004;23:359-60.
72. Schaub B, von Mutius E. The marketing of asthma and allergies. *Lancet* 2004;364:1389-90.
73. Radon K, Dressel H, Hügger S, Riu E, Nowak D, Weinmayr G, Genuneit J, Weiland St, Vogelberg Ch, Leupold W, Windstetter D, von Mutius E, Kupfer J. Berufliche Allergierisiken – Die SOLAR-Kohortenstudie. *Schriftenreihe der Bundesanstalt für Arbeitsschutz und Arbeitsmedizin*. Dortmund/Berlin/Dresden 2005.
74. von Mutius E. Allergien lassen sich nicht über einen Kamm scheren. *MMW Fortschr.Med* 2006;148:26-8.
75. Kabesch M, Kauffmann F, von Mutius E. New ways in respiratory genetics (editorial). *Eur Resp J* 2006;28: 1079-80.
76. Eder W, Ege MJ, von Mutius E. The asthma epidemic. *N Engl J Med*. 2006 Nov 23;355(21):2226-35
77. von Mutius E. Allergies, infections and the hygiene hypothesis – The epidemiological evidence. *Immunobiology* 2007; 212: 433-439.
78. von Mutius E, Le Souef P. Early gene-environment interactions: can they inform primary preventive strategies for asthma? *Semin Respir Crit Care Med* 2007;28:255-63.
79. von Mutius E. Of attraction and rejection – asthma and the microbial world. (Editorial) *NEJM* 2007; Oct 11;357(15):1545-7.

80. von Mutius E, Radon K. Living on a Farm: Impact on Asthma Induction and Clinical Course. *Immunol Allergy Clin N Am* 2008;28:631–647.
81. von Mutius E. Genes and the environment: Two readings of their interaction. *J Allergy Clin Immunol*. 2008 Jul;122(1):99-100.
82. Sly PD, Boner AL, Björksten B, Bush A, Custovic A, Eigenmann PA, Gern JE, Gerritsen J, Hamelmann E, Helms PJ, Lemanske RF, Martinez F, Pedersen S, Renz H, Sampson H, von Mutius E, Wahn U, Holt PG. Early identification of atopy in the prediction of persistent asthma in children. *Lancet* 2008;372:1100-1106.
83. von Mutius E. Rhinitis as predictor of adult-onset asthma. (Editorial). *Lancet* 2008;372:1012-1013.
84. von Mutius E. Allergien und Asthma. *Internist*. 2008 Nov;49(11):1295-6, 1298, 1300-1.
85. von Mutius E. Gene-environment interactions in asthma. *J Allergy Clin Immunol*. 2009 Jan;123(1):3-11.
86. Burbach GJ, Heinzerling LM, Röhnelt C, Bergmann KC, Behrendt H, Zuberbier T; GA(2)LEN study. Ragweed sensitization in Europe - GA(2)LEN study suggests increasing prevalence. *Allergy*. 2009 Apr;64(4):664-5.
87. Frey, U and von Mutius E. The Challenge of Managing Wheezing in Infants. (Editorial) *New Engl J Med* 2009;360:2130-2133 .
88. von Mutius E, Drazen JM. Choosing asthma step-up care. (Editorial) *N Engl J Med*. 2010 Mar 18;362(11):1042-3.
89. von Mutius E. 99th Dahlem conference on infection, inflammation and chronic inflammatory disorders: farm lifestyles and the hygiene hypothesis. *Clin Exp Immunol*. 2010 Apr;160(1):130-5.
90. Armann J, von Mutius E. Do bacteria have a role in asthma development? (Editorial) *Eur Respir J*. 2010 Sep;36(3):469-71.
91. Armann JP, von Mutius E. Bacteria in the respiratory tract and wheeze in children. (Editorial) *BMJ*. 2010 Oct 4;341:c4836.
92. von Mutius E, Vercelli D. Farm living: effects on childhood asthma and allergy. *Nat Rev Immunol*. 2010 Dec;10(12):861-8.
93. Braun-Fahrländer C, von Mutius E. Can farm milk consumption prevent allergic diseases? *Clin Exp Allergy*. 2011 Jan;41(1):29-35.
94. Renz H, von Mutius E, Brandtzaeg P, Cookson WO, Autenrieth IB, Haller D. Gene-environment interactions in chronic inflammatory disease. *Nat Immunol*. 2011 Apr;12(4):273-7.

95. von Mutius E. Trajectories of childhood wheeze. (Editorial) *J Allergy Clin Immunol*. 2011 Jun;127(6):1513-4.
96. Renz H, Autenrieth IB, Brandtzæg P, Cookson WO, Holgate S, von Mutius E, Valenta R, Haller D. Gene-environment interaction in chronic disease: a European Science Foundation Forward Look. *J Allergy Clin Immunol*. 2011 Dec;128(6 Suppl):S27-49.
97. von Mutius E. A fascinating look at the world with a new microscope. (Editorial) *J Allergy Clin Immunol*. 2012 May;129(5):1202-3.
98. von Mutius E, Drazen JM. A patient with asthma seeks medical advice in 1828, 1928, and 2012. *N Engl J Med*. 2012 Mar 1;366(9):827-34.
99. Heederik D, von Mutius E. Does diversity of environmental microbial exposure matter for the occurrence of allergy and asthma? *J Allergy Clin Immunol*. 2012 Jul;130(1):44-50.
100. von Mutius E. Maternal farm exposure/ingestion of unpasteurized cow's milk and allergic disease. *Curr Opin Gastroenterol*. 2012 Nov;28(6):570-6.
101. Bousquet J, Anto J, Sunyer J, Nieuwenhuijsen M, Vrijheid M, Keil T; MeDALL Study Group; CHICOS Study Group; ENRIECO Study Group; GA²LEN Study Group. Pooling birth cohorts in allergy and asthma: European Union-funded initiatives – a MeDALL, CHICOS, ENRIECO, and GA²LEN joint paper. *Int Arch Allergy Immunol*. 2013;161(1):1-10.
102. Pfefferle PI, von Mutius E. Hygiene and the cytokine jungle in Brazil. *J Allergy Clin Immunol*. 2013 May;131(5):1417-8.
103. von Mutius E, Hartert T. Update in asthma 2012. *Am J Respir Crit Care Med*. 2013 Jul 15;188(2):150-6.
104. Ege MJ, von Mutius E. Can genes forecast asthma risk? *Lancet Respir Med*. 2013 Aug;1(6):425-6.
105. Fuchs O, von Mutius E. Prenatal and childhood infections: implications for the development and treatment of childhood asthma. *Lancet Respir Med*. 2013 Nov;1(9):743-54
106. Ege M, von Mutius E. Microbial airway colonization: a cause of asthma and pneumonia? *Am J Respir Crit Care Med*. 2013 Nov 15;188(10):1188-9.
107. von Mutius E. Environmental microorganisms and lung health. *Ann Am Thorac Soc*. 2014 Jan;11 Suppl 1:S13-5.
108. von Mutius E. Will we be able to reverse the epidemiological trend? *Pediatr Allergy Immunol*. 2014 Feb;25(1):9-11

109. Vercelli D, Gozdz J, von Mutius E. Innate lymphoid cells in asthma: when innate immunity comes in a Th2 flavor. *Curr Opin Allergy Clin Immunol.* 2014 Feb;14(1):29-34.
110. Bousquet J, Gern JE, Martinez FD, Anto JM, Johnson CC, Holt PG, Lemanske RF Jr, Le Souëf PN, Tepper RS, von Mutius ER, Arshad SH, Bacharier LB, Becker A, Belanger K, Bergström A, Bernstein DI, Cabana MD, Carroll KN, Castro M, Cooper PJ, Gillman MW, Gold DR, Henderson J, Heinrich J, Hong SJ, Jackson DJ, Keil T, Kozyrskyj AL, Lødrup Carlsen KC, Miller RL, Momas I, Morgan WJ, Noel P, Ownby DR, Pinart M, Ryan PH, Schwaninger JM, Sears MR, Simpson A, Smit HA, Stern DA, Subbarao P, Valenta R, Wang X, Weiss ST, Wood R, Wright AL, Wright RJ, Togias A, Gergen PJ. Birth cohorts in asthma and allergic diseases: report of a NIAID/NHLBI/MeDALL joint workshop. *J Allergy Clin Immunol.* 2014 Jun;133(6):1535-46.
111. Ege MJ, von Mutius E. Atopy: a mirror of environmental changes? *J Allergy Clin Immunol.* 2014 May;133(5):1354-5
112. Cui L, Morris A, Huang L, Beck JM, Twigg HL 3rd, von Mutius E, Ghedin E. The microbiome and the lung. *Ann Am Thorac Soc.* 2014 Aug;11 Suppl 4:S227-32.
113. Legatzki A, Rösler B, von Mutius E. Microbiome diversity and asthma and allergy risk. *Curr Allergy Asthma Rep.* 2014 Oct;14(10):466.
114. Nicolai T, Fuchs O, von Mutius E. Caring for the Wave of Refugees in Munich. *N Engl J Med.* 2015 Oct 22;373(17):1593-5.
115. von Mutius E. No Risk of Asthma in Late-Preterm Infants: Confounding or Misclassification? *J Allergy Clin Immunol Pract.* 2015 Nov-Dec;3(6):911-2.
116. von Mutius E, Martinez FD. Inconclusive Results of Randomized Trials of Prenatal Vitamin D for Asthma Prevention in Offspring: Curbing the Enthusiasm. *JAMA.* 2016 Jan 26;315(4):347-8.
117. von Mutius E. The microbial environment and its influence on asthma prevention in early life. *J Allergy Clin Immunol.* 2016 Mar;137(3):680-9.
118. Smits HH, Hiemstra PS, Prazeres da Costa C, Ege M, Edwards M, Garn H, Howarth PH, Jartti T, de Jong EC, Maizels RM, Marsland BJ, McSorley HJ, Müller A, Pfefferle PI, Savelkoul H, Schwarze J, Unger WW, von Mutius E, Yazdanbakhsh M, Taube C. Microbes and asthma: Opportunities for intervention. *J Allergy Clin Immunol.* 2016 Mar;137(3):690-7.
119. Smits HH, van der Vlugt LE, von Mutius E, Hiemstra PS. Childhood allergies and asthma: New insights on environmental exposures and local immunity at the lung barrier. *Curr Opin Immunol.* 2016 May 30;42:41-47.
120. Genuneit J, von Mutius E. Do farm-grown lungs breathe better? *Thorax.* 2017 Mar;72(3):202-203.

121. Fuchs O, Bahmer T, Rabe KF, von Mutius E. Asthma transition from childhood into adulthood. *Lancet Respir Med*. 2017 Mar;5(3):224-234.
122. von Mutius E. The shape of the microbiome in early life. *Nat Med*. 2017 Mar 7;23(3):274-275.
123. Welchering N, von Mutius E, Fuchs O. [Anaphylaxis caused by hymenoptera stings - Importance of instructions and training for emergency treatment by non medical personnel]. *MMW Fortschr Med*. 2017 Sep;159(15):43-46.
124. Ober C, Sperling AI, von Mutius E, Vercelli D. Immune development and environment: lessons from Amish and Hutterite children. *Curr Opin Immunol*. 2017 Oct;48:51-60.
125. König IR, Fuchs O, Hansen G, von Mutius E, Kopp MV. What is precision medicine? *Eur Respir J*. 2017 Oct 19;50(4). pii: 1700391.
126. Pavord ID, Beasley R, Agusti A, Anderson GP, Bel E, Brusselle G, Cullinan P, Custovic A, Ducharme FM, Fahy JV, Frey U, Gibson P, Heaney LG, Holt PG, Humbert M, Lloyd CM, Marks G, Martinez FD, Sly PD, von Mutius E, Wenzel S, Zar HJ, Bush A. After asthma: redefining airways diseases. *Lancet*. 2018 Jan 27;391(10118):350-400.
127. von Mutius E. Biodiversity: The new kid on the block? *J Allergy Clin Immunol*. 2018 Apr;141(4):1215-1216.
128. von Mutius E. Childhood origins of COPD. *Lancet Respir Med*. 2018 Jul;6(7):482-483.
129. von Mutius E. Intimate Crosstalk in Lower Airways at the Beginning of Life. *Cell Host Microbe*. 2018 Dec 12;24(6):758-759.
130. von Mutius E, Vercelli D. Author Correction: Farm living: effects on childhood asthma and allergy. *Nat Rev Immunol*. 2019 Sep;19(9):594.
131. von Mutius E, Martinez FD. Vitamin D Supplementation during Pregnancy and the Prevention of Childhood Asthma. *N Engl J Med*. 2020 Feb 6;382(6):574-575.
132. von Mutius E, Matsui EC. Prevention Is the Best Remedy: What Can We Do to Stop Allergic Disease? *J Allergy Clin Immunol Pract*. 2020 Mar;8(3):890-891.
133. Hamelmann E, von Mutius E, Bush A, Szeffler SJ. Addressing the risk domain in the long-term management of pediatric asthma. *Pediatr Allergy Immunol*. 2020 Apr;31(3):233-242. doi: 10.1111/pai.13175. Epub 2019 Dec 11.
134. Niespodziana K, Borochova K, Pazderova P, Schleederer T, Astafyeva N, Baranovskaya T, Barbouche MR, Beltyukov E, Berger A, Borzova E, Bousquet J, Bumbacea RS, Bychkovskaya S, Caraballo L, Chung KF, Custovic A, Docena G, Eiwegger T, Evsegneeva I, Emelyanov A, Errhalt P, Fassakhov R, Fayzullina R, Fedenko E, Fomina D, Gao Z, Giavina-Bianchi P, Gotua M, Greber-Platzer S, Hedlin G, Ilina N, Ispayeva Z, Idzko M, Johnston SL, Kalayci Ö, Karaulov A, Karsonova A,

- Khaitov M, Kovzel E, Kowalski ML, Kudlay D, Levin M, Makarova S, Matricardi PM, Nadeau KC, Namazova-Baranova L, Naumova O, Nazarenko O, O'Byrne PM, Osier F, Pampura AN, Panaitescu C, Papadopoulos NG, Park HS, Pawankar R, Pohl W, Renz H, Riabova K, Sampath V, Sekerel BE, Sibanda E, Siroux V, Sizyakina LP, Sun JL, Szepfalusi Z, Umanets T, Van Bever HPS, van Hage M, Vasileva M, von Mutius E, Wang JY, Wong GWK, Zaikov S, Zidarn M, Valenta R. Toward personalization of asthma treatment according to trigger factors. *J Allergy Clin Immunol*. 2020 Jun;145(6):1529-1534. doi: 10.1016/j.jaci.2020.02.001. Epub 2020 Feb 18.
135. Pechlivanis S, von Mutius E. Effect of Farming on Asthma. *Acta Med Acad*. 2020 Aug;49(2):144-155. doi: 10.5644/ama2006-124.293.
136. von Mutius E, Smits HH. Primary prevention of asthma: from risk and protective factors to targeted strategies for prevention. *Lancet*. 2020 Sep 19;396(10254):854-866. doi: 10.1016/S0140-6736(20)31861-4. Epub 2020 Sep 7.
137. von Mutius E. Bedeutung von Mikrobiom in Darm und Atemwegen für Therapien. *Drug Res (Stuttg)*. 2020 Nov;70(S 01):S16. German. doi: 10.1055/a-1119-2740. Epub 2020 Nov 17.
138. von Mutius E. The "Hygiene Hypothesis" and the Lessons Learnt From Farm Studies. *Front Immunol*. 2021 Mar 18;12:635522. doi: 10.3389/fimmu.2021.635522.
139. Deckers J, Marsland BJ, von Mutius E. Protection against allergies: Microbes, immunity, and the farming effect. *Eur J Immunol*. 2021 Oct;51(10):2387-2398. doi: 10.1002/eji.202048938. Epub 2021 Sep 6.
140. Annesi-Maesano I, Fleidermann M, Hornef M, von Mutius E, Pabst O, Schaubeck M, Fiocchi A. Allergic diseases in infancy: I - Epidemiology and current interpretation. *World Allergy Organ J*. 2021 Nov 12;14(11):100591. doi: 10.1016/j.waojou.2021.100591.
141. Hornef M, Pabst O, Annesi-Maesano I, Fleidermann M, von Mutius E, Schaubeck M, Fiocchi A. Allergic diseases in infancy II-oral tolerance and its failure. *World Allergy Organ J*. 2021 Nov 19;14(11):100586. doi: 10.1016/j.waojou.2021.100586.
142. Wahn U, Lau S, Eigenmann P, Melen E, Krauss-Etschmann S, Lex C, Matricardi P, Schaub B, Halken S, Ege M, Jackson D, Hamelmann E, Szépfalusi Z, Garcia AN, von Mutius E. Early priming of asthma and respiratory allergies: Future aspects of prevention: A statement by the European Forum for Education and Research in Allergy and Airway Disease (EUFOREA) and the EAACI-Clemens von Pirquet Foundation. *Pediatr Allergy Immunol*. 2022 Apr;33(4):e13773. doi: 10.1111/pai.13773.
143. Banzon TM, von Mutius E, Phipatanakul W. The Microbiome in Clinical Allergy and Immunology: Emerging Role as Friend and Foe. *J Allergy Clin Immunol Pract*. 2022 Sep;10(9):2252-2253. doi: 10.1016/j.jaip.2022.06.024.

3.) Book chapters:

1. von Mutius E. Asthma and Atopy in West and East Germany. In: New Trends in Allergy IV. Hrsgb: Ring J. 1996;37-42.
2. von Mutius E. Umweltfaktoren bei der Entstehung von Asthma und allergischen Erkrankungen in Ost- und Westdeutschland. In: Rundgespräche der Kommission für Ökologie Bd. 11: Luftbelastung und Gesundheit. Hrsg: Bayerische Akademie der Wissenschaften. Pfeil, München 1996; 131-141.
3. von Mutius E. Epidemiologie. Risikofaktoren aus Umwelt und Lebensweise. In: Allergologie. Hrsgb: Hepp W, Renz H, Röcken M. Springer 1997.
4. von Mutius E. Genetische Disposition allergischer Erkrankungen. In: Die Ursachen der Allergie: Gene-Umwelt-Nahrungsmittel. Hrsgb: Mösges R, Schlöndorff G, Biermann Verlag, Zülpich, 1997.
5. von Mutius E. The application of modern epidemiological methods to paediatric respiratory disorders. In: European Respiratory Monograph, 1997 Monograph 5, Volume 2, pp. 236-276.
6. von Mutius E. Epidemiologie allergischer Erkrankungen im Kindesalter. Pädiatrische Allergologie und Immunologie. Hrsgb: Wahn U, Seger R, Wahn V. Gustav Fischer Verlag, 1999, S. 159-72.
7. von Mutius E, Morgan W. Acute, chronic and wheezy bronchitis. In: Pediatric Pulmonology. Hrsgb: L.Taussig, P.Phelan. 1998.
8. von Mutius E, Martinez FD. Epidemiology of childhood asthma. In: Pediatric Asthma. Hrsgb: Murphy S, Kelly HW. Lung Biology in Health and Disease. Marcel Dekker 1999;126:1-40.
9. von Mutius E. Air pollution and asthma. In: Immunotherapy in Asthma. Hrsgb: Bousquet J, Yssel H. Series Lung Biology in Health and Disease. 1999;136:497-534.
10. von Mutius E. Umwelt und respiratorische Morbidität. In: Pädiatrische Pneumologie. Hrsgb: Rieger C, von der Hardt H, Wahn U, Zach M, Sennhauser F. Springer Verlag, 1999:505-28.
11. von Mutius E. Epidemiologie. In: Asthma bronchiale im Kindesalter. Hrsgb Reinhardt D. Springer Verlag, 1999;S. 8-16, S. 22-34.
12. von Mutius E. Atemwegserkrankungen bei Kindern. In: Pneumologische Umweltmedizin. Hrsgb. Schultz K, Petro W. 1999: S. 109-18.
13. Nowak D, von Mutius E. Epidemiologische und sozialmedizinische Aspekte des Asthma bronchiale im Kindes- und Erwachsenenalter. In: Asthma bronchiale. Hrsgb: Petermann F, Warschburger P. 1999; S. 35-64.

14. von Mutius E. Environmental factors and rising time trends in prevalence and severity. In: Difficult asthma. Hrsgb: Holgate ST, Boushey HA, Fabbri LM. Martin Dunitz 1999; pp. 53-76.
15. Kabesch M, von Mutius E. Risk factors for wheezing with upper respiratory tract infections in children. In: Series Lung Biology in Health and Disease. Asthma and Respiratory Infections. Hrsgb: Skoner DP. Marcel Dekker New York, 2000; pp. 63-88.
16. Nowak D, von Mutius E. Epidemiologie der obstruktiven Atemwegserkrankungen, speziell des Asthma bronchiale. In: pneumologische Prävention und Rehabilitation. Hrsgb: Petro W. Springer Berlin 2000;93-108.
17. von Mutius E. Schadstoffwirkungen und respiratorische Morbidität. Pädiatrie. Grundlagen und Praxis. Hrsgb: Lentze MJ, Schaub J, Schulte FJ, Spranger J. Springer Berlin 2000; 1009-12.
18. von Mutius E. Bäuerliche Lebensbedingungen. In: Rundgespräche der Kommission für Ökologie Bd. 21: Allergie, eine Zivilisationskrankheit? Hrsg: Bayerische Akademie der Wissenschaften. Pfeil, München 2001; 83-89
19. von Mutius E. Why is asthma more common in the West ?. In: Asthma. Critical Debates. Hrsgb: Holgate S, Johnston S. Blackwell Science London, Edinburgh, Victoria, Paris 2002; 18-34.
20. von Mutius E. Worldwide Asthma Epidemic. In: Immunology and Allergy Clinics of North America. Ed: Finn PW. W.B. Saunders Company, 2002, Volume 22, Number 4, pp701-12.
21. von Mutius E. Epidemiology of Allergic Diseases. In: Pediatric Allergy. Principles and Practice. Hrsgb: Leung DYM, Sampson HA, Geha RS, Szeffler SJ. Mosby, Inc. St. Louis, 2003;1-9.
22. Kabesch M, von Mutius E. Monde moderne et allergies. In: Traité d'Allergologie. Hrsgb: Vervloet D, Magnan A. Médecine-Sciences Flammarion, Paris 2003 ; 371-80.
23. von Mutius E, Braun-Fahrlander Ch. Preventing asthma: the role of farm animals, pets, endotoxins and probiotics. In: Paediatric Asthma and Allergy. Ed: Dinwiddie R, Brand PLP, Pohunek P. Quay Books, MA Healthcare Limited. 2004; 1-6.
24. von Mutius E. Einführung in das Rundgespräch. In: Rundgespräche der Kommission für Ökologie, Bd. 29: Zur Ökologie von Infektionskrankheiten: Borreliose, FSME und Fuchsbandwurm. Hrsg: Bayerische Akademie der Wissenschaften. Pfeil, München 2005; 13-14
25. von Mutius E. Epidemiologie allergischer Erkrankungen. In: Allergologie-Handbuch. Grundlagen und klinische Praxis. Hrsgb: Saloga J, Klimek L, Buhl R, Mann W, Knop J. Schattauer Verlag Stuttgart New York 2005;184-194.

26. Crane J, von Mutius E, Custovic A. Epidemiology of Allergic Disease. In: Allergy, Third Edition. Ed: Holgate ST, Church MK, Lichtenstein LM. Elsevier 2006 ;233-246
27. Rochat M, von Mutius E. Birth Cohort Studies for the Prevention of Allergy: New Perspectives—Where Do We Go from Now? In: Allergy Frontiers: Therapy and Prevention. Ed: Pawankar R, Holgate ST, Rosenwasser LJ. Springer 2009, Vol. 5; 397-415.
28. von Mutius E. Epidemiologische Daten zur Wirksamkeit von Bioaerosolen. In: Rundgespräche der Kommission für Ökologie, Bd. 38: Bioaerosole und ihre Bedeutung für die Gesundheit. Hrsg: Bayerische Akademie der Wissenschaften. Pfeil, München 2010; 107-119.
29. von Mutius E. Epidemiology of Allergic Diseases. In: Pediatric Allergy: Principles and Practice, Second Edition. Ed: Leung DYM, Sampson HA, Geha R, Szeffler SJ. Saunders Elsevier 2010; 1-8.
30. von Mutius E. Life Comes to One. In: Medicine, Science and Dreams - The Making of Physician-Scientists. Ed: Schwartz DA. Springer 2011; 199-209.
31. Gruchalla RS, Custovic A, von Mutius E. Epidemiology of allergy and asthma. In: Allergy, 4th Edition. Ed: Holgate S, Church M, Broide DH, Martinez FD. Saunders Elsevier 2012; 63-72.
32. von Mutius E. The Janus face of endotoxin: for good and bad? In: Landmark Papers in Allergy - Seminal Papers in Allergy with Expert Commentaries. Ed: Sheikh A, Platts-Mills T, Worth A, Holgate S (Advisory Editor). Oxford University Press 2013; 278-281.
33. Fuchs O, von Mutius E. Genetic and environmental factors in bronchial asthma and wheezing disorders. In: ERS Handbook of Paediatric Respiratory Medicine. Ed: Eber E, Midulla F. European Respiratory Society 2013; 298-304.
34. Frey U, Gappa M, Eber E, von Mutius E. Einführung: Asthma und obstruktive Atemwegserkrankungen. In: Pädiatrische Pneumologie, 3. Auflage. Hrsgb: von Mutius E, Gappa M, Eber E und Frey U. Springer-Verlag Berlin Heidelberg 2014; 540-541.
35. Nagel F, von Mutius E. Hautjucken. In: Pädiatrische Differenzialdiagnostik. Hrsg: J. Rosenecker. Springer-Verlag Berlin Heidelberg 2014; 29-30.
36. Landgraf-Rauf K, von Mutius E. Effective Ways to Prevent Allergic Diseases: Where Do We Stand? Handb Exp Pharmacol. 2022;268:437-448. doi: 10.1007/164_2021_497. PMID: 34196812.