

Curriculum Vitae

Ruth M. Grychtol Dr. med.
d.o.b. March 31st, 1980, in Bad Dürkheim, Germany

University Education / Specialties

2025 Specialist in Pediatric Respiratory Medicine, Specialist in Allergology
2014 Specialist in Pediatrics and Adolescent Medicine,
2007 Medical Doctor, History of Medicine, Albert-Ludwigs-Universität Freiburg
1999 - 2006 Studies of Human Medicine, Albert-Ludwigs-Universität Freiburg

Scientific Career

Since 2023 Clinician Scientist Program TITUS (Else-Kröner-Fresenius Stiftung)
Since 2022 Principal Investigator German Center for Lung Research (DZL)
Since 2017 Clinician Scientist German Center for Lung Research (DZL)
2016-2017 Residency at Paediatric Respiratory Medicine, Great Ormond Street Hospital for Children, London, United Kingdom
2014-2016 Research Fellow Imperial College London (funded by German Research Foundation)
2008-2014 Residency Pediatrics, Centre for Paediatrics and Adolescent Medicine, Albert-Ludwigs-Universität Freiburg
2007-2008 Clinician Scientist PAED-NET (Clinical Trial Network, funded by the BMBF)

Awards and Honors

2021 Johannes-Wenner Preis (German Society for Pediatric Pulmology)

Citation Record

Top selected Publications

Fischer BC, Drick N, Liu B, Riemann L, Habener A, DeLuca D, Dittrich AM, Hoepfer MM, Suhling H, Hansen G, **Grychtol R**. B cell activating factor (BAFF) levels are associated with failed remission after 12 months of treatment with benralizumab and mepolizumab in severe asthma. **Respir Res.** 2026 Apr 2. doi: 10.1186/s12931-026-03500-0. Epub ahead of print. PMID: 41928209.

Halle O, Graeber SY, Kontsendorn J, Kessemeier C, Falke JN, Schwabe J, Schütz K, Pallenberg ST, Dalferth R, **Grychtol R**, Ringshausen FC, Stahl M, Thee S, Roehmel JF, Syunyaeva Z, Duerr J, Chung J, Hirtz S, Uselmann T, Kühbandner I, Rückes-Nilges C, Bagheri-Pothoff A, Barth S, Schaub B, Brinkmann F, Weber S, van Koningsbruggen-Rietschel S, Abdo M, Weckmann M, Widder S, Hansen G, Tümmler B, Sommerburg O, Naehrlich L, Mall MA, Dittrich AM. Reduction of systemic inflammation by elexacaftor/tezacaftor/ivacaftor correlates with lung function improvement in cystic fibrosis. **Eur Respir J.** 2025 Dec 4;66(6):2500150. doi: 10.1183/13993003.00150-2025.

DeStefano S, **Grychtol R**, Funken D, Habener A, Tamm S, Stanke F, Greiner W, Beyer K, Hamelmann E, Kabesch M, von Mutius E, Schaub B, Jirmo AC, Hansen G; CHAMP study group. NLRP3 regulates epithelial barrier integrity and protects from airway hyperresponsiveness in experimental allergic asthma. **Front Immunol.** 2025 Nov 27;16:1655205. doi: 10.3389/fimmu.2025.1655205.

Risha MA, Reddy KD, Nemani SSP, Jakwerth C, Schmidt-Weber C, Bahmer T, Hansen G, von Mutius E, Rabe KF, Dittrich AM, **Grychtol R**, Maison N, Schaub B, Kopp MV, Brinkmann F, Meiners S, Jappe U, Weckmann M; ALLIANCE Study Group as part of the German Centre for Lung Research (DZL). Epigenetic training of human bronchial epithelium cells by repeated rhinovirus infections. **Allergy.** 2024 Dec;79(12):3385-3400. doi: 10.1111/all.16388.

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.

Jakwerth CA, Weckmann M, Illi S, Charles H, Zissler UM, Oelsner M, Guerth F, Omony J, Nemani SSP, **Grychtol R**, Dittrich AM, Skevaki C, Foth S, Weber S, Alejandre Alcazar MA, van Koningsbruggen-Rietschel S, Brock R, Blau S, Hansen G, Bahmer T, Rabe KF, Brinkmann F, Kopp MV, Chaker AM, Schaub B, von Mutius E, Schmidt-Weber CB; ALLIANCE Study Group as part of the German Center for Lung Research (DZL). 17q21 Variants Disturb Mucosal Host Defense in Childhood Asthma. *Am J Respir Crit Care Med.* 2023 Dec 8. doi: 10.1164/rccm.202305-0934OC.

Jirmo AC*, **Grychtol R***, Gaedcke S, Liu B, DeStefano S, Happle C, Halle O, Monteiro JT, Habener A, Breiholz OD, DeLuca D, Hansen G. Single cell RNA sequencing reveals distinct clusters of Irf8-expressing pulmonary conventional dendritic cells. **Front Immunol.** 2023 May 12;14:1127485. doi: 10.3389/fimmu.2023.1127485.

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.

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. T2-high asthma phenotypes across lifespan. **Eur Respir J.** 2022 Sep 29;60(3):2102288

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). IgA+ memory B cells are significantly increased in patients with asthma and small airways dysfunction. **Eur Respir J.** 2022 May 20:2102130. doi: 10.1183/13993003.02130-2021. Online ahead of print.

Habener A, Happle C, **Grychtol R**, Skuljec J, Busse M, Dalüge K, Obernolte H, Sewald K, Braun A, Meyer-Bahlburg A, Hansen G. Regulatory B cells control airway hyperreactivity and lung remodeling in a murine asthma model. **J Allergy Clin Immunol.** 2021 Jun;147(6):2281-2294.e7. doi: 10.1016/j.jaci.2020.09.041.

Jirmo AC, Busse M, Happle C, Skuljec J, Dalüge K, Habener A, **Grychtol R**, DeLuca DS, Breiholz OD, Prinz I, Hansen G. IL-17 regulates DC migration to the peribronchial LNs and allergen presentation in experimental allergic asthma. **Eur J Immunol.** 2020 Jul;50(7):1019-1033. doi: 10.1002/eji.201948409

Saglani S, Gregory LG, Manghera AK, Branchett WJ, Uwadiae F, Entwistle LJ, Oliver RA, Vasiliou JE, Sherburn R, Lui S, Puttur F, Vöhringer D, Walker SA, Buckley J, **Grychtol 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):eaan4128. doi: 10.1126/sciimmunol.aan4128

Castanhinha S, Sherburn R, Walker S, Gupta A, Bossley CJ, Buckley J, Ullmann N, **Grychtol R**, Campbell G, Maglione M, Koo S, Fleming L, Gregory L, Snelgrove RJ, Bush A, Lloyd CM, Saglani S. Pediatric severe asthma with fungal sensitization is mediated by steroid-resistant IL-33. **J Allergy Clin Immunol.** 2015 Aug;136(2):312-22.e7. doi: 10.1016/j.jaci.2015.01.016

Flaquer A, Heinzmann A, Rospleszcz S, Mailaparambil B, Dietrich H, Strauch K, **Grychtol R**. Association study of mitochondrial genetic polymorphisms in asthmatic children. *Mitochondrion*. 2014 Jan;14(1):49-53. doi: 10.1016/j.mito.2013.11.002

* Shared authorship