

Publications LBI members 2019-2023



Original publications programme line 1 "Clinical Epidemiology"

2019

The LEAD (Lung, Heart, Social, Body) Study: Objectives, Methodology, and External Validity of the Population-Based Cohort Study.

Breyer-Kohansal R, Hartl S, Burghuber OC, Urban M, Schrott A, Agusti A, Sigsgaard T, Vogelmeier C, Wouters EFM, Studnicka M, Breyer MK. *J Epidemiol* 2019 Aug 5;29(8):315–324. IF: 7.707.

2020

Marked differences in prediabetes- and diabetes-associated comorbidities between men and women-Epidemiological results from a general population-based cohort aged 6-80 years -The LEAD (Lung, hEart, sociAl, boDy) study.

Breyer MK, Ofenheimer A, Altziebler J, Hartl S, Burghuber OC, Studnicka M, Purin D, Heinzle C, Drexel H, Franssen FME, Wouters EFM, Harreiter J, Kautzky-Willer A, Breyer-Kohansal R. *Eur J Clin Invest*. 2020 Mar;50(3):e13207. IF: 3.481.

Blood eosinophil count in the general population: typical values and potential confounders.

Hartl S, Breyer MK, Burghuber OC, Ofenheimer A, Schrott A, Urban MH, Agusti A, Studnicka M, Wouters EFM, Breyer-Kohansal R. *Eur Respir J*. 2020 May 14;55(5):1901874. IF: 12.339.

Factors Associated with Low Lung Function in Different Age Bins in the General Population.

Breyer-Kohansal R, Faner R, Breyer MK, Ofenheimer A, Schrott A, Studnicka M, Wouters EFM, Burghuber OC, Hartl S, Agusti A. *Am J Respir Crit Care Med* 2020 Jul 15;202(2):292-296. IF: 21.405.

Reference values of body composition parameters and visceral adipose tissue (VAT) by DXA in adults aged 18-81 years-results from the LEAD cohort.

Ofenheimer A, Breyer-Kohansal R, Hartl S, Burghuber OC, Krach F, Schrott A, Wouters EFM, Franssen FME, Breyer MK. *Eur J Clin Nutr* 2020 Aug;74(8):1181-1191. IF: 3.291.

Side by side comparison of three fully automated SARS-CoV-2 antibody assays with a focus on specificity.

Perkmann T, Perkmann-Nagele N, Breyer MK, Breyer-Kohansal R, Burghuber OC, Hartl S, Aletaha D, Sieghart D, Quehenberger P, Marculescu R, Mucher P, Strassl R, Wagner OF, Binder CJ, Haslacher H. *Clin Chem*. 2020 Nov 1;66(11):1405-1413. IF: 7.292.

2021

A comprehensive antigen production and characterisation study for easy-to-implement, specific and quantitative SARS-CoV-2 serotests.

Klausberger M, Duerkop M, Haslacher H, Wozniak-Knopp G, Cserjan-Puschmann M, Perkmann T, Lingg N, Aguilar PP, Laurent E, De Vos J, Hofner M, Holzer B, Stadler M, Manhart G, Vierlinger K, Egger M, Milchram L, Gludovacz E, Marx N, Köppl C, Tauer C, Beck J, Maresch D, Grünwald-Gruber C, Strobl F, Satzer P, Stadlmayr G, Vavra U, Huber J, Wahrmann M, Eskandary F, Breyer MK, Sieghart D, Quehenberger P, Leitner G, Strassl R, Egger AE, Irsara C, Griesmacher A, Hoermann G, Weiss G, Bellmann-Weiler R, Loeffler-Ragg J, Borth N, Strasser R, Jungbauer A, Hahn R, Mairhofer J, Hartmann B, Binder NB, Striedner G, Mach L, Weinhäusel A, Dieplinger B, Grebien F, Gerner W, Binder CJ, Grabherr R. *EBioMedicine*. 2021 May; 67:103348. IF: 8.143.

Low SARS-CoV-2 seroprevalence in the Austrian capital after an early governmental lockdown.

Breyer MK, Breyer-Kohansal R, Hartl S, Kundi M, Weseslindtner L, Stiasny K, Puchhammer-Stöckl E, Schrott A, Födinger M, Binder M, Fiedler M, Wouters EFM, Burghuber OC. *Sci Rep.* 2021 May 12;11,(1):10158 (2021). IF: 4.996.

Using Body Composition Groups to Identify Children and Adolescents at Risk of Dyslipidemia.

Ofenheimer A, Breyer-Kohansal R, Hartl S, Burghuber OC, Krach F, Franssen FME, Wouters EFM, Breyer MK. *Children (Basel).* 2021 Nov 13;8(11):1047. IF: 2.863.

Reference charts for body composition parameters by dual-energy X-ray absorptiometry in European children and adolescents aged 6 to 18 years-Results from the Austrian LEAD (Lung, hEart, sociAl, boDy) cohort.

Ofenheimer A, Breyer-Kohansal R, Hartl S, Burghuber OC, Krach F, Schrott A, Franssen FME, Wouters EFM, Breyer MK. *Pediatr Obes.* 2021 Jan;16(1):e12695. IF: 3.429.

Spirometric phenotypes from early childhood to young adulthood: a Chronic Airway Disease Early Stratification study.

Wang G, Hallberg J, Charalampopoulos D, Sanahuja MC, Breyer-Kohansal R, Langhammer A, Granell R, Vonk JM, Mian A, Olvera N, Laustsen LM, Rönmark E, Abellan A, Agusti A, Arshad SH, Bergström A, Boezen HM, Breyer MK, Burghuber O, Bolund AC, Custovic A, Devereux G, Donaldson GC, Duijts L, Esplugues A, Faner R, Ballester F, Garcia-Aymerich J, Gehring U, Haider S, Hartl S, Backman H, Holloway JW, Koppelman GH, Lertxundi A, Holmen TL, Lowe L, Mensink-Bout SM, Murray CS, Roberts G, Hedman L, Schlünssen V, Sigsgaard T, Simpson A, Sunyer J, Torrent M, Turner S, Van den Berge M, Vermeulen RCH, Vikjord SAA, Wedzicha JA, Maitland van der Zee AH, Melén E. *ERJ Open Res.* 2021 Dec 6;7(4):00457-2021. IF: 1.0. Spirometric phenotypes from early childhood to young adulthood: a Chronic Airway Disease Early Stratification study. *ERJ Open Res*, 2021 Dec 6;7(4):00457-2021. doi:, IF: 4,2.

2022

Changes in lung function in European adults born between 1884 and 1996 and implications for the diagnosis of lung disease: a cross-sectional analysis of ten population-based studies.

Allinson JP, Afzal S, Çolak Y, Jarvis D, Backman H, van den Berge M, Boezen HM, Breyer MK, Breyer-Kohansal R, Brusselle G, Burghuber OC, Faner R, Hartl S, Lahousse L, Langhammer A, Lundbäck B, Nwaru BI, Rönmark E, Vikjord SAA, Vonk JM, Wijnant SRA, Lange P, Nordestgaard BG, Olvera N, Agusti A, Donaldson GC, Wedzicha JA, Vestbo J, Vanfleteren LEGW. *CADSET Clinical Research Collaboration. Lancet Respir Med.* 2022 Jan;10(1):83-94. IF: 102.731

Distribution of chronic cough phenotypes in the general population: A cross-sectional analysis of the LEAD cohort in Austria.

Abozid H, Baxter CA, Hartl S, Braun E, Salomonsson S, Breyer-Kohansal R, Breyer MK, Wouters EFM, Agusti A, Burghuber OC. *Respir Med.* 2022 Feb;192:106726. IF: 3.415.

Aero-allergen sensitization in the general population: Longitudinal analyses of the LEAD (Lung Heart Social Body) Study.

Köllli F, Breyer MK, Hartl S, Burghuber OC, Wouters EFM, Sigsgaard T, Pohl W, Kohlböck G, Breyer-Kohansal R. *J Asthma Allergy.* 2022 Apr 11;15:461-473. eCollection 2022. IF: 4.258.

Increasing test specificity without impairing sensitivity: lessons learned from SARS-CoV-2 serology.

Perkmann T, Koller T, Perkmann-Nagele N, Ozsvar-Kozma M, Eyre D, Matthews P, Bown A, Stoesser N, Breyer MK, Breyer-Kohansal R, Burghuber OC, Hartl S, Aletaha D, Sieghar D, Quehenberger P, Marculescu R, Mucher P, Radakovics A, Klausberger M, Duerkop M, Holzer B, Hartmann B, Strassl R, Leitner G, Grebien F, Gerner W, Grabherr R, Wagner OF, Binder CJ, Haslacher H. *J Clin Pathol.* 2022 Aug 30;jclinpath-2022-208171. Online ahead of print. IF:3.61

2023

Restrictive Spirometry or PRISm: Does it Matter?

Schiffers C, Mraz T, Breyer MK, Hartl S, Breyer-Kohansal R, Wouters EFM. *Am J Respir Crit Care Med.* 2023 Oct 15;208(8):905-907. doi: 10.1164/rccm.202304-0765LE. IF: 24.7

Supranormal lung function: Prevalence, associated factors and clinical manifestations across the lifespan.

Schiffers C, Faner R, Ofenheimer A, Sunanta O, Puchhammer P, Mraz T, Breyer MK, Burghuber OC, Hartl S, Agustí A, Breyer-Kohansal R. *Respirology.* 2023 Oct;28(10):942-953. IF: 6.9.

Prevalence of dyspnea in general adult populations: A systematic review and meta-analysis.

Müller A, Mraz T, Wouters EF, van Kuijk SM, Amaral AF, Breyer-Kohansal R, Breyer MK, Hartl S, Janssen DJ. *Respir Med.* 2023 Aug 17;218:107379. doi: 10.1016/j.rmed.2023.107379. Online ahead of print. PMID: 37595674 IF: 6.9

Prevalence of restrictive lung function in children and adults in the general population.

Schiffers C, Ofenheimer A, Breyer MK, Mraz T, Lamprecht B, Burghuber OC, Hartl S, Wouters EFM, Breyer-Kohansal R. *Respir Med.* 2023 Apr-May;210:107156. IF: 4.582

Asthma Prevalence and Phenotyping in the General Population: The LEAD (Lung, hEart, sociAl, boDy) Study.

Schiffers C, Wouters EFM, Breyer-Kohansal R, Buhl R, Pohl W, Irvin CG, Breyer MK, Hartl S. *J Asthma Allergy.* 2023 Apr 8;16:367-382. IF: 3.21

Reviews and editorials

2019

Chronic Airway Diseases Early Stratification (CADSET): a new ERS Clinical Research Collaboration.

Agusti A, Faner R, Donaldson G, Heuvelin E, Breyer-Kohansal R, Melén E, Maitland-van der Zee AH, Vestbo J, Allinson JP, Vanfleteren LEGW, van den Berge M, Adcock IM, Lahousse L, Brusselle G, Wedzicha JA; on behalf of the CADSET Clinical Research Collaboration; Current members of the CADSET Clinical Research Collaboration. *Eur Respir J*. 2019 Mar 18;53(3):1900217. IF: 12.339.

2020

Skin autofluorescence: early sign of lung function deterioration?

Wouters EFM, Reynaert NL. *ERJ Open Res*. 2020 Jul 20;6(2):00368-2020. IF: 4.2.

2021

Nutritional Status and Body Composition in Patients Suffering From Chronic Respiratory Diseases and Its Correlation With Pulmonary Rehabilitation

Wouters EFM. *Front Rehabil Sci*. 2021 Dec 6;2:725534. IF 5.058

Redox Dysregulation in Aging and COPD: Role of NOX Enzymes and Implications for Antioxidant Strategies.

Schiffers C, Reynaert NL, Wouters EFM, van der Vliet A. *Antioxidants (Basel)*. 2021 Nov 11;10(11):1799. IF: 7.0.

The prevalence and related factors of fatigue in patients with COPD: a systematic review.

Ebadi Z, Goërtz YMJ, Van Herck M, Janssen DJA, Spruit MA, Burtin C, Thong MSY, Muris J, Otker J, Looijmans M, Vlasblom C, Bastiaansen J, Prins J, Wouters EFM, Vercoulen JH, Peters JB. *Eur Respir Rev*. 2021 Apr 13;30(160):200298. IF: 16.671

COPD Diagnosis: Time for Disruption

Wouters EFM, Breyer MK, Breyer-Kohansal R, Hartl S. *J Clin Med*. 2021 Oct 11;10(20):4660. IF: 2.659

Pre-Chronic Obstructive Pulmonary Disease: Toward the Limits of the Spirometric Funnel.

Wouters EFM. *Am J Respir Crit Care Med*. 2021 Jul 1;204(1):112. IF: 21.405.

Glutathione S-transferases and their implications in the lung diseases asthma and chronic obstructive pulmonary disease: Early life susceptibility?

Van de Wetering C, Elko E, Berg M, Schiffers CHJ, Stylianidis V, van den Berge M, Nawijn MC, Wouters EFM, Janssen-Heininger YMW, Reynaert NL. *Redox Biol*. 2021 Jul;43:101995. IF: 11.799

Transitioning from infancy to adulthood: a black box full of opportunities.

Agusti A, Breyer-Kohansal R, Faner R. *Eur Respir J*. 2021 Mar 4;57(3):2003997. IF: 12.339.

2022

Pathogenesis of chronic obstructive pulmonary disease: understanding the contributions of gene-environment interactions across the lifespan.

Agustí A, Melén E, DeMeo DL, Breyer-Kohansal R, Faner R Lancet Respir Med. 2022 May;10(5):512-524.Epub 2022 Apr 12. IF: 30.7

Spirometry: The Indefinite Search for Gold.

Wouters EFM, Breyer-Kohansal R. Chest. 2022 Mar;161(3):593-594. IF: 9.41

Take a breath – Is it time to re-think how we diagnose COPD?

Wouters EFM, Breyer M. Research Outreach 2022 Feb; Issue 128:78-79.

Blood eosinophil counts in the general population and airways disease: a comprehensive review and meta-analysis.

Benson VS, Hartl S, Barnes N, Galwey N, Van Dyke MK, Kwon N. Eur Respir J. 2022 Jan 13;59(1):2004590. IF: 33.795.

2023

The Pleiotropic Role of Vitamin K in Multimorbidity of Chronic Obstructive Pulmonary Disease.

Piscaer I, Janssen R, Franssen FME, Schurgers LJ, Wouters EFM. J Clin Med. 2023 Feb 5;12(4):1261. IF: 5.41

Prevalence of dyspnea in general adult populations: A systematic review and metaanalysis

Alexander Müller, Tobias Mraz, Emiel FM Wouters, Sander MJ van Kuijk, André FS Amaral, Robab Breyer-Kohansal, Marie-Kathrin Breyer, Sylvia Hartl, Daisy JA Janssen. Respiratory Medicine 2023, Aug;16 10.1016/j.rmed.2023.107379. IF: 4.582

Collaborative publications

2019

The European COPD audit: Adherence to guidelines, readmission risk and hospital care for acute exacerbations in Austria.

Breyer-Kohansal R, Hartl S, Breyer MK, Schrott A, Studnicka M, Neunhäuserer D, Fül.p G, Burghuber OC. Wien Klin Wochenschr 2019 Mar;131(5–6):97–103. IF: 1.704.

2020

Quality of Life and Limitations in Daily Life of Stable COPD Outpatients in a Real-World Setting in Austria - Results from the CLARA Project.

Horner A, Burghuber OC, Hartl S, Studnicka M, Merkle M, Olschewski H, Kaiser B, Wallner EM, Lamprecht B. Int J Chron Obstruct Pulmon Dis. 2020 Jul 12;15:1655-1663. IF: 3.157.

Atrial fibrillation: a risk factor for unfavourable outcome in COVID-19? A case report.

Schnaubelt S, Breyer MK, Siller-Matula J, Domanovits H. Eur Heart J Case Rep. 2020 Jun 24;4(F11):1-6. IF: 24.889.

2021

Effects of roflumilast on arterial stiffness in COPD (ELASTIC): A randomized trial.

Urban MH, Kreibich N, Gleiss A, Funk GC, Hartl S, Burghuber OC. Respirology. 2021 Feb;26(2):153-160. IF: 4.880.

Effects of Dynamic Hyperinflation on Left Ventricular Diastolic Function in Healthy Subjects - A Randomized Controlled Crossover Trial.

Urban MH, Mayr AK, Schmidt I, Grasmuk-Siegl E, Burghuber OC, Funk GC. Front Med (Lausanne). 2021 May 4;8:659108. IF: 5.058

Induction of dynamic hyperinflation by expiratory resistance breathing in healthy subjects - an efficacy and safety study.

Urban MH, Mayr AK, Schmidt I, Margulies E, Grasmuk-Siegl E, Burghuber OC, Funk GC. Exp Physiol. 2021 Feb;106(2):532-543. Epub 2020 Nov 23. IF: 2.858.

Soluble ST2 and All-Cause Mortality in Patients with Chronic Obstructive Pulmonary Disease-A 10-Year Cohort Study.

Urban MH, Stojkovic S, Demyanets S, Hengstenberg C, Valipour A, Wojta J, Burghuber OC. J Clin Med. 2021 Dec 23;11(1):56. IF: 5.410

Downregulation of epithelial DUOX1 in chronic obstructive pulmonary disease.

Schiffers C, van de Wetering C, Bauer RA, Habibovic A, Hristova M, Dustin CM, Lambrichts S, Vacek PM, Wouters EF, Reynaert NL, van der Vliet A. JCI Insight. 2021 Jan 25;6(2):e142189. IF: 6.205.

Downregulation of DUOX1 function contributes to aging-related impairment of innate airway injury responses and accelerated senile emphysema.

Schiffers C, Lundblad LKA, Hristova M, Habibovic A, Dustin CM, Daphtary N, Aliyeva M, Seward DJ, Janssen-Heininger YMW, Wouters EFM, Reynaert NL, van der Vliet A. Am J Physiol Lung Cell Mol Physiol. 2021 Jul 1;321(1):L144-L158. IF: 4.659.

2023

CT airway remodelling and chronic cough

Hazim Abozid, Miranda Kirby, Neha Nasir, Sylvia Hartl, Robab Breyer-Kohansal, Marie-Kathrin Breyer, Otto C Burghuber, Jean Bourbeau, Emiel F M Wouters, Wan Tan *BMJ Open Respir Res.* 2023; 10(1): e001462. Published online 2023 May 12. doi: 10.1136/bmjresp-2022-001462, IF: 7.162

Combined analysis of five non-interventional studies of the effectiveness, tolerability, and safety of the extrafine fixed dose beclomethasone/formoterol combination in the treatment of asthma in Austria.

Renner A, Marth K, Breyer-Kohansal R, Pohl W. *Respir Med.* 2023 Feb;207:107097. doi: 10.1016/j.rmed.2022.107097. Epub ahead of print. IF: 4.582

The association of spirometric small airways obstruction with respiratory symptoms, cardiometabolic diseases, and quality of life: results from the Burden of Obstructive Lung Disease (BOLD) study.

Ben Knox-Brown, Jaymini Patel, James Potts, Rana Ahmed, Althea Aquart-Stewart, Cristina Barbara, A Sonia Buist, Hamid Hacene Cherkaski, Meriam Denguezli, Mohammed Elbiaze, Gregory E Erhabor, Frits M E Franssen, Mohammed Al Ghobain, Thorarinn Gislason, Christer Janson, Ali Kocabaş, David Mannino, Guy Marks, Kevin Mortimer, Asaad Ahmed Nafees, Daniel Obaseki, Stefanni Nonna M Paraguas, Li Cher Loh, Abdul Rashid, Sundeep Salvi, Terence Seemungal, Michael Studnicka, Wan C Tan, Emiel F M Wouters, Hazim Abozid, Alexander Mueller, Peter Burney, Andre F S Amara *Respir Res.* 2023 May 23;24(1):137. IF: 7.16

Publications programme line 2 "Clinical Controlled Trials"

2019

EGFR Mutations in Cell-free Plasma DNA from Patients with Advanced Lung Adenocarcinoma: Improved Detection by Droplet Digital PCR.

Buder A, Setinek U, Hochmair MJ, Schwab S, Kirchbacher K, Keck A, Burghuber OC, Pirker R, Filipits M. Target Oncol 2019 Apr;14(2):197–203. IF: 4.036.

Liquid-Biopsy-Based Identification of EGFR T790M Mutation-Mediated Resistance to Afatinib Treatment in Patients with Advanced EGFR Mutation-Positive NSCLC, and Subsequent Response to Osimertinib.

Hochmair MJ, Buder A, Schwab S, et al. Target Oncol 2019 Feb;14(1):75–83. IF: 4.036.

Impact of afatinib dose modification on safety and effectiveness in patients with EGFR mutation-positive advanced NSCLC: Results from a global real-world study (RealGiDo).

Halmos B, Tan E-H, Soo RA, Burghuber OC; et al. Lung Cancer 2019 Jan;127:103–11. IF: 4.702.

2020

Results of the Austrian National Lung Cancer Audit.

Burghuber, OC, Kirchbacher K, Mohn-Staudner A, Hochmair M, Breyer M.-K, Studnicka M, Mueller M. R, Feurstein P, Schrott A, Lamprecht B, Eckmayr J, Renner F, Bolitschek J, Pohl W, Schenk P, Errhalt P, Cerkl P, Baumgartner B, Kneussl M, Hartl S. Clin Med Insights Oncol. 2020 Sep 10; 14:1179554920950548, IF.: 3.355

2021

Lung Cancer in Austria.

Pirker R, Prosch H, Popper H, Klepetko W, Dieckmann K, Burghuber OC, Klikovits T, Hoda MA, Zöchbauer-Müller S, Filipits M. J Thorac Oncol. 2021 May;16(5):725-733. IF: 20.121

Detection of EGFR Activating and Resistance Mutations by Droplet Digital PCR in Sputum of EGFR-Mutated NSCLC Patients.

Hackner K, Buder A, Hochmair MJ, Strieder M, Grech C, Fabikan H, Burghuber OC, Errhalt P, Filipits M. Clin Med Insights Oncol. 2021 Feb 17;15: 1179554921993072. IF: 4.925

2023

A real-world study of second or later-line osimertinib in patients with EGFR T790M-positive NSCLC: the final ASTRIS data.

Parneet Cheema, Byoung Chul Cho, Helano Freitas, Mariano Provencio, Yuh Min Chen, Sang- We Kim, Yi-Long Wu, Antonio Passaro, Claudio Martin, Marcello Tiseo, Gee-Chen Chang, Keunchil Park, Benjamin Solomon, Otto Burghuber, Janessa Laskin, Ziping Wang, Sung Yong Lee, Yanping Hu, Johan Vansteenkiste, He-Long Zhang, Emer Hanrahan, Thomas Geldart, Rosemary Taylor, Leslie Servidio, Jingyi Li, Filippo de Marinis Future Oncol. 2023 Jan;19(1):61-75. Epub 2023 Jan 19. IF: 3.3