

## Curriculum Vitae Professor Marcus A. Mall, M.D., FERS

Professor and Director, Department of Pediatric Pulmonology,  
Immunology and Critical Care Medicine  
Medical Director, CharitéCenter 17 for Obstetrics and Gynecology,  
and Child and Adolescent Medicine with Perinatal Center and  
Human Genetics  
Charité - Universitätsmedizin Berlin



### Scientific Vita

- Since 2020 Medical Director, CharitéCenter 17 for Obstetrics and Gynecology, and Child and Adolescent Medicine with Perinatal Center and Human Genetics
- Since 2018 W3-Professor of Pediatric Pulmonology and Immunology and Director of the Department of Pediatric Pulmonology, Immunology and Critical Care Medicine & Cystic Fibrosis Center, Charité - Universitätsmedizin Berlin
- Since 2018 BIH Professor, Berlin Institute of Health (BIH)
- 2012 - 2018 Director of the Translational Lung Research Center (TLRC) and Department of Translational Pulmonology, University of Heidelberg
- 2009 - 2018 W3-Professor and Head of the Division of Pediatric Pulmonology & Allergy and Cystic Fibrosis Center, Department of Pediatrics, University of Heidelberg
- 2009 - 2012 W3-Heisenberg Professor of Translational Pediatric Pulmonology
- 2007 - 2018 Attending Physician and Head of the Cystic Fibrosis Center, Department of Pediatrics, University of Heidelberg
- 2007 Habilitation and venia legendi, University of Heidelberg, Germany
- 2006 - 2018 Group leader at the Molecular Medicine Partnership Unit (MMPU) of the University of Heidelberg and the European Molecular Biology Laboratory (EMBL)
- 2006 - 2018 Faculty Member of the Hartmut Hoffmann-Berling International Graduate School of Molecular & Cellular Biology Heidelberg (HBIGS)
- 2005-2009 Group leader of EU-funded Independent Junior Research Group "Cystic Fibrosis / Chronic Airway Disease" (Marie Curie Excellence Team)
- 2004 - 2006 Fellow in Pediatric Pulmonology, Department of Pediatrics, University of Heidelberg
- 2003 - 2004 Assistant Professor, CF/Pulmonary Research and Treatment Center, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA
- 2000 - 2003 Postdoc and Research Associate, CF/Pulmonary Research and Treatment Center, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA
- 1997 - 2000 Resident, University Children's Hospital, University of Freiburg

- 1997           Dissertation (M.D.), University Freiburg
- 1990 – 1997   Medical School, University of Freiburg, Germany and University College  
London School of Medicine, UK

### **Clinical Qualifications**

- 2017           Licensed for Allergology
- 2011           Licensed for Infectious Diseases
- 2008           Licensed for Pediatric Pulmonology
- 2006           Licensed for Pediatrics and Adolescent Medicine

### **Other Professional Activities**

- 2018-2020    Vice President of the European Cystic Fibrosis Society (ECFS)
- 2017 - 2018   Chair and Co-Chair of the ECFS Basic Science Conference
- Since 2017    Member of the Program Planning Committee of the North American Cystic  
Fibrosis Conference (NACFC)
- 2016           Conference President of the 19<sup>th</sup> German Cystic Fibrosis Conference,  
Würzburg, Germany
- Since 2015    Member of the Scientific Advisory Board for the SickKids-Cystic Fibrosis  
Canada Program for Individualized CF Therapy (CFIT), Toronto, Canada
- 2014-2020    Member of the Board of the European Cystic Fibrosis Society (ECFS)
- 2011           Conference Vice-President, 34<sup>th</sup> ECFS Conference, Hamburg, Germany
- 2009 - 2012   Member of the ECFS Conference Scientific Steering Committee
- 2006 - 2012   Elected Member (2006-2009) and Chairman (2010-2012) of the Research  
Council of the Germany Cystic Fibrosis Association

### **Project Coordination and Membership in Collaborative Research Projects**

- Since 2021    Coordinator of the Berlin site of the German Center for Child and Youth  
Health (DZKJ)
- Since 2021    Deputy Speaker of the SFB 1449 „Dynamic Hydrogels at Biointerfaces“
- Since 2019    Coordinator and Speaker of the Innovationsfonds project “conneCT CF:  
Coaching and Telemonitoring for Patients with Cystic Fibrosis”
- 2018 - 2022   Principal Investigator of the SFB-TR 84 “Innate Immunity of the Lung:  
Mechanisms of Pathogen Attack and Host Defence in Pneumonia“
- 2013-2016    Principal Investigator of the EU collaborative project CFMATTERS -  
Cystic Fibrosis Microbiome-determined Antimicrobial Therapy Trial  
in Exacerbations: Results Stratified (7. Framework Programme)
- Since 2012    Director, Disease Area Cystic Fibrosis, German Center for Lung Research  
(DZL)
- 2011 – 2018   Founding Director and Member of the Executive Board, German Centre for  
Lung Research (DZL)

2009 – 2015 Principal Investigator of the BMBF collaborative project CARPuD:  
Network Cellular Approaches for Rare Pulmonary Diseases

### **Honors & Awards**

2020 Adalbert-Czerny-Prize, German Society of Pediatrics and Adolescent Medicine (DGKJ)

2020 ERS Excellence Award for Research in Cystic Fibrosis

2018 Einstein-Professorship, Einstein Foundation Berlin

2017 Fellow of ERS (FERS)

2009 Heisenberg-Professorship for Translational Pediatric Pulmonology, German Research Foundation (DFG)

2009 Research Award, German Society of Pulmonology (DGP)

2005 Marie Curie Excellence Grant (EU 6. Framework Programme)

2005 Johannes Wenner Prize, German Society of Pediatric Pulmonology (GPP)

2005 Professor David Shmeling Research Award, German Society of Pediatric Gastroenterology and Nutrition (GPGE)

2000 -2002 Research Fellowship, German Research Foundation (DFG)

1998 Albrecht Fleckenstein Young Investigator Award, University of Freiburg

1997 Adolf Windorfer Prize for Cystic Fibrosis Research, German CF Association

1994 - 1997 Scholarship of the German Student Scholarship Foundation (Studienstiftung des deutschen Volkes)

1993 - 1994 Scholarship of the German Academic Exchange Service (DAAD)

### **Memberships in Professional Societies**

Since 2019 Member of the Fleischner Society

Since 2010 European Respiratory Society (ERS)

Since 2010 German Society of Pulmonology (DGP)

Since 2006 American Thoracic Society (ATS)

Since 2004 German Cystic Fibrosis Association (Mukoviszidose e.V.)

Since 1999 European Cystic Fibrosis Society (ECFS)

Since 1998 German Physiological Society (DPG)

Since 1998 German Society of Pediatrics and Adolescent Medicine (DGKJ)

Since 1998 German Society of Pediatric Pulmonology (GPP)

## Publications

### Original Articles

Loske J, Rohmel J, Lukassen S, Stricker S, Magalhaes VG, Liebig J, Chua RL, Thurmann L, Messingschlager M, Seegebarth A, Timmermann B, Klages S, Ralser M, Sawitzki B, Sander LE, Corman VM, Conrad C, Laudi S, Binder M\*, Trump S\*, Eils R\*, **Mall MA\***, Lehmann I\*. Pre-activated antiviral innate immunity in the upper airways controls early SARS-CoV-2 infection in children. *Nat Biotechnol* 2021. [Epub ahead of print]. (\*equal contribution)

Loyal L, Braun J, Henze L, Kruse B, Dingeldey M, Reimer U, Kern F, Schwarz T, Mangold M, Unger C, Dorfler F, Kadler S, Rosowski J, Gurcan K, Uyar-Aydin Z, Frentsch M, Kurth F, Schnatbaum K, Eckey M, Hippenstiel S, Hocke A, Muller MA, Sawitzki B, Miltenyi S, Paul F, **Mall MA**, Wenschuh H, Voigt S, Drosten C, Lauster R, Lachman N, Sander LE, Corman VM, Rohmel J, Meyer-Arndt L, Thiel A, Giesecke-Thiel C. Cross-reactive CD4(+) T cells enhance SARS-CoV-2 immune responses upon infection and vaccination. *Science* 2021. [Epub ahead of print].

Goss CH, Fajac I, Jain R, Seibold W, Gupta A, Hsu MC, Sutharsan S, Davies JC, **Mall MA**. Efficacy and safety of inhaled ENaC inhibitor BI 1265162 in patients with cystic fibrosis: BALANCE-CF 1 - a randomised, Phase II study. *Eur Respir J* 2021. [Epub ahead of print].

Sharma A, Thongrom B, Bhatia S, von Lospichl B, Addante A, Graeber SY, Lauster D, **Mall MA**, Gradzielski M, Haag R. Polyglycerol-Based Mucus-Inspired Hydrogels. *Macromol Rapid Commun* 2021:e2100303. [Epub ahead of print].

Schroder A, Lunding LP, Zissler UM, Vock C, Webering S, Ehlers JC, Orinska Z, Chaker A, Schmidt-Weber CB, Lang NJ, Schiller HB, **Mall MA**, Fehrenbach H, Dinarello CA, Wegmann M. IL-37 regulates allergic inflammation by counterbalancing pro-inflammatory IL-1 and IL-33. *Allergy* 2021. [Epub ahead of print].

Theuring S, Thielecke M, van Loon W, Hommes F, Hulso C, von der Haar A, Korner J, Schmidt M, Bohringer F, **Mall MA**, Rosen A, von Kalle C, Kirchberger V, Kurth T, Seybold J, Mockenhaupt FP, Group BS. SARS-CoV-2 infection and transmission in school settings during the second COVID-19 wave: a cross-sectional study, Berlin, Germany, November 2020. *Euro Surveill* 2021;26.

Barry PJ\*, **Mall MA\***, Alvarez A, Colombo C, de Winter-de Groot KM, Fajac I, McBennett KA, McKone EF, Ramsey BW, Sutharsan S, Taylor-Cousar JL, Tullis E, Ahluwalia N, Jun LS, Moskowitz SM, Prieto-Centurion V, Tian S, Waltz D, Xuan F, Zhang Y, Rowe SM, Polineni D, Group VXS. Triple Therapy for Cystic Fibrosis Phe508del-Gating and -Residual Function Genotypes. *N Engl J Med* 2021;385:815-825. (\*equal contribution)

Stahl M, Steinke E, Graeber SY, Joachim C, Seitz C, Kauczor HU, Eichinger M, Hammerling S, Sommerburg O, Wielputz MO\*, **Mall MA\***. Magnetic Resonance Imaging Detects Progression of Lung Disease and Impact of Newborn Screening in Preschool Children with Cystic Fibrosis. *Am J Respir Crit Care Med* 2021. [Epub ahead of print]. (\*equal contribution)

Rohrich M, Leitz D, Glatting FM, Wefers AK, Weinheimer O, Flechsig P, Kahn N, **Mall MA**, Giesel FL, Kratochwil C, Huber PE, von Deimling A, Heussel CP, Kauczor HU, Kreuter M, Haberkorn UA. Fibroblast Activation Protein specific PET/CT imaging in fibrotic interstitial lung diseases and lung cancer: a translational exploratory study. *J Nucl Med* 2021. [Epub ahead of print].

Meisel C, Akbil B, Meyer T, Lankes E, Corman VM, Staudacher O, Unterwalder N, Kolsch U, Drosten C, **Mall MA**, Kallinich T, Schnabel D, Goffinet C, von Bernuth H. Mild COVID-19 despite autoantibodies to type I IFNs in Autoimmune-Polyendocrine-Syndrome Type 1 (APS-1). *J Clin Invest* 2021;131:e150867.

Hagner M, Albrecht M, Guerra M, Braubach P, Halle O, Zhou-Suckow Z, Butz S, Jonigk D, Hansen G, Schultz C, Dittrich AM\*, **Mall MA\***. IL-17A from innate and adaptive lymphocytes contributes to inflammation and damage in cystic fibrosis lung disease. *Eur Respir J* 2021;57. (\*equal contribution)

Gertler M, Krause E, van Loon W, Krug N, Kausch F, Rohardt C, Rossig H, Michel J, Nitsche A, **Mall MA**, Nikolai O, Hommes F, Burock S, Lindner AK, Mockenhaupt FP, Pison U, Seybold J. Self-collected oral, nasal and saliva samples yield sensitivity comparable to professionally collected oro-nasopharyngeal swabs in SARS-CoV-2 diagnosis among symptomatic outpatients. *Int J Infect Dis* 2021;110:261-266.

Engelmann TA, Knudsen L, Leitz DHW, Duerr J, Beers MF, **Mall MA**, Ochs M. Linking Fibrotic Remodeling and Ultrastructural Alterations of Alveolar Epithelial Cells after Deletion of Nedd4-2. *Int J Mol Sci* 2021;22.

Zemanick ET, Taylor-Cousar JL, Davies J, Gibson RL, **Mall MA**, McKone EF, McNally P, Ramsey BW, Rayment JH, Rowe SM, Tullis E, Ahluwalia N, Chu C, Ho T, Moskowitz SM, Noel S, Tian S, Waltz D, Weinstock TG, Xuan F, Wainwright CE, McColley SA. A Phase 3 Open-Label Study of Elexacaftor/Tezacaftor/Ivacaftor in Children 6 through 11 Years of Age with Cystic Fibrosis and at Least One F508del Allele. *Am J Respir Crit Care Med* 2021;203:1522-1532.

Leitz DHW, Duerr J, Mulugeta S, Agircan AS, Zimmermann S, Kawabe H, Dalpke AH, Beers MF, **Mall MA**. Congenital Deletion of Nedd4-2 in Lung Epithelial Cells Causes Progressive Alveolitis and Pulmonary Fibrosis in Neonatal Mice. *International Journal of Molecular Sciences* 2021;22:6146.

Graeber SY, Boutin S, Wielputz MO, Joachim C, Frey DL, Wege S, Sommerburg O, Kauczor HU, Stahl M, Dalpke AH, **Mall MA**. Effects of Lumacaftor-Ivacaftor on Lung Clearance Index, Magnetic Resonance Imaging, and Airway Microbiome in Phe508del Homozygous Patients with Cystic Fibrosis. *Ann Am Thorac Soc* 2021;18:971-980.

Thielecke M, Theuring S, van Loon W, Hommes F, **Mall MA**, Rosen A, Bohringer F, von Kalle C, Kirchberger V, Kurth T, Seybold J, Mockenhaupt FP, group Bs. SARS-CoV-2 infections in kindergartens and associated households at the start of the second wave in Berlin, Germany - a cross sectional study. *Eur J Public Health* 2021. [Epub ahead of print].

Frey DL, Guerra M, **Mall MA**, Schultz C. Monitoring Neutrophil Elastase and Cathepsin G Activity in Human Sputum Samples. *J Vis Exp* 2021.

Thee S, Stahl M, Fischer R, Sutharsan S, Ballmann M, Muller A, Lorenz D, Urbanski-Rini D, Puschner F, Amelung VE, Fuchs C, **Mall MA**. A multi-centre, randomized, controlled trial on coaching and telemonitoring in patients with cystic fibrosis: conneCT CF. *BMC Pulm Med* 2021;21:131.

Maschmeyer P, Heinz GA, Skopnik CM, Lutter L, Mazzoni A, Heinrich F, von Stuckrad SL, Wirth LE, Tran CL, Riedel R, Lehmann K, Sakwa I, Cimaz R, Giudici F, **Mall MA**, Enghard P, Vastert B, Chang HD, Durek P, Annunziato F, van Wijk F, Radbruch A, Kallinich T, Mashreghi

MF. Antigen-driven PD-1(+) TOX(+) BHLHE40(+) and PD-1(+) TOX(+) EOMES(+) T lymphocytes regulate juvenile idiopathic arthritis in situ. *Eur J Immunol* 2021;51:915-929.

van Loon W, Hommes F, Theuring S, von der Haar A, Korner J, Schmidt M, von Kalle C, **Mall MA**, Seybold J, Kurth T, Mockenhaupt FP. Renewed absence of SARS-CoV-2 infections in the day care context in Berlin, January 2021. *Clin Infect Dis* 2021. [Epub ahead of print].

Sommerburg O, Hammerling S, Schneider SP, Okun J, Langhans CD, Leutz-Schmidt P, Wielputz MO, Siems W, Graber SY, **Mall MA\***, Stahl M\*. CFTR Modulator Therapy with Lumacaftor/Ivacaftor Alters Plasma Concentrations of Lipid-Soluble Vitamins A and E in Patients with Cystic Fibrosis. *Antioxidants (Basel)* 2021;10. (\*equal contribution)

Hommes F, van Loon W, Thielecke M, Abramovich I, Lieber S, Hammerich R, Gehrke-Beck S, Linzbach E, Schuster A, von dem Busche K, Theuring S, Gertler M, Martinez GE, Richter J, Bergmann C, Bolke A, Bohringer F, **Mall MA**, Rosen A, Krannich A, Keller J, Bethke N, Kurzmann M, Kurth T, Kirchberger V, Seybold J, Mockenhaupt FP, Study Group B. SARS-CoV-2 Infection, Risk Perception, Behaviour and Preventive Measures at Schools in Berlin, Germany, during the Early Post-Lockdown Phase: A Cross-Sectional Study. *Int J Environ Res Public Health* 2021;18.

Ferreira-Gomes M, Kruglov A, Durek P, Heinrich F, Tizian C, Heinz GA, Pascual-Reguant A, Du W, Mothes R, Fan C, Frischbutter S, Habenicht K, Budzinski L, Ninnemann J, Jani PK, Guerra GM, Lehmann K, Matz M, Ostendorf L, Heiberger L, Chang HD, Bauherr S, Maurer M, Schonrich G, Raftery M, Kallinich T, **Mall MA**, Angermair S, Treskatsch S, Dorner T, Corman VM, Diefenbach A, Volk HD, Elezkurtaj S, Winkler TH, Dong J, Hauser AE, Radbruch H, Witkowski M, Melchers F, Radbruch A, Mashreghi MF. SARS-CoV-2 in severe COVID-19 induces a TGF-beta-dominated chronic immune response that does not target itself. *Nat Commun* 2021;12:1961.

Brown R, Small DM, Doherty DF, Holsinger L, Booth R, Williams R, Ingram RJ, Elborn JS, **Mall MA**, Taggart CC, Weldon S. Therapeutic Inhibition of Cathepsin S Reduces Inflammation and Mucus Plugging in Adult betaENaC-Tg Mice. *Mediators Inflamm* 2021;2021:6682657.

Salomon JJ, Albrecht T, Graeber SY, Scheuermann H, Butz S, Schatterny J, Mairbaurl H, Baumann I, **Mall MA**. Chronic rhinosinusitis with nasal polyps is associated with impaired TMEM16A-mediated epithelial chloride secretion. *J Allergy Clin Immunol* 2021;147:2191-2201 e2192.

Roehmel JF, Ogese MO, Rohrbach A, **Mall MA\***, Naisbitt DJ\*. Drug allergy to CFTR modulator therapy associated with lumacaftor-specific CD4+ T lymphocytes. *J Allergy Clin Immunol* 2021;147:753-756. (\*equal contribution)

Griese M, Costa S, Linnemann RW, **Mall MA**, McKone EF, Polineni D, Quon BS, Ringshausen FC, Taylor-Cousar JL, Withers NJ, Moskowitz SM, Daines CL. Safety and Efficacy of Elexacaftor/Tezacaftor/Ivacaftor for 24 Weeks or Longer in People with Cystic Fibrosis and One or More F508del Alleles: Interim Results of an Open-Label Phase 3 Clinical Trial. *Am J Respir Crit Care Med* 2021;203:381-385.

Frey DL, Boutin S, Dittrich SA, Graeber SY, Stahl M, Wege S, Herth FJF, Sommerburg O, Schultz C, **Mall MA\***, Dalpke AH\*. Relationship between airway dysbiosis, inflammation and lung function in adults with cystic fibrosis. *J Cyst Fibros* 2021. (\*equal contribution) [Epub ahead of print].

Guerra M, Halls VS, Schatterny J, Hagner M, **Mall MA\***, Schultz C\*. Protease FRET Reporters Targeting Neutrophil Extracellular Traps. *J Am Chem Soc* 2020;60:813-822. (\*equal contribution)

Graeber SY, van Mourik P, Vonk AM, Kruisselbrink E, Hirtz S, van der Ent CK, **Mall MA\***, Beekman JM\*. Comparison of organoid swelling and *in vivo* biomarkers of CFTR function to determine effects of lumacaftor-ivacaftor in patients with cystic fibrosis homozygous for the F508del mutation. *Am J Respir Crit Care Med* 2020;202:1589-1592. (\*equal contribution)

Triphan SMF, Stahl M, Jobst BJ, Sommerburg O, Kauczor HU, Schenk JP, Alrajab A, Eichinger M, **Mall MA**, Wielpütz MO. Echo Time-Dependence of Observed Lung T(1) in Patients With Cystic Fibrosis and Correlation With Clinical Metrics. *J Magn Reson Imaging* 2020;52:1645-1654.

Braun J, Loyal L, Frentsch M, Wendisch D, Georg P, Kurth F, Hippenstiel S, Dingeldey M, Kruse B, Fauchere F, Baysal E, Mangold M, Henze L, Lauster R, **Mall MA**, Beyer K, Röhm J, Voigt S, Schmitz J, Miltenyi S, Demuth I, Müller MA, Hocke A, Witzenrath M, Suttorp N, Kern F, Reimer U, Wenschuh H, Drosten C, Corman VM, Giesecke-Thiel C, Sander LE, Thiel A. SARS-CoV-2-reactive T cells in healthy donors and patients with COVID-19. *Nature* 2020;587:270-274.

Stahl M, Joachim C, Kirsch I, Uselmann T, Yu Y, Alfeis N, Berger C, Minso R, Rudolf I, Stolpe C, Bovermann X, Liboschik L, Steinmetz A, Tennhardt D, Dorfler F, Rohmel J, Unorji-Frank K, Ruckes-Nilges C, von Stoutz B, Naehrlich L, Kopp MV, Dittrich AM, Sommerburg O, **Mall MA**. Multicentre feasibility of multiple-breath washout in preschool children with cystic fibrosis and other lung diseases. *ERJ Open Res* 2020;6:00408-2020

Vega G, Guequén A, Philp AR, Gianotti A, Arzola L, Villalón M, Zegarra-Moran O, Galiotta LJ, **Mall MA**, Flores CA. Lack of Kcnn4 improves mucociliary clearance in muco-obstructive lung disease. *JCI Insight* 2020;5:e140076.

Kurth F, Roennefarth M, Thibeault C, Corman VM, Muller-Redetzky H, Mittermaier M, Ruwwe-Glosenkamp C, Heim KM, Krannich A, Zvorc S, Schmidt S, Kretzler L, Dang-Heine C, Rose M, Hummel M, Hocke A, Hubner RH, Opitz B, **Mall MA**, Rohmel J, Landmesser U, Pieske B, Knauss S, Endres M, Spranger J, Mockenhaupt FP, Tacke F, Treskatsch S, Angermair S, Siegmund B, Spies C, Weber-Carstens S, Eckardt KU, Schurmann D, Uhrig A, Stegemann MS, Zoller T, Drosten C, Suttorp N, Witzenrath M, Hippenstiel S, von Kalle C, Sander LE. Studying the pathophysiology of coronavirus disease 2019: a protocol for the Berlin prospective COVID-19 patient cohort (Pa-COVID-19). *Infection* 2020;48:619-626

Terliesner N, Lesniowski D, Krasnikova A, Korte M, Terliesner M, **Mall MA**, Dittrich K. Geographical accessibility of pediatric inpatient, nephrology, and urology services in Europe. *Front Pediatr* 2020;8:395.

Stuart WD, Guo M, Fink-Baldauf IM, Coleman AM, Clancy JP, **Mall MA**, Lim FY, Brewington JJ, Maeda Y. CRISPRi-mediated functional analysis of lung disease-associated loci at non-coding regions. *NAR Genom Bioinform* 2020;2:lqaa036.

Stoler I, Freytag J, Orak B, Unterwalder N, Henning S, Heim K, von Bernuth H, Krüger R, Winkler S, Eschenhagen P, Seipelt E, **Mall MA**, Foell D, Kessel C, Wittkowski H, Kallinich T. Gene-dose effect of MEFV gain-of-function mutations determines *ex vivo* neutrophil activation in familial mediterranean fever. *Front Immunol* 2020;11:716.

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Kumar V, Agrawal R, Pandey A, Kopf S, Hoeffgen M, Kaymak S, Bandapalli OR, Gorbunova V, Seluanov A, **Mall MA**, Herzig S, Nawroth PP. Compromised DNA repair is responsible for diabetes-associated fibrosis. *EMBO J* 2020;39:e103477.

Montgomery ST, Frey DL, **Mall MA**, Stick SM, Kicic A. Rhinovirus infection is associated with airway epithelial cell necrosis and inflammation via interleukin-1 in young children with cystic fibrosis. *Front Immunol* 2020;11:596.

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Belard S, Brand J, Schulze-Sturm U, Janda A, von Both U, Tacoli C, Alberer M, Kempf C, Stegemann MS, Kruger R, Varnholt V, Blohm M, Reiter K, Zoller T, Suttorp N, Mall M, von Bernuth H, Gratopp A, Hubner J, Hufnagel M, Kobbe R, Kurth F. Intravenous artesunate for imported severe malaria in children treated in four tertiary care centers in germany: A retrospective study. *Pediatr Infect Dis J* 2019; 38: e295-e300.

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### ***Monographs and Special Issues***

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