



EDITORIALS

- 693 The European Respiratory Society evaluates its 2013–2018 strategic plan implementation**
Giovanni Battista Migliori, Elisabeth Bel, Guy Joos, Mark Elliott, Gernot Rohde, Stephen T. Holgate, Christina Gratiou, Dan Smyth, Mina Gaga, Carlos Robalo Cordeiro, Otto C. Burghuber, Guy Brusselle, Fernando Martin-Burrieza, Werner Bill, Betty Sax and Jørgen Vestbo
- 699 Accuracy of diagnostic testing in primary ciliary dyskinesia: are we there yet?**
Eric G. Haarman and Miriam Schmidts
- 702 Clinical significance and management of right heart thrombi: more questions than answers**
David Jiménez and Roger D. Yusen
- 704 Diagnostics for latent TB infection: incremental, not transformative progress**
Madhukar Pai and Giovanni Sotgiu
- 707 Specific antigen(s) in sarcoidosis: a link to autoimmunity?**
Gernot Zissel and Joachim Müller-Quernheim
- 710 Catch-up alveolar development into adulthood: also in those born prematurely?**
Peter J.F.M. Merkus
- 714 A model for active and healthy ageing with a rare genetic disease: cystic fibrosis**
Raphael Chiron, Davide Caimmi, Arunas Valiulis, Isabelle Durieu, Patrick Tejedor, Yam Le Cam, Mathieu Boudes, Oliver Jonquet, Timo Strandberg, Jean-Pierre Michel, Esteban de Manuel Keenoy, Pascal Demoly, Jacques Mercier, Radolphe Bourret and Jean Bousquet on behalf of MACVIA-LR European Innovation Partnership on Active and Healthy Ageing Reference Site
- 720 Histological grading in lung cancer: one system for all or separate systems for each histological type?**
William D. Travis, Elisabeth Brambilla and Kim R. Geisinger

TASK FORCE REPORT

- ERS statement**
- 724 Towards the standardisation of lung sound nomenclature**
Hans Pasterkamp, Paul L.P. Brand, Mark Everard, Luis Garcia-Marcos, Hasse Melbye and Kostas N. Priftis

ORIGINAL ARTICLES



Epidemiology

- 733 Commuting mode and pulmonary function in Shanghai, China**
Adam W. Gaffney, Jing-qing Hang, Mi-Sun Lee, Li Su, Feng-ying Zhang and David C. Christiani
- 742 Lung function, forced expiratory volume in 1 s decline and COPD hospitalisations over 44 years of follow-up**
Suneela Zaigham, Per Wollmer and Gunnar Engström
- Asthma**
- 751 Fractional exhaled nitric oxide for the management of asthma in adults: a systematic review**
Munira Essat, Sue Hannan, Tim Gomersall, Paul Tappenden, Ruth Wong, Ian Pavord, Rod Lawson and Mark L. Everard
- 769 Activin-A is overexpressed in severe asthma and is implicated in angiogenic processes**
Konstantinos Samitas, Nikolaos Poulos, Maria Semitekolou, Ioannis Morianos, Sofia Tousa, Erasmia Economidou, Douglas S. Robinson, Harsha H. Kariyawasam, Eleftherios Zervas, Christopher J. Corrigan, Sun Ying, Georgina Xanthou and Mina Gaga
- 783 Inhibition of Pim1 kinase, new therapeutic approach in virus-induced asthma exacerbations**
Maaike de Vries, Nicole Bedke, Natalie P. Smithers, Matthew Loxham, Peter H. Howarth, Martijn C. Nawijn and Donna E. Davies
- 792 Airway dysbiosis: *Haemophilus influenzae* and *Tropheryma* in poorly controlled asthma**
Jodie L. Simpson, Joshua Daly, Katherine J. Baines, Ian A. Yang, John W. Upham, Paul N. Reynolds, Sandra Hodge, Alan L. James, Philip Hugenholtz, Dana Willner and Peter G. Gibson
- 801 Trends and predictors of asthma costs: results from a 10-year longitudinal study**
Ngiap Chuan Tan, Hai V. Nguyen, Weng Kit Lye, Usha Sankari and Nivedita V. Nadkarni

Paediatric pulmonology

- 810 Prenatal exposure to antibiotics and wheezing in infancy: a birth cohort study**
Maja Popovic, Franca Rusconi, Daniela Zugna, Claudia Galassi, Franco Merletti, Enrica Migliore, Morena Trevisan, Tiziana Nannelli, Luigi Gagliardi and Lorenzo Richiardi
- 818 Social inequalities in wheezing in children: findings from the UK Millennium Cohort Study**
David C. Taylor-Robinson, Anna Pearce, Margaret Whitehead, Rosalind Smyth and Catherine Law

ORIGINAL ARTICLES (CONTINUED)

Cystic fibrosis and primary ciliary dyskinesia

- 829** **Changes in airway inflammation during pulmonary exacerbations in patients with cystic fibrosis and primary ciliary dyskinesia**
Felix Ratjen, Valerie Waters, Michelle Klingel, Nancy McDonald, Sharon Dell, Timothy Ronan Leahy, Yvonne Yau and Hartmut Grasemann

Primary ciliary dyskinesia

CME article **837**



Press release

Accuracy of diagnostic testing in primary ciliary dyskinesia

- Claire L. Jackson, Laura Behan, Samuel A. Collins, Patricia M. Goggin, Elizabeth C. Adam, Janice L. Coles, Hazel J. Evans, Amanda Harris, Peter Lackie, Samantha Packham, Anton Page, James Thompson, Woolf T. Walker, Claudia Kuehni and Jane S. Lucas

Press release

An international registry for primary ciliary dyskinesia

- Claudius Werner, Martin Lablans, Maximilian Ataian, Johanna Raidt, Julia Wallmeier, Jörg Große-Onnebrink, Claudia E. Kuehni, Eric G. Haarman, Margaret W. Leigh, Alexandra L. Quittner, Jane S. Lucas, Claire Hogg, Michal Witt, Kostas N. Priftis, Panayiotis Yiallouros, Kim G. Nielsen, Francesca Santamaría, Frank Ückert and Heymut Omran

Sleep

860

Impact of sleep disturbances on kidney function decline in the elderly

- Isabelle Jaussent, Jean-Paul Cristol, Benedicte Stengel, Marie-Laure Ancelin, Anne-Marie Dupuy, Alain Berset, Catherine Helmer, Karen Ritchie, Claudine Berr and Yves Dauvilliers

Pulmonary vascular disease

869

Outcome of patients with right heart thrombi: the Right Heart Thrombi European Registry

- Marcin Koć, Maciej Kostrubiec, Waldemar Elikowski, Nicolas Meneveau, Mareike Lankeit, Stefano Grifoni, Agnieszka Kuch-Wocial, Antoniu Petris, Beata Zaborska, Branislav S. Stefanović, Thomas Hugues, Adam Torbicki, Stavros Konstantinides and Piotr Pruszczak for the RiHTER Investigators

876

Nestin-expressing vascular wall cells drive development of pulmonary hypertension

- Farhan Saboor, Ansgar N. Reckmann, Claudia U.M. Tomczyk, Dorothea M. Peters, Norbert Weissmann, Andre Kaschtanow, Ralph T. Schermuly, Tatyana V. Michurina, Grigori Enikolopov, Dieter Müller, Andrea Mietens and Ralf Middendorff

Interstitial lung diseases

889

Recombinant human pentraxin-2 therapy in patients with idiopathic pulmonary fibrosis: safety, pharmacokinetics and exploratory efficacy

- Bernt van den Blink, Marlous R. Dillingh, Leo C. Gijs, Lake D. Morrison, Matthijs Moerland, Marlies Wijnenbeek, Elizabeth G. Trehu, Brian J. Bartholmai and Jacobus Burggraaf

898

T-cell receptor–HLA-DRB1 associations suggest specific antigens in pulmonary sarcoidosis

- Johan Grunewald, Ylva Kaiser, Mahyar Ostadkarampour, Natalia V. Rivera, Francesco Vezzi, Britta Löstedt, Remi-André Olsen, Lina Sylvan, Sverker Lundin, Max Käller, Tatiana Sandalova, Kerstin M. Ahlgren, Jan Wahlström, Adnane Achour, Marcus Ronninger and Anders Eklund

910

NLRP3 inflammasome expression in idiopathic pulmonary fibrosis and rheumatoid lung

- Ismini Lasithiotaki, Ioannis Giannarakis, Eliza Tsitoura, Katerina D. Samara, George A. Margaritopoulos, Christiana Choulaki, Eirini Vasarmidi, Nikolaos Tzanakis, Argyro Voloudaki, Prodromos Sidiropoulos, Nikolaos M. Siafakas and Katerina M. Antoniou

Tuberculosis

919

Sensitivity of C-Tb: a novel RD-1-specific skin test for the diagnosis of tuberculosis infection

- Soren T. Hoff, Jonathan G. Peter, Grant Theron, Mellissa Pascoe, Pernille N. Tingskov, Henrik Aggerbeck, Daniel Kolbus, Morten Ruhwald, Peter Andersen and Keertan Dheda

929

Light-emitting diode fluorescence microscopy for tuberculosis diagnosis: a meta-analysis

- Eva W. Chang, Anne-Laure Page and Maryline Bonnet

Lung cancer

938

Proposal of a prognostically relevant grading scheme for pulmonary squamous cell carcinoma

- Wilko Weichert, Claudia Kossakowski, Alexander Harms, Peter Schirmacher, Thomas Muley, Hendrik Dienemann and Arne Warth

947

Small cell lung cancer in never-smokers

- María Torres-Durán, Alberto Ruano-Ravina, Karl T. Kelsey, Isaura Parente-Lamelas, Mariano Provencio, Virginia Leiro-Fernández, José Abal-Arca, Carmen Montero-Martínez, Iria Vidal-García, Carolina Pena, Olalla Castro-Añón, Antonio Golpe-Gómez, Cristina Martínez, Rosiris Guzmán-Taveras, María José Mejuto-Martí, Alberto Fernández-Villar and Juan Miguel Barros-Dios

Mechanisms of lung disease

954

Influenza virus damages the alveolar barrier by disrupting epithelial cell tight junctions

- Kirsty R. Short, Jennifer Kasper, Stijn van der Aa, Arno C. Andeweg, Fatiha Zaaraoui-Boutahar, Marco Goeijenbier, Mathilde Richard, Susanne Herold, Christin Becker, Dana P. Scott, Ronald W.A.L. Limpens, Abraham J. Koster, Montserrat Bárcena, Ron A.M. Fouchier, Charles James Kirkpatrick and Thijs Kuiken

BACK TO BASICS

967

The emerging role of myeloid-derived suppressor cells in lung diseases

- Saeed Kolahian, Hasan Halit Öz, Benyuan Zhou, Christoph M. Griessinger, Nikolaus Rieber and Dominik Hartl

AGORA

Research letters

- 978 Sputum inflammatory cells in COPD patients classified according to GOLD 2011 guidelines**
Maria Laura Bartoli, Francesco Costa, Laura Malagrinò, Dario Nieri, Sandra Antonelli, Giovanna Decusatis, Claudia De Simone, Sabrina Santerini, Silvana Cianchetti, Manuela Latorre, Barbara Vagaggini and Pierluigi Paggiaro
- 981 Description of randomised controlled trial of inhaled corticosteroid/fast-onset LABA reliever therapy in mild asthma**
Richard Beasley, Ian Pavord, Alberto Papi, Helen K. Reddel, Tim Harrison, Guy B. Marks, Robert J. Hancox and Mark Weatherall
- 985 Asthma and respiratory allergy prevalence is still increasing among Finnish young adults**
Pekka Jousilahti, Tari Haahtela, Tiina Laatikainen, Mika Mäkelä and Erkki Virtainen
- 987 Obstructive sleep apnoea as a risk factor for osteopenia and osteoporosis in the male population**
Claudio Ligueri, Nicola Biagio Mercuri, Francesca Izzi, Andrea Romigi, Alberto Cordella, Eleonora Piccirilli, Salvatore Viola, Silvio Costa, Paolo Sbraccia, Maria Grazia Marciani, Umberto Tarantino and Fabio Placidi
- 990 Deficient interleukin-17 production in response to *Mycobacterium abscessus* in cystic fibrosis**
Katharina L. Becker, Jakko van Ingen, Jaap ten Oever, Peter J. Merkus, Gerben Ferwerda, Mihai G. Netea, Cecile Magis-Escurra, Monique H. Reijers and Frank L. van de Veerdonk
- 994 Does mass spectrometric breath analysis detect *Pseudomonas aeruginosa* in cystic fibrosis?**
Rishi Pabary, Juzheng Huang, Sachleen Kumar, Eric W.F.W. Alton, Andrew Bush, George B. Hanna and Jane C. Davies
- 997 Monoallelic germline ATM mutation and organising pneumonia induced by radiation therapy to the breast**
Jean-François Cordier, Vincent Cottin, Romain Lazor and Dominique Stoppa-Lyonnet
- 1000 Regimens for nontuberculous mycobacterial lung disease lack early bactericidal activity**
Michiel H.C. Slaats, Wouter Hoefsloot, Cecile Magis-Escurra, Martin J. Boeree, Melanie Wattenberg, Saskia Kuipers and Jakko van Ingen
- 1003 Low paediatric tuberculosis case detection rate in Southern Mozambique**
Elisa López-Varela, Orvalho Joaquim Augusto, Luis Guerra, Durval Respeito, Charfudin Sacoor, Jahit Sacarlal, Giovanni Battista Migliori, Giovanni Sotgiu, Pedro L. Alonso and Alberto L. García-Basteiro
- 1005 Polymers of Z α_1 -antitrypsin are secreted in cell models of disease**
Annamaria Fra, Francesca Cosmi, Adriana Ordóñez, Romina Berardelli, Juan Perez, Noemí A. Guadagno, Luciano Corda, Stefan J. Marciniak, David A. Lomas and Elena Miranda
- Correspondence**
- 1010 Practical tools for implementing early palliative care in advanced lung cancer**
Annelies Janssens, Liesbeth Teugels, Sisca Kohl, Toke Michielsen, Bert Leysen and Jan P. van Meerbeeck
- 1012 Paradoxical decrease in isoprostane and increase in superoxide dismutase following CPAP withdrawal in OSA**
Denis Monneret and Dominique Bonnefont-Rousselot; Charalambos Antoniades, Regent Lee, Malcolm Kohler and John Stradling