



EDITORIALS

- 827 **Hypertonic saline for acute viral bronchiolitis: take the evidence with a grain of salt**
Jürg Barben and Claudia E. Kuehni
- 831 **Club cells, CC10 and self-control at the epithelial surface**
Pieter S. Hiemstra and Arnaud Bourdin
- 833 **The COPD Assessment Test: what have we learned over its first 5 years?**
Paul W. Jones
- 835 **Obstructive sleep apnoea and hypertension: the ESADA study**
R. Doug McEvoy
- 839 **Connective tissue disease-associated pulmonary arterial hypertension: "Beijing style"**
Lorinda Chung and Steven M. Kawut
- 842 **Is inflammation a potential therapeutic target in chronic thromboembolic pulmonary hypertension?**
Rozenn Quarck and Marion Delcroix
- 846 **Protein quality control in lung disease: it's all about cloud networking**
Silke Meiners and Catherine M. Greene
- 850 **Lung cancer in never-smokers: radon exposure and environmental tobacco smoke**
Boris B.M. Melloni
- 853 **The expert patient: towards a novel definition**
Jean-François Cordier

FROM THE MUSEUM

- 858 **From the Museum: the Art of Thinking. Part 8: Memory**
Tom Kotsimbos

ORIGINAL ARTICLES

COPD and asthma

- 860 **Common genes underlying asthma and COPD? Genome-wide analysis on the Dutch hypothesis**
Joanna Smolonska, Gerard H. Koppelman, Cisca Wijmenga, Judith M. Vonk, Pieter Zanen, Marcel Bruinenberg, Ivan Curjuric, Medea Imboden, Gian-Andri Thun, Lude Franke, Nicole M. Probst-Hensch, Peter Nürnberg, Roland A. Riemersma, Constant P. van Schayck, Daan W. Loth, Guy G. Brusselle, Bruno H. Stricker, Albert Hofman, André G. Uitterlinden, Lies Lahousse, Stephanie J. London, Laura R. Loehr, Ani Manichaikul, R. Graham Barr, Kathleen M. Donohue, Stephen S. Rich, Peter Pare, Yohan Bossé, Ke Hao, Maarten van den Berge, Harry J.M. Groen, Jan-Willem J. Lammers, Willem Mali, H. Marike Boezen and Dirkje S. Postma

COPD

- 873 **The COPD assessment test: a systematic review**
Nisha Gupta, Lancelot M. Pinto, Andreea Morogan and Jean Bourbeau
- 885 **Ground-based walking training improves quality of life and exercise capacity in COPD**
Sally L. Wootton, L.W. Cindy Ng, Zoe J. McKeough, Sue Jenkins, Kylie Hill, Peter R. Eastwood, David R. Hillman, Nola Cecins, Lissa M. Spencer, Christine Jenkins and Jennifer A. Alison

Asthma and smoking

- 895 **Low sputum MMP-9/TIMP ratio is associated with airway narrowing in smokers with asthma**
Rekha Chaudhuri, Charles McSharry, Jeffrey Brady, Christal Grierson, C. Martina Messow, Mark Spears, Gino Miele, Karl Nocka, William MacNee, Martin Connell, John T. Murchison, Michael Sproule, Omar J. Hilmi, Douglas K. Miller and Neil C. Thomson

Lung function

- 905 **All-age relationship between arm span and height in different ethnic groups**
Philip H. Quanjer, André Capderou, Mumtaz M. Mazicioglu, Ashutosh N. Aggarwal, Sudip Datta Banik, Stevo Popovic, Francis A.K. Tayie, Mohammad Golshan, Mary S.M. Ip and Marc Zelter

Paediatric pulmonology

- 913 **The effect of 3% and 6% hypertonic saline in viral bronchiolitis: a randomised controlled trial**
Jasmijn Teunissen, Anne H.J. Hochs, Anja Vaessen-Verberne, Annemie L.M. Boehmer, Carien C.J.M. Smeets, Hein Brackel, René van Gent, Judith Wesseling, Danielle Logtens-Stevens, Ronald de Moor, Philippe P.R. Rosias, Steph Potgieter, Marianne R. Faber, Han J.E. Hendriks, Maryska L.G. Janssen-Heijnen and Bettina F. Loza

ORIGINAL ARTICLES (CONTINUED)

Cystic fibrosis

- 922 Pyrosequencing reveals transient cystic fibrosis lung microbiome changes with intravenous antibiotics**
Daniel J. Smith, Alison C. Badrick, Martha Zakrzewski, Lutz Krause, Scott C. Bell, Gregory J. Anderson and David W. Reid

Sleep

- 931 Nocturnal intermittent hypoxia predicts prevalent hypertension in the European Sleep Apnoea Database cohort study**
Ruzena Tkacova, Walter T. McNicholas, Martin Javorsky, Ingo Fietze, Pawel Sliwinski, Gianfranco Parati, Ludger Grote and Jan Hedner, on behalf of the European Sleep Apnoea Database study collaborators

Pulmonary vascular diseases

- 942 Trends in hospital admissions for pulmonary embolism in Spain from 2002 to 2011**
Javier de Miguel-Díez, Rodrigo Jiménez-García, David Jiménez, Manuel Monreal, Ricardo Guijarro, Remedios Otero, Valentín Hernández-Barrera, Javier Trujillo-Santos, Ana López de Andrés and Pilar Carrasco-Garrido
- 951 Comprehensive analysis of inflammatory markers in chronic thromboembolic pulmonary hypertension patients**
Diana Zabini, Akos Heinemann, Vasile Foris, Chandran Nagaraj, Patrick Nierlich, Zoltán Bálint, Grazyna Kwapiszewska, Irene M. Lang, Walter Klepetko, Horst Olschewski and Andrea Olschewski
- 963 Connective tissue disease-associated pulmonary arterial hypertension in Chinese patients**
Yan-Jie Hao, Xin Jiang, Wei Zhou, Yong Wang, Lan Gao, Yu Wang, Guang-Tao Li, Tao Hong, Yong Huo, Zhi-Cheng Jing and Zhuo-Li Zhang

Tuberculosis

- 973 Microscopic observation drug susceptibility assay for the diagnosis of TB and MDR-TB in HIV-infected patients: a systematic review and meta-analysis**
Philip Wikman-Jorgensen, Jara Llenas-García, Michael Hobbins, Jochen Ehmer, Rosa Abellana, Alessandra Queiroga Gonçalves, Tomàs Maria Pérez-Porcuna and Carlos Ascaso

Sarcoidosis

- 985 Longitudinal analysis of sarcoidosis blood transcriptomic signatures and disease outcomes**
Robert Su, Michael M. Li, Nirav R. Bhakta, Owen D. Solberg, Eli P.B. Darnell, Joris Ramstein, Suresh Garudadri, Melissa Ho, Prescott G. Woodruff and Laura L. Koth

Lung cancer

- CME article 994 Lung cancer in never-smokers: a case-control study in a radon-prone area (Galicia, Spain)**
María Torres-Durán, Alberto Ruano-Ravina, Isaúra Parente-Lamelas, Virginia Leiro-Fernández, José Abal-Arca, Carmen Montero-Martínez, Carolina Peña-Alvarez, Francisco Javier González-Barcala, Olalla Castro-Añón, Antonio Golpe-Gómez, Cristina Martínez, María José Mejuto-Martí, Alberto Fernández-Villar and Juan Miguel Barros-Díos

Experimental studies

- 1002 Club cell 10-kDa protein attenuates airway mucus hypersecretion and inflammation**
Erika Tokita, Tsuyoshi Tanabe, Kazuhito Asano, Harumi Suzuki and Bruce K. Rubin

SERIES

SERIES "CHALLENGES AND CONTROVERSIES IN THORACIC ONCOLOGY"

Edited by J.-P. Sculier, B. Besse and P. Van Schil

Number 5 in this Series

- 1011 Tumour tissue sampling for lung cancer management at the time of personalised therapy: what is good enough for molecular testing?**
Lucia Kim and Ming Sound Tsao

SERIES "PHYSIOLOGY IN RESPIRATORY MEDICINE"

Edited by R. Naeije, D. Chemla, A. Vonk-Noordegraaf and A.T. Dinh-Xuan

Number 7 in this Series

- Gas exchange and ventilation-perfusion relationships in the lung**
Johan Petersson and Robb W. Glenny

BACK TO BASICS

- 1042 CFTR: cystic fibrosis and beyond**
Marcus A. Mall and Dominik Hartl

STATE OF THE ART

SERIES "MULTIMORBIDITY AND THE LUNG"

Edited by L.M. Fabbri and J.M. Drazen

Number 2 in this Series

- 1055 Ageing and the epidemiology of multimorbidity**
Miguel J. Divo, Carlos H. Martinez and David M. Mannino

AGORA

Research letters

- 1069 Mechanisms of exertional dyspnoea in pulmonary veno-occlusive disease with *EIF2AK4* mutations**
Pierantonio Laveziana, David Montani, Peter Dorfmüller, Barbara Girerd, Olivier Sitbon, Xavier Jaïs, Laurent Savale, Mélanie Eyries, Florent Soubrier, Thomas Similowski, Gérald Simonneau, Marc Humbert and Gilles Garcia
- 1072 The concept of control in COPD: a new proposal for optimising therapy**
Juan José Soler-Cataluña, Bernardino Alcázar-Navarrete and Marc Miravitles
- 1075 Rhinovirus infection in young children is associated with elevated airway TSLP levels**
Geovanny F. Perez, Krishna Pancham, Shehlanoor Huseni, Diego Preciado, Robert J. Freishtat, Anamaris M. Colberg-Poley, Eric P. Hoffman, Mary C. Rose and Gustavo Nino
- 1078 Increased prevalence of pre-school wheeze is not explained by time trends in body mass index**
Myrofora Goutaki, Anina M. Pescatore, Parvinder Singh, Caroline S. Beardsmore and Claudia E. Kuehni
- 1082 RA autoantibodies as predictors of rheumatoid arthritis in non-cystic fibrosis bronchiectasis patients**
Elizabeth Perry, Chris Stenton, Clive Kelly, Paul Eggleton, David Hutchinson and Anthony De Soyza
- 1085 Human-to-human transmission of *Mycobacterium kansasii* or victims of a shared source?**
William M. Ricketts, Terence C. O'Shaughnessy and Jakko van Ingen
- 1087 Early BCG vaccination is unrelated to pulmonary immunity against *Mycobacterium tuberculosis* in adults**
Christian Herzmann, Giovanni Sotgiu, Tom Schaberg, Martin Ernst, Steffen Stenger and Christoph Lange, for the German TB or Not TB Consortium
- 1090 Evaluation of Xpert MTB/RIF assay performance in diagnosing extrapulmonary tuberculosis among adults in a tertiary care centre in India**
Surendra K. Sharma, Mikashmi Kohli, Jigyasa Chaubey, Raj Narayan Yadav, Rohini Sharma, Binit Kumar Singh, Vishnubhatla Sreenivas, Abhishek Sharma, Rohit Bhatia, Deepali Jain, V. Seenu, Anita Dhar and Manish Soneja

Correspondence

- 1094 Using cerebrospinal fluid for the diagnosis of tuberculous meningitis with GeneXpert**
Robert F. Luo, Rajiv L. Gaur and Niaz Banaei; Claudia M. Denkinger and Madhukar Pai
- 1096 Importance of concomitant local and systemic eosinophilia in uncontrolled asthma**
Carl Persson and Lena Uller; Florence N. Schleich and Renaud Louis
- 1099 Manuscript cited in “Specific inhalation challenge in the diagnosis of occupational asthma: consensus statement”**
Jean-Luc Malo; Olivier Vandeplass and Hille Suojalehto on behalf of the ERS Task Force on Specific Inhalation
- 1101 AUTHOR CORRECTION**
- f,j,i,m MEETING CALENDAR**