

Formerly Turkish Thoracic Journal





### Official Journal of the Turkish Thoracic Society

#### **EDITORS in CHIEF**

#### Oğuz KILINC

Department of Chest Diseases, Dokuz Eylül University School of Medicine, İzmir, Turkey

#### İpek Kıvılcım OĞUZÜLGEN D

Department of Pulmonary Diseases, Gazi University School of Medicine, Ankara, Turkey

#### **EDITORS**

#### Aylin ÖZGEN ALPAYDIN®

Department of Chest Diseases, Dokuz Eylül University School of Medicine, İzmir, Turkey

#### Ege GÜLEÇ BALBAY

Department of Chest Disease, Düzce University School of Medicine, Düzce, Turkey

#### **İpek ÇAYLI CANDEMİR**

Ataturk Chest Diseases and Surgery Education and Research Hospital, Ankara, Turkey

#### Ufuk ÇAĞIRICI

Department of Chest Surgery, Ege University School of Medicine, İzmir, Turkey

#### Necati CITAK®

Department of Thoracic Surgery, İstanbul Bakırköy Dr. Sadi Konuk Training and Research Hospita, İstanbul, Turkey

#### Aslı GÖREK DİLEKTAŞLI

Department of Chest Diseases, Uludağ University School of Medicine, Bursa, Turkey

#### Zuhal KARAKURT

Respiratory Intensive Care Unit, Süreyyapaşa Chest Diseases and Surgery Training and Research Hospital, İstanbul, Turkey

#### Leyla PUR ÖZYİĞİT

Department of Allergy and Immunology, University Hospitals of Leicester, Leicester, United Kingdom

#### Özge YILMAZ®

Department of Pediatrics, Celal Bayar University School of Medicine, Manisa, Turkey

#### **BIOSTATISTICAL CONSULTANT**

#### Ahmet Uğur DEMİR

Department of Chest Diseases, Hacettepe University School of Medicine, Ankara, Turkey

Department of Biostatistics and Medical Informatics, Gaziantep University School of Medicine, Gaziantep, Turkey

#### **PUBLICATION COORDINATOR**

#### **Begüm ERGAN**

Department of Chest Diseases, Dokuz Eylül University School of Medicine, İzmir, Turkey



İbrahim KARA

**General Manager** Ali ŞAHİN

Finance Coordinator Elif YILDIZ ÇELİK

Journal Managers

Arzu ARI Deniz KAYA Irmak BERBEROĞLU Publication Coordinators

Gökhan ÇİMEN Alara ERĜİN Hira Gizem FİDAN İrem ÖZMEN

**Project Coordinators** 

Doğan ORUÇ Sinem Fehime KOZ **Publishing Service: AVES** 

Address: Büyükdere Cad. No: 105/9 34394 Mecidiyeköy, Şişli-İstanbul Phone: +90 212 217 17 00 Fax: +90 212 217 22 92

E-mail: info@avesyayincilik.com

Oğuz KILINÇ İpek Kıvılcım OĞUZÜ.LGEN Address: Turan Güneş Bulvarı, Koyunlu Sitesi No: 175/19 Oran, Ankara, TURKEY Phone: +90 (312) 490 40 50

Fax: +90 (312) 490 41 42 E-mail: editorial.office@turkthoracj.org



Official Journal of the Turkish Thoracic Society

#### **EDITORIAL BOARD**

#### Ian M. Adcock

Cell and Molecular Biology Airways Disease Section, National Heart and Lung Institute, Imperial College London, United Kingdom

#### Piergiuseppe Agostoni

Department of Clinical Sciences and Community Health, Cardiovascular Section, Università di Milano, Milano, Italy

#### M. Selim Arcasoy

Pulmonary, Allergy, and Critical Care Division, Department of Medicine, Columbia University New York, USA

#### Philippe Astoul

Thoracic Oncology - Pleural Diseases -Interventional Pulmonology, Hôpital Nord -Chemin des Bourrely, Marseille, France

#### Ülkü Bayındır

Retired Faculty Member, Ege University School of Medicine, İzmir, Turkey

#### **Dominique MA Bullens**

Department of Immunology and Microbiology, KU Leuven Laboratory of Pediatric Immunology Division of Pediatrics, Leuven, Belgium

#### Richard Casaburi

Rehabilitation Clinical Trials Center, Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center, Torrance, California, USA

#### Turgay Çelikel

Department of Chest Diseases, Marmara University School of Medicine, İstanbul, Turkey

#### Tansu Ulukavak Çiftçi

Department of Chest Diseases, Gazi University School of Medicine, Ankara, Turkey

#### Lütfi Çöplü

Department of Chest Diseases, Hacettepe University School of Medicine, Ankara, Turkey

#### Çağlar Çuhadaroğlu

Acıbadem Maslak Hospital, İstanbul, Turkey

#### Antonio M. Esquinas

International Fellow AARC, Fellow NIV, Intensive Care Unit, Hospital Morales Meseguer, Murcia, Spain

#### Andrew J. Ghio

US Environmental Protection Agency Chapel Hill, North Carolina, USA

#### James E. Hansen

St. John's Cardiovascular Research Center, Los Angeles Biomedical Research Institute at Harbor- University of California at Los Angeles, Torrance, CA, USA

#### İlhan İnci

University Hospital Zurich, Department of Thoracic Surgery, Zurich, Switzerland

#### Oya İtil

Department of Chest Diseases, Dokuz Eylül University School of Medicine, İzmir, Turkey

#### A. Fuat Kalyoncu

Department of Chest Diseases, Hacettepe University School of Medicine, Ankara, Turkey

#### Fazilet Karakoç

Department of Child Chest Diseases, Marmara University Pendik Training and Research Hospital, İstanbul, Turkey

#### Ali Kocabaş

Department of Chest Diseases, Çukurova University School of Medicine, Adana, Turkey

#### **Emel Kurt**

Department of Chest Diseases, Osmangazi University School of Medicine, Eskişehir, Turkey

#### Atul Malhotra

Pulmonary and Critical Care, University of California San Diego, La Jolla, California, USA

#### **Muzaffer Metintas**

Department of Chest Diseases, Osmangazi University School of Medicine, Eskişehir, Turkey



Official Journal of the Turkish Thoracic Society

#### Zeynep Mısırlıgil

Department of Chest Diseases, Ankara University School of Medicine, Ankara, Turkey

#### Nesrin Moğulkoç

Department of Chests Diseases, Ege University School of Medicine, İzmir, Turkey

#### Dilşad Mungan

Department of Chest Diseases, Ankara University School of Medicine, Ankara, Turkey

#### Gökhan M. Mutlu

Division of Pediatric Critical Care Medicine, Nortwestern University, Chicago, USA

#### Gül Öngen

Department of Chest Surgery, İstanbul University Cerrahpaşa School of Medicine, İstanbul, Turkey

#### Kent E. Pinkerton

University of California, Davis, Center for Health and the Environment, Davis, USA

#### Kannan Ramar

Division of Pulmonary and Critical Care Medicine, Center for Sleep Medicine, Mayo Clinic, Rochester, MN, USA

#### Joseph Roca

Instituto de Biología Molecular de Barcelona, CSIC, Baldiri Reixac, Barcelona, Spain

#### Israel Rubinstein

Section of Pulmonary, Critical Care, Sleep and Allergy Medicine, Department of Medicine, College of Medicine, University of Illinois at Chicago, Chicago, Illinois, USA

#### Abdullah Sayıner

Department of Chest Diseases, Ege University School of Medicine, İzmir, Turkey

#### Z. Toros Selçuk

Department of Chest Diseases, Hacettepe University School of Medicine, Ankara, Turkey

#### Nadja Triller

Department of Pulmonary Medicine, University Pulmonary Clinic Golnik, Golnik, Slovenia

#### Haluk Türktaş

Department of Chest Diseases, Gazi University School of Medicine, Ankara, Turkey

#### E. Sabri Ucan

Department of Chest Diseases, Dokuz Eylül University School of Medicine, İzmir, Turkey

#### Karlman Wasserman

Respiratory and Critical Care Physiology and Medicine, Los Angeles Biomedical Research Institute Harbor-UCLA Medical Center, Torrance, California, USA

#### Mark Woodhead

Honorary Clinical Professor of Respiratory Medicine, Department of Respiratory Medicine, Manchester Royal Infirmary, Manchester, England



Official Journal of the Turkish Thoracic Society

#### **ABOUT**

#### About the Thoracic Research and Practice

Thoracic Research and Practice is a peer reviewed, open access, online-only journal published by the Turkish Thoracic Society.

Thoracic Research and Practice is a bimonthly journal that is published in English in January, March, May, July, September, and November.

#### Journal History

Thoracic Research and Practice started its publication life following the merger of two journals which were published under the titles "Turkish Respiratory Journal" and "Toraks Journal" until 2008. From 2008 to 2022, the journal was published under the title "Turkish Thoracic Journal". Archives of the journals were transferred to Thoracic Research and Practice.

#### Abstracting and indexing

Thoracic Research and Practice is covered in the following abstracting and indexing databases; PubMed Central, Web of Science - Emerging Sources Citation Index, Scopus, EMBASE, EBSCO, CINAHL, Gale/Cengage Learning, ProQuest, DOAJ, CNKI, TUBITAK ULAKBIM TR Index.

#### Aims, Scope, and Audience

Thoracic Research and Practice aims to publish studies of the highest scientific and clinical value, and encourages the submission of high-quality research that advances the understanding and treatment of pulmonary diseases.

Thoracic Research and Practice covers a wide range of topics related to adult and pediatric pulmonary diseases, as well as thoracic imaging, environmental and occupational disorders, intensive care, sleep disorders and thoracic surgery, including diagnostic methods, treatment techniques, and prevention strategies. The journal is interested in publishing original research that addresses important clinical questions and advances the understanding and treatment of these conditions. This may include studies on the effectiveness of different treatments, new diagnostic tools or techniques, and novel approaches to preventing or managing pulmonary diseases.

Thoracic Research and Practice publishes clinical and basic research articles, reviews, statements of agreement or disagreement on controversial issues, national and international consensus reports, systematic reviews and meta-analyses, letters to the editor and editorials. Conference proceedings may also be considered for publication.

The target audience of the journal includes healthcare professionals and researchers who are interested in or working in the pulmonary diseases field, and related disciplines.

#### **Open Access Policy**

Thoracic Research and Practice is an open access publication.

Starting on January 2022 issue, all content published in the journal is licensed under the Creative Commons Attribution-NonCommercial (CC BY-NC) 4.0 International License which allows third parties to use the content for non-commercial purposes as long as they give credit to the original work. This license allows for the content to be shared and adapted for non-commercial purposes, promoting the dissemination and use of the research published in the journal.

The content published before January 2022 was licensed under a traditional copyright, but the archive is still available for free access.

All published content is available online, free of charge at thoracrespract.org.

When using previously published content, including figures, tables, or any other material in both print and electronic formats, authors must obtain permission from the copyright holder. Legal, financial and criminal liabilities in this regard belong to the author(s).

#### **Copyright Policy**

A Copyright Agreement and Acknowledgement of Authorship form should be submitted with all manuscripts. By signing this form, authors transfer the copyright of their work to the Turkish Thoracic Society and agree that the article,



Official Journal of the Turkish Thoracic Society

if accepted for publication by the Thoracic Research and Practice will be licensed under a Creative Commons Attribution-Non Commercial 4.0 International License (CC BY-NC 4.0) which permits third parties to share and adapt the content for non-commercial purposes by giving the appropriate credit to the original work.

When using previously published content, including figures, tables, or any other material in both print and electronic formats, authors must obtain permission from the copyright holder. Legal, financial and criminal liabilities in this regard belong to the author(s).

Authors retain the copyright of their published work in the Thoracic Research and Practice.

#### **Publication Fee Policy**

Thoracic Research and Practice is funded by the the Turkish Thoracic Society. Authors are not required to pay any fees during the evaluation and publication process.

You can find the current version of the Instructions to Authors at https://turkthoracj.org/en/instructions-to-authors-1013.



Official Journal of the Turkish Thoracic Society

#### **CONTENTS**

#### **ORIGINAL ARTICLES**

- 237 Are Sleep Quality, Physical Activity Levels, and Fear of Movement of Obstructive Sleep Apnea Syndrome Patients Different From Healthy People During the Coronavirus Disease 2019 Pandemic?
  - Nurel Ertürk, Naciye Vardar Yağlı, Adem Çelik, Ebru Çalık Kütükcü
- 245 Clinical Significance of Pleural Lactate Measurement in Critically III Patients with Parapneumonic Pleural Effusion
  - Bişar Ergün, Murat Küçük, Mehmet Nuri Yakar, Mehmet Celal Öztürk, Vecihe Bayrak, Ahmet Naci Emecen, Volkan Hancı, Bilgin Cömert, Ali Necati Gökmen, Begüm Ergan
- 253 Correlation Between Daily PM, Nitrogen Dioxide, and Ozone Measurements with the Stringency Index in 15 Different Districts of a Big Metropolis
  - Pınar Bostan, Cavit Işık Yavuz, Berker Öztürk, Sabri Serhan Olcay, Nilüfer Aykaç
- 262 Adding Non-Invasive Positive Pressure Ventilation to Supplemental Oxygen During Exercise Training in Severe Chronic Obstructive Pulmonary Disease: A Randomized Controlled Study

  Sami Deniz, Senay Tuncel, Aley Güraün, Funda Elmas
- 270 Stereotactic Radiosurgery Results in Non-Small-Cell Lung Cancer Patients with Brain Metastases in the Era of Modern Systemic Treatment Agents
  - Feyza Yaşar Daşgın, Tarı Kargıoğlu, Aliye Arslan, Ali Kerim Aksakal, Binnur Dadak, Fatma Betül Ayrak, Ezgi Gökçe, İpek Pinar Aral, Gonca Altınışık İnan, Yılmaz Tezcan
- 276 Clot Burden As a Predictor of Chronic Thromboembolic Pulmonary Hypertension After Acute Pulmonary Embolism: A Cohort Study
  - Esmaeil Gharepapagh, Fatemeh Rahimi, Ata Koohi, Hooman Bakhshandeh, Seyed Ali Mousavi-Aghdas, Parham Sadeghipoor, Ashraf Fakhari, Mehrad Amirnia, Reza Javadrashid, Farid Rashidi

#### LETTER TO THE EDITOR

282 Safety of Fiberoptic Bronchoscopy in Airway Pressure Release Ventilation Mode in Critically III Patients: Are These Results Safe?

Killen H. Briones-Claudett, Amado X. Freire