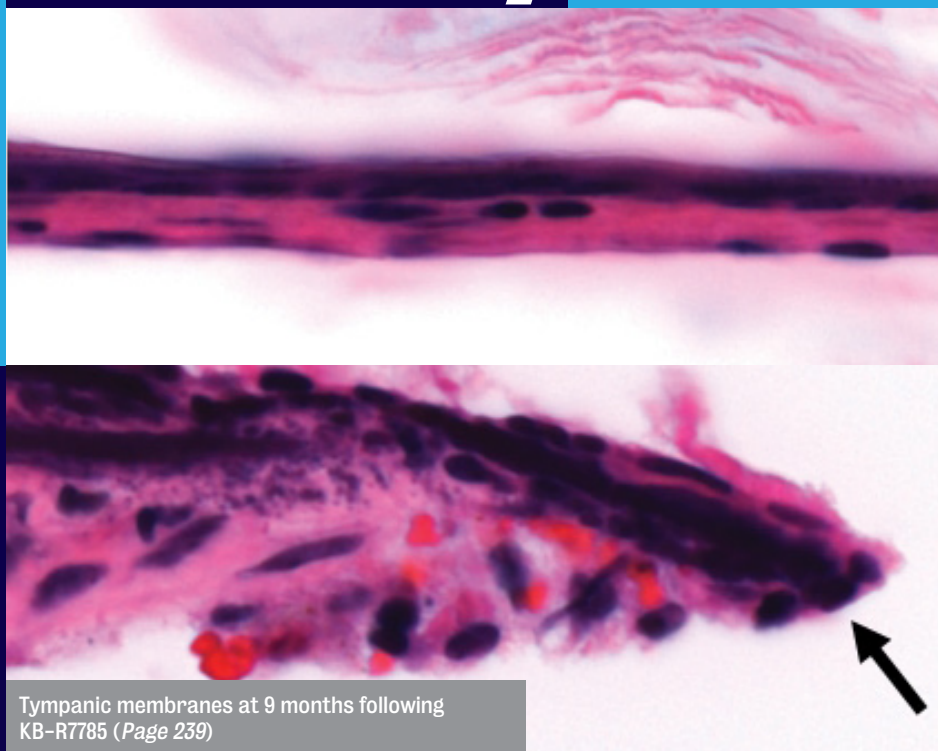


IAO The Journal of International Advanced Otology



Tympanic membranes at 9 months following
KB-R7785 (Page 239)

Vol. 12 • Issue 3 • December 2016

The Journal of International
Advanced Otology is fully
sponsored and owned by

EA^{NO}
European Academy of
Otology & Neuro-Otology



Indexed In

PubMed
SCI EXPANDED

Member of



IAO The Journal of International Advanced Otology

EDITOR

O. Nuri Özgirgin

Bayındır Hospital, Ankara, Turkey

ASSOCIATE EDITORS

Manohar Bance

Dalhousie University, Halifax Nova Scotia, Canada

Arun Gadre

University of Louisville, Louisville, USA

Simon Lloyd

University of Manchester, Manchester, UK

Graziela Souza Queiroz Martins

University of Sao Paulo, Sao Paulo, Brasil

Masafumi Sakagami

Hyogo College of Medicine, Hyogo, Japan

Bülent Satar

GATA Medical School, Ankara, Turkey

Robby Vanspauwen

Department of Ear Nose Throat, Sint-Augustinus Antwerp European Institute For ORL, Wilrijk, Belgium

The Journal of International Advanced Otology
is fully sponsored and owned by



**European Academy of
Otology & Neuro-Otology**



Address for correspondence

Mailing address: 2610 Antwerp,
Oosterveldlaan 24, Belgium
URL: www.advancedotology.org
E-mail: jiao@advancedotology.org

**The Journal of International Advanced Otology
(J Int Adv Otol)**

Copyright © 2005-2016. All rights reserved.
ISSN 1308-7649
E ISSN 2148-3817

Founded by MSOA



ADMINISTRATIVE ADVISORY BOARD

Manohar Bance

Dalhousie University, Halifax Nova Scotia, Canada

Maurizio Barbara

Sapienza University, Sant'Andrea Hospital, Rome, Italy

Rubens de Brito

University of Sao Paulo, Sao Paulo, Brazil

Arnaud Deveze

Clinique Clairval, Marseille, France

Neil Donnelly

Spire Cambridge Lea Hospital, Cambridge, UK

Arun Gadre

University of Louisville, Louisville, USA

Karl-Bernd Hüttenbrink

University of Köln, Köln, Germany

Mohan Kameswaran

Madras Ear Nose Throat Research Foundation, Chennai, India

Thomas Lenarz

Medizinische Hochschule Hannover, Hannover, Germany

Simon Lloyd

University of Manchester, Manchester, UK

Jacques Magnan

Causse Ear Clinic, Beziers, France

Gerry O'Donoghue

Queens Medical Centre, Nottingham, UK

F. Erwin Offeciers

Sint-Augustinus Hospital University, Wilrijk, Belgium

Seung Ha Oh

Seoul National University Hospital, Seoul, South Korea

Milan Profant

Department of Otorhinolaryngology, Bratislava University, Bratislava, Slovakia

Graziela Souza Queiroz Martins

University of Sao Paulo, Sao Paulo, Brasil

Angel Ramos

University Hospital Insular, Las Palmas, Spaim

Masafumi Sakagami

Hyogo College of Medicine, Hyogo, Japan

Bülent Satar

GATA Medical School, Ankara, Turkey

Thomas Somers

Sint-Augustinus Hospital University, Wilrijk, Belgium

Holger Sudhoff

Bielefeld Academic Teaching Hospital, Muenster University, Bielefeld, Germany

Per Caye Thomasen

Gentofte University Hospital, Hellerup, Denmark

Franco Trabalzini

University of Siena, Siena, Italy

Robby Vanspauwen

Department of Ear Nose Throat, Sint-Augustinus Antwerp European Institute For ORL, Wilrijk, Belgium

Ashley Wackym

Ear and Skull Base Institute, Portland, Oregon, USA

EDITORIAL CONSULTANTS

Fatthi Abdel Baki

University of Alexandria, Alexandria, Egypt

Mehmet Ada

University of İstanbul, İstanbul, Turkey

Songül Aksoy

Department of Audiology, Hacettepe University School of Medicine, Ankara, Turkey

Mesut Akyol

Yıldırım Bayazıt University, Ankara, Turkey

Cüneyt Alper

University of Pittsburg, Pennsylvania, USA

Fazıl Necdet Ardiç

Pamukkale University, Denizli, Turkey

Miguel Aristegui

Hospital General Universitario Gregorio Marañon, Madrid, Spain

Bernard Ars

University of Antwerp, Antwerp, Belgium

Nenad Arsovic

Belgrade Otorhinolaryngology Clinic, Belgrade, Serbia

Asım Aslan

Celal Bayar University, Manisa, Turkey

Ahmet Ataş

İstanbul University, İstanbul, Turkey

Paul Avan

Université d'Auvergne, Clermont-Ferrand, France

Manohar Bance

Dalhousie University, Halifax Nova Scotia, Canada

Maurizio Barbara

Sapienza University, Sant'Andrea Hospital, Rome, Italy

Saba Battelino

University Medical Centre, Ljubljana, Slovenia

Yıldırım Bayazıt

Medipol University, İstanbul, Turkey

Aziz Belal

Alex Ear Center, Alexandria, Egypt

Ricardo Bento

University of Sao Paulo, Sao Paulo, Brazil

Daniele Bernardeschi

GH Pitié Salpêtrière, Paris, France

Dirk Beutner

HNO-Universitätsklinik Köln, Köln, Germany

Anirban Biswas

Neurotology Center, Kolkata, India

Bruce Black

Royal Children's Hospital, Brisbane, Australia

Srecko Branica

University of Zagreb, Zagreb, Croatia

Robert Briggs

Royal Victorian Eye and Ear Hospital, Melbourne, Australia

Augusto Casani

Pisa University, Pisa, Italy

Carlos Cenjor Español

Fundacion Jimenez Diaz - Clinica Nuestra Senora Concepcion, Madrid, Spain

Udi Cinamon

Edith Wolfson Medical Center, Cholon, Israel

Marcel Cosgarea

University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj-Napoca, Romania

Vincent Cousins

The Alfred Hospital, Melbourne, Australia

Sebahattin Cüreoğlu

University of Minnesota, Minneapolis, USA

Onur Çelik

Celal Bayar University, Manisa, Turkey

Chunfu Dai

University of Shanghai, Shanghai, China

Vincent Darrouzet

Hopital Pellegrin, Bordeaux, France

Rubens de Brito

University of Sao Paulo, Sao Paulo, Brazil

Angel Ramos de Miguel

Las Palmas University, Las Palmas de Gran Canaria, Spain

Olivier Deguine

University of Toulouse, Toulouse, France

Antonio della Volpe

Santobono Paediatric Hospital, Naples, Italy

Arnaud Deveeze

Clinique Clairval, Marseille, France

İrfan Devranoğlu

Istanbul University, İstanbul, Turkey

Aarno Dietz

Kuopio University Hospital, Kuopio, Finland

Norbert Dillier

University Hospital Zürich, Zurich, Switzerland

Neil Donnelly

Spire Cambridge Lea Hospital, Cambridge, UK

John Dornhoffer

UAMS Medical Center Little Rock, USA

Bruce M. Edwards

University of Michigan, Ann Arbor, USA

Antonio Lopez Escamez

Universidad de Granada, Granada, Spain

Jose Fayad

Saudi Aramco, Dhahran, Saudi Arabia

Roberto Filipo

Sapienza University, Rome, Italy

Peter Franz

Rudolfstiftung Teaching Hospital, Vienna, Austria

Bernard Fraysse

University of Toulouse, Toulouse, France

Henning Frenzel

Universitätsklinikum Schleswig-Holstein, Lübeck, Germany

Arun Gadre

University of Louisville, Louisville, USA

Michael Gaihede

Aarhus University, Aarhus, Sweden

Aydan Genç

Department of Audiology Hacettepe University School of Medicine, Ankara, Turkey

Imre Gerlinger

Department of Ear Nose Throat University Pécs, Pécs, Hungary

Mislav Gjurić

SINTEZA Health Center, Zagreb, Croatia

Wilko Grolman

University of Utrecht, Utrecht, Netherlands

Enis Alpin Güneri

Dokuz Eylül University İzmir, Turkey

Jean-Philippe Guyot

University of Geneva, Geneva, Switzerland

İbrahim Hizalan

Novomet Ear Nose Throat Center, Bursa, Turkey

Margriet A. Huisman

Leiden University, Leiden, The Netherlands

Malou Hultcrantz

University of Karolinska, Stockholm, Sweden

Karl-Bernd Hüttenbrink

University of Köln, Köln, Germany

Yukiko Iino

Jichi Medical University Saitama Medical Center, Saitama, Japan

Armağan İncesulu

Eskişehir Osmangazi University, Eskişehir, Turkey

Adrian James

The Hospital for Sick Children, Ontario, Canada

Herman Jenkins

University of Colorado, Aurora, USA

Daniel Jiang

St Thomas' Hospital, London, UK

Seiji Kakehata

Yamagata University, Yamagata, Japan

Mohan Kameswaran

Madras Ear Nose Throat Research Foundation, Chennai, India

Daniel Kaplan

Ben Gurion University, Beer Sheva, Israel

Herman Kingma

University of Maastricht, Maastricht, The Netherlands

Tayfun Kirazlı

Ege University, İzmir, Turkey

Mete Kiroğlu

Çukurova University, Adana, Turkey

Hiromi Kojima

Jikei University, Tokyo, Japan

Nazım Korkut

İstanbul University, İstanbul, Turkey

Sergey Kosyakov

Russian Medical Academy for Postgraduate Education, Moscow, Russia

Rudi Kuhweide

A.Z. St.-Jan Brugge A.V., Bruges, Belgium

Roland Laszig

University of Freiburg, Freiburg, Germany

Thomas Lenarz

Medizinische Hochschule Hannover, Hannover, Germany

Thomas Linder

University of Luzern, Luzern, Switzerland

Simon Lloyd

University of Manchester, Manchester, UK

Jacques Magnan

Causse Ear Clinic, Beziers, France

Mans Magnusson

University of Lund, Lund, Sweden

Marco Mandala

University of Siena, Siena, Italy

Manuel Manrique

University of Pamplona, Pamplona, Spain

Salah Mansour

Lebanese University, Beirut, Lebanon

Daniele Marchioni

University of Verona, Verona, Italy

Paul Merkus

VU University Medical Center Amsterdam, Amsterdam, The Netherlands

Hidemi Miyazaki

Kyosai Hospital, Tokyo, Japan

Constantino Morera

University of Valencia, Valencia, Spain

Badr Eldin Mostafa

Ain-Shams University, Cairo, Egypt

Jef Mulder

Radboud University Hospital, Nijmegen, The Netherlands

Marcus Neudert

Technische Universität Dresden, Dresden, Germany

Thomas Nikolopoulos

University of Athens, Athens, Greece

Daniel Nuti

Universita degli Studi di Siena, Siena, Italy

Gerry O'Donoghue

Queens Medical Centre, Nottingham, UK

Stephen O'Leary

University of Melbourne, Melbourne, Australia

Onur Odabaşı

Adnan Menderes University, Aydın, Turkey

F. Erwin Offeciers

Sint-Augustinus Hospital University, Wilrijk, Belgium

Seung Ha Oh

Seoul National University Hospital, Seoul, South Korea

Levent Olgun

İzmir Bozyaka Hospital, İzmir, Turkey

Carlos A. Oliveira

University of Brasília Medical School, Brasília, Brazil

Ewa Olszewska

Medical University of Białystok, Białystok, Poland

Eva Orzan

Audiology and Otorhinolaryngology Institute for
Maternal and Child Health IRCCS "Burlo Garofolo",
Trieste, Italy

Levent Naci Özlüoğlu

Başkent University, Ankara, Turkey

Blake Papsin

University of Toronto, Toronto, Canada

Ronen Perez

Shaare Zedek Medical Center, Jerusalem, Israel

Nicolas Perez Fernandez

University of Navarra, Navarra, Spain

Stefan Plontke

University Hospital Halle, Saale, Germany

Milan Profant

Department of Otorhinolaryngology University of
Bratislava, Bratislava, Slovakia

Nicola Quaranta

University of Bari, Bari, Italy

Angel Ramos

University Hospital Insular, Las Palmas, Spain

Giampietro Ricci

University of Perugia, Perugia, Italy

John Rutka

Toronto General Hospital, Toronto, Canada

Ayşe Sanem Sahli

Department of Audiology Hacettepe University
School of Medicine, Ankara, Turkey

Masafumi Sakagami

Hyogo College of Medicine, Hyogo, Japan

Issam Saliba

University of Montreal, Quebec, Canada

Mario Sanna

Gruppo Otologico, Piacenza, Italy

Pascal Senn

University of Geneva, Geneva, Switzerland

Avi Shupak

Technion - Israel Institute of Technology, Haifa, Israel

Henryk Skarzynski

World Hearing Center, Warsaw, Poland

Ad Snik

University of Nijmegen, Nijmegen, The Netherlands

Thomas Somers

Sint-Augustinus Hospital University, Wilrijk, Belgium

Holger Sudhoff

Bielefeld Academic Teaching Hospital, Muenster
University, Bielefeld, Germany

Witold Szyfter

Poznan University of Medical Sciences, Poznan, Poland

Bülent Şerbetçioğlu

Dokuz Eylül University, İzmir, Türkiye

Haruo Takahashi

University of Nagasaki, Nagasaki, Japan

Rinze A. Tange

University of Utrecht, Utrecht, The Netherlands

George Tavartkiladze

National Research Centre for Audiology and
Hearing Rehabilitation, Moscow, Russia

Per Caye Thomasen

Gentofte University Hospital, Hellerup, Denmark

Tetsuya Tono

Miyazaki Medical College, Miyazaki, Japan

Vedat Topsakal

University of Utrecht, Utrecht, The Netherlands

Franco Trabalzini

University of Siena, Siena, Italy

Eric Truy

University of Lyon, Lyon, France

Nina Bozanic Urbancic

University Medical Centre Ljubljana, Ljubljana, Slovenia

Cem Uzun

Trakya University, Edirne, Turkey

Paul Van de Heyning

University of Antwerp, Antwerp, Belgium

Frederic Venail

CHU Montpellier, Montpellier, France

Christophe Vincent

Lille University Hospital, Lille, France

Magnus von Unge

Akershus Universitetssykehus, Nordbyhagen, Norway

Ashley Wackym

Ear and Skull Base Institute, Portland, Oregon, USA

Stephen Wetmore

University West Virginia Medical Center,
Morgantown, USA

Sertaç Yetişer

Anadolu Hospital, İstanbul, Turkey

Orhan Yılmaz

Dışkapı Hospital, Ankara, Turkey

Robin Youngs

Gloucestershire Royal Hospital, Gloucestershire, UK

Diego Zanetti

University of Milano, Milano, Italy



Publisher

İbrahim KARA

Publication Director

Ali ŞAHİN

Deputy Publication Director

Gökhan ÇİMEN

Publication Coordinators

Esra GÖRGÜLÜ

Betül ÇİMEN

Zeynep YAKIŞIRER

Gizem KAYAN

Melike Buse ŞENAY

Project Coordinator

Hakan ERTEN

Project Assistants

Duygunur CAN

Aylin ATALAY

Şükriye YILMAZ

Graphics Department

Ünal ÖZER

Neslihan YAMAN

Deniz DURAN

Contact

Address : Büyükdere Cad. No: 105/9 34394

Mecidiyeköy Şişli, İstanbul, Turkey

Phone : +90 212 217 17 00

Fax : +90 212 217 22 92

E-mail : info@avesyayincilik.com

Aims and Scope

The Journal of International Advanced Otology (IAO – Citation Abbreviation: J Int Adv Otol) is an open access double-blind peer-reviewed, international publication. The Journal of International Advanced Otology is fully sponsored and owned by the European Academy of Otology and Neurotology and the Politzer Society. The Journal of International Advanced Otology is published 3 times per year on April, August, December and its publication language is English.

The scope of the Journal is limited with otology, neurotology, audiology (excluding linguistics) and skull base medicine.

The Journal of International Advanced Otology aims to publish manuscripts at the highest clinical and scientific level. J Int Adv Otol publishes original articles in the form of clinical and basic research, review articles, short reports and a limited number of case reports. Controversial patient discussions, communications on emerging technology, and historical issues will also be considered for publication.

Target audience of J Int Adv Otol includes physicians and academic people who are interested in both clinical and basic sciences.

Editorial and publication processes of the journal are shaped in accordance with the guidelines of the international organizations such as the International Council of Medical Journal Editors (ICMJE), the World Association of Medical Editors (WAME), the Council of Science Editors (CSE), the Committee on Publication Ethics (COPE), the European Association of Science Editors (EASE)

The Journal of International Advanced Otology is indexed in Science Citation Index Expanded, PubMed/MEDLINE, Index Copernicus, EBSCO, PROQUEST, SCOPUS.

J Int Adv Otol is funded by revenue generated by advertising as well as the support of the European Academy of Otology and Neurotology and the Politzer Society.

Subscription information

The access to all full-text issues of the journal is free at www.advancedotology.org. To become a member of the journal, please get in contact with the Editorial Office through jiao@advancedotology.org.

Permissions and Reprints

Permissions for reproduction of materials published and reprints in the Journal of International Advanced Otology should be requested from the editorial office at jiao@advancedotology.org. Authors who submit color figures will receive an estimate of the cost for color reproduction.

Advertising

For requests concerning advertising, please contact the Publisher.

Editorial Office: Prof. Dr. O. Nuri Ozgirgin

Address: Bayındır Hospital, Söğütözü, Ankara, Turkey

Tel: +90 312 287 90 00 – int: 7811

Fax: +90 312 284 42 76

e-mail: ozgirgin@politzersociety.org

Publisher: AVES

Address: Büyükdere Cad. 105/9 34394 Mecidiyeköy, Şişli, İstanbul

Phone: +90 212 217 17 00

Fax: +90 212 217 22 92

Web page: www.avesyayincilik.com

E-mail: info@avesyayincilik.com

Material Disclaimer

Statements or opinions expressed in the manuscripts published in the Journal of International Advanced Otology reflect the views of the author(s) and not the opinions of the editors, the editorial board and the publisher; the editors, the editorial board and the publisher disclaim any responsibility or liability for such materials.

The journal is printed on an acid-free paper.

Instructions to Authors

The Journal of International Advanced Otology (IAO – Citation Abbreviation: J Int Adv Otol) is a open access, double-blind peer-reviewed, international publication. The Journal of International Advanced Otology is fully sponsored and owned by the European Academy of Otology and Neurotology and the Politzer Society. The journal is directed to an audience of physicians who are interested in both clinical and basic sciences. The Journal of International Advanced Otology publishes original articles in the form of clinical and basic research, review articles, short reports and a limited number of case reports. Controversial patient discussions, communications on emerging technology, and historical issues will also be considered for publication.

Editorial and publication processes of the journal are shaped in accordance with the guidelines of the international organizations such as the International Council of Medical Journal Editors (ICMJE), the World Association of Medical Editors (WAME), the Council of Science Editors (CSE), the Committee on Publication Ethics (COPE), the European Association of Science Editors (EASE)

The Journal of International Advanced Otology will only evaluate manuscripts submitted via the journal's self-explanatory online manuscript submission and evaluation system, manuscripts submitted via any other medium will not be evaluated.

Previously published manuscripts (except in the form of an abstract or a preliminary report), and manuscripts that are under consideration for possible publication elsewhere will not be accepted for evaluation.

The Journal of International Advanced Otology requires each submission to be accompanied by a Copyright Transfer Form, an Author Contributions Form and an ICMJE Form for Disclosure of Potential Conflicts of Interest.

Statements or opinions expressed in the manuscripts published in the Journal of International Advanced Otology reflect the views of the author(s) and not the opinions of the editors, the editorial board and the publisher; the editors, the editorial board and the publisher disclaim any responsibility or liability for such materials.

The final responsibility in regard to the published articles rests with the authors.

Each individual listed as an author should fulfil the authorship criteria recommended by the International Committee of Medical Journal Editors (Uniform Requirements for Manuscripts Submitted to Biomedical Journals. <http://www.icmje.org>). Individuals who contributed to the preparation of the manuscript but do not fulfil the authorship criteria should be acknowledged in an acknowledgments section, which should be included in the title page of the manuscript.

The Journal of International Advanced Otology requires and encourages the authors and the individuals involved in the evaluation process to disclose any existing or potential conflicts of interests including financial, consultant, institutional and other relationships that might lead to bias or a conflict of interest.

All sources of funding should be acknowledged in the manuscript.

The authors should state in the Materials and Methods section of the main text that experiments have been performed in comply with the ethical principles of the assigned institutional board or national committee. Application or approval number/year for the study should also be indicated. For animal experiments, the authors additionally should state that international standards regarding the animal care and handling have been followed during the experiments.

It is the author's responsibility to ensure that a patient's anonymity be carefully protected and to verify that any experimental investigation with human subjects reported in the manuscript was performed with informed consent and following all the guidelines for experimental investigation with human subjects required by the institution(s) with which all the authors are affiliated. For photographs that may reveal the identity of the patients, signed releases of the patient or of his/her legal representative should be enclosed; otherwise, patient names or eyes must be masked out to prevent identification.

When reporting experiments on human subjects, indicate whether the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional or regional) and with the Helsinki Declaration (JAMA 2000;284:3043–3049).

As part of submission of the manuscript, the correspondent author should send a short statement declaring that he/she accepts to undertake all the responsibility for authorship during the submission and review stages of the manuscript.

Originality, high scientific quality and citation potential are the most important criteria for a manuscript to be accepted for publication.

Manuscripts submitted to the journal will first go through a technical evaluation process where the editorial office staff will ensure that the manuscript is prepared and submitted in accordance with the journal's guidelines. Submissions that don't adhere the journal's guidelines will be returned back to the submitting author with technical correction requests. Manuscripts that adhere the journal's guidelines will be reviewed by at least 3 external peer reviewers during the evaluation process. The Editor in Chief is the final authority in the decision making process.

Authors of a paper accepted for publication in IAO should be in consent of that editors could make corrections without changing the basic meaning of the text of the manuscript.

The submitting authors will be automatically informed by the journal's manuscript submission and evaluation system of any changes in the status of their submission.

MANUSCRIPT PREPARATION

Manuscripts should be prepared in accordance with the ICMJE - Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals (updated in December 2013 – available at www.icmje.org).

Original Investigations and Reviews should be presented according to the guidelines: randomized study – CONSORT, observational study – STROBE, study on diagnostic accuracy – STARD, systematic reviews and meta-analysis PRISMA, animal experimental studies – ARRIVE, nonrandomized behavioural and public health intervention studies – TREND.

Title page

A separate title page should be submitted with all submissions and should include the title of the manuscript, name(s), affiliations and major degree(s) of the author(s) and source(s) of the work or study, a short title (running head) of no more than 50 characters. The name, address, telephone (including the mobile phone number) and fax numbers and e-mail address of the corresponding author should be listed on the title page. Grant information and other sources of support should also be included on the Title page. Individuals who contributed to the preparation of the manuscript but do not fulfil the authorship criteria should be acknowledged in the title page.

Main Document

Abstract

All manuscripts should be accompanied an abstract. A structured abstract is required with original articles and it should include the following subheadings: Objective, Materials and Methods, Results and Conclusion. A structured abstract is not required with review articles and case reports. The abstract should be limited to 250 words for original articles and review articles and 150 words for case reports.

Key Words

Each submission should be accompanied by 3 to 5 key words which should be picked from the Medical Subject Headings (MeSH) list (www.nlm.nih.gov/mesh/MBrowser.html).

Main Text

The main text of Case Reports should be limited with 1200 words and should be structured with the following subheadings; Introduction, Case Presentation and Discussion. The maximum number of references cited in a case report should be 10.

The subheadings of the review articles should be planned by the authors. However, each review article should include a "Conclusion" section. The main text of review articles should be limited with 5000 words. The number of references cited should not exceed 50.

Original Articles should be structured with Introduction, Materials and Methods, Results subheadings Discussion. The number of references cited should not exceed 35 and the main text should be limited to 3000 words.

All acronyms and abbreviations used in the manuscript should be defined at first use, both in the abstract and the main text. The abbreviation should be provided in parenthesis following the definition.

Statistical analysis should be performed in accordance with guidelines on reporting statistics in medical journals (Altman DG, Gore SM, Gardner MJ, Pocock SJ. Statistical guidelines for contributors to medical journals. *Br Med J* 1983; 7; 1489-93.). Information on the statistical analysis process of the study should be provided within the main text.

When a drug, product, hardware, or software mentioned within the main text product information, including the name of the product, producer of the product, city of the company and the country of the company should be provided in parenthesis in the following format: "Discovery St PET/CT scanner (General Electric, Milwaukee, WI, USA)"

All references, tables and figures should be referred to within the main text and they should be numbered consecutively in the order they are referred to within the main text.

Limitations, drawbacks and shortcomings of original articles should be mentioned in the "Discussion" section before the conclusion paragraph.

References

References should be numbered consecutively in the order they are referred to within the main text and all references listed in the reference list should be referred to within the main text in parenthesis. Style and punctuation of each reference in the reference list should be in accordance with the examples listed below;

Standard journal article: Journal titles should be abbreviated in accordance with journal abbreviations used in Index Medicus (for journal abbreviations consult List of Journals indexed for MEDLINE published annually by NLM at <http://www.nlm.nih.gov/tsd/serials/lji.html>). When there are six or fewer authors, all authors should be listed. If there are seven or more authors, first 6 should be listed, followed by "et al.". A list of authors should be followed by the full title of the article, journal title, year, volume and page numbers.

Example: Pirvola U, Xing-Qun L, Virkkala J, Saarna M, Murakata C, Camoratto AM, et al. Rescue of hearing, auditory hair cells, and neurons by CEP-1347/KT7515, an inhibitor of c-Jun N-terminal kinase activation. *J Neurosci* 2000; 20: 43-50.

Books

Chapter in a book: Sherry S. Detection of thrombi. In: Strauss HE, Pitt B, James AE, editors. Cardiovascular Medicine. St Louis: Mosby; 1974.p. 273-85.

Personal author(s): Cohn PF. Silent myocardial ischemia and infarction. 3rd ed. New York: Marcel Dekker; 1993.

Editor(s), compiler(s) as author: Norman IJ, Redfern SJ, editors. Mental health care for elderly people. New York: Churchill Livingstone; 1996.

Conference paper:

Bengissou S. Sothemin BG. Enforcement of data protection, privacy and security in medical informatics. In: Lun KC, Degoulet P, Piemme TE, Riehoff O, editors. MEDINFO 92. Proceedings of the 7th World Congress on Medical Informatics; 1992 Sept 6-10; Geneva, Switzerland. Amsterdam: North-Holland; 1992. P. 1561-5.

Scientific or technical report:

Smith P, Golladay K. Payment for durable medical equipment billed during skilled nursing facility stays. Final report. Dallas (TX) Dept. of Health and Human Services (US). Office of Evaluation and Inspections: 1994 Oct. Report No: HHSIGOE 169200860.

Dissertation:

Kaplan SI. Post-hospital home health care: the elderly access and utilization (dissertation). St. Louis (MO): Washington Univ. 1995.

Article in electronic format:

Morse SS. Factors in the emergence of infectious diseases. Emerg Infect Dis (serial online) 1995 Jan-Mar (cited 1996 June 5): 1(1): (24 screens). Available from: [http:// www.cdc.gov/ncidod/EID/cid.htm](http://www.cdc.gov/ncidod/EID/cid.htm).

Tables

Tables should be included in the main document and should be presented after the reference list. Tables should be numbered consecutively in the order they are referred to within the main text. A descriptive title should be provided for all tables and the titles should be placed above the tables. Abbreviations used in the tables should be defined below the tables by footnotes (even if they are defined within the main text). Tables should be created using the "insert table" command of the word processing software and they should be arranged clearly to provide an easy reading. Data presented in the tables should not be a repetition of the data presented within the main text but should be supporting the main text.

Figures and Figure Legends

Figures, graphics and photographs should be submitted as separate files (in TIFF or JPEG format) through the submission system. The files should not be embedded in a Word document or the main document. When there are figure subunits, the subunits should not be merged to form a single image. Each subunit should be submitted separately through the submission system. Images should not be labelled (a, b, c, etc.) to indicate figure subunits. Thick and thin arrows, arrowheads, stars, asterisks and similar marks can be used on the images to support figure legends. Like the rest of the submission, the figures too should be blind. Any information within the images that may indicate an individual or institution should be blinded. The minimum resolution of each submitted figure should be 300DPI. To prevent delays in the evaluation process all submitted figures should be clear in resolution and large in size (minimum dimensions 100x100mm)

Color figures: Authors who submit color figures will receive an estimate of the cost for color reproduction. Otherwise the figures will be converted to black and white.

Figure legends should be listed at the end of the main document. When there are figure subunits, the figure legends should be structured in the following format.

Example: Figure 4. a-d. Effects of xylitol on viability of HMEECs and HEI-OC1s. Xylitol at concentrations of up to 1000 µg/mL did not decrease the viability of HMEECs and HEI-OC1s (a). Xylitol at concentrations of up to 1000 µg/mL did not induce apoptosis or necrosis of HMEECs and HEI-OC1s (b, c). Morphology of HMEECs and HEI-OC1s remained unchanged by xylitol at concentrations of up to 1000 µg/mL (light microscope, x200 and Hoechst 33342 staining, x400). The data shown are means±standard deviations of three repeated experiments from six samples (c, d)

Once a manuscript is accepted for publication it will be provided with a registered DOI number following the acceptance decision. Manuscripts accepted for publication by the Journal of International Advanced Otology will be published as ahead of print articles prior to the printing date of their scheduled issue. Corresponding author will be provided with a PDF Proof by the publisher once the production process of an accepted manuscript is over. The publisher will request the corresponding author to list their correction requests if there are any and approve the publication of the manuscript.

Subscription information

The access to all full-text issues of the journal is free at www.advancedotology.org. To become a member of the journal, please get in contact with the Editorial Office through jiao@advancedotology.org.

Permissions and Reprints

Permissions for reproduction of materials published and reprints in the Journal of International Advanced Otology should be requested from the editorial office at ozgirgin@politzersociety.org.

Contents

Obituary

- 222 | In Memoriam: Per Moller
David A. Moffat
- 223 | In Memoriam: John Niparko
Angel Ramos Macias

Original Articles

- 224 | Severe Acute Otitis Media and Acute Mastoiditis in Adults
Anu Laulajainen-Hongisto, Jussi Jero, Antti Markkola, Riste Saat, Antti A. Aarnisalo
- 231 | Surgical Management and Hearing Outcome of Traumatic Ossicular Injuries
Stefan Delrue, Nicolas Verhaert, Joost van Dinther, Andrzej Zarowski, Thomas Somers, Christian Desloovere, Erwin Offeciers
- 237 | Single Administration of a Sustained-Release Formulation of KB-R7785 Inhibits Tympanic Membrane Regeneration in an Animal Model
Peter Luke Santa Maria, Chloe Santa Maria, Sungwoo Kim, Yunzhi Peter Yang
- 241 | An Implantable Hearing System As Rehabilitation for Hearing Loss Due to Bilateral Aural Atresia:
Surgical Technique and Audiological Results
Rubens de Brito, Luzia Maria Pozzobom Ventura, José Carlos Jorge, Eduardo Boaventura Oliveira, Luiz Fernando Manzoni Lourencone
- 247 | Efficacy of Posterior Canal Wall Reconstruction Using Autologous Auricular Cartilage and Bone Pâté in Chronic Otitis Media with Cholesteatoma
Min Kwan Baek, Sung Ho Choi, Dong Young Kim, Chang Hyun Cho, Yong Woo Kim, Kwang Ha Moon, Ju Hyoung Lee
- 252 | Potential Curative Role of Hypericum Perforatum in an Experimental Rat Model of Tympanic Membrane Perforation
Mehmet Yaşar, Altan Kaya, Hatice Karaman, Mustafa Kavugudurmaz, Halil Polat, Mustafa Sağıt, İbrahim Özcan
- 257 | Pediatric Type 1 Cartilage Tympanoplasty: Comparison between Graft Success Rates and Hearing Results in Adults
Gültekin Övet, Necat Alataş, Mehmet Şentürk, Fatih Güzelkara
- 261 | Effects of Noise Exposure on the Auditory Function of Ovariectomized Rats with Estrogen Deficiency
Xujun Hu, Ying Wang, Chi-Chuen Lau
- 266 | Identifying the Optimal Water-Occcluding Earplugs: A Scientific Simulation Study
Joshua Kovoov, Ali Al-Hussaini, Steven Backhouse
- 271 | Comparison of Regularity Detection between Individuals with and without Speech-in-Noise Problems using Electrophysiological Methods
Mehmet Yarıalı, Süha Yağcıoğlu, Ayşe Gül Güven, Songül Aksoy
- 277 | A Comparison of Thresholds of Auditory Steady-State Response and Auditory Brainstem Response in Healthy Term Babies
Onur Çelik, Görkem Eskiizmir, Uzman Uz
- 282 | Recognition of Deep Band Modulated Consonants in Quiet and Noise in Older Individuals with and Without Hearing Loss
Hemanth Narayan Shetty, Vishal Kooknoor
- 290 | A Prospective Experimental Study on the Protective Effect of Resveratrol against Amikacin-Induced Ototoxicity in Rats
Deniz Avcı, Mustafa Erkan, Mehmet Fatih Sönmez, Kerem Kökoğlu, Murat Salih Güneş, Ramazan Gündoğdu, Şafak Güleç, Derya Karabulut
- 298 | Defining the Limits of Endoscopic Access to Internal Auditory Canal
Adam Master, Mickie Hamiter, Maura Cosetti
- 303 | Efficacy of Cortixin and Methylprednisolone on Traumatic Facial Nerve Paralysis
Tuncay Tunçcan, Şinasi Yalçın, Caner Feyzi Demir, Mehmet Mustafa Akın, Turgut Karlıdağ, Erol Keleş, İrfan Kaygusuz

- 310 | Endolymphatic Duct Blockage for Refractory Ménière's Disease: Assessment of Endolymphatic Sac Biopsy on Short-Term Surgical Outcomes
Marc-Henri Asmar, Issam Saliba

- 316 | Evaluation of Cervical Vestibular-Evoked Myogenic Potential Findings in Benign Paroxysmal Positional Vertigo
Abdullah Karataş, Turgut Yüce, Işıl Taylan Çebi, Gülşah Acar Yüceant, Cemal Hacı, Mehti Salviz

- 321 | A Pilot Study Using Intratympanic Methylprednisolone for Treatment of Persistent Posterior Canal Benign Paroxysmal Positional Vertigo
Paz Pérez, Virginia Franco, Manuel Oliva, José A. López-Escámez

- 326 | Correlation between cVEMP and ABR for the Evaluation of Vestibular Migraine
Mehmet Sürmeli, Reyhan Sürmeli, İldem Deveci, Serap Önder, Ayşe Destina Yalçın, Çağatay Oysu

Review

- 332 | Recommendations for Potassium-Titanyl-Phosphate Laser in the Treatment of Cholesteatoma
Gavin John le Nobel, Adrian Lewis James

Clinical Report

- 337 | Endoscopic-Assisted Cochlear Implantation: A Case Series
Kadir Serkan Orhan, Beldan Polat, Mehmet Çelik, Şenol Çomoğlu, Yahya Güldiken

Case Reports

- 341 | Ceruminous Adenocarcinoma of External Auditory Canal: A Case Report
Suat Bilici, Fırat Onur, Ahmet Volkan Sünter, Özgür Yiğit, Gülben Erdem Huq

- 345 | Impression Material in the External and Middle Ear: an Overview of the Literature and a Stepwise Approach for Removal
Froukje Verdam, Rinze Tange, Hans Thomeer

- 353 | Bilateral Cochleovestibulopathy Due to Internal Auditory Canal Metastasis in a Patient with Stomach Cancer
Sertaç Yetişer

- 356 | An Iatrogenic Cholesteatoma of the Squamous Part of the Temporal Bone
Daniela Páez Mantilla, Claudio Krstulovic, Manuel Mateos Fernández, Herminio Pérez Garrigues

- 358 | Reviewer List