

INTERNATIONAL JOURNAL OF ORAL IMPLANTOLOGY

Editor-in-Chief

Craig Misch, Sarasota, FL, USA

Associate Editors

Fouad Khoury, Olsberg, Germany
Hongchang Lai, Shanghai, China
Hom-Lay Wang, Ann Arbor, MI, USA

Section Editors: Fundamental Research

Paulo G Coelho, New York, NY, USA
Lyndon F Cooper, Chicago, IL, USA
Reinhard Gruber, Vienna, Austria

Section Editors: Clinical Research

Leandro Chambrone, São Paulo, Brazil
Reinhilde Jacobs, Leuven, Belgium
Daniel Wismeijer, Amsterdam, Netherlands

Section Editors: Clinical Concepts

Jose M Navarro, London, UK
Dennis Tarnow, New York, NY, USA
Tiziano Testori, Milan, Italy

Section Editors: Scientific Reviews

Asbjørn Jokstad, Tromsø, Norway
Alberto Monje, Barcelona, Spain
Dean Morton, Indianapolis, IN, USA
Andrea Ravidà, Ann Arbor, MI, USA

Statistical Advisor

Wim Coucke, Leuven, Belgium

Abstract Editor

Rodrigo F Neiva, Philadelphia, PA, USA

Official publication of
International Congress of Oral
Implantologists (ICOI),
and Portuguese Society of Implantology
and Osseointegration (SOPIO)

Editorial Review Board

Marcus Abboud, Lexington, KY, USA
Eduardo Anitua, Vitoria-Gasteiz, Spain
Wael Att, Boston, MA, USA
Gustavo Avila-Ortiz, Iowa City, IA, USA
Michael Bergler, Philadelphia, PA, USA
Nitzan Bichacho, Tel Aviv, Israel
Markus B Blatz, Philadelphia, PA, USA
Michael Block, New Orleans, LA, USA
Michael M Bornstein, Basel, Switzerland
Luigi Canullo, Valencia, Spain
Daniele Cardaropoli, Torino, Italy
Sung-Am Cho, Daegu, Republic of Korea
Bruno Chrcanovic, Malmö, Sweden
Stephen J Chu, New York, NY, USA
Luca Cordaro, Rome, Italy
Amir Danesh-Sani, Chicago, IL, USA
Hugo De Bruyn, Nijmegen, Netherlands
Rafael Delgado-Ruiz, Stony Brook, NY, USA
Nikolaos Donos, London, UK
Abdelsalam Elaskary, Alexandria, Egypt
Pablo Galindo-Moreno, Granada, Spain
Scott Ganz, Fort Lee, NJ, USA
Jung-Suk Han, Seoul, Republic of Korea
Arndt Happe, Münster, Germany
Uli Hauschild, Frankfurt, Germany
Soren Jepsen, Bonn, Germany
Ki-Tae Koo, Seoul, Republic of Korea
Bach Le, Los Angeles, CA, USA
Nikos Mattheos, Hong Kong, China
Richard Miron, Davie, FL, USA
Emeka Nkenke, Vienna, Austria
Mutlu Özcan, Zurich, Switzerland
Michael Pikos, New Port Richey, FL, USA
Waldemar D Polido, Indianapolis, IN, USA
Bernhard Pommer, Vienna, Austria
Alessandro Pozzi, Rome, Italy
Georgios E Romanos, Stony Brook, NY, USA
Mariano Sanz, Madrid, Spain
Danilo Schneider, Novo Hamburgo, Brazil
Devorah Schwartz-Arad, Tel-Aviv, Israel
XieQi Shi, Bergen, Norway
Jamil Awad Shibli, Guarulhos, Brazil
Dong-Seok Sohn, Daegu, Republic of Korea
Hendrik Terheyden, Kassel, Germany
Ghadeer Thalji, Chicago, IL, USA
Daniel Thoma, Zurich, Switzerland
Tolga Tozum, Chicago, IL, USA
Istvan Urban, Budapest, Hungary
Giovanni Zucchelli, Bologna, Italy

The *International Journal of Oral Implantology* is published quarterly by Quintessenz Verlags-GmbH, Ifenpfad 2-4, 12107 Berlin, Germany. Director: H. W. Haase, 93 HRB 15582. Court domicile and place of performance: Berlin, Germany.

The *International Journal of Oral Implantology* is listed in MEDLINE, Science Citation Index Expanded and Journal Citation Reports/Science Edition.

Copyright © 2020 Quintessenz Verlags-GmbH. All rights reserved.

No part of this journal may be reproduced in any material form (including photocopying or storing it in any medium by electronic means and whether transiently or incidentally to some other use of this journal), without the written permission of the publisher except in accordance with the provisions of the Copyright, Designs and Patents Act 1988 or under the terms of a licence issued by The Copyright Licensing Agency Ltd, Saffron House, 6-10 Kirby Street, London EC1N 8TS, UK. Application for the copyright owner's written permission to reproduce any part of this journal should be addressed to the publisher. The publisher assumes no responsibility for unsolicited manuscripts. All opinions are those of the authors.

Advertising Policy: All advertising appearing in the *International Journal of Oral Implantology* must be approved by the Editors/ Editorial Board. The publication of an advert is not to be construed as an endorsement of approval by the journal or its publisher.

Permission to photocopy items solely for internal or personal use and for the internal and personal use of specific clients is granted by Quintessenz Verlags-GmbH

Publisher: Dr. h. c. H.-W. Haase

Director of Journal Publications: Dr Marina Rothenbücher

Editorial Coordinator: Elizabeth Ducker

Content Editor: Márcia Rato

Subscription Managers:

Adelina Hoffmann: Germany, Austria, Switzerland
Andrew Johnson: All other countries

Advertising: Muriel Suma and Markus Queitsch
(queitsch@quintessenz.de / +49 (0) 172-933 71 33)

Layout/Production: Ina Steinbrück

Printed in Germany

Subscription information

Contact your nearest Quintessence office:

Quintessenz Verlags-GmbH, Ifenpfad 2-4, D-12107 Berlin, Germany
Tel: +49-30-761 80-5; Fax: +49-30-761 80-68-0
Email: info@quintessenz.de; www.quintessenz.de

Quintessence Publishing Co. Ltd,
Quintessence House, Grafton Road, New Malden, Surrey KT3 3AB,
UK.

Tel: +44 (0)20 8949 6087; Fax: +44 (0)20 8336 1484

Email: info@quintpub.co.uk; www.quintpub.co.uk

Quintessence Publishing Co. Inc

411 N. Raddant Road, Batavia, Illinois 60510, USA

Tel: (630) 736-3600; Fax: (630) 736-3633

Email: service@quintbook.com; www.quintpub.com

Subscription rates (includes online version, <http://joi.quintessenz.de>)
Europe:

	Surface mail	Air mail
Individual	€178 / £158	£190
Institutional	€370 / £328	£360
Student*	€92 / £84	£116
Single issue	€46 / £36	£44

North America and rest of world:

Individual \$199; Institutional \$414; Student* \$103

*Student verification must accompany order.

Subscriptions may begin at any time. Please allow 6 weeks for any change of address notification to be processed. Claims for missing journals will be serviced only within 6 months of publication date. Otherwise, single copy price will be charged on missing issues.

Postmaster: Send address changes to

Quintessenz Verlags-GmbH, Ifenpfad 2-4, D-12107, Berlin, Germany, or Quintessence Publishing Co. Ltd, Quintessence House, Grafton Road, New Malden, Surrey KT3 3AB, UK

Manuscript submission information: Go to www.manuscriptmanager.net/joi to submit online. For more information, see the Guidelines for Authors (<http://joi.quintessenz.de>).

Impact factor 2019 2.619

ISSN 2631-6420 (Print), ISSN 2631-6439 (Online)