

**Editor-in-Chief**

**Eli Eliav, DMD, MSc, PhD**

Professor and Director, Eastman Institute for Oral Health  
University of Rochester Medical Center, Rochester, NY, USA

**Scientific Associate Editors**

**Matthias Karl, PD Dr Med Dent**

Prosthodontics, Erlangen, Germany

**Andrej M. Kielbassa, Prof Dr Med Dent, Dr h c**

(Senior Associate Editor)  
Operative Dentistry, Periodontology and Endodontology, Krems, Austria

**Gary Klasser, DMD, Cert Orofacial Pain**

Comprehensive Dentistry, New Orleans, LA, USA

**Liran Levin, DMD**

Periodontology, Edmonton, AB, Canada

**Mel Mupparapu, DMD**

Oral and Maxillofacial Radiology, Philadelphia, PA, USA

**Anton Sculean, DMD, MS, PhD**

Periodontology, Bern, Switzerland

**Christian H. Splieth, DDS, PhD**

Preventive and Pediatric Dentistry, Greifswald, Germany

**Sorin T. Teich, DMD, MBA**

Prosthodontics, Cleveland, OH, USA

**Clinical Associate Editors**

**Alan M. Atlas, DMD**

Implant Dentistry, Philadelphia, PA, USA

**Markus B. Blatz, DMD, PhD**

Restorative Dentistry, Philadelphia, PA, USA

**Irena Sailer, Prof Dr Med Dent**

Prosthodontics, Geneva, Switzerland

**Najeed Saleh, DMD**

Prosthodontics, Philadelphia, PA, USA

**Frank C. Setzer, DMD, MS**

Endodontics, Philadelphia, PA, USA

**Editorial Review Board**

Mohammad Al-Zahrani, Rafael Benoliel, Christine Berthold, Paul Binon, Adi Biron, Michael Block, William D. Browning, Nardy Casap, Daniel C. N. Chan, Sami Chogle, Rakefet Czerninski, Scot Diehl, Daniel Edelhoff, Kim Ekstrand, Sharon Elad, Mahnaz Fatahzadeh, John R. Gallo, Istvan Gera, Christian Gernhardt, Henry Greenwell, Yoav Grossman, Gary M. Heir, Yoshiki Imamura, Paul G. Jost-Brinkmann, Mythili Kalladka, Adrian Kasaj, Joseph Katz, Matthias Kern, Junad Khan, Futoshi Komine, TaeHyun Kwon, Adrian Lussi, Edward Lynch, Michael N. Mandikos, Luc C. Martens, Donna Mattscheck, Christian Meller, Shogo Minagi, Dan Nathanson, Russell Nishimura, Raphael Pilo, Eli Raviv, Stefan Ries, Joseph Rinaggio, Georgios E. Romanos, Ilan Rotstein, Stefan Rues, Asha Samant, Yigal Savion, Danny R. Sawyer, Hans Schindler, Mona A. Shoeib, Harel Simon, Steven Singer, Ami Smidt, Andreas Stavropoulos, Kumar Subramanian, James C. Taylor, Peter Tschoppe, Jens C. Türp, Svante Twetman, Gary Vitaletti, Saul Weiner, Ervin Weiss, Manfred Wichmann, Andy Wolff, Xiaoming Xu, Yehuda Zadik, Vincent Ziccardi, Shlomo P. Zusan

*Quintessence International* is abstracted and/or indexed in the MEDLINE Index to the Dental Literature, SciSearch (Science Citation Index-Expanded), Research Alert, and Current Contents/Clinical Medicine.

**Subscription/Manuscript Information**

Publisher Dr hc H. W. Haase  
Publishing Director Johannes W. Wolters  
Managing Editor Elizabeth Ducker  
Editorial Coordinator Dorith Buitenkant  
Production Manager Petra Jentschke  
Subscription Manager Angela Köthe  
Advertising Manager Luciano Gentile

Quintessence International is published 10 times per year 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.

Quintessenz Verlags-GmbH  
Ifenpfad 2-4  
12107 Berlin  
Telephone: +49 (0) 30 / 7 61 80-5  
Fax: +49 (0) 30 / 7 61 80-692  
Email: info@quintessenz.de  
Web site: http://www.quintessenz.de

**Subscription rates (includes online version):** Regular rate for North America is US\$ 190 per year; Institutional rate is US\$ 475 (Canadian subscribers add applicable GST). International rate (outside North America) is US\$ 258; US\$ 505 institutional. International subscribers add US\$ 40 to international rate for air mail. Student rate US\$ 92 per year (US\$ 158 international); student verification must accompany order. Single copy US\$ 25. Subscriptions may begin at any time; cancellations accepted until September 30. Please allow 6 weeks for any change of address notification to be processed. Claims for missing issues 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, 12107 Berlin, Germany; or Quintessence Publishing Co, Inc, 4350 Chandler Drive, Hanover Park, Illinois 60133.

Copyright © 2017 by Quintessenz Verlags-GmbH. All rights reserved. No parts of this journal may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information and retrieval system, without permission in writing from the publisher. The publisher assumes no responsibility for unsolicited manuscripts. The views expressed herein are those of the individual authors and are not necessarily those of the publisher. Information included herein is not professional advice and is not intended to replace the judgment of a practitioner with respect to particular patients, procedures, or practices. To the extent permissible under applicable laws, the publisher disclaims responsibility for any injury and/or damage to persons or property as a result of any actual or alleged libelous statements, infringement of intellectual property or other proprietary or privacy rights, or from the use or operation of any ideas, instructions, procedures, products, or methods contained in the material herein.

**Permission to photocopy** items solely for internal or personal use and for the internal and personal use of specific clients is granted by Quintessence Publishing Co, Inc, for libraries and other users registered with the Copyright Clearance Center (CCC) Transaction Reporting Service, provided that the base fee of \$5.00 per article plus \$.10 per page is paid directly to Copyright Clearance Center, 222 Rosewood Drive, Danvers, Massachusetts 01923, USA (www.copyright.com). Identify this publication by including with your payment the fee code: ISSN 0033-6572/2016 \$5.00 + \$.10.

**Advertising Policy:** All advertising appearing in Quintessence International must be approved by the editorial staff. The publication of an advertisement is not to be construed as an endorsement of approval by QI or its publisher.

**Manuscript submission information** can be found in the Guidelines for Authors at www.manuscriptmanager.com/qi.

Printed in Germany.