PROGRESS IN BIOMEDICAL OPTICS AND IMAGING
Vol. 23 No. 4

Endoscopic Microscopy XVII

Guillermo J. Tearney
Thomas D. Wang
Melissa J. Suter
Editors

22–27 January 2022
San Francisco, California, United States

Sponsored and Published by
SPIE

Volume 11937

Proceedings of SPIE, 1605-7422, V. 11937

Endoscopic Microscopy XVII, edited by Guillermo J. Tearney, Thomas D. Wang, Melissa J. Suter,
Proc. of SPIE Vol. 11937, 1193701 · © 2022 SPIE · 1605-7422 · doi: 10.1117/12.2634587

The papers in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. Additional papers and presentation recordings may be available online in the SPIE Digital Library at SPIEDigitalLibrary.org.

The papers reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from these proceedings:
Author(s), "Title of Paper," in *Endoscopic Microscopy XVII*, edited by Guillermo J. Tearney, Thomas D. Wang, Melissa J. Suter, Proc. of SPIE 11937, Seven-digit Article CID Number (DD/MM/YYYY); (DOI URL).

ISSN: 1605-7422
ISSN: 2410-9045 (electronic)

ISBN: 9781510647459
ISBN: 9781510647466 (electronic)

Published by
SPIE
P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time)
SPIE.org

Printed in the United States of America by Curran Associates, Inc., under license from SPIE.

Publication of record for individual papers is online in the SPIE Digital Library.

SPIE. DIGITAL LIBRARY
SPIEDigitalLibrary.org

Paper Numbering: A unique citation identifier (CID) number is assigned to each article in the Proceedings of SPIE at the time of publication. Utilization of CIDs allows articles to be fully citable as soon as they are published online, and connects the same identifier to all online and print versions of the publication. SPIE uses a seven-digit CID article numbering system structured as follows:

- The first five digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B … 0Z, followed by 10-1Z, 20-2Z, etc. The CID Number appears on each page of the manuscript.

Contents

Conference Committee

Symposium Chairs

Jennifer Barton, The University of Arizona (United States)
Wolfgang Drexler, Medical University of Vienna (Austria)

Program Track Chairs

Brian Jet-Fei Wong, Beckman Laser Institute and Medical Clinic, University of California, Irvine (United States)
Eva M. Sevick, The University of Texas Health Science Center at Houston (United States)

Conference Chairs

Guillermo J. Tearney, Wellman Center for Photomedicine (United States)
Thomas D. Wang, University of Michigan (United States)
Melissa J. Suter, Massachusetts General Hospital (United States)

Conference Program Committee

Kathy Beaudette, Castor Optics, Inc. (Canada)
Matthew Brenner, University of California, Irvine (United States)
Johannes F. de Boer, Vrije Universiteit Amsterdam (Netherlands)
Arthur F. Gmitro, The University of Arizona (United States)
Michalina J. Gora, Laboratory des sciences de l'Ingénieur, de l'Informatique et de l'Imagerie (France)
Lida P. Hariri, Massachusetts General Hospital (United States)
Stephen Lam, The BC Cancer Agency Research Center (Canada)
Amy L. Oldenburg, The University of North Carolina at Chapel Hill (United States)
Wibool Piyawattanametha, King Mongkut's Institute of Technology Ladkrabang (Thailand)
DongKyun Kang, College of Optical Sciences, The University of Arizona (United States)
David D. Sampson, University of Surrey (United Kingdom)
Eric J. Seibel, University of Washington (United States)