## Photonic Diagnosis, Monitoring, Prevention, and Treatment of Infections and Inflammatory Diseases 2022

Tianhong Dai Jürgen Popp Mei X. Wu Editors

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

20–24 February 2022 ONLINE

Sponsored and Published by SPIE

**Volume 11939** 

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 Photonic Diagnosis, Monitoring, Prevention, and Treatment of Infections and Inflammatory Diseases 2022, edited by Tianhong Dai, Jürgen Popp, Mei X. Wu, Proc. of SPIE 11939, Seven-digit Article CID Number (DD/MM/YYYY); (DOI URL).

ISSN: 1605-7422

ISSN: 2410-9045 (electronic)

ISBN: 9781510647497

ISBN: 9781510647503 (electronic)

Published by

SPIE

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

SPIE.org

Copyright © 2022 Society of Photo-Optical Instrumentation Engineers (SPIE).

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of fees. To obtain permission to use and share articles in this volume, visit Copyright Clearance Center at copyright.com. Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher.

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.



**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

| iv       | Conference Committee  |
|----------|---|
|          | DIAGNOSIS II  |
| 11939 02 | Assessment of oxygen saturation in microvasculature of atopic dermatitis patients using multispectral optoacoustic mesoscopy [11939-7]              |
|          | ANTIMICROBIAL PHOTOTHERAPY I  |
| 11939 03 | Antimicrobial photodynamic therapy combined with antibiotics reduces resistance and aids elimination in four resistant bacterial strains [11939-11] |
|          | POSTER SESSION  |
| 11939 04 | Optical determination of colony size and color of common veterinary bacteria on a chromogenic agar [11939-18]                                       |