

PROGRESS IN BIOMEDICAL OPTICS AND IMAGING

Vol. 13, No. 4

Optical Methods for Tumor Treatment and Detection: Mechanisms and Techniques in Photodynamic Therapy XXI

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Editors

**21–22 January 2012
San Francisco, California, United States**

Sponsored and Published by
SPIE

Volume 8210

Proceedings of SPIE, 1605-7422, v. 8210

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

The papers included 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. The papers published in these proceedings 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.

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Author(s), "Title of Paper," in *Optical Methods for Tumor Treatment and Detection: Mechanisms and Techniques in Photodynamic Therapy XXI*, edited by David H. Kessel, Tayyaba Hasan, Proceedings of SPIE Vol. 8210 (SPIE, Bellingham, WA, 2012) Article CID Number.

ISSN 1605-7422

ISBN 9780819488534

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA

Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445

SPIE.org

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Printed in the United States of America.

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Introduction

SPIE has sponsored conferences relating to Photodynamic Therapy since 1987, with the current symposium representing the 21st in the series. Some of the prior meetings occurred before the current numbering system was in place. These conferences bring together a collection of people involved in everything from device design to clinical practice.

PDT was originally discovered when it was noted that microorganisms could be killed by the combination of certain dyes plus light. While the current applications relate mainly to therapy of cancer, applications for antimicrobial therapy are being developed. PDT has a major advantage over conventional approaches to cancer control. Adverse reactions are minimal and re-treatment is readily feasible. Moreover, the resulting fluorescence of localized photosensitizers can aid in the identification of neoplastic loci. The major problem is that one must know where to aim the light, so that tumors in unknown locations are unaffected.

PDT applications appear to be more prevalent in Asia and Europe for reasons more related to the pharmaceutical industry than to feasibility. Properly used, this can be a useful tool for some indications. The SPIE conferences are designed to aid in the development of new approaches and the exchange of information relating to current progress.

**David H. Kessel
Tayyaba Hasan**

