

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

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Editors

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The CID Number appears on each page of the manuscript. The complete citation is used on the first page, and an abbreviated version on subsequent pages.

Contents

- vii *Authors*
- ix *Conference Committee*
- xi *Introduction*

SESSION 1 PHOTODYNAMIC THERAPY I

- 9694 02 **Mechanistic studies on a sequential PDT protocol (Invited Paper) [9694-1]**

SESSION 2 PHOTODYNAMIC THERAPY II

- 9694 06 **A feasibility study of singlet oxygen explicit dosimetry (SOED) of PDT by intercomparison with a singlet oxygen luminescence dosimetry (SOLD) system [9694-5]**
- 9694 07 **Combination of verteporfin-PDT and PI3K inhibitors enhances cell growth inhibition and apoptosis in endothelial cells [9694-6]**
- 9694 08 **Pancreas tumor interstitial pressure catheter measurement [9694-7]**

SESSION 3 PHOTODYNAMIC THERAPY III

- 9694 0C **Development of low-cost devices for image-guided photodynamic therapy treatment of oral cancer in global health settings [9694-11]**
- 9694 0D **Determination of the low concentration correction in the macroscopic singlet oxygen model for PDT [9694-12]**

SESSION 4 PHOTODYNAMIC THERAPY IV

- 9694 0E **Combination photodynamic therapy using 5-fluorouracil and aminolevulinate enhances tumor-selective production of protoporphyrin IX and improves treatment efficacy of squamous skin cancers and precancers (Invited Paper) [9694-18]**
- 9694 0G **Preliminary studies of fluorescence image-guided photothermal therapy of human oesophageal adenocarcinoma *in vivo* using multifunctional gold nanorods [9694-15]**
- 9694 0I **Home-use cancer detecting band aid [9694-17]**

SESSION 5 PHOTODYNAMIC THERAPY V

- 9694 0J Extracellular matrix composition and rigidity regulate invasive behavior and response to PDT in 3D pancreatic tumor models [9694-13]
- 9694 0K Vitamin D for combination photodynamic therapy of skin cancer in individuals with vitamin D deficiency: Insights from a preclinical study in a mouse model of squamous cell carcinoma [9694-19]
- 9694 0L Investigating the impact of oxygen concentration and blood flow variation on photodynamic therapy [9694-20]

SESSION 6 PHOTODYNAMIC THERAPY VI

- 9694 0P Reducing background noise in near-infrared medical imaging: Routes to activated fluorescing [9694-24]
- 9694 0Q Efficiency of photodynamic therapy using indocyanine green and infrared light on MCF-7 breast cancer cells *in vitro* [9694-25]

SESSION 7 PHOTODYNAMIC THERAPY VII

- 9694 0T Dosimetry study of PHOTOFRIN-mediated photodynamic therapy in a mouse tumor model [9694-27]

SESSION 8 PHOTODYNAMIC THERAPY VIII

- 9694 0X Cherenkov radiation fluence estimates in tissue for molecular imaging and therapy applications [9694-31]
- 9694 0Y PDT dose dosimeter for pleural photodynamic therapy [9694-32]
- 9694 0Z Analysis of superficial fluorescence patterns in nonmelanoma skin cancer during photodynamic therapy by a dosimetric model [9694-33]

POSTER SESSION

- 9694 10 Optical spectroscopy of radiotherapy and photodynamic therapy responses in normal rat skin shows vascular breakdown products [9694-34]
- 9694 12 Synthesis and characterization of novel phthalocyanines and evaluation of photodynamic therapy properties [9694-36]
- 9694 13 Synthesis and characterization of PLGA nanoparticles containing mixture of curcuminoids for optimization of photodynamic inactivation [9694-37]
- 9694 14 Photodynamic inactivation of contaminated blood with *Staphylococcus aureus* [9694-38]

- 9694 15 Photodynamic inactivation of *Acanthamoeba polyphaga* with curcuminoids: an *in vitro* study [9694-39]
- 9694 17 Comparison of two photosensitizers in photodynamic therapy using light pulses in femtosecond regime: an animal study [9694-41]
- 9694 18 Intratumor photosensitizer injection for photodynamic therapy: Pre-clinical experience with methylene blue, Pc 4, and Photofrin [9694-43]

Authors

Numbers in the index correspond to the last two digits of the six-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first four digits reflect the volume number. Base 36 numbering is employed for the last two digits and indicates the order of articles within the volume. Numbers start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B...0Z, followed by 10-1Z, 20-2Z, etc.

Adashov, Arkady, 0I
Ahmad, Mahmoud, 0Y
Ak, Ayşe, 0Q
Anand, Sanjay, 0E, 0K
Andreozzi, Jacqueline, 0X, 10
Arce-Diego, J. L., 0Z
Arnason, Stephen, 0C
Bagnato, Vanderlei Salvador, 13, 14, 15, 17
Bandera, Yuriy, 0P
Baran, Timothy M., 18
Blanco, Kate Cristina, 14
Bruce, Terri F., 0P
Buller, Gerald, 06
Burdette, Mary K., 0P
Carvalho, Mariana Torres, 15
Cass, Anthony, 0G
Celli, Jonathan P., 0C, 0J
Chen, Bin, 07
Corrêa, Thaila Quatrini, 13, 14, 15
Cramer, Gwendolyn, 0J
Cuckov, Filip, 0C
Daly, Liam, 0C
Darafsheh, Arash, 0Y
de Souza, Clovis Wesley Oliveira, 15
El-Hamidi, Hamid, 0J
Elson, Daniel S., 0G
Fanjul-Vélez, F., 0Z
Finlay, Jarod C., 0D, 0L, 0Y
Foster, Thomas H., 18
Foulger, Stephen H., 0P
Gallina, Maria Elena, 0G
Gemmell, Nathan R., 06
Geralde, Mariana Carreira, 15
Gladstone, David, 0X
Glaser, Adam K., 0X
Grecco, Clóvis, 17
Gülsoy, Murat, 0Q
Gunn, Jason, 08, 10
Hadfield, Robert H., 06
Hanna, George, 0G
Hasan, Tayyaba, 0C, 0K
Hempstead, Joshua, 0C
Inada, Natalia Mayumi, 13, 14
Jafari, Seyedehtrojin, 0J
Jones, Dustin P., 0J
Kahraman, Mehmet, 12
Kanick, Stephen Chad, 10
Kessel, David, 02
Khan, Amjad Pervez, 0C
Kim, Michele M., 06, 0D, 0L, 0T, 0Y
Korkmaz, Aysun, 12
Kraus, Daniel, 07
Kurachi, Cristina, 10, 13, 14, 15, 17
Liu, Hui, 0C
Liu, Yiran, 0C
Ma, Daqing, 0G
Mallidi, Srivalleesha, 0C
Marangoni, Valéria S., 13
Marra, Kayla, 08, 10
Maytin, Edward V., 0E, 0K
McCarthy, Aongus, 06
Nabavi, Elham, 0G
Nieskoski, Michael D., 08
Nogueira, Marcelo Saito, 10
Penjweini, Rozhin, 06, 0D, 0L, 0T
Pogue, Brian W., 08, 0X, 10
Powell, Rhonda R., 0P
Pratavieira, Sebastião, 14, 17
Qiu, Haixia, 0T
Rizvi, Imran, 0C
Rudd, Grant, 0C
Rudnitsky, Arkady, 0I
Ruhi, Mustafa Kemal, 0Q
Salas-García, I., 0Z
Samkoe, Kimberley S., 10
Sheinman, Víctor, 0I
Singh, Mohan, 0G
Suzuki, Isabella L., 13
Teles de Andrade, Cintia, 10
Thomas, Erik, 0K
Thomas, Richard, 0C
Toktosunov, Aitmamat, 0I
Trembly, B. Stuart, 08
Tzoy, Andrey, 0I
Veilleux, Israel, 06
Wilson, Brian C., 06
Yilmaz, Yusuf, 12
Zalevsky, Zeev, 0I
Zhang, Rongxiao, 0X
Zhao, Hailin, 0G
Zhou, Yu, 0G
Zhu, Timothy C., 06, 0D, 0L, 0T, 0Y
Zucolotto, Valtencir, 13

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- 6 Photodynamic Therapy VI
Kimberley S. Samkoe, Geisel School of Medicine (United States)
- 7 Photodynamic Therapy VII
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(United States)
- 8 Photodynamic Therapy VIII
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Introduction

SPIE has been sponsoring conferences related to topics in photodynamic therapy since 1987. The first symposium was organized by Douglas Neckers, with Michael Detty, Tayyaba Hasan and Angelo Russo as co-chairs. Thomas Dougherty then organized a continuing series of these symposia beginning in 1989 with the assistance of Dr. Hasan. A special symposium on 'New Directions' was organized by Charles J. Gomer in 1990. Since 2003, the annual PDT conferences were organized by David Kessel, with Tayyaba Hasan becoming co-chair in 2011. These meetings are designed to bring together workers involved in synthesis, characterization and development of photodynamic processes. A diverse group of people participate including chemists, biologists, clinical personnel, and engineers.

Research was initially directed at assessing the role of PDT in the treatment of cancer. More recently, effects on microbial infections and other indications have been explored. A series of newer agents for better cancer control are being developed, along with light sources and dosimetry devices to simplify the calculations involved and light delivery procedures. The role of immunologic processes are also being evaluated.

The impact of PDT on cancer control has been demonstrated, but major clinical utilization appears to be in Asia and Europe. Part of the slow acceptance in the US may be related to regulatory requirements along with decisions by pharmaceutical groups to aim their resources in other directions. Examples of successful treatment of pathologic conditions by PDT continue to be reported. As evidence continues to accrue, perhaps the efficacy of this form of therapy will eventually prove persuasive.

**David H. Kessel
Tayyaba Hasan**

