

Small Animal Whole-Body Optical Imaging Based on Genetically Engineered Probes BO133

Part of SPIE's International Symposium on Biomedical Optics (BiOS) 2007
20-25 January 2007 • San Jose Convention Center • San Jose, CA USA

Conference Chairs: **Alexander P. Savitsky**, A.N. Bach Institute of Biochemistry (Russia); **Rebekka M. Wachter**, Arizona State Univ.

Conference Cochairs **Robert M. Hoffman**, AntiCancer, Inc.; **Atsushi Miyawaki**, The Institute of Physical and Chemical Research (Japan)

Program Committee: **Lubov Y. Brovko**, Univ. of Guelph (Canada); **Stefan W. Hell**, Deutsches Krebsforschungszentrum (Germany); **Maria-Elisabeth Michel-Beyerle**, Technische Univ. München (Germany); **Anya Salih**, The Univ. of Sydney (Australia); **Alan S. Waggoner**, Carnegie Mellon Univ.; **Jörg Wiedenmann**, Univ. Ulm (Germany)

Green fluorescent protein (GFP), novel fluorescent proteins from corals, bacterial/insect luciferases and linear tetrapyrrole-containing phycobiliproteins and phytochromes comprise a rapidly growing arsenal of gene-based optical probes for numerous applications in biology, biotechnology and medicine.

The focus of this conference will be on genetically engineered optical probes for:

- small animal whole-body optical imaging
- in vivo biosensing

Special Sessions

Two special sessions will be organized:

Whole-body multi-color imaging of tumor growth and metastasis at the tissue and cellular level

Chair: **Robert M. Hoffman**

Genetically Engineered Probes in brain research

Chair: **Atsushi Miyawaki**

Both scientific and engineering communities are invited to submit abstracts. Companies that manufacture components relevant to in vivo microscopic and small animal whole-body optical imaging are especially invited to have their scientific and/or engineering staff submit technical papers characterizing their work.

The suggested topics include new developments in the following areas:

- application of genetically engineered probes for:
 - brain research
 - cancer research
 - infectious disease
 - food safety
 - molecular biosensors
- photophysical and biochemical properties of probes
- fluorescence and bioluminescence energy transfer (FRET and BRET)
- multicolor measurements and two-photon excitation
- single molecule detection
- new algorithms and methods for image analysis, data manipulation, and software
- new components and instrumentation for small animal whole body imaging.

Abstract Due Date: 10 July 2006
Manuscript Due Date: 2 January 2007

Submission of Abstracts for Biomedical Optics (BiOS) 2007

Abstract Due Date: 10 July 2006

Abstracts, if accepted, will be printed and distributed at the meeting.

Manuscript Due Date: 2 January 2007

IMPORTANT!

Submissions imply the intent of at least one author to register, attend the symposium, present the paper (either orally or in poster format), and submit a full-length manuscript for publication in the conference Proceedings.

All authors (including invited or solicited speakers), program committee members, and session chairs are responsible for registering and paying the reduced author, session chair, program committee registration fee. (Current SPIE Members receive a discount on the registration fee.)

Instructions for Submitting Abstracts via Web

You are **STRONGLY ENCOURAGED** to submit abstracts using the "submit an abstract" link at:

<http://www.spie.org/events/pw>

Submitting directly on the Web ensures that your abstract will be immediately accessible by the conference chair for review through MySPIE, SPIE's author/chair web site.

Please note! When submitting your abstract you must provide contact information for all authors, summarize your paper, and identify the **contact author** who will receive correspondence about the submission and who must submit the manuscript and all revisions. Please have this information available before you begin the submission process.

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If you do not have web access, you may E-MAIL each abstract separately to: abstracts@spie.org in [ASCII text \(not encoded\)](#) format. There will be a time delay for abstracts submitted via e-mail as they will not be immediately processed for chair review.

IMPORTANT! To ensure proper processing of your abstract, the SUBJECT line must include only:

SUBJECT: BO133, SAVITSKY, WACHTER

Your abstract submission must include all of the following:

- PAPER TITLE**
- AUTHORS** (principal author first) For each author: First (given) name (initials not acceptable), Last (family) name, Affiliation, Mailing address, Telephone, Fax, and Email address.
- PRESENTATION PREFERENCE** "Oral Presentation" or "Poster Presentation."
- PRINCIPAL AUTHOR'S BIOGRAPHY** Approximately 50 words.
- ABSTRACT TEXT** Approximately 250 words.

Accepted abstracts for this conference will be included in the abstract digest which will be available at the meeting. Please submit only 250-word abstracts that are suitable for publication.

- KEYWORDS** Maximum of five keywords.

Accepted Abstracts

A CD-Rom of accepted abstracts will be distributed to attendees onsite. Please submit only 250 word abstracts that are suitable for publication.

Conditions of Acceptance

- Authors are expected to secure funding for registration fees, travel, and accommodations, independent of SPIE, through their sponsoring organizations before submitting abstracts.
- Only original material should be submitted.
- Commercial papers, papers with no new research/development content, and papers where supporting data or a technical description cannot be given for proprietary reasons will not be accepted for presentation in this symposium.
- Abstracts should contain enough detail to clearly convey the approach and the results of the research.
- Government and company clearance to present and publish should be final at the time of submittal. If you are a DoD contractor, allow at least 60 days for clearance. Authors are required to warrant to SPIE in advance of publication of the Proceedings that all necessary permissions and clearances have been obtained, and that submitting authors are authorized to transfer copyright of the paper to SPIE.

Review, Notification, Program Placement

- To ensure a high-quality conference, all abstracts and Proceedings manuscripts will be reviewed by the Conference Chair/Editor for technical merit and suitability of content. Conference Chair/Editors may require manuscript revision before approving publication, and reserve the right to reject for presentation or publication any paper that does not meet content or presentation expectations. SPIE's decision on whether to accept a presentation or publish a manuscript is final.
- Applicants will be notified of abstract acceptance by mail no later than 16 October 2006. Early notification of acceptance will be placed on SPIE Web the week of 11 September 2006 at <http://www.spie.org/events/pw>.
- Final placement in an oral or poster session is subject to the Chairs' discretion. Instructions for oral and poster presentations will be sent to you by email. All oral and poster presentations require presentation at the meeting and submission of a manuscript to be included in the *Proceedings of SPIE*.

Proceedings of SPIE and SPIE Digital Library

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