

# *European Conferences on* **Biomedical Optics**



**Molecular Imaging**

**Optical Coherence Tomography**

**Diagnostic Optical Spectroscopy**

**Diffuse Optical Imaging**

**Confocal, Multiphoton, and  
Nonlinear Microscopic Imaging**

**Novel Optical Instrumentation  
for Biomedical Applications**

**Therapeutic Laser Applications  
and Laser-Tissue Interactions**

**Biophotonics and Optics  
in Life Sciences**

ICM—International Conference Centre  
Munich, Germany

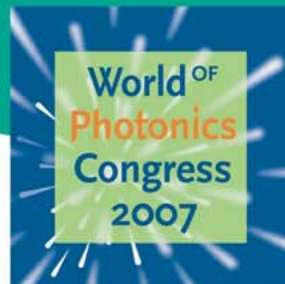
**17–21 June 2007**

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# European Conferences on Biomedical Optics

17–21 June 2007

ICM—International Conference Centre Munich, Germany

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## Plan now to participate!

The use of optical technologies and methods for biomedical applications in diagnostics and therapeutics has emerged as major research field. The European Conferences on Biomedical Optics (ECBO) brings together scientists, engineers, and clinicians from a variety of disciplines who are engaged in the development and application of optical science and photonic technologies to problems in biomedicine.

The scope of this meeting will range from basic research and instrumentation engineering to translational (bench-to-bedside) research and clinical studies, with the common thread of employing optics to impact problems in biology, medicine, or clinical health care. This biennial meeting is jointly sponsored by SPIE—The International Society for Optical Engineering and the Optical Society of America (OSA) and will be co located with Laser Munich 2007—World of Photonics and other society meetings organized by WLT, EOS, and DGLM.

### Program Chairs



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**Pierre Le Ber**, Lab. d'Electronique de Technologie  
de l'Information (France)

**Kai Licha**, Schering AG (Germany)

**Holger Lubatschowski**, Laser Zentrum Hannover  
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**Rainer Macdonald**, Physikalisch-Technische  
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**Dieter Manstein**, Wellman Ctr. for Photomedicine  
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and Technology-Hellas (Greece)

**Zhenxi Zhang**, Xi'an Jiaotong Univ. (China)

**Gang Zheng**, Univ. of Toronto (Canada)

## Molecular Imaging (EB101)

*Conference Chairs:* **Kai Licha**, Schering AG (Germany); **Vasilis Ntziachristos**, Harvard Medical School and Massachusetts General Hospital

*Program Committee:* **Samuel Achilefu**, Washington Univ. in St. Louis; **Christoph Bremer**, Univ. Münster (Germany); **Markus Rudin**, ETH Zürich (Switzerland); **Gooitzen M. van Dam**, Groningen Univ. Medical Ctr. (Netherlands); **Andreas Wunder**, Charité Berlin (Germany); **Giannis Zacharakis**, Foundation for Research and Technology-Hellas (Greece); **Gang Zheng**, Univ. of Toronto (Canada)

Emerging reporter-gene technologies and probes for fluorescence and bioluminescence in-vivo imaging have enabled an unprecedented and highly-versatile visualization of many fundamental tissue processes at the cellular and sub-cellular level. Likewise, advances in optical imaging technologies allow for a powerful imaging platform suitable for basic research, clinical translation and drug discovery. This is an emerging field of the imaging sciences that integrates many scientific disciplines from physics and engineering to chemistry and biotechnology and has strong potential applications in pharmacology, molecular biology and medicine. This conference aims in bringing together these diverse fields of the imaging sciences and places particular emphasis on the synergies of novel imaging technology and corresponding molecular reporters in facilitating the propagation of molecular imaging to addressing important biomedical problems.

Areas of interest consider, but are not limited to, progress in the following topics:

- pre-clinical and clinical applications of molecular imaging
- small animal imaging
- chemistry of fluorescent dyes, probes and nano-particles for in-vivo animal and human imaging
- applications of molecular targeting and visualization of disease processes and pathways
- genetically introduced reporters and proteins for fluorescence and bioluminescence imaging
- novel instrumentation and algorithms for optical and molecular imaging
- validation of the quantitative assessment of molecular signatures in-vivo
- approaches for multi-modality imaging including MRI, X-ray, ultrasound and radiodiagnostic techniques.

## Optical Coherence Tomography and Coherence Techniques (EB102)

*Conference Chairs:* **Peter E. Andersen**, Risø National Lab. (Denmark); **Zhongping Chen**, Univ. of California/Irvine

*Program Committee:* **Jennifer K. Barton**, The Univ. of Arizona; **Stephen A. Boppart**, Univ. of Illinois at Urbana-Champaign; **Wolfgang Drexler**, Cardiff Univ. (United Kingdom); **James G. Fujimoto**, Massachusetts Institute of Technology; **Christoph K. Hitzenberger**, Medizinische Univ. Wien (Austria); **Andrzej Kowalczyk**, Nicolaus Copernicus Univ. (Poland); **Michael Larsen**, Univ. of Copenhagen (Denmark); **Constantinos Pitris**, Univ. of Cyprus (Cyprus); **Adrian G. Podoleanu**, Univ. of Kent at Canterbury (United Kingdom); **René-Paul Salathé**, École Polytechnique Fédérale de Lausanne (Switzerland); **Natalia M. Shakhova**, Institute of Applied Physics (Russia); **Ton G. van Leeuwen**, Univ. Twente (Netherlands) and Univ. of Amsterdam (Netherlands); **Julia Welzel**, General Hospital Augsburg (Germany); **Yoshiaki Yasuno**, Univ. of Tsukuba (Japan)

Optical coherence tomography (OCT) and optical methods based on coherent light interactions with tissue are emerging medical diagnostic imaging techniques which can perform cross sectional, three-dimensional, functional, real time visualization of biological microstructure in situ.

This conference provides an interdisciplinary forum for topics in research and development on a physical and theoretical basis of coherent imaging including novel low-coherence interferometry and tomography techniques, extension techniques of OCT such as polarization sensitive, Doppler, phase contrast, spectroscopic, and second harmonic OCT. In addition, this conference will also focus on the development of new light sources, new probes, new detection schemes, and new signal processing algorithms for coherent imaging. Applications of coherent optical techniques for morphological as well as functional assessment in different living tissues and phantoms in various medical fields are also covered.

Contributed papers are solicited, but not limited to, the following areas:

- optical coherence tomography (OCT) technology and systems
- coherent imaging system, theory, and signal processing
- clinical applications of OCT
- frequency/spectral/Fourier domain OCT
- functional OCT, such as spectroscopic, Doppler, polarization sensitive, and second harmonic OCT
- contrast enhancement techniques for OCT
- novel light sources and MEMS probes for OCT
- optical coherent techniques for tissue spectroscopy and imaging
- Fourier optics in tissue imaging
- coherent light microscopy
- speckle technologies for imaging
- adaptive coherent optical systems
- biomedical optics.

**Important Note:** All submissions will be peer reviewed by the full program committee. Submissions can be up to three pages in length and should have sufficient information to permit review.

## Diagnostic Optical Spectroscopy (EB103)

*Conference Chairs:* **Dietrich Schweitzer**, Friedrich-Schiller-Univ. Jena (Germany); **Maryann Fitzmaurice**, Case Western Reserve Univ.

*Program Committee:* **Ralf Brinkmann**, Univ. zu Lübeck (Germany); **Karsten König**, Fraunhofer-Institut für Biomedizinische Technik (Germany); **Junle Qu**, Shenzhen Univ. (China); **Georges A. Wagnières**, École Polytechnique Fédérale de Lausanne (Switzerland)

The development of principles and technologies based on optical spectroscopy for diagnostic applications has recently emerged as a major research field. Moreover, the number of related industrial developments has increased significantly, resulting in numerous biological and clinical applications.

This situation is due to the strong clinical need for the early detection and localisation of pathologies, combined with the development of biomedical optical tools. New branches of research are directed at patho-physiological functional diagnosis, e.g. on parameters, characterizing cell and tissue metabolism.

Contributed papers are solicited concerning, but not limited to, the following areas involving diagnostic optical spectroscopy based on the use of:

- fluorescence-autofluorescence and exogenous selective agents
- fluorescence lifetime measurements
- fluorescent biosensors
- light scattering and absorption
- Raman scattering
- Monte Carlo and other computational techniques
- tissue optical properties
- nanoprobe
- optically active materials
- detection of metabolic parameters - provocation of metabolism
- small animals studies
- clinical investigations.

### Critical Dates

**Abstract Due Date:**

**15 January 2007**

**Manuscript Due Date:**

**21 May 2007**

Submitting your abstract via the Web at [spie.org/events/ebocall](http://spie.org/events/ebocall) ensures that your 250-word abstract, if accepted, will be published in the Abstract Digest distributed to attendees.

**Please Note:** Submissions imply the intent of a least one author to register, attend the symposium, and present the paper either orally or in poster format.

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## Diffuse Optical Imaging (EB104)

*Conference Chairs:* **Brian W. Pogue**, Dartmouth College; **Rinaldo Cubeddu**, Politecnico di Milano (Italy)

*Program Committee:* **Simon R. Arridge**, Univ. College London (United Kingdom); **Hamid Dehghani**, The Univ. of Exeter (United Kingdom); **Andreas H. Hielscher**, Columbia Univ.; **Rainer Macdonald**, Physikalisch-Technische Bundesanstalt (Germany); **Eiji Okada**, Keio Univ. (Japan); **Henricus J. C. M. Sterenberg**, Univ. of Rotterdam (Netherlands); **Jean-Michel Tualle**, Ctr. National de la Recherche Scientifique (France)

The study of diffuse light imaging in tissue is providing new insight into the structural and functional properties of tissues that are not easily accessed by alternative methods. The research and development of systems that use this approach is leading to clinical prototype systems that are used in basic science and medical research. Scientific applications range from the study of cerebral physiology to cancer patho-physiology both in animals and humans. Medical applications being explored include breast and brain cancer detection and diagnosis, stroke, brain hemorrhage, brain oxygenation, brain development, muscle oxygenation, and peripheral vascular disease. Integration of diffuse light imaging into existing clinical instrumentation is a key area of development, and combining diffuse light imaging with new contrast agents is also emerging as a major growth area.

Further improvement in these application areas and others relies on continued advancement in the theory of radiation transport through random media, in data analysis and image reconstruction algorithms, and in instrumentation design. This meeting provides a key interdisciplinary forum for engineers, physicists, mathematicians, and biomedical scientists and physicians to report on recent results, improvements, and new approaches and applications for using diffusing light to characterize the structural and functional properties of tissue.

Contributed papers are solicited concerning, but not limited to, the following areas:

- diffuse optical tomography and spectroscopy
- image reconstruction algorithms
- diffuse fluorescence imaging
- photoacoustic/optoacoustic imaging
- novel molecular contrast agents
- clinical applications
- physiological studies using photon migration
- breast cancer imaging and spectroscopy
- brain imaging of cerebral activation
- clinical brain imaging of stroke, hemorrhage, oxygenation, etc.
- muscle physiology
- phantom studies
- animal studies
- advances and optimization in instrumentation
- hybrid-modality imaging with diffuse light.

## Confocal, Multiphoton, and Nonlinear Microscopic Imaging (EB105)

*Conference Chairs:* **Tony Wilson**, Univ. of Oxford (United Kingdom); **Ammasi Periasamy**, Univ. of Virginia

*Program Committee:* **Alberto Diaspro**, Univ. degli Studi di Genova (Italy); **Daniel L. Farkas**, Cedars-Sinai Medical Ctr.; **Hans C. Gerritsen**, Univ. Utrecht (Netherlands); **Enrico Gratton**, Beckman Laser Institute and Medical Clinic; **Stefan W. Hell**, Deutsches Krebsforschungszentrum (Germany); **Karsten König**, Fraunhofer-Institut für Biomedizinische Technik (Germany); **Jerome Mertz**, Boston Univ.; **David W. Piston**, Vanderbilt Univ.; **Peter T. C. So**, Massachusetts Institute of Technology; **Ernst H. K. Stelzer**, European Molecular Biology Lab. (Germany); **Sunny Xie**, Harvard Univ.

This conference will explore the rapidly developing field of multidimensional microscopy, including confocal microscopy and other novel imaging modalities. Consideration will be given to the characteristics of the overall system design, as well as to the topics of image formation, image recording, deconvolution in two, three or more dimensions, and digital methods of producing and displaying the resulting reconstruction. Recent innovations in multidimensional microscopy are having a large impact in the biological and medical fields. It is hoped that the broad range of relevant topics being presented at this conference will serve to encourage interaction among instrumentation engineers, computer image analysts, and researchers in the various fields of biomedical and life science application. Papers are invited in all areas of development and application of confocal and novel optical microscopies including, but not limited to, the following and related areas: high resolution optical imaging on the nanometer scale multi-modal spectroscopic analysis in microscopy single molecular microscopy and microanalysis micro-optics and MEMS based optical systems for biomedical diagnosis novel image contrast enhancement approaches such as SER and other near field surface effects Fluorescence Correlation Spectroscopy, single and multiphoton microscopy FRET-FLIM modalities second and third harmonic generation microscopies biomedical instrumentation fast image acquisition time-resolved image acquisition systems.

## Novel Optical Instrumentation for Biomedical Applications (EB106)

*Joint Session between ECBO and CLEO/Europe*

*Conference Chair:* **Christian D. Depeursinge**, École Polytechnique Fédérale de Lausanne (Switzerland)

Aside from large, well-recognized avenues of biomedical optics for imaging and diagnostics, a number of "exotic" and highly promising methods are under development. These new techniques often take advantage of the cross-fertilization of two fields (e.g. optics and acoustics) for signal generation or processing (optics and MRI or optics and echography). Moreover a number of new ideas are being investigated based on new methodology, physical basis, instrument developments, and data analysis. This conference is intended to be a highly interdisciplinary forum of discussion for instrument designers, sensor builders, experimentalists as well as applied and fundamental physicists.

Topics for contributions are thus broadly open and include:

- photoacoustic/optoacoustic imaging and diagnostics
- photothermal imaging and diagnostics
- acoustooptic imaging
- speckle based techniques
- holography and micro-holography
- nanoprobe for imaging and diagnostics
- MRI / optical Image fusion
- ultrasound / optical Image fusion
- new approaches for photon discrimination in turbid media
- near field imaging in 2-D and 3-D
- novel endoscopic technologies.

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## Therapeutic Laser Applications and Laser-Tissue Interactions (EB107)

Conference Chair: **Alfred Vogel**, Univ. zu Lübeck (Germany)

Program Committee: **Stanley B. Brown**, Univ. of Leeds (United Kingdom); **Heyke C. Diddens**, Medizinisches Laserzentrum Lübeck GmbH (Germany); **Martin Frenz**, Univ. Bern (Switzerland); **Raimund Hibst**, Univ. Ulm (Germany); **Giulio Jori**, Univ. degli Studi di Padova (Italy); **Holger Lubatschowski**, Laser Zentrum Hannover e.V. (Germany); **Dieter Manstein**, Wellman Ctr. for Photomedicine; **Michael C. Mrochen**, ETH Zürich (Switzerland); **Günther Paltauf**, Karl-Franzens-Univ. Graz (Austria); **Ronald Sroka**, Ludwig-Maximilians-Univ. München (Germany); **Herbert G. Stepp**, Ludwig-Maximilians-Univ. München (Germany); **Hubert van den Bergh**, École Polytechnique Fédérale de Lausanne (Switzerland); **Zhenxi Zhang**, Xi'an Jiaotong Univ. (China)

Novel biomedical laser applications are emerging due to the advent of new types of lasers that widen the possible spectrum of laser-tissue interactions (ultra short pulsed lasers, fiber lasers, diode lasers, diode pumped solid state lasers). These lasers, together with advanced targeting techniques, can be used to improve selectivity and specificity of laser radiation. Applications include thermal reactions on a macro-scale, e.g. skin smoothing without ablation, a micro scale, e.g. selective retina therapy, and on a nano-scale for surgery within cells, as well as short-pulsed laser applications to treat soft and hard tissue.

Advanced targeting strategies including the conjugation of chromophores or nanoparticles with antibodies, and combination therapies such as the synergistic use of photodynamic therapy and antiseptics pave the way for new treatment modalities.

Improved understanding of biological reactions triggered by laser radiation interacting with natural absorbing sites, targeting molecules, photosensitizers, or nanoparticles will lead to progress in the creation of minimally-invasive laser effects. Theoretical considerations and modelling of laser light perfusion in tissue with subsequent energy transfer and tissue interactions constitute a solid basis for therapy planning.

This conference will provide an interdisciplinary forum for scientists, engineers and research-oriented medical specialists to discuss the progress in all these topics and also the actual medical needs where the laser can play an important role. Contributed papers are solicited concerning, but not limited to, the following topics:

- photo-biological and photo-chemical reactions
- photo-thermal and photo-mechanical tissue reactions
- modelling of laser-tissue interactions
- cellular micro- and nano-effects of laser radiation
- laser-induced microdissection and catapulting of cells
- tissue ablation and cutting with short and ultra-short laser pulses
- hard tissue ablation
- photodynamic therapy (PDT) of tumors, neoplasia, and other pathologic conditions
- antimicrobial PDT
- cellular mechanisms of low power laser therapy
- minimally invasive laser surgery
- progress in therapeutic laser applications.

### Critical Dates

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**15 January 2007**

**Manuscript Due Date:**  
**21 May 2007**

Submitting your abstract via the Web at [spie.org/events/ebocall](http://spie.org/events/ebocall) ensures that your 250-word abstract, if accepted, will be published in the Abstract Digest distributed to attendees.

**Please Note:** Submissions imply the intent of a least one author to register, attend the symposium, and present the paper either orally or in poster format.

## Biophotonics-Optics in Life Science (EB108)

Conference Chair: **Jürgen Popp**, Friedrich-Schiller-Univ. Jena (Germany)

Cochair: **Gert von Bally**, Univ. Münster (Germany)

Program Committee: **Martin L. Bennink**, Univ. Twente (Netherlands); **Arthur E. T. Chiou**, National Yang-Ming Univ. (Taiwan); **Christian D. Depeursinge**, École Polytechnique Fédérale de Lausanne (Switzerland); **Paul M. W. French**, Imperial College London (United Kingdom); **Jeremy C. Hebden**, Univ. College London (United Kingdom); **Stefan W. Hell**, Deutsches Krebsforschungszentrum (Germany); **Pierre Le Ber**, Lab. d'Electronique de Technologie de l'Information (France); **Eric D. Mazur**, Harvard Univ.; **Lorenzo Pavesi**, Univ. degli Studi di Trento (Italy); **Michael Sauer**, Bielefeld Univ. (Germany); **Colin J. R. Sheppard**, National Univ. of Singapore (Singapore); **Ernst H. K. Stelzer**, European Molecular Biology Lab. (Germany); **Valery V. Tuchin**, Saratov State Univ. (Russia); **Brian C. Wilson**, Univ. of Toronto (Canada)

Biophotonics is dealing with the interaction of light with biological systems; thus a fruitful cooperation of physicist, chemist and engineers on one hand and biologist and physicians on the other hand is essential for an effective research in this vastly growing research field. Biophotonics is on the way to solve the most important problems in biology and medicine. It can do so because it originated at the interface of the most innovative academic disciplines of the last century, i.e. photonics, biotechnology, and nanotechnologies. The combination of the three of them not only triples but exponentiates the scientific and technological output. The importance of biophotonics is recognized in the whole world. All over the world scientists from academia and industries are working on this topic. The German Federal Ministry of Education and Research (BMBF) was one of the first who recognized the great potential of Biophotonics not only as key technology but also as a bridging technology and, therefore, it installed in 2001 the multidisciplinary operating main research framework—Biophotonics. Within the framework of the Biophotonics Research Priority, the BMBF supports numerous projects, which are seeking to understand diseases by optical means. Current Biophotonics research focuses on the use of the unique characteristics of light in the areas of biotechnology, medical technology, pharmaceutical technology and food production. Biophotonics, however, does not only play an important role in health research, it also has an enormous impact on growth and employment all over the world. Optical technologies can considerably increase productivity in pharmaceuticals research. Furthermore, they are important enabling factors for innovation in medical technology.

The program of the 3rd Annual Meeting of the main research framework Biophotonics 2007 will include technical sessions as well as a special service talks from representatives of the European Patent Office and Funding Organizations. Following the young tradition of the national meetings in 2005 and 2006, the Framework of Biophotonics Research Priority will once more invite decision makers from politics and industry to take part in a round table discussion about future perspectives of Biophotonics-this time on the European level.

Topics include, but are not limited to:

### Understanding life processes: innovative analysis, detection and diagnostic methods

- microscopy
- nanoscopy and biophotonic imaging
- optical biochips and array technology
- optical probes and biosensors
- medical image processing.

### Engaging life processes: new photonic micromanipulation tools

- laser micromachining and nanosurgery
- optical tweezers and laser catapulting
- cell sorting and cell positioning.

### From lab to bedside: biomedical optics in clinical routine

- in vivo cellular and tissue diagnostics
- telepathology
- photodynamic therapy
- laser surgery
- optical tomography.

### Biophotonics in environmental and security research

- online Monitoring of hazardous substances in air, soil and water
- detection and Identification of infectious germs (epidemiology).
- Optical techniques for process analytics and quality technology
- food industry
- agriculture
- cosmetics.

This conference is organized by the main research framework Biophotonics, which is funded by the German Federal Ministry of Education and Research (BMBF); EOS; DGaO; and SPIE.

## Joint Session with CLEO®/ Europe-Europe-IQEC 2007

In order to better serve participants active in biomedical optics, it has been arranged that the biomedical optics content of CLEO®/Europe-IQEC 2007 be a joint activity with the European Conferences on Biomedical Optics (ECBO, <http://www.spie.org/events/ecbo>, which is sponsored by SPIE and the OSA and organized by SPIE). Joint sessions on novel optical instrumentation for biomedical applications will be held by ECBO and CLEO®/Europe. Papers concerning emerging technologies for biophotonics should be submitted to CLEO®/Europe-IQEC at <http://www.cleoeurope.org> (CLEO®/Europe topic "Biophotonics and Applications"). All other papers concerning biomedical optics should be submitted to ECBO 2007.

## Presentation Format

All contributing authors are asked to choose a mode of presentation for their papers. The Programme committee will schedule contributed papers into both oral and poster sessions. The Programme committee will determine the length of the oral presentation and authors will be informed in their acceptance notification.

Poster sessions are scheduled to provide an opportunity for selected papers to be presented in greater visual detail. Authors must remain in the vicinity of the poster board for the duration of the session (60-90 minutes) to answer questions. Note that poster presenters are not supplied with any audiovisual equipment; authors requiring such equipment should refrain from requesting the poster presentation format.

## Audiovisual Equipment

The meeting room will contain the following audiovisual equipment:

- podium microphone
- lavalier microphone
- overhead projector
- projection pointer
- screen
- 35 mm slide projector
- LCD projector.

## Advance Programme

Authors who have submitted papers will automatically receive the Advance Programme. The entire Advance Programme will also be available online at [www.spie.org/events/eom](http://www.spie.org/events/eom) at least 8 weeks prior to the meeting. Other individuals who wish to receive a mailed copy of the Advance Programme may contact SPIE at the following address:

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Individuals requiring letters of invitation to obtain travel visas to present their papers may access and print an Invitation Letter Request Form found at:

<http://spie.org/forms/invitationrequest.pdf>

Please fill out a separate form for each person requesting a letter. All letters of invitation will be sent by airmail and by PDF e-mail attachment unless a courier account number or credit card number with expiration date is provided with the original request. Please allow ample time for processing requests. SPIE is not able to contact embassies in support of an individual attempting to gain entry to attend an SPIE meeting. Because the application for a visa can be a lengthy process, we recommend that you begin your visa application process as soon as you have been notified that your abstract has been accepted for presentation. We also recommend that you secure your travel visa before registering for the symposium. Cancellations after the preregistration cutoff can result in a cancellation fee.

## About Munich

Munich, "the city with a heart," is the capital of Bavaria, and has established itself as Germany's high-tech hub (Silicon Bavaria) and is one of the most important industrial and economic centers in the European community. It boasts of such high-tech corporations as BMW and Daimler-Chrysler Aerospace. In addition to being the country's leading university center and hub for insurance, banking, electronic, and mechanical engineering, Munich offers its visitors shopping, music, art, gourmet restaurants, beer gardens, outdoor cafes, ethnic restaurants, popular night-spots, grand cathedrals and opulent palaces.

For more information on Munich and the surrounding area, please refer to the following websites:

[www.tyzo.com/europe/germany/munich](http://www.tyzo.com/europe/germany/munich)  
[www.muenchen-tourist.de/englisch/index\\_e.htm](http://www.muenchen-tourist.de/englisch/index_e.htm)  
[www.munichfound.de](http://www.munichfound.de)

## Hotel Accommodations

Laser 2007 provides links to accommodations in downtown Munich and near the Munich International Conference Center. You can use their on-line directory to search for hotels and make reservations. There are hotels in all price ranges and locations for you to select. Please use their website for a full search of area hotels:

<http://www.messe-muenchen.de/id/28672>

Participants must make their own determination of suitability considering price and location. Each hotel will determine when they will accept reservations for this event. Listed rates are approximate at time of publication and are subject to change without notice.

## Student Housing Accommodations

Discounted accommodations for students are available in Munich. Please also refer to the following web site for additional information about available hostels:

<http://www.hostelmunich.com/>

## How to Reach the ICM— International Congress Center München

At Munich Central Station take the underground U2. The journey to the trade fair grounds takes about 17 minutes. Please refer to the Laser 2003 website for more detailed information,

<http://www.messe-muenchen.de/id/28285>

## Transportation from Airport to City Centre

The Franz Josef Strauss Airport (MUC) is located 17 miles (27 km) northeast of the center of Munich. Please refer to the Munich International Airport website for more detailed information:

<http://www.munich-airport.de/EN/index.html>

## Transportation from Munich to ICM—International Congress Center München

The ICM is about 30-45 minutes from downtown Munich.

## Free Public Transport

All registered conference attendees are eligible to use all Munich City Transport (MW- urban railway, underground, trams, and buses) and Laser Airport shuttle by presenting a corresponding ticket together with a conference entrance pass. Passes will be provided onsite with registration.

For the most current information about all transport options, schedules, and prices, please visit:

<http://www.munich-airport.de/EN/Areas/Consumer/Verkehrsanbindung/index.html>



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# Submission of Abstracts

## European Conferences on Biomedical Optics (ECBO)

17–21 June 2007

ICM—International Conference Centre  
Munich, Germany

### 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.

By submitting your abstract you warrant that all clearances and permissions have been obtained, and authorize SPIE to circulate your abstract to conference committee members for review and selection purposes and if it is accepted, to publish your abstract in conference announcements and publicity.

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

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

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

SUBJECT: EB101, Licha (example)

Your abstract submission must include all of the following:

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- 2. AUTHORS** (principal author first) For each author: First (given) name (initials not acceptable), Last (family) name, Affiliation, Mailing address, Telephone, Fax, and Email address.
- 3. PRESENTATION PREFERENCE** “Oral Presentation” or “Poster Presentation.”
- 4. PRINCIPAL AUTHOR'S BIOGRAPHY** Approximately 50 words.
- 5. 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.
- 6. KEYWORDS** Maximum of five keywords.
- 7. SUPPLEMENTAL FILE** Please see individual conference call for papers for instructions. Supplemental files may include extended abstracts, figures, equations, pictures, etc., and must be submitted in MS Word or PostScript format.

**Abstract Due Date: 15 January 2006**

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

**Manuscript Due Date: 21 May 2007**

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# *European Conferences on* **Biomedical Optics**

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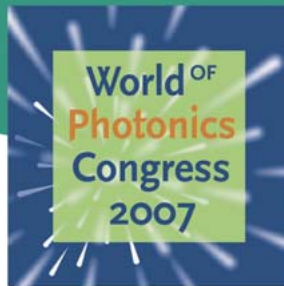
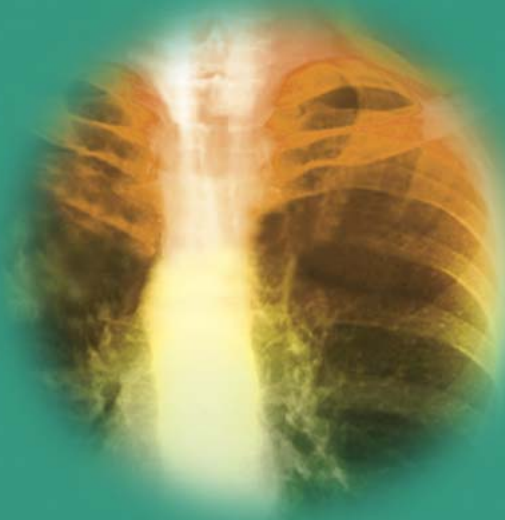
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