

REPORT DOCUMENTATION PAGE					Form Approved OMB No. 0704-0188	
The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services and Communications Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.						
PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION.						
1. REPORT DATE (DD-MM-YYYY) 08May2008		2. REPORT TYPE Final		3. DATES COVERED (From - To) May 2007 - May 2008		
4. TITLE AND SUBTITLE European Conferences on Biomedical Optics				5a. CONTRACT NUMBER		
				5b. GRANT NUMBER FA9550-07-1-0479		
				5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Dr. Eugene Arthurs, Executive Director, SPIE Ms. Marilyn Gorsuch, Director, Technical Programs, SPIE				5d. PROJECT NUMBER		
				5e. TASK NUMBER		
				5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Society of Photo-Optical Instrumentation Engineers(SPIE) 1000 20th St. Bellingham WA 98225-6705 USA				8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) AF OFFICE OF SCIENTIFIC RESEARCH/NE 875 NORTH RANDOLPH STREET ROOM 3112 ARLINGTON VA 22203				10. SPONSOR/MONITOR'S ACRONYM(S)		
				11. SPONSOR/MONITOR'S REPORT NUMBER(S) AFRL-SR-AR-TR-08-0434		
12. DISTRIBUTION/AVAILABILITY STATEMENT Distribution A: UNLIMITED						
13. SUPPLEMENTARY NOTES EOARD issued a sponsorship of \$3,700. AFOSR issued a sponsorship of \$7,000. 10 invited speakers rec'd \$500 ea. for reg fees.						
14. ABSTRACT ECBO 2007 was the most successful event held to date. There were a total of 537 attendees from around the world. Job functions ranged from R&D: applied research, basic research, product development; to engineering and design, student, and educator. Subjects explored in depth included molecular imaging, optical coherence tomography, diagnostic optical spectroscopy, diffuse optical imaging, confocal, multiphoton, and nonlinear microscopic imaging, novel optical instrumentation, therapeutic laser applications, and bio-photonics in life sciences. ECBO attendees by geographic area: 75.6% Europe; 10.1% North America; 11.4% Asia; 2.9% Rest of the World. Manuscripts were produced by authors for distribution in the world literature.						
15. SUBJECT TERMS						
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT SAR	18. NUMBER OF PAGES 1	19a. NAME OF RESPONSIBLE PERSON Marilyn Gorsuch	
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (Include area code) 360 685 5457	

Reset

European Conferences on Biomedical Optics

Molecular Imaging
Optical Coherence Tomography
Diagnostic Optical Spectroscopy
Diffuse Optical Imaging of Tissue
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

SPIE.org/ebo

Cosponsored by:

SPIE

Optical Society of America



18th International Congress on Photonics in Europe

co-located with LASER 2007, World of Photonics

Messe München GmbH, Messengelände, 81823 München, Tel. (+49 89) 949-114 68, info@photonics-congress.com

European Conferences on Biomedical Optics

17-21 June 2007

ICM — International Conference Centre Munich, Germany

General Chairs:

David Boas, Massachusetts
General Hospital (United
States)

Stefan Andersson-Engels,
Lunds Tekniska Högskola
(Sweden)

Sponsored by:

SPIE

OSA

Financial Support

European Office of
Aerospace and
Development



We wish to thank the following for their
contribution to the success of this conference:
European Office of Aerospace Research and
Development, Air Force Office of Scientific
Research, United States Air Force Research
Laboratory (www.london.af.mil)

Cooperating Organisations:

EOS European Optical Society

German Scientific Laser Society
(Wissenschaftliche Gesellschaft
Lasertechnik e.V.)

WLT

DEUTSCHE GESELLSCHAFT
FÜR LASERMEDIZIN e.V.



Welcome!

The use of optical technologies and methods for biomedical applications in
diagnostics and therapeutics has emerged as a major research field. The
European Conferences on Biomedical Optics (ECBO) bring 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, OSA,
IEEE/LEOS, EPS, and DGLM.

Program Chairs:



Wolfgang Drexler,
Cardiff Univ. (United
Kingdom)



Mary-Ann Mycek,
Univ. of Michigan
(United States)

Executive Organizing Committee:

Samuel Achilefu, Washington Univ. in St. Louis (USA)
Peter Andersen, Technical Univ. of Denmark
Simon Arridge, Univ. College London (United Kingdom)
Jennifer Barton, The Univ. of Arizona (USA)
Martin Bennink, Univ. Twente (Netherlands)
Stephen Boppert, Univ. of Illinois at Urbana-Champaign (USA)
Christoph Bremer, Univ. Münster (Germany)
Ralf Brinkmann, Univ. zu Lübeck (Germany)
Stanley Brown, Univ. of Leeds (United Kingdom)
Zhongping Chen, Univ. of California/Irvine (USA)
Arthur Chiou, National Yang-Ming Univ. (Taiwan)
Rinaldo Cubeddu, Politecnico di Milano (Italy)
Hamid Dehghani, Dartmouth College (USA)
Christian Depeursinge, École Polytechnique Fédérale de Lausanne (Switzerland)
Alberto Diaspro, Univ. degli Studi di Genova (Italy)
Heyke Diddens, Medizinisches Laserzentrum Lübeck GmbH (Germany)
Wolfgang Drexler, Cardiff Univ. (United Kingdom)
Daniel Farkas, Cedars-Sinai Medical Ctr. (USA)
Maryann Fitzmaurice, Case Western Reserve Univ. (USA)
Paul French, Imperial College London (United Kingdom)
Martin Frenz, Univ. Bern (Switzerland)
James Fujimoto, Massachusetts Institute of Technology (USA)
Hans Gerritsen, Univ. Utrecht (Netherlands)
Enrico Gratton, Beckman Laser Institute and Medical Clinic (USA)
Jeremy Hebden, Univ. College London (United Kingdom)
Stefan Hell, Deutsches Krebsforschungszentrum (Germany)
Raimund Hibst, Univ. Ulm (Germany)
Andreas Hilscher, Columbia Univ. (USA)
Christoph Hitzenberger, Medizinische Univ. Wien (Austria)

Giulio Jori, Univ. degli Studi di Padova (Italy)
Karsten König, Fraunhofer-Institut für Biomedizinische Technik (Germany)
Andrzej Kowalczyk, Nicolaus Copernicus Univ. (Poland)
Michael Larsen, Univ. of Copenhagen (Denmark)
Pierre Le Ber, Lab. d'Electronique de Technologie de l'Information (France)
Kai Licha, Bayer Schering Pharma AG (Germany)
Holger Lubatschowski, Laser Zentrum Hannover e.V. (Germany)
Rainer Macdonald, Physikalisch-Technische Bundesanstalt (Germany)
Dieter Manstein, Wellman Ctr. for Photomedicine (USA)
Eric Mazur, Harvard Univ. (USA)
Jerome Mertz, Boston Univ. (USA)
Michael Mrochen, ETH Zürich (Switzerland)
Vasilis Ntziachristos, Massachusetts General Hospital
Eiji Okada, Keio Univ. (Japan)
Günther Palttauf, Karl-Franzens-Univ. Graz (Austria)
Francesco Pavone, Univ. degli Studi di Firenze (Italy)
Ammasi Periasamy, Univ. of Virginia (USA)
David Piston, Vanderbilt Univ. (USA)
Constantinos Pitris, Univ. of Cyprus
Adrian Podoleanu, Univ. of Kent at Canterbury (United Kingdom)
Brian Pogue, Dartmouth College (USA)
Juergen Popp, Friedrich-Schiller-Univ. Jena (Germany)
Junle Qu, Shenzhen Univ. (China)
Markus Rudin, ETH Zürich (Switzerland)
René-Paul Salathé, École Polytechnique Fédérale de Lausanne (Switzerland)

Michael Sauer, Bielefeld Univ. (Germany)
Dietrich Schweitzer, Friedrich-Schiller-Univ. Jena (Germany)
Natalia Shakhova, Institute of Applied Physics (Russia)
Colin Sheppard, National Univ. of Singapore
Peter So, Massachusetts Institute of Technology (USA)
Ronald Sroka, Ludwig-Maximilians-Univ. München (Germany)
Ernst Stelzer, European Molecular Biology Lab. (Germany)
Herbert Stepp, Ludwig-Maximilians-Univ. München (Germany)
Henricus Sterenborg, Univ. of Rotterdam (Netherlands)
Bertrand Tardian, CEA/INSERM (France)
Jean-Michel Tualle, Ctr. National de la Recherche Scientifique (France)
Valery Tuchin, Saratov State Univ. (Russia)
Gooitzen van Dam, Groningen Univ. Medical Ctr. (Netherlands)
Hubert van den Bergh, École Polytechnique Fédérale de Lausanne (Switzerland)
Ton van Leeuwen, Univ. Twente (Netherlands)
Alfred Vogel, Univ. zu Lübeck (Germany)
Georges Wagnières, École Polytechnique Fédérale de Lausanne (Switzerland)
Julia Weizel, Medizinisches Laserzentrum Luebeck GmbH (Germany)
Tony Wilson, Univ. of Oxford (United Kingdom)
Brian Wilson, Univ. of Toronto (Canada)
Andreas Wunder, Charité Berlin (Germany)
Sunny Xie, Harvard Univ. (USA)
Yoshiaki Yasuno, Univ. of Tsukuba (Japan)
Giannis Zacharakis, Foundation for Research and Technology-Hellas (Greece)
Zhenxi Zhang, Xi'an Jiaotong Univ. (China)
Gang Zheng, Univ. of Toronto (Canada)

Contents

Daily Schedule	2
Special Events	3
General Information	4
Travel Information	5
Conf. 6626 Molecular Imaging	6-14
Conf. 6627 Optical Coherence Tomography and Coherence Techniques	6-26
Conf. 6628 Diagnostic Optical Spectroscopy	6-32
Conf. 6629 Diffuse Optical Imaging of Tissue	6-32
Conf. 6630 Confocal, Multiphoton, and Nonlinear Microscopic Imaging	7-17
Conf. 6631 Novel Optical Instrumentation for Biomedical Applications	7-21
Conf. 6632 Therapeutic Laser Applications and Laser-Tissue Interactions	7-30
Conf. 6633 Biophotonics 2007: Optics in Life Science	7-30
Participants	33-39
Proceedings	39
Publication Order Form	40

Daily Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday
Special Events				
Opening Remarks and Plenary Session, 13.00 to 15.00, p. 3				
Breakfast with the Experts – A Student Networking Event, 07.30 to 08.30, p. 3				
Welcome Reception, 19.30 to 21.00, p. 3				
Conferences				
Conf. 6626 Molecular Imaging (MI) (Licha, Ntziachristos), pp. 6-14				
Conf. 6627 Optical Coherence Tomography and Coherence Techniques (OCT) (Andersen, Chen), pp. 6-26				
Conf. 6630 Confocal, Multiphoton, and Nonlinear Microscopic Imaging (CMI) (Wilson, Periasamy), pp. 7-17				
Conf. 6631 Novel Optical Instrumentation for Biomedical Applications (NOI) (Depeursinge), pp. 7-21				
Conf. 6632 Therapeutic Laser Applications and Laser-Tissue Interactions (TLA) (Vogel), pp. 7-30				
Conf. 6633 Biophotonics 2007: Optics in Life Science (BOLS) (Popp), pp. 7-29				
Conf. 6628 Diagnostic Optical Spectroscopy (DOS) (Schweitzer, Fitzmaurice), pp. 6-32				
Conf. 6629 Diffuse Optical Imaging of Tissue (DOI) (Pogue, Cubeddu), pp. 6-32				

Opening Remarks and Plenary Session

Room 5

Sunday 13.00 to 15.00

13.00 to 13.10

Welcome Remarks

Wolfgang Drexler, Cardiff Univ. (United Kingdom)

Mary-Ann Mycek, Univ. of Michigan (United States)

13.10 to 13.20

Presentation of SPIE Educator Award

Brian Culshaw, Univ. of Strathclyde (UK)

13.20 to 14.10

High Speed and Ultrahigh Resolution Optical Coherence Tomography



James Fujimoto,
Massachusetts Institute of
Technology (United States)

Optical coherence tomography (OCT) is an emerging imaging modality which enables high-speed, ultrahigh resolution, cross-sectional imaging of tissue pathology. Recent advances provide micron scale, cellular resolution as well as dramatic improvements in speed, enabling three dimensional structural and functional imaging. This presentation discusses advances in OCT technology and biomedical applications.

14.10 to 15.00

A New Light on Bioscience



Kishan Dholakia, The Univ. of
Saint Andrews (United
Kingdom)

Photonics is playing an ever increasing role in the biosciences. I will discuss the emerging technique of optical micromanipulation for new studies in biology and cell sorting. Light may achieve much more: carefully engineered light fields may permit therapeutic agents to be delivered to cells at will and also extract key information via Raman spectroscopy.

Poster Sessions

Monday and Tuesday 15.00 to 16.00

Poster sessions will be held Monday and Tuesday from 15.00 to 16.00 on the ground floor and first level of the ICM. Each session will represent a different set of posters. See pages 14-15 for Monday Poster Session. See pages 22-25 for Tuesday Poster Session. Timing and location differ for Conference 6633. See conference program for details.

Poster Authors

Please set up posters on the morning of your session by the AM coffee break. Poster viewing will be available all day. You are required to stand by your poster during the poster session to discuss it with session attendees. Please remove your poster following the poster session. Posters which are left on the boards after the poster session concludes will be discarded.

Breakfast with the Experts – A Student Networking Event

Tuesday 19 June 07.30 to 08.30

Students! Join optics experts from both the Biomedical Optics and Laser Metrology conferences for a casual meal and lively discussion. This breakfast will feature experts willing to share their accumulated wisdom on career paths within the optics and photonics industry. Take advantage of this opportunity to network with some of the best and brightest minds at this free event hosted by SPIE Student Services. Seating is limited. Please arrive promptly and present your ticket which will be included in student materials picked up at the registration desk onsite.

Welcome Reception

Tuesday 19.30 to 21.00

Registered attendees are invited to participate in this reception at the Paulaner Brewery in Munich. Guests of registered attendees may attend by purchasing tickets at the registration desk, €35, if space available.

General Information

Registration

Location: ICM - Entry Lobby

Sunday 11.00 to 17.00
Monday through Thursday 8.00 to 17.00
The Congress registration fee includes entry into Laser 2007 World of Photonics.

Coffee Breaks

Ground Level Foyer

Sunday 17.00 to 17.30
Monday ... 10.00 to 10.30 and 16.00 to 16.30
Tuesday ... 10.00 to 10.30 and 16.00 to 16.30
Wednesday-Thursday 10.00 to 10.30 and 16.00 to 16.30

Audiovisual Equipment

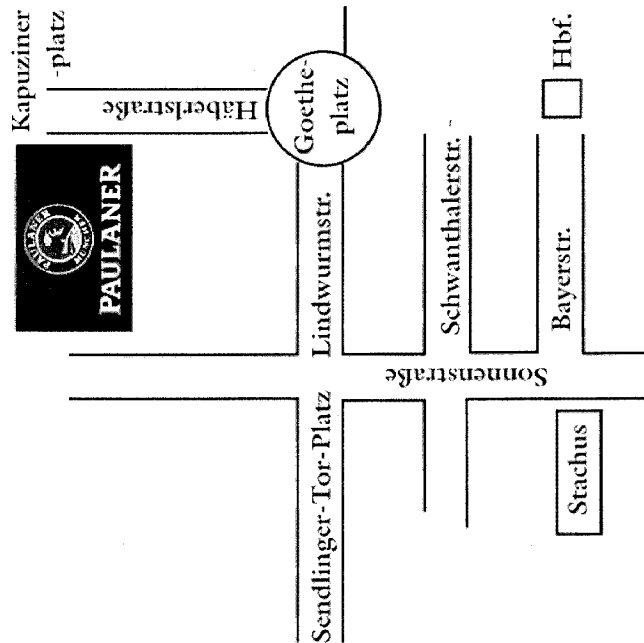
Presentations will be preloaded by the company M-Events in Munich, Germany. Authors will be contacted by M-Events with instructions for uploading meeting presentations and posters. The meeting rooms will contain the relevant equipment to carry out a centralised screening process. Any questions regarding compatibility would need to be directed to m-Events.

Directions to Welcome Reception from ICM

The Welcome Reception will be held at the Paulaner brewery in Munich.

By public transport: Take local train to Marienplatz, then change into U3/U6 in direction of Fuerstenried West or Klinikum Grosshadern. Get off at stop "Goetheplatz". From there walk through Häberlstrasse; 2 mins on foot.

By Car: Go towards city centre, railway station, middle ring, Sendlinger-Tor-Platz, Lindwurmstrasse to Goetheplatz, turn left into Häberlstrasse (straight across from the employment office)



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 hi-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/
www.munichfound.de/

Hotel Accommodations

Laser / Optical Metrology 2007 provides links to accommodations in Munich and near the Munich International Conference Centre. You can use their online directory to search for hotels and make reservations. There are hotels in all price ranges and locations for you to select from.

To search the Directory, please see:
<http://www.world-of-photonics.net/link/en/16211399>

The following is a sampling of available hotels. Quoted travel times to the International Conference Centre are approximate using public transportation.

NH München Neue Messe *****/5 minutes
<http://www.nh-hotels.com>
 253 rooms, restaurants, bistro/bar, fitness area, sauna, steam bath, solarium and parking
 Located near the Munich fairgrounds with connections to the centre of Munich, airport and the main train station.
 Standard Room prices from €110
 Tel. +49.89.993450 Fax. +49.89.99345400
nhmuenchenneuemesse@nh-hotels.com

Hotel Excelsior **** / 25 minutes

<http://www.excelsior-muenchen.de>
 Great location in the city, near Hauptbahnhof station and on the direct U-Bahn line to the Messe...
 Price per single room: €155 to €200 Double room €200 to €280
 Tel: 49 (0) 89 55 137 0 Fax 49 (0) 89 551 37 122
Excelsior@geisel-hotels.de

Hotel Ludwig *** / 20 Minutes

<http://www.hotel-ludwig.net>
 Hotel offers 139 rooms and suites in a modern and comfortable style.
 Price per single room from €79 Double room from €99
 Tel: 49 (0) 89 551390; Fax: 49 (0) 89 593403

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:

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

CVJM München (YMCA)
<http://www.cvjm-muenchen.org/english/index.html>

Euro Youth Hostel
<http://www.euro-youth-hotel.de>

Haus International
<http://www.haus-international.de/gb/index.htm>

Transportation from Airport to City Centre

The Franz Josef Strauss Airport (MUC) is located 17 miles (27 km) northeast of the Centre of Munich. Please refer to the Munich International Airport website for more detailed information: <http://www.munich-airport.de/EN/index.html>

Taxi: Taxis are available outside the airport terminal. The cost is high, approximately €40, and the trip will take 30-45 minutes to the Centre of Munich.

Train: The Airport Rapid Transit Trains leave for the Centre of Munich frequently. Stations Marienplatz and Hauptbahnhof (central railway station) are the stops in the Centre. The trip will take 30-40 minutes and the cost is approximately €8. Follow the signs as you leave the customs area.

Bus: during the international trade fair, a special Trade Fair Shuttle Bus Service operates between Munich Airport and the ICM. The buses run at 30 minute intervals non-stop from the airport to the trade fair grounds. This service is free of charge upon presentation of a valid trade fair admission ticket, which can be obtained either at the trade fair information counter in the central area of the Munich airport or on the bus. Otherwise, the fair is approximately €8 for a single and for a return journey. The journey takes about 35 minutes, depending on volumes of traffic.

How to Reach the ICM — International Congress Centre 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 2007 website for more detailed information: <http://www.world-of-photonics.net/link/en/16211399>
 Transportation from Munich City Centre to ICM — International Congress Centre 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/Verkehrsbindung/Index.html>

Conference 6626

Sunday-Monday 17-18 June 2007
Proceedings of SPIE Vol. 6626

Molecular Imaging (MI)

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

Program Committee: **Samuel Achilefu**, Washington Univ. in St. Louis (USA); **Christoph Bremer**, Univ. Münster (Germany); **Markus Rudin**, ETH Zürich (Switzerland); **Bertrand Tavitian**, CEA/INSERM (France); **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)

Conference 6627

Sunday-Tuesday 17-19 June 2007
Proceedings of SPIE Vol. 6627

Optical Coherence Tomography and Coherence Techniques (OCT)

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

Program Committee: **Jennifer K. Barton**, The Univ. of Arizona (USA); **Stephen A. Boppart**, Univ. of Illinois at Urbana-Champaign (USA); **Wolfgang Drexler**, Cardiff Univ. (United Kingdom); **James G. Fujimoto**, Massachusetts Institute of Technology (USA); **Christoph K. Hitzinger**, 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**, Ecole 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)

Conference 6628

Tuesday-Thursday 19-21 June 2007
Proceedings of SPIE Vol. 6628

Diagnostic Optical Spectroscopy (DOS)

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

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)

Conference 6629

Tuesday-Thursday 19-21 June 2007
Proceedings of SPIE Vol. 6629

Diffuse Optical Imaging in Tissue (DOI)

Conference Chairs: **Brian W. Pogue**, Dartmouth College (USA); **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. (USA); **Rainer Macdonald**, Physikalisch-Technische Bundesanstalt (Germany); **Eiji Okada**, Keio Univ. (Japan); **Henricus J. C. M. Sterenborg**, Univ. of Rotterdam (Netherlands); **Jean-Michel Tualle**, Ctr. National de la Recherche Scientifique (France)

Conference 6630

Sunday-Monday 17-18 June 2007
Proceedings of SPIE Vol. 6630

Confocal, Multiphoton, and Nonlinear Microscopic Imaging (CMI)

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

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

Conference 6631

Sunday-Tuesday 17-19 June 2007
Proceedings of SPIE Vol. 6631

Novel Optical Instrumentation for Biomedical Applications (NOI)

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

Conference 6632

Monday-Wednesday 18-20 June 2007
Proceedings of SPIE Vol. 6632

Therapeutic Laser Applications and Laser-Tissue Interactions (TLA)

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); **Karsten König**, Fraunhofer-Institut für Biomedizinische Technik (Germany); **Holger Lubatschowski**, Laser Zentrum Hannover e.V. (Germany); **Dieter Manstein**, Wellman Ctr. for Photomedicine (USA); **Michael C. Mrochen**, ETH Zurich (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**, Ecole Polytechnique Fédérale de Lausanne (Switzerland); **Zhenxi Zhang**, Xi'an Jiaotong Univ. (China)

Conference 6633

Monday-Wednesday 18-20 June 2007
Proceedings of SPIE Vol. 6633

Biophotonics 2007: Optics in Life Science (BOLS)

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**, Ecole 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); **Karsten König**, Fraunhofer-Institut für Biomedizinische Technik (Germany); **Pierre Le Ber**, Lab. d'Electronique de Technologie de l'Information (France); **Eric D. Mazur**, Harvard Univ. (USA); **Francesco S. Pavone**, Univ. degli Studi di Firenze (Italy); **Markus Sauer**, Univ. Bielefeld (Germany); **Colin J. R. Sheppard**, National Univ. of Singapore (Singapore); **Ernst H. K. Steiner**, European Molecular Biology Lab. (Germany); **Valery V. Tuchin**, Saratov State Univ. (Russia); **Brian C. Wilson**, Univ. of Toronto (Canada)

Conf. 6626 (MI)

Conf. 6627 (OCT)

Conf. 6630 (CMI)

Conf. 6631 (NOI)

Plenary Session 13.00 to 15.00

High Speed and Ultrahigh Resolution Optical Coherence Tomography,

J. G. Fujimoto, Massachusetts Institute of Technology (USA)

A New Light on Bioscience, K. Dholakia, Univ. of St. Andrews (United Kingdom)

SESSION 1

Room 3 Sun. 15.30 to 17.00

Probes for Contrast and Molecular Reporting I

Chair: Kai Licha, Bayer Schering Pharma AG (Germany)

15.30: Optical molecular imaging of stroke-induced brain inflammation in the mouse (*Invited Paper*), J. Kluhs, J. M. Steinbrink, R. Bourayou, Charité-Universität Berlin (Germany); M. Grate, Deutsches Herzzentrum Berlin (Germany); G. Kronenberg, Charité-Universität Berlin (Germany); K. Greger, E. H. K. Lindauer, U. Dirnagl, A. Wunder, Charité-Universität Berlin (Germany) [6626-01]
16.00: Detection and treatment of cancers using photodynamic molecular beacons, G. Zheng, Ontario Cancer Institute (Canada) and Univ. of Toronto (Canada) and Univ. of Pennsylvania (USA); J. Chen, Ontario Cancer Institute (Canada); K. Stieflova, Univ. of Pennsylvania (USA); B. C. Wilson, Ontario Cancer Institute (Canada) [6626-02]
16.15: Sensitive detection of protoporphyrin-IX accumulation in genetically modified colon cancer cells: a new tool for molecular imaging, B. Ebert, S. Rüttiger, J. Voigt, R. Macdonald, Physikalisch-Technische Bundesanstalt (Germany); W. Kemmer, K. Wan, U. Klamm, P. M. Schlag, Charité-Universität Berlin (Germany) [6626-03]
16.30: Functional relations between GFP-like chromoproteins and red fluorescent proteins, S. Gundel, G. U. Nienhaus, J. Wiedenmann, Univ. Ulm (Germany) [6626-04]
16.45: Optical properties of green fluorescent proteins and their applications on virus infection, J. Lee, C. Kao, Y. Chen, T. Wu, I. Hsu, Chung Yuan Christian Univ. (Taiwan) [6626-05]
Coffee Break 17.00 to 17.30

Conference 6626 continues page 9.

SESSION 1

Room 5 Sun. 15.30 to 17.00

Source Technology for OCT

Chair: Peter E. Andersen, Technical Univ. of Denmark (Denmark)

15.30: Advances in ultrahigh speed OCT with Fourier domain mode locked (FDML) lasers (*Invited Paper*), R. A. Huber, Ludwig-Maximilians-Universität München (Germany); D. C. Adler, V. J. Srinivasan, I. M. Gorczynska, J. G. Fujimoto, Massachusetts Institute of Technology (USA) [6627-01]
16.00: Novel superluminescent diodes and SLD-based light sources for optical coherence tomography, V. R. Shidlovski, S. D. Yakubovich, E. V. Andreeva, P. I. Lapin, V. Prokhorov, M. V. Shramenko, Superlum Diodes Ltd. (Russia) [6627-02]
16.15: Ultrahigh resolution optical coherence tomography at two infrared wavelength regions using a single light source, F. Spöler, S. Kray, P. Grychot, B. Hermes, J. Bornemann, M. Först, H. Kurz, RWTH Aachen (Germany) [6627-03]
16.30: High speed wavelength-swept laser source with a simple configuration for optical coherence tomography, C. Chong, A. Morosawa, T. Sakai, Santelec Corp. (Japan) [6627-04]
16.45: Wide tuning range wavelength-swept laser with single semiconductor optical amplifier for OCT, A. Morosawa, C. Chong, T. Sakai, Santelec Corp. (Japan) [6627-05]
Coffee Break 17.00 to 17.30

Conference 6627 continues page 9.

SESSION 1

Room 4A Sun. 15.30 to 17.00

Applications for Cellular and Tissue Imaging

Chair: Daniel L. Farkas, Cedars-Sinai Medical Ctr. (USA)

15.30: Two-color intranuclear distance measurements of gene regions in human lymphocytes, S. Fenz, Forschungszentrum Jülich GmbH (Germany); H. Mathé, G. Kreth, D. Baddeley, Ruprecht-Karls-Universität Heidelberg (Germany); Y. Welland, Ruprecht-Karls-Universität Heidelberg (Germany); J. Schwarz-Finsterte, C. G. Cremer, U. J. Birk, Ruprecht-Karls-Universität Heidelberg (Germany) [6630-01]
15.45: In vivo imaging of structures in Caenorhabditis elegans using non-linear (TPEF-SHG-THG) microscopy, E. J. Gualda, G. Filippidis, M. Mari, C. Fotakis, G. Voglis, N. Tavernarakis, Foundation for Research and Technology-Hellas (Greece) [6630-02]
16.00: Functional imaging of skeletal muscle fiber in different physiological states by second harmonic generation, V. Nucioti, C. Stringari, L. Sacconi, F. Vanzzi, C. Tesi, N. Prodi, C. Poggesi, Univ. degli Studi di Firenze (Italy); C. Castiglioni, A. Milani, Politecnico di Milano (Italy); M. Lina, G. Piazzesi, V. Lombardi, F. S. Pavone, Univ. degli Studi di Firenze (Italy) [6630-03]
16.15: Surgical visualization of rabbit cornea after photorefractive keratectomy by multiphoton microscopy, C. Hsueh, W. Lo, National Taiwan Univ. Hospital (Taiwan); T. Wang, F. Hu, National Taiwan Univ. Hospital (Taiwan); C. Dong, National Taiwan Univ. Hospital (Taiwan) [6630-04]
16.30: Post surgical visualization of rabbit cornea after conductive keratoplasty by multiphoton microscopy, W. Lo, National Taiwan Univ. Hospital (Taiwan); T. Wang, F. Hu, National Taiwan Univ. Hospital (Taiwan); C. Dong, National Taiwan Univ. Hospital (Taiwan); C. Dong, National Taiwan Univ. Hospital (Taiwan) [6630-05]
16.45: Enhanced fluorescence cell imaging with metal-coated slides, E. Le Moal, E. Fort, École Supérieure de Physique et de Chimie Industrielles (France); S. Lévesque-Fort, Univ. Paris-Sud II (France); A. Janin, H. Murata, Univ. Paris VII (France); F. P. Cordellères, M. Fontaine-Aupart, Univ. Paris-Sud II (France); C. Ricolleau, École Supérieure de Physique et de Chimie Industrielles (France) [6630-06]
Coffee Break 17.00 to 17.30

Conference 6630 continues page 9.

SESSION 1

Room 11 Sun. 15.30 to 17.00

Photoacoustics I

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

15.30: Improvement of depth resolution on photoacoustic imaging using multiphoton absorption (*Invited Paper*), Y. Yanaoka, T. Takamatsu, Kyoto Prefectural Univ. of Medicine (Japan) [6631-01]
16.00: Photoacoustic image reconstruction methods: a quantitative analysis, J. I. Sperl, General Electric Co. (Germany); K. Zell, Technische Universität München (Germany); P. Menzenbach, Innolas GmbH (Germany); C. Haisch, Technische Universität München (Germany); S. Ketter, M. Marquardt, H. Koenig, M. W. Vogel, General Electric Co. (Germany) [6631-02]
16.15: Two-dimensional image reconstruction for photoacoustic tomography with line detectors, G. Pallaur, R. Nuster, Karl-Franzens-Universität Graz (Austria); M. Haltmeier, Leopold-Franzens-Universität Innsbruck (Austria); P. Burgholzer, Upper Austrian Research GmbH (Austria) [6631-03]
16.30: OPUS: photoacoustic imaging combined with conventional ultrasound for breast cancer detection, C. Haisch, K. Zell, Technische Universität München (Germany); J. I. Sperl, General Electric Co. (Germany); M. W. Vogel, General Electric Co. (USA); P. Menzenbach, Innolas GmbH (Germany); R. Niesner, Technische Universität München (Germany) [6631-04]
16.45: Development of waveguide sensors for the application in photoacoustic tomography, R. Nuster, G. Pallaur, H. Dillbacher, Karl-Franzens-Universität Graz (Austria); P. Burgholzer, Upper Austrian Research GmbH (Austria) [6631-05]
Coffee Break 17.00 to 17.30

Conference 6631 continues page 9.

Sunday 17 June • 17.30 to 18.30

Conf. 6626 (MI)

SESSION 2

Room 3 Sun. 17.30 to 18.30

Advances in Bioluminescence and Fluorescence Imaging I

Chair: Vasilis Ntziachristos, Massachusetts General Hospital (USA)

17.30: **Three dimensional bioluminescence tomography (Invited Paper)**, H. Denghani, The Univ. of Exeter (United Kingdom); B. W. Pogue, S. C. Davis, Dartmouth College (USA); M. S. Patterson, Juravinski Cancer Ctr. (Canada) [6626-06]

18.00: **Post mortem evaluation of a new approach for quantitative bioluminescence imaging in small animals**, D. C. Comsa, Juravinski Cancer Ctr. (Canada) and McMaster Univ. (Canada); T. J. Farrell, M. S. Patterson, Juravinski Cancer Ctr. (Canada) [6626-07]

18.15: **Spectral unmixing of multi-color tissue specific in vivo fluorescence in mice**, G. Zacharakis, R. Favichio, A. Garofalakis, S. Psycharakis, C. Mamlaki, J. Ripoli, Foundation for Research and Technology-Hellas (Greece) [6626-08]

Conference 6626 continues page 10.

Conf. 6627 (OCT)

SESSION 2

Room 5 Sun. 17.30 to 18.30

Clinical and Pre-Clinical Applications of OCT I

Chair: Julia Weizel, General Hospital Augsburg (Germany)

17.30: **Three-dimensional Fourier-domain optical coherence tomography of alveolar mechanics in stepwise inflated and deflated isolated and perfused rabbit lungs**, A. Krueger, L. Knels, S. Meissner, M. Wendel, A. R. Heller, T. Lambeck, T. Koch, E. Koch, Technische Univ. Dresden (Germany) [6627-06]

17.45: **Diagnostic potential of optical coherence tomography in non-melanoma skin cancer: a clinical study**, M. Mogensen, Univ. of Copenhagen (Denmark); L. Thrane, P. E. Andersen, Technical Univ. of Denmark (Denmark); G. B. E. Jemec, Univ. of Copenhagen (Denmark) [6627-07]

18.00: **In vivo and 3D visualization of coronary artery development by optical coherence tomography**, L. Thrane, Technical Univ. of Denmark (Denmark); K. Norozi, Medizinische Hochschule Hannover (Germany); J. Männer, Georg-August-Universität Göttingen (Germany); F. Pedersen, Technical Univ. of Denmark (Denmark); S. Mottl-Link, Deutsches Krebsforschungszentrum (Germany); H. E. Larsen, P. E. Andersen, Technical Univ. of Denmark (Denmark); A. Wessel, T. M. Yelbuz, Medizinische Hochschule Hannover (Germany) [6627-08]

18.15: **Ultrasound-speed optical coherence tomography imaging and visualization of the embryonic avian heart using a buffered Fourier domain mode locked laser**, M. W. Jenkins, Case Western Reserve Univ. (USA); D. C. Adler, Massachusetts Institute of Technology (USA); M. Gargsha, Case Western Reserve Univ. (USA); R. Huber, Massachusetts Institute of Technology (USA); F. G. Rothenberg, Univ. of Cincinnati (USA); M. Watanabe, D. L. Wilson, Case Western Reserve Univ. (USA); J. G. Fujimoto, Massachusetts Institute of Technology (USA); A. M. Rollins, Case Western Reserve Univ. (USA) [6627-09]

Conference 6627 continues page 10.

Conf. 6630 (CMI)

SESSION 2

Room 4A Sun. 17.30 to 18.30

Fluorescence Lifetime Imaging Microscopy

Chair: Annasi Periasamy, Univ. of Virginia (USA)

17.30: **Multi-wavelength multiphoton FLIM with direct detection**, W. Becker, A. Bergmann, Becker & Hickl GmbH (Germany) [6630-07]

17.45: **Full photon information data structure applied to laser scanning microscopes enabling FLIM, FRET, and FCS data analysis**, U. Ortmann, B. Krämer, F. Koberling, PicoQuant GmbH (Germany) [6630-08]

18.00: **Microscopic fluorescence lifetime and hyperspectral imaging with digital micromirror illuminator**, A. Bednarkiewicz, M. Boudhry, M. P. Whelan, Joint Research Ctr. (Italy) [6630-09]

18.15: **Development of a TIRF-FLIM microscope for biomedical applications**, P. Blandin, S. Lévesque-Fort, F. P. H. Druon, M. Hanna, P. M. Georges, Univ. Paris-Sud II (France); R. Briandet, Institut National de la Recherche Agronomique (France); Z. Lenkei, École Supérieure de Physique et de Chimie Industrielles (France); M. Fontaine-Aupart, Univ. Paris-Sud II (France) [6630-10]

Conference 6630 continues page 10.

Conf. 6631 (NOI)

SESSION 2

Room 11 Sun. 17.30 to 18.10

Photoacoustics II

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

17.30: **Photoacoustic tomography using a fiber based Fabry-Perot interferometer as an integrating line detector and image reconstruction by model-based time reversal method**, H. Grün, Upper Austrian Research GmbH (Austria); M. Haltmeier, Leopold-Franzens-Univ. Innsbruck (Austria); G. Paltauf, Karl-Franzens-Univ. Graz (Austria); P. Burgholzer, Upper Austrian Research GmbH (Austria) [6631-06]

17.45: **Gold nanorods: contrast agents for photoacoustic imaging?**, C. Ungureanu, R. G. Rayavarapu, S. Manohar, T. G. van Leeuwen, Univ. Twente (Netherlands) [6631-08]

18.00: **Concomitant acoustic property measurements in a photoacoustic imager**, S. Manohar, R. Willemink, F. v. d. Heijden, K. Slump, T. G. van Leeuwen, Univ. Twente (Netherlands) [6631-09]

Conference 6631 continues page 13

Conf. 6626 (MI)

SESSION 3

Room B12 Mon. 09.00 to 10.00

Probes for Contrast and Molecular Reporting II

Chair: Gang Zheng, Univ. of Toronto (Canada)

- 09.00: Molecular imaging of experimental arthritis using an EDB targeting antibody NIR-dye conjugate, A. Vater, K. Licha, S. Vollmer, Bayer Schering Pharma AG (Germany); I. Gemeinhardt, O. Gemeinhardt, J. Schnorr, Charité-Univ. Medizin Berlin (Germany); J. Voigt, J. Berger, B. Ebert, Physikalisch-Technische Bundesanstalt (Germany); M. Taupitz, Charité-Univ. Medizin Berlin (Germany); M. Schirner, Bayer Schering Pharma AG (Germany) [6626-09]
- 09.15: Ligand-conjugated lipoprotein nanocarriers for molecular imaging and therapy of cancer, I. Corbin, J. Chen, Ontario Cancer Institute (Canada); G. Zheng, Ontario Cancer Institute (Canada) and Univ. of Toronto (Canada) and Univ. of Pennsylvania (USA) [6626-10]

- 09.30: Synthesis, functionalization, and characterization of rod-shaped gold nanoparticles as potential optical contrast agents, R. G. Ravavarapu, C. Ungureanu, W. Petersen, S. Manohar, T. G. van Leeuwen, Univ. Twente (Netherlands) [6626-11]

- 09.45: Nanoparticle assisted optical molecular imaging (NAOMI) using biodegradable nanoparticles, D. J. Faber, M. D. de Bruin, M. C. G. Aalders, F. D. Verbraak, T. G. van Leeuwen, Univ. van Amsterdam (Netherlands) [6626-12]

Coffee Break 10.00 to 10.30

Conference 6626 continues page 11

Conf. 6627 (OCT)

SESSION 3

Room 5 Mon. 09.00 to 10.00

Clinical and Pre-Clinical Applications of OCT II

Chair: Jennifer K. Barton, The Univ. of Arizona (USA)

- 09.00: Dynamic imaging of penetration and decontamination after chemical eye burn using optical coherence tomography, F. Spöler, M. Först, H. Kurz, RWTH Aachen (Germany); M. Frenzt, N. F. Schrage, Aachen Ctr. of Technology Transfer in Ophthalmology (Germany) [6627-10]

- 09.15: Operating microscope with time domain optical coherence tomography (OCT) for neurosurgery, E. Lankenau, D. Klinger, H. Müller, A. Malik, Univ. zu Lübeck (Germany); C. Winter, Thorlabs GmbH (Germany); A. Giese, Georg-August-Univ. Göttingen (Germany); S. Oelckers, Möller-Wedel Optical GmbH (Germany); G. Hüttmann, Univ. zu Lübeck (Germany) [6627-11]

- 09.30: Investigation of murine vasodynamics by Fourier domain optical coherence tomography, S. Meissner, J. Walther, G. Müller, A. Krüger, H. Morawietz, E. Koch, Technische Univ. Dresden (Germany) [6627-12]

- 09.45: Robust intravascular optical coherence elastography, G. van Soest, Erasmus Univ. Medical Ctr. (Netherlands); R. R. Bouchard, Erasmus Univ. Medical Ctr. (Netherlands) and Duke Univ. (USA); F. Mastik, Erasmus Univ. Medical Ctr. (Netherlands); N. de Jong, Erasmus Univ. Medical Ctr. (Netherlands) and Univ. of Twente (Netherlands) and Interuniv. Cardiology Institute of The Netherlands (Netherlands); A. F. W. van der Steen, Erasmus Univ. Medical Ctr. (Netherlands) and Interuniv. Cardiology Institute of The Netherlands (Netherlands) [6627-13]

Coffee Break 10.00 to 10.30

Conference 6627 continues page 11

Conf. 6630 (CMI)

SESSION 3

Room 4A Mon. 09.00 to 10.00

Accuracy and Quantitation in Microscopy

Chair: David W. Piston, Vanderbilt Univ. (USA)

- 09.00: Refractive index determination by index-mismatch-induced spherical aberration, P. Su, T. Fwu, H. Vladimir, C. Dong, National Taiwan Univ. (Taiwan) [6630-11]

- 09.15: Determination of the confocal volume for quantitative fluorescence correlation spectroscopy, S. Rüttiger, Physikalisch-Technische Bundesanstalt (Germany); V. Buschmann, B. Krämer, F. Koberling, PicoQuant GmbH (Germany); R. Macdonald, Physikalisch-Technische Bundesanstalt (Germany) [6630-12]

- 09.30: Quantitative determination of specimen properties using computational differential-interference contrast (DIC) microscopy, C. Preza, The Univ. of Memphis (USA); J. A. O'Sullivan, Washington Univ. in St. Louis (USA) [6630-13]

- 09.45: Two- and one-photon color confocal screening microscope, J. Walter, TILL I.D. GmbH (Germany); C. Seebacher, Ludwig Maximilians Univ. München (Germany); R. Uhl, Ludwig Maximilians Univ. München (Germany) [6630-14]

Coffee Break 10.00 to 10.30

Conference 6630 continues page 11

Monday 18 June • 10.30 to 12.30

Conf. 6626 (MI)

SESSION 4

Room B12 Mon. 10.30 to 12.30

Advances in Bioluminescence and Fluorescence Imaging II

Chair: **Andreas Wunder**, Charité
Universitätsmedizin Berlin (Germany)

- 10.30: MR-guided near-infrared fluorescence spectroscopy of brain tumor, B. W. Pogue, Dartmouth College (USA) [6626-13]
- 10.45: Autofluorescence removal from fluorescence tomography data using multispectral imaging, S. Psycharakis, G. Zacharakis, A. Garofalakis, J. Ripoll, Foundation for Research and Technology-Hellas (Greece) [6626-14]
- 11.00: Fluorescence Lifetime Imaging of Targets, a Step to a Functional Imaging of Tissue Abnormalities, Deeply Embedded in Turbid Medium, V. V. Chernomordik, M. Hassan, J. D. Riley, A. H. Gandjbakhche, National Institutes of Health (USA) [6626-15]
- 11.15: Non-invasive scalping: increasing the sensitive of non-invasive fluorescence brain imaging in mice by using a two wavelength approach, P. Bahmani, J. Kohns, A. Wunder, U. Lindauer, R. Bourayou, U. Dinagl, J. M. Steinbrink, Charité-Universität Berlin (Germany) [6626-16]
- 11.30: Time-resolved scanning system for double re?ectance and transmittance ?uorescence imaging of small animals, M. Brambilla, L. Spinelli, A. Pifferi, A. Torricelli, R. Cubeddu, Politecnico di Milano (Italy) [6626-17]
- 11.45: Recent advances in time-resolved confocal fluorescence microscopy, U. Ortmann, F. Koberling, P. Kapusta, PicoQuant GmbH (Germany) [6626-18]
- 12.00: Applying time-dependent data for fluorescence tomography, R. B. Schulz, J. Peter, W. Semmler, Deutsches Krebsforschungszentrum (Germany); C. D'Andrea, G. Valentini, R. Cubeddu, Politecnico di Milano (Italy); M. Schweiger, S. R. Arridge, Univ. College London (United Kingdom) [6626-19]
- 12.15: Pump-lasers-induced multi-structures photoprocesses or the near-lying singlet and triplet excited electronic states in the heteroaromatic molecules, A. E. Obukhov, Moscow Mining Institute (Russia) [6626-20]

Conference 6626 continues page 14.

Conf. 6627 (OCT)

SESSION 4

Room 5 Mon. 10.30 to 12.30

Retinal Imaging

Chair: **Wolfgang Drexler**, Cardiff Univ. (United Kingdom)

- 10.30: In vivo otophysiology of the human retina (Invited Paper), B. M. Hermann, A. Birns, B. Povalay, A. Unterhuber, B. Hofer, T. H. Margrain, W. Drexler, Cardiff Univ. (United Kingdom) [6627-14]
- 11.00: OFDI for retinal imaging, J. F. DeBoer, Massachusetts General Hospital (USA) [6627-15]
- 11.15: Phase retardation measurement of retinal nerve fiber layer using polarization-sensitive spectral domain optical coherence tomography and scanning laser polarimetry, M. Yamanari, Univ. of Tsukuba (Japan); M. Miura, Tokyo Medical Univ. Kasumigaoka Hospital (Japan); S. Makita, T. Yatagai, Y. Yasuno, Univ. of Tsukuba (Japan) [6627-16]
- 11.30: Intensity based quantification of fast retinal blood flow in 3D via high resolution resonant Doppler spectral OCT (Invited Paper), R. Michael, A. H. Bachmann, M. L. Villiger, C. Blatter, T. Lasser, R. A. Leigeb, Ecole Polytechnique Fédérale de Lausanne (Switzerland) [6627-17]
- 12.00: En-face visualization methods for analyzing three-dimensional UHR OCT retinal imaging data, I. M. Gorczynska, J. J. Liu, V. J. Srinivasan, Massachusetts Institute of Technology (USA); R. W. Chen, Tufts Univ. School of Medicine (USA); M. Wojtkowski, Nicolaus Copernicus Univ. (Poland); E. Reichel, J. S. Duker, Tufts Univ. School of Medicine (USA); J. G. Fujimoto, Massachusetts Institute of Technology (USA) [6627-18]
- 12.15: Towards isotropic resolution in ophthalmic ultrahigh-resolution optical coherence tomography by using pancorrection, E. J. Fernandez, C. Torti, B. Povalay, B. M. Hermann, A. Unterhuber, B. Hofer, W. Drexler, Cardiff Univ. (United Kingdom) [6627-19]
- Lunch/Exhibition Break 12.30 to 14.00

Conference 6627 continues page 12

Conf. 6630 (CMI)

SESSION 4

Room 4A Mon. 10.30 to 12.30

Advanced Instrumentation for Microscopy I

Chair: **Tony Wilson**, Univ. of Oxford (United Kingdom)

- 10.30: Advances in lasers for multi photon microscopy, D. P. Armstrong, Coherent Scotland Ltd. (United Kingdom) [6630-15]
- 10.45: Substantial improvement in penetration depths and photo damage reduction: multiphoton microscopy beyond one micron, E. Büthner, APE GmbH (Germany); V. Andresen, LaVision BioTec GmbH (Germany); I. Rinke, APE GmbH (Germany); P. Friedl, Univ. Würzburg (Germany) [6630-16]
- 11.00: Coherent light microscopy with a multi-spot source, R. Riesenber, M. Kanka, Institut für Physikalische Hochtechnologie e.V. (Germany) [6630-17]
- 11.15: Phase reconstruction by multiple plane detection for holographic microscopy, A. Gjasnow, R. Riesenber, A. Wuttig, Institut für Physikalische Hochtechnologie e.V. (Germany) [6630-18]
- 11.30: STED microscopy far beyond the diffraction limit employing beam scanning in a regular microscope, V. Westphal, S. W. Hell, Max-Planck-Institut für biophysikalische Chemie (Germany) [6630-19]
- 11.45: Advanced fluorescence microscopy using light emitting diodes, G. T. Kennedy, V. Pöhr, I. H. Munro, D. S. Elson, P. M. W. French, M. A. A. Neil, Imperial College London (United Kingdom) [6630-20]
- 12.00: Programmable optics for confocal and multiphoton microscopy, M. A. A. Neil, B. R. Boruah, Imperial College London (United Kingdom) [6630-21]
- 12.15: Spherical aberration cancellation in polarized photon-pairs confocal laser scanning microscopy, C. Chang, National Central Univ. (Taiwan); C. Chou, National Yang Ming Univ. (Taiwan) and National Central Univ. (Taiwan); H. Huang, National Yang Ming Univ. (Taiwan); H. Chang, National Central Univ. (Taiwan); W. Kuo, National Taiwan Normal Univ. (Taiwan); H. Yau, National Central Univ. (Taiwan) [6630-22]
- Lunch/Exhibition Break 12.30 to 13.30

Conference 6630 continues page 13

Monday 18 June • 13.30 to 15.00

Conf. 6627 (OCT)

SESSION 5

Room 5 Mon. 13.30 to 14.45

OCT Modeling and Speckle Reduction

Chair: Lars Thrane, Technical Univ. of Denmark
(Denmark)

13.30: Scatterer size-based analysis of optical
coherence tomography signals, A. Kartakoulis, C.
Pitris, Univ. of Cyprus (Cyprus) [6627-20]

13.45: Stereoscopic optical coherence tomography
in the frequency domain for refractive index
sensitive imaging, P. H. Tomlins, M. Tedaldi, R. A.
Ferguson, National Physical Lab, (United Kingdom); R.
K. Wang, Oregon Health and Science Univ. (USA) and
Cranfield Univ. (United Kingdom) [6627-21]

14.00: Speckle reduction in optical coherence
tomography images of human skin by a spatial
diversity method, T. M. Jørgensen, L. Thrane, A. Zam,
P. E. Andersen, Technical Univ. of Denmark
(Denmark) [6627-22]

14.15: Contribution of various scattering orders to
OCT images of skin, M. Y. Kirillin, Univ. of Oulu
(Finland) and M. V. Lomonosov Moscow State Univ.
(Russia); A. V. Priezzhev, M.V. Lomonosov Moscow
State Univ. (Russia); R. A. Myllylä, Univ. of Oulu
(Finland) [6627-23]

14.30: Speckle size in optical coherence
tomography, G. Lamouche, National Research Council
(Canada); C. Bisillon, Conseil National De Recherches
Canada (Canada); R. Maciejko, Ecole Polytechnique de
Montréal (Canada); M. L. Dufour, National Research
Council (Canada); J. Monchalin, Conseil National De
Recherches Canada (Canada) [6627-24]

Conference 6627 continues page 16.

Conf. 6630 (CMI)

SESSION 5

Room 4A Mon. 13.30 to 15.00

Advanced Instrumentation for

Microscopy II

Chair: Klaus Suhling, King's College London
(United Kingdom)

13.30: High throughput, high content microscopic imaging, P. T. C. So, Massachusetts Institute of Technology (USA) [6630-23]
13.45: Aberration-free refocusing in high numerical aperture microscopy, T. Wilson, Univ. of Oxford (United Kingdom) [6630-24]

14.00: Two-photon luminescence imaging of cancerous tissue using gold nanorods as bright contrast agents, N. J. Durr, T. Larson, D. K. Smith, The Univ. of Texas/Austin (USA); B. A. Korgel, The Univ. of Texas/Austin (USA) and Texas Materials Institute (USA); K. V. Sokolov, The Univ. of Texas M.D. Anderson Cancer Ctr. (USA); A. Ben-Yakar, The Univ. of Texas/Austin (USA) [6630-25]

14.15: A new, easy to use light source for CARS microscopy based on an optical parametric oscillator, I. Rimke, APE GmbH (Germany); C. L. Evans, Harvard Univ. (USA); E. Büttner, APE GmbH (Germany); S. Xie, Harvard Univ. (USA) [6630-26]

14.30: Application of multiplex CARS spectroscopy and microscopy in biomedical sciences, H. A. Rinal, Univ. van Amsterdam (Netherlands); M. Bonn, FOM Institute for Atomic and Molecular Physics (Netherlands); E. M. Vartiainen, Lappeenranta Teknillinen Yliopisto (Finland); C. B. Schaffer, Cornell Univ. (USA); M. Müller, Univ. van Amsterdam (Netherlands) [6630-27]

14.45: Confocal Raman microscopy for investigation of differentiating living tumor cells, C. Scall-Happ, S. Fulda, Univ. Ulm (Germany); A. Jauss, WITec GMBH (Germany); O. Hollricher, WITec GMBH (Germany); C. Hauser, R. W. Steiner, A. C. Rueck, Univ. Ulm (Germany) [6630-28]

Conference 6630 continues page 17.

Conf. 6631 (NOI)

SESSION 3

Room 11 Mon. 13.30 to 15.00

Turbid Media and Interferometry

Holography

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

13.30: Simultaneous acquisition of time-domain **FNIRS** and **fMRI** during motor activity, A. Torricelli, D. Contini, A. Pifferi, L. Spinelli, R. Cubeddu, Politecnico di Milano (Italy); L. Nocetti, A. A. Manginelli, P. Baraldi, Univ. degli Studi di Modena e Reggio Emilia (Italy) [6631-10]

13.45: Time-resolved diffuse reflectance at small source-detector separation using a time-gated single-photon avalanche diode, A. Pifferi, A. Torricelli, L. Spinelli, D. Contini, R. Cubeddu, Politecnico di Milano (Italy); F. Martelli, G. Zaccanti, Univ. degli Studi di Firenze (Italy); A. Tosi, A. Dalla Mora, F. Zappa, S. Cova, Politecnico di Milano (Italy) [6631-11]

14.00: Estimation of biomedical optical properties by simultaneous use of diffuse reflectometry and photothermal radiometry: investigation of light propagation models, E. S. R. Fonseca, Univ. da Beira Interior (Portugal); M. E. P. de Jesus, Univ. da Beira Interior (Portugal) and Unidade de Detecção Remota (Portugal) [6631-12]

14.15: New approaches in laser speckle biomedical imaging: nonergodicity correction and active speckle sampling, P. V. Zakharov, A. Völker, Univ. de Fribourg (Switzerland); A. Buck, B. Weber, Univ. Hospital Zurich (Switzerland); F. Scheffold, Univ. de Fribourg (Switzerland) [6631-13]

14.30: Heterodyne interference microscopy for non-invasive cell morphometry, M. P. Whelan, E. Lakestani, D. Rembges, M. G. Sacco, Joint Research Ctr. (Italy) [6631-14]

14.45: Dynamics measurement of both the integral refractive index and cell morphometry with digital holography microscopy, P. P. Marquet, Ctr. Hospitalier Univ. Vaudois (Switzerland); Y. Emery, Lyncéelec SA (Switzerland); T. Colomb, F. Charrière, J. G. Köhn, C. D. Depeursinge, B. Rappaz, P. Jourdain, P. J. Magistretti, École Polytechnique Fédérale de Lausanne (Switzerland) [6631-15]

Conference 6631 continues page 17.

Conf. 6632 (TLA)

SESSION 1

Room B12 Mon. 13.30 to 15.00

Laser Surgery on Tissues

Chair: Ronald Sroka, Ludwig-Maximilians-Univ. München (Germany)

13.30: CO₂ laser free-form processing of hard tissue, M. Werner, M. M. Vanden, Ctr. of Advanced European Studies and Research (Germany); D. Harbecke, Ctr. of Advanced European Studies and Research (Germany) and Univ. Dusseldorf (Germany); M. Klasing, Ctr. of Advanced European Studies and Research (Germany); H. Stelgerwald, Ctr. of Advanced European Studies and Research (Germany) and Univ. Bonn (Germany); P. Hering, Ctr. of Advanced European Studies and Research (Germany) and Univ. Dusseldorf (Germany) [6632-01]

13.45: Ultra-short pulse laser processing of hard tissue, dental restoration materials, and biocompatibles, E. Wintner, M. Strassl, V. Wiegler, A. Yousif, Technische Univ. Wien (Austria) [6632-02]

14.00: Optimized laser treatment of bone tissue by means of thermal effect visualization, S. Stopp, D. Guenther, H. Deppe, T. C. Lueft, Technische Univ. Muenchen (Germany) [6632-03]

14.15: Partial kidney resection by use of a 1.94µm thulium fiber laser, D. Theisen-Kunde, Univ. zu Lübeck (Germany); S. Tedsen, Univ. zu Lübeck (Germany); V. Danilcke, K. Herrmann, R. Brinkmann, Univ. zu Lübeck (Germany) [6632-04]

14.30: Preliminary results on diode-laser assisted vaporization of prostate tissue, R. Sroka, M. Seitz, O. Reich, A. Bachmann, V. Steinbrecher, A. Ackermann, C. G. Stief, Ludwig-Maximilians-Univ. München (Germany) [6632-05]

14.45: Optical coherence tomography monitoring of vocal fold femtosecond laser microsurgery, H. Wisweh, Laser Zentrum Hannover e.V. (Germany) and Hannover Medical School (MHH) (Germany); U. Merkel, A. Hüller, K. Lüerssen, Medizinische Hochschule Hannover (Germany); H. Lubatschowski, Laser Zentrum Hannover e.V. (Germany) [6632-06]

Conference 6632 continues page 17

Conf. 6633 (BOLS)

Room BO.R2 Mon. 09.30

Working Group on Biophotonics of the

German Optical Society DGaO

Lunch Break 12.30 to 13.30

Room BO.R2 Mon. 13.30 to 14.30

Welcome and Keynote

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

Welcome Address 13.30 to 13.40
13.40: Breaking the barrier: fluorescence microscopy with diffraction-unlimited resolution (Keynote) (Presentation Only), S. W. Hell, Deutsches Krebsforschungszentrum (Germany) [6633-01]

SESSION 1

Room BO.R2 Mon. 14.30 to 16.00

Understanding Life Processes: Innovative Analysis, Detection and Diagnostic Methods I

Chair: Valery V. Tuchin, Saratov State Univ. (Russia)

14.30: Optical and chemical switches: key molecules for improved fluorescence imaging and tracking with high optical resolution (Invited Paper), M. Sauer, Univ. Bielefeld (Germany); K. H. Drehsage, Univ. Siegen (Germany); J. Matay, P. Timmelfeld, Univ. Bielefeld (Germany) [6633-02]

15.00: Approaches to quantitative in vivo studies by single-molecule fluorescence spectroscopy, H. Ta, C. M. Roth, P. T. Henlein, D. Herten, Ruprecht-Karls-Univ. Heidelberg (Germany) [6633-03]

15.15: Fluorescence imaging of cholesterol and temperature dependent cell membrane dynamics, P. Weber, M. Wagner, Fachhochschule Aalen (Germany); W. S. L. Strauss, Univ. Ulm (Germany); H. Schneckenburger, Fachhochschule Aalen (Germany) [6633-04]

15.30: Fluorescence tomography of biological tissue based on ultrasound tagging technique, M. Kobayashi, T. Mizumoto, D. Q. Trinh, Tohoku Institute of Technology (Japan); M. Takeda, Tohoku Univ. (Japan) [6633-05]

15.45: Imaging growth of thick engineered tissues with fluorescence diffuse optical tomography, Y. Bérubé-Lauzière, J. Desrochers, P. Vermette, R. Fontaine, Univ. de Sherbrooke (Canada) [6633-06]

Coffee Break 16.00 to 16.30

Conference 6633 continues page 17

Monday 18 June • ✓ Posters

Poster presenters may post their poster papers Monday morning and will need to remove their posters immediately following the poster session that afternoon. Poster authors must be at their papers during the poster session from 15.00-16.00 to discuss the poster with session attendees.

Conf. 6626 (MI)

Chair: Kai Licha, Bayer Schering Pharma AG (Germany)

- ✓ **Activatable quantum dots for mouse noninvasive fluorescence imaging**, I. F. Texier, Nogués, E. Marchand, E. Heinrich, A. Da Silva, Commissariat à l'Energie Atomique (France) [6626-22]
- ✓ **Molecular targeting as a contrast agent mechanism for fluorescence endoscopy**, A. J. Healey, R. Bendiksen, A. Tornes, E. W. Johansen, GE Healthcare Bio-Sciences (Norway) [6626-23]
- ✓ **Ethidium bromide as a probe of mtDNA replication in living cells**, A. M. Villa, P. Fusi, C. Pozzi, M. Valtorta, Univ. degli Studi di Milano Bicocca (Italy); G. Amicarelli, D. Adlerstein, DiaSorin S.p.A. (Italy); S. M. Doglia, Univ. degli Studi di Milano Bicocca (Italy) [6626-24]
- ✓ **Correlation between direct microscopy and FDG-PET in the study of cerebral brain flow in rats**, O. Blagosklonov, Univ. de Franche-Comté (France) and Jean Minjoz Univ. Hospital (France); G. I. Podoprigora, S. V. Pushkin, Y. R. Nartsissov, Institute of Cytochemistry and Molecular Pharmacology (Russia); L. Comas, J. Cardot, H. Boulahour, Univ. de Franche-Comté (France) [6626-25]
- ✓ **Multiresolution transform denoising and segmentation of single molecule motility image series**, F. von Wegner, T. Ober, O. Friedrich, R. H. A. Fink, Ruprecht-Karls-Universität Heidelberg (Germany); M. Vogel, Harvard Univ. (USA) and Ruprecht-Karls-Universität Heidelberg (Germany) [6626-26]
- ✓ **Fluorescence diffuse tomography for detection of RFP-expressed tumors in small animals**, I. V. Turchin, Institute of Applied Physics (Russia); A. P. Savitsky, A. N. Bach Institute of Biochemistry (Russia); V. A. Kamensky, V. I. Plehanov, A. G. Orlova, M. S. Kleshnin, M. V. Shirmanova, I. I. Fix, Institute of Applied Physics (Russia); V. O. Popov, A. N. Bach Institute of Biochemistry (Russia) [6626-27]

Conf. 6627 (OCT)

Chair: Peter E. Andersen, Danmarks Tekniske Univ. (Denmark)

- ✓ **Tumor vascular permeability correlated with acute response to antivasculature therapy assessed by time domain fluorescence imaging**, U. Sunar, D. J. Hall, Univ. of California/San Diego (USA) [6626-28]
- ✓ **Three-dimensional optical metrology and models for non-contact diffuse optical tomography of small animals**, Y. Bérubé-Lauzière, M. Comtois, Univ. de Sherbrooke (Canada) [6626-29]
- *End of Conference*
- ✓ **Effects of path-length gating to scattered light: a Monte Carlo analysis of a focused beam in OCT system**, C. Tjokro, Singapore-Massachusetts Institute of Technology Alliance (Singapore); T. Chow, Nanyang Technological Univ. (Singapore); J. C. Y. Kah, National Univ. of Singapore (Singapore); J. C. J. R. Sheppard, National Univ. of Singapore (Singapore) and Singapore-Massachusetts Institute of Technology Alliance (Singapore) [6627-64]
- ✓ **Optical coherence tomography (OCT) imaging and computer aided diagnosis of human cervical tissue specimens**, F. Bazant-Hegemark, Gloucestershire Royal Hospital (United Kingdom) and Cranfield Univ. (United Kingdom); N. Stone, M. D. Read, Gloucestershire Royal Hospital (United Kingdom); K. McCarthy, Gloucestershire Hospitals NHS Foundation Trust (United Kingdom); L. J. Ritchie, Cranfield Univ. (United Kingdom); R. K. Wang, Oregon Health & Science Univ. (USA) [6627-65]
- ✓ **Logarithmic transformation technique for exact signal recovery in frequency domain optical coherence tomography**, C. S. Sekhar, R. A. Leigeb, A. H. Bachmann, M. A. Unser, Ecole Polytechnique Fédérale de Lausanne (Switzerland) [6627-66]
- ✓ **Spectroscopic Fourier domain optical coherence tomography**, M. R. Hofmann, C. Kasbeck, K. Lehmann, N. C. Gerhardt, Ruhr-Universität Bochum (Germany) [6627-67]
- ✓ **Using a piezoelectric fiber stretcher to remove the depth ambiguity in optical Fourier domain imaging**, S. Vergnole, G. Lamouche, M. L. Dufour, B. Gauthier, National Research Council (Canada) [6627-68]
- ✓ **Differential-phase optical low coherence reflectometer for surface profile measurement**, H. Huang, National Yang-Ming Univ. (Taiwan); W. Kuo, National Taiwan Normal Univ. (Taiwan); S. Chang, Yuan Ze Univ. (Taiwan); C. Ho, National United Univ. (Taiwan); C. Chou, National Yang-Ming Univ. (Taiwan) ... [6627-69]
- ✓ **Signal-to-noise analysis of Fizeau-based Fourier domain optical coherence tomography**, P. A. Shilyagin, V. M. Gelikonov, G. V. Gelikonov, Institute of Applied Physics (Russia) [6627-70]

Coffee Break 16.00 to 16.30

Monday 18 June • ✓ Posters

Poster presenters may post their papers Monday morning and will need to remove their posters immediately following the poster session that afternoon.
Poster authors must be at their papers during the poster session from 15.00-16.00 to discuss the poster with session attendees.

Conf. 6630 (CMI)

- Chair: Tony Wilson**, Univ. of Oxford (United Kingdom)
- ✓ **Simultaneous imaging of confocal fluorescence and Raman spectrum**, M. Ann, Korea Advanced Institute of Science and Technology (South Korea) ... [6630-36]
 - ✓ **Improvement of axial resolution in confocal microscopy using heterodyne illumination**, S. Lee, Korea Advanced Institute of Science and Technology (South Korea) ... [6630-37]
 - ✓ **Design of high efficiency and simple multi-channel spectral detector for confocal scanning microscopy**, I. Song, S. Lee, D. Gweon, Korea Advanced Institute of Science and Technology (South Korea) ... [6630-38]
 - ✓ **Intravital multiphoton microscopy for imaging hepatobiliary function**, F. Li, T. Sun, C. Dong, National Taiwan Univ. (Taiwan) ... [6630-39]
 - ✓ **Multifocal multispectral descan detection in 2-PLSM**, T. Bergmann, M. Tienann, J. Martini, K. Tönsing, D. Anselmetti, Bielefeld Univ. (Germany) ... [6630-40]
 - ✓ **Fiber laser-based light source for CAPS microscopy spectroscopy**, E. R. Andresen, C. K. Nielsen, J. Thøgersen, S. R. Keiding, Aarhus Univ. (Denmark) ... [6630-41]
 - ✓ **Spatially resolved fluorescence correlation spectroscopy based on electron multiplying CCD**, M. Matsumoto, T. Sugita, K. Minato, Nara Institute of Science and Technology (Japan) ... [6630-42]
 - ✓ **Evaluation of a new method for the determination of experimental PSF of a wide-field microscope using white-light and a linear sensor**, M. P. Macedo, Instituto Superior de Engenharia de Coimbra (Portugal); A. J. Barata, A. G. Fernandes, C. M. B. A. Correia, Univ. de Coimbra (Portugal) ... [6630-43]
 - ✓ **A time-gated hyperspectral fluorescence lifetime imaging microscope**, H. B. Manning, D. M. Owen, E. Auksoyus, P. de Baule, C. B. Talbot, C. W. Dunsby, I. H. Munro, A. I. Magee, M. A. Neil, P. M. W. French, Imperial College London (United Kingdom) ... [6630-44]
 - ✓ **Fast three-dimensional random access multi-photon microscopy for functional recording of neuronal activity**, P. Saggau, Baylor College of Medicine (USA); D. Reddy, Rice Univ. (USA) ... [6630-45]
 - ✓ **Biological applications of microscope profiler**, S. Han, Veeco Tucson Inc. (USA); E. L. Novak, Veeco Instruments Inc. (USA); J. Reed, M. A. Teittel, J. K. Gimzewski, Univ. of California/Los Angeles (USA) ... [6630-46]
- Coffee Break 16.00 to 16.30

Conf. 6631 (NOI)

- Chair: Christian D. Depierreux**, École Polytechnique Fédérale de Lausanne (Switzerland)
- ✓ **Monte Carlo simulation of photon transmission time of flight**, P. Vacas-Jacques, M. Strojnik, Ctr. de Investigaciones en Optica, A.C. (Mexico); G. Paez, Ctr. de Investigaciones en Optica, A.C. (Mexico) ... [6631-42]
 - ✓ **Characterization and optimization of an integrating sphere based detector for the estimation of tissue optical properties**, D. F. Moscu, J. E. Hayward, T. J. Farrell, M. S. Patterson, McMaster Univ. (Canada) and Juravinski Cancer Ctr. (Canada) ... [6631-43]
 - ✓ **Laser-Doppler spectrum decomposition method: experimental validation**, N. S. Zolek, Physik-Tech Bundesanstalt (Poland); A. Liebert, Institute of Biocybernetics and Biomedical Engineering (Poland); R. Maniewski, Physik-Tech Bundesanstalt (Poland) ... [6631-44]
 - ✓ **Image transmission by multimode optical fiber for microendoscopy**, T. Rozzi, A. Lucasoli, Univ. Politecnica delle Marche (Italy) ... [6631-45]
 - ✓ **Time-gated real-time pump-probe imaging spectroscopy**, R. Ferrari, C. D'Andrea, A. L. Bassi, G. Valentini, R. Cubeddu, Politecnico di Milano (Italy) ... [6631-46]
 - ✓ **All-reflective digital microscope system for rapid histological and immunofluorescent imaging of tissue**, R. J. Filkins, S. Yazdanfar, K. Tasimi, K. Kenny, E. Dixon, G. Abramovich, M. Meyers, M. Montalto, GE Global Research (USA) ... [6631-47]
 - ✓ **Flexible hollow polycarbonate fiber for endoscopic infrared laser treatment**, M. Nakazawa, Shimadzu Corp. (Japan); Y. Shi, Fudan Univ. (China); K. Iwai, Sendai National College of Technology (Japan); Y. Matsuura, Tohoku Univ. (Japan); X. Zhu, Fudan Univ. (China); M. Miyagi, Sendai National College of Technology (Japan) ... [6631-48]
 - ✓ **Determination of agar tissue phantoms depth profiles with pulsed photothermal radiometry**, M. Milanic, B. B. Majaron, Jozef Stefan Institut (Slovenia); S. J. Nelson, Beckman Laser Institute (USA) ... [6631-49]
 - ✓ **Design and implementation of detection schemes for spectral photoplethysmography and photo-acoustics**, I. S. Abdulhalim II, G. Tsvilikhovski, B. Epstein, Ben-Gurion Univ. of the Negev (Israel) ... [6631-50]

Conf. 6632 (TLA)

- Chair: Alfred Vogel**, Univ. zu Lubeck (Germany)
- ✓ **Photodynamic therapy of murine non-melanoma skin carcinomas with diode laser after topical application of aluminum phthalocyanine chloride**, M. Kyrtazi, E. Alexandratou, D. M. Yova, National Technical Univ. of Athens (Greece); M. Rallis, Univ. of Athens (Greece); T. A. Trebst, CeramOptec GmbH (Germany) ... [6632-20]
 - ✓ **Characterization of biophysical properties of rabbit auricle reshaped via diode laser ($\lambda = 980$ nm)**, T. A. El Tayeb, The German Univ. in Cairo (Egypt) ... [6632-50]
 - ✓ **Computerized thermal qualification tool (CTQT) for in-vitro low-water-content, F. A. Canestri, Agilent Technologies Deutschland GmbH (Germany) ... [6632-51]**
 - ✓ **The photons propagation into non trivial geometry biological tissue**, I. Krasnikov, A. Setelkin, Amur State Univ. (Russia) ... [6632-52]
 - ✓ **The role of autofluorescence collosity in diagnosis and management of solitary rectal ulcer syndrome**, A. Z. Kawczyk-Krupka, W. Lato, A. E. Ledwon, A. Kosciarz-Grzesiok, A. Misiak, S. Kwiatek, A. Sieron, Medical Univ. of Silesia, Katowice (Poland) ... [6632-53]
 - ✓ **Regulation of mesenchymal stromal cells differentiation by a blue laser irradiation**, T. Kushibiki, K. Awazu, Osaka Univ. (Japan) ... [6632-54]
 - ✓ **The influence of intravenous laser irradiation of blood on some metabolic and functional parameters in intact rabbits and experimental cerebral ischemia**, N. I. Nechipurenko, L. A. Vasilevska, Institute of Neurology, Vasilevska, Institute of Neurology, Neurosurgery & Physiotherapy (Belarus); J. I. Musienko, Belarusian Medical Academy for Postgraduate Education (Belarus); G. Maslova, Belarusian State Univ. (Belarus) ... [6632-55]
 - ✓ **Near-infrared light propagation in human head: comparison between finite element code data and Monte Carlo simulations**, C. Mansouri, Groupe ISAP-ESAP (France); J. L'Huillier, Ecole Nationale Supérieure d'Arts et Métiers (France); A. Humeau, Groupe ISAP-ESAP (France) ... [6632-56]
- Coffee Break 16.00 to 16.30

Monday 18 June • 16.30 to 18.30

Conf. 6627 (OCT)

SESSION 6

Room 5 Mon. 16.30 to 18.15

Advances in OCT System Technology I

Chair: James G. Fujimoto, Massachusetts Institute of Technology (USA)

- 16.30: **Simultaneous optical coherence and multiphoton microscopy of skin-equivalent tissue models** (*Invited Paper*), J. K. Barton, The Univ. of Arizona (USA); S. Tang, R. Lim, Univ. of California/Irvine (USA); B. J. Tromberg, Beckman Laser Institute and Medical Clinic (USA) [6627-26]
- 17.00: **High-Speed, auto-focusing optical coherence microscopy system for cellular resolution imaging of human tissues**, A. D. Aguirre, Massachusetts Institute of Technology (USA) and Harvard Medical School (USA); J. G. Fujimoto, Massachusetts Institute of Technology (USA) [6627-27]
- 17.15: **Measurement of axial position of spherical objects in a multiple delay element C-scan OCT**, L. Plesea, A. G. Podoleanu, M. Gomez, Univ. of Kent at Canterbury (United Kingdom) [6627-28]
- 17.30: **Filter bank approach to enhance signal processing for FD OCT**, B. Hofer, B. Povaiay, B. M. Hermann, A. Unterhuber, Cardiff Univ. (United Kingdom); G. Matz, F. Hlawatsch, Vienna Univ. of Technology (Austria); W. Drexler, Cardiff Univ. (United Kingdom) [6627-30]
- 17.45: **Pushing the usable bandwidth of ophthalmic ultra-high resolution Optical Coherence Tomography**, A. Unterhuber, B. Povaiay, B. Hofer, B. M. Hermann, Cardiff Univ. (United Kingdom); E. J. Fernandez, Univ. de Murcia (Spain) and Cardiff Univ. (United Kingdom); J. E. Morgan, Cardiff Univ. (United Kingdom); C. Glittenberg, S. Binder, Ludwig Boltzmann Institut (Austria); W. Drexler, Cardiff Univ. (United Kingdom) [6627-31]
- 18.00: **Single- vs. two-camera based spectral-domain polarization-sensitive OCT systems**, B. Baumann, E. Götzinger, M. Pircher, C. K. Hitzenberger, Medizinische Univ. Wien (Austria) [6627-32]

Conference 6627 continues page 18.

Monday 18 June • 16.30 to 18.30

Conf. 6630 (CMI)

SESSION 6

Room 4A Mon. 16.30 to 18.30

Microscopy in Dermatology

Chair: Peter T. C. So, Massachusetts Institute of Technology (USA)

- 16.30: Two-photon microscopy of non-melanoma skin cancer: initial experience and diagnostic criteria *ex vivo* (Invited Paper), M. B. Ericson, Göteborg Univ. (Sweden) and Consultant (Sweden); J. Paoli, Göteborg Univ. (Sweden); A. Odu, Linköping Univ. (Sweden); M. Smedh, A. K. Wennberg, Göteborg Univ. (Sweden) [6630-29]
- 17.00: Multiphoton tomograph Dermalispec(r): non invasive powerful tool for in vivo evaluation of the human skin compounds, R. Le Harzic, Fraunhofer-Institut für Biomedizinische Technik (Germany); R. Buckle, JenLab GmbH (Germany); A. Ehlers, Fraunhofer-Institut für Biomedizinische Technik (Germany); A. Colonna, L'Oreal (Germany); C. Hadjir, F. Leroy, F. Flament, R. Bazin, B. Plot, L'Oreal (France); I. Riemann, K. König, Fraunhofer-Institut für Biomedizinische Technik (Germany) [6630-30]
- 17.15: Adjustable mirror arm for in-vivo two-photon microscopy, N. Koop, M. Ehrke, G. Hüttmann, Univ. zu Lübeck (Germany) [6630-31]
- 17.30: Spectrally encoded confocal imaging in vivo through a handheld probe, C. Bourdoux, Massachusetts Institute of Technology (USA); D. Yelin, W. Y. Oh, M. S. Shishkov, B. E. Bouma, G. J. Tearney, Harvard Medical School (USA) [6630-32]
- 17.45: Utilizing nonlinear optical microscopy to investigate the development of early cancer in nude mice in vivo, C. Wang, F. Li, S. Lin, W. Lo, C. Dong, National Taiwan Univ. (Taiwan) [6630-33]
- 18.00: Investigation of depilatory mechanism by use of multiphoton fluorescent microscopy, C. Lin, J. Lee, S. Lin, S. Jee, C. Dong, National Taiwan Univ. (Taiwan) [6630-34]
- 18.15: Multiphoton Microscopy for the Investigation of trans-cutaneous drug delivery, F. Stracke, Fraunhofer-Institut für Biomedizinische Technik (Germany); M. Schneider, B. Weiss, C. Lehr, U. F. Schäfer, Univ. des Saarlandes (Germany); K. König, Fraunhofer-Institut für Biomedizinische Technik (Germany) [6630-35]
- End of Conference

Conf. 6631 (NOI)

SESSION 4

Room 11 Mon. 16.30 to 18.15

Interferometry Holography

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

- 16.30: Lipid particle detection by means digital holography and lateral shear interferometry, L. Miccio, Istituto Nazionale di Ottica Applicata (Italy); A. Frinzi, S. M. De Nicola, Istituto di Chimica Eduard Caimanelli (Italy); P. Ferraro, Istituto Nazionale Ottica Applicata (Italy) [6631-16]
- 16.45: Erythrocytes analysis with a digital holographic microscope, B. Rappaz, École Polytechnique Fédérale de Lausanne (Switzerland); A. Barbul, Tel-Aviv Univ. (Israel); F. Charrière, J. G. Köhn, École Polytechnique Fédérale de Lausanne (Switzerland); R. Korenstein, Tel-Aviv Univ. (Israel); C. D. Depeursinge, P. J. Magistretti, P. Marquet, École Polytechnique Fédérale de Lausanne (Switzerland) [6631-17]
- 17.00: Single-pulsed digital holographic topometry, S. Hirsch, Ctr. of Advanced European Studies and Research (Germany); S. Heintz, Ctr. of Advanced European Studies and Research (Germany); A. Thelen, N. Gisbert, Ctr. of Advanced European Studies and Research (Germany); P. Heimg, Univ. Düsseldorf (Germany) and Ctr. of Advanced European Studies and Research (Germany) [6631-18]
- 17.15: Optical imaging of the surface profiles of biological cells and tissues with nanometer resolution, C. Lai, I. Hsu, Chung Yuan Christian Univ. (Taiwan) [6631-19]
- 17.30: High-resolution adaptive holographic interferometer for biomedical application, G. E. Dvoglensko, ITT Technical Institute (USA); A. Dagdanova, Eastern Virginia Medical School (USA) [6631-21]
- 17.45: New spectral imaging techniques for blood oximetry in the retina, G. D. Muvo Nieto, I. Alabboud, Heriot-Watt Univ. (United Kingdom); D. Mordant, A. I. McNaught, Cheltenham General Hospital (United Kingdom); A. R. Harvey, Heriot-Watt Univ. (United Kingdom) [6631-22]
- 18.00: Real time assessment of RF cardiac tissue ablation with optical spectroscopy, S. G. Demos, Lawrence Livermore National Lab. (USA) and Univ. of California/Davis (USA); S. Sharareh, Biosense Webster, Inc. (USA) [6631-23]
- Conference 6631 continues page 19.

Conf. 6632 (TLA)

SESSION 2

Room B12 Mon. 16.30 to 17.30

Laser Treatment of Vascular Malformations

Chair: Raimund Hibst, Univ. Ulm (Germany)

- 16.30: Surgical treatment of cerebral ischemia by means of diode laser: first experimental results and comparison with theoretical model, T. Lo Feudo, C. Bellecci, P. Gaudio, M. Gelfusa, Univ. degli Studi di Roma/Tor Vergata (Italy); C. D. Signorini, G. Iorrida, F. Signorini, A. Giacinta, Univ. degli studi Magna Graecia di Catanzaro (Italy) [6632-07]
- 16.45: Optical coherence tomography investigations of endoluminal vein treatment after radiofrequency and laser light application, R. Sroka, O. Meissner, K. Hunger, G. Barbaryka, C. Burgmeier, R. Blagova, W. Beyer, T. J. Beck, B. Steckmeier, C. Schmiedt, Ludwig-Maximilians-Univ. München (Germany) [6632-08]
- 17.00: The effects of intense pulsed light on blood vessels investigated by mathematical modeling, W. Bämler, Univ. Regensburg (Germany); G. Shafirstein, Univ. of Arkansas for Medical Sciences (USA) [6632-09]
- 17.15: Interaction of a dual-wavelength laser system with cutaneous blood vessels, B. B. Majaron, M. Milanic, Institut Jolef Stefan (Slovenia); S. J. Nelson, Univ. of California/Irvine (USA) [6632-10]

SESSION 3

Room B12 Mon. 17.30 to 18.15

Tissue Optics

Chair: Martin Frenz, Univ. Bern (Switzerland)

- 17.30: A novel 3D modeling and simulation technique in thermotherapy predictive analysis on biological tissue, F. Fanjul-Velez, J. L. Arce-Diego, Univ. de Cantabria (Spain); O. G. Romanov, A. L. Tolstik, Belarusian State Univ. (Belarus) [6632-11]
- 17.45: Space-time modeling of the photon diffusion in a three-layered model: application to the study of muscular oxygenation, C. Mansouri, Groupe ISAIP-ESAP (France); J. L'huillier, Ecole Nationale Supérieure d'Arts et Métiers (France); A. Humeau, Groupe ISAIP-ESAP (France) [6632-13]
- 18.00: Laser Stokes polarimetry for the characterization of bio-materials using liquid crystal variable retarders, S. Firdous, Sr., Pakistan Institute of Engineering and Applied Sciences (Pakistan) [6632-14]
- Conference 6632 continues page 19

Conf. 6633 (BOLS)

SESSION 2

Room BO.R2 Mon. 16.30 to 17.30

Understanding Life Processes: Innovative Analysis, Detection and Diagnostic Methods II

Chair: Markus Sauer, Univ. Bielefeld (Germany)

- 16.30: Metal-enhanced fluorescence (Invited Paper), J. Enderlein, Eberhard Karls Univ. Tübingen (Germany) [6633-07]
- 17.00: Axially resolved polarization microscopy of membrane dynamics in living cells, M. Wagner, P. Weber, H. Schneckenburger, Fachhochschule Aalen (Germany) [6633-08]
- 17.15: Direct detection of singlet oxygen generated by UVA irradiation in phospholipids, human cells, and skin, J. Baier, T. Maisch, W. Bäumer, Univ. Regensburg (Germany) [6633-09]
- Conference 6633 continues page 19

Tuesday 19 June • 09.00 to 10.00

Conf. 6627 (OCT)

SESSION 7

Room 5 Tues. 09.00 to 10.00

System Architecture

Chair: Adrian G. Podoleanu, Univ. of Kent at Canterbury (United Kingdom)

09.00: **MEMS based non-rotatory circumferential scanning optical probe for endoscopic optical coherence tomography**, Y. Xu, National Univ. of Singapore (Singapore) and Institute of Microelectronics (Singapore); J. Singh, Institute of Microelectronics (Singapore); H. S. Jason, K. Ramakrishna, N. Chen, C. T. Kuan, National Univ. of Singapore (Singapore) [6627-33]

09.15: **Doppler spectral optical coherence tomography with optical frequency comb**, M. Wojtkowski, A. Szkulniewska, M. Szkulmowski, T. Bajraszewski, W. T. Fojt, A. Kowalczyk, Mikolaj Kopernika Univ. (Poland) [6627-34]

09.30: **Optical coherence tomography controlled femtosecond laser microsurgery system**, O. Massow, Laser Zentrum Hannover e.V. (Germany); F. G. Will, Rowiak GmbH (Germany); H. Lubatschowski, Laser Zentrum Hannover e.V. (Germany) ... [6627-35]

09.45: **Coherent amplified Fourier domain optical coherence tomography**, J. Zhang, B. Rao, Z. Chen, Univ. of California/Irvine (USA) [6627-36]

Coffee Break 10.00 to 10.30

Conference 6627 continues page 20.

Tuesday 19 June • 09.00 to 10.00

Conf. 6631 (NOI)

SESSION 5

Room B12 Tues. 09.15 to 10.00

Imaging and Sensing

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

- 09.15: Laser Doppler perfusion imaging with a high-speed CMOS-camera, M. Dräjer, E. Høndebrink, W. Steenbergen, T. G. van Leeuwen, Univ. Twente (Netherlands) [6631-25]
- 09.30: Real time diffuse reflectance polarization microscopy imaging to evaluate skin microcirculation, J. W. O'Doherty, Univ. of Limerick (Ireland), J. Harricson, Univ. Hospital Linköping (Sweden), G. E. Nilsson, Wheelabrator AB (Sweden), M. J. Leahy, Univ. of Limerick (Ireland), C. Anderson, Univ. Hospital Linköping (Sweden) [6631-26]
- 09.45: Polarimetric surface plasmon resonance imaging biosensor, A. Duval, F. Bardin, A. Aude, A. Bellemain, J. Moreau, M. T. G. Carva, Institut d'Optique (France) [6631-27]
- Coffee Break 10.00 to 10.30
- Conference 6631 continues page 20.

Conf. 6632 (TLA)

SESSION 4

Room 11 Tues. 09.00 to 10.00

PDT Basics and Antimicrobial Treatment

Chairs: Heyke C. Diddens, Univ. zu Lübeck (Germany); Tanja Gabrecht, Ecole Polytechnique Fédérale de Lausanne (Switzerland)

- 09.00: Oxygen consumption in photodynamic inactivation of bacteria: the role of singlet oxygen, T. Maisch, J. Baier, B. Franz, R. Szeimies, M. Landthaler, W. Baumler, Univ. Regensburg (Germany) [6632-15]
- 09.15: Photodynamic therapy combined with an antiseptic for treatment of local infections, H. C. Diddens, Univ. zu Lübeck (Germany) [6632-16]
- 09.30: Investigations on the laser light induced decomposition of indocyanine green (ICG), W. Baumler, E. Engel, R. Schraml, R. Vasold, Univ. Regensburg (Germany) [6632-17]
- 09.45: Frequency domain, time-resolved, and spectroscopic investigations of photosensitizers encapsulated in liposomal phantoms, O. Mermut, J. Bouchard, J. Cormier, I. Noiseux, M. L. Vernon, Institut National d'Optique (Canada); K. R. Diamond, M. S. Patterson, McMaster Univ. (Canada) [6632-18]
- Coffee Break 10.00 to 10.30
- Conference 6632 continues page 20.

Conf. 6633 (BOLS)

SESSION 3

Room BO.R2 Tues. 09.00 to 10.30

Understanding Life Processes: Innovative Analysis, Detection and Diagnostic Methods III

Chair: Arthur E. T. Chiu, National Yang-Ming Univ. (Taiwan)

- 09.00: Improvements of laser biomedical spectroscopy and imaging (*Invited Paper*), V. V. Tuchin, Saratov State Univ. (Russia) [6633-10]
- 09.30: High throughput high content live cell screening platform, R. Uhl, TILL Photonics GmbH (Germany); H. Harz, S. Neogy, Ludwig-Maximilians-Univ. München (Germany) [6633-11]
- 09.45: Techniques and applications of digital holographic microscopy for life cell imaging, B. Kemper, P. Langehagenberg, J. Schmekenburger, G. von Bally, Univ. Münster (Germany) [6633-12]
- Coffee Break 10.00 to 10.30
- Conference 6633 continues page 20.

Tuesday 19 June • 10.30 to 12.30

Conf. 6627 (OCT) SESSION 8

Room 5 Tues. 10.30 to 12.15

Advances in OCT System Technology II

Chair: Constantinos Pitris, Univ. of Cyprus (Cyprus)

- 10.30: Endoscopes for spectral radar OCT, E. Lankenau, Univ. zu Lubeck (Germany); K. Eder, Fraunhofer-Institut für Produktionstechnologie (Germany); D. Boller, P. Koch, Thorlabs GmbH (Germany); G. Hüttmann, Univ. zu Lubeck (Germany) [6627-63]
- 10.45: Increase of the imaging depth in linear OCT systems, G. Hüttmann, V. Hellmanns, Univ. zu Lubeck (Germany); P. Koch, Thorlabs-HL (Germany) [6627-38]
- 11.00: In vivo imaging of mouse cornea by dual-channel detection based full-field OCT, M. Akiba, K. Chan, Yamagata Promotional Organization for Industrial Technology (Japan) [6627-39]
- 11.15: Design criteria in choosing optimized OCT scanning regimes, C. C. Rosa, Univ. do Porto (Portugal) and Instituto de Engenharia de Sistemas e Computadores do Porto (Portugal); J. A. Rogers, P. Justin, Ophthalmic Technologies Inc. (Canada); R. B. Rosen, The New York Eye and Ear Infirmary (USA); A. G. Poddoleanu, Univ. of Kent at Canterbury (United Kingdom) [6627-40]
- 11.30: Doppler calibration method for spectral-domain OCT spectrometers, D. J. Faber, D. M. de Bruin, H. de Vries, T. G. van Leeuwen, Univ. van Amsterdam (Netherlands) [6627-42]
- 11.45: Static depth dependant dispersion compensation in a real-time static delay line grating based correlation OCT system, L. Froehly, P. Sandoz, M. Furfaro, M. Oudour, Univ. de Franche-Comté (France) [6627-43]
- 12.00: Extended focus Fourier domain optical coherence microscopy assists development biology, M. L. Villiger, Ecole Polytechnique Fédérale de Lausanne (Switzerland); M. Belet, C. Briskin, Swiss Institute for Experimental Cancer Research (Switzerland); T. Lasser, R. A. Leitgeb, Ecole Polytechnique Fédérale de Lausanne (Switzerland) [6627-44]
- Lunch/Exhibition Break 12.15 to 13.30

Conference 6627 continues page 21.

Conf. 6631 (NOI) SESSION 6

Room B12 Tues. 10.30 to 12.30

Fluorescence

Chair: Christian D. Depierreux, École Polytechnique Fédérale de Lausanne (Switzerland)

- 10.30: Rigid and flexible multiphoton fluorescence endoscopes, S. Schenkl, A. Ehlers, Fraunhofer-Institut für Biomedizinische Technik (Germany); R. Le Harzic, JenLab GmbH (Germany); I. Riemann, D. Sauer, Fraunhofer-Institut für Biomedizinische Technik (Germany); B. Messerschmidt, GrinTech GmbH (Germany); M. Kaatz, Friedrich-Schiller-Universität Jena (Germany); K. König, Fraunhofer-Institut für Biomedizinische Technik (Germany) [6631-28]
- 10.45: Combined Raman spectroscopy-optical coherence tomography, C. A. Patil, Vanderbilt Univ. (USA); N. Bosschaert, Univ. Twente (Netherlands); D. J. Faber, Univ. van Amsterdam (Netherlands); T. G. van Leeuwen, Univ. Twente (Netherlands); A. Mahadevan-Jansen, Vanderbilt Univ. (USA) [6631-29]
- 11.00: High-resolution imaging using random fluorescent probes, P. Lecaruyer de Lainssec, E. Fort, Univ. Paris VII (France); S. Fort, Univ. Paris-Sud XI (France); N. Tran Hong, Institute of Physics & Electronics (Vietnam) [6631-30]
- 11.15: Two-photon, two-color in vivo flow cytometry to noninvasively monitor circulating cell lines, E. R. Tkaczyk, C. F. Zhong, J. Y. Ye, K. Luker, G. D. Luker, J. R. Baker, Jr., T. B. Norris, Univ. of Michigan (USA) [6631-31]
- 11.30: Fluorescence imaging of experimental rheumatoid arthritis in vivo using a fast flying-spot scanner, J. Berger, J. Voigt, F. Seifert, B. Ebert, R. Macdonald, Physikalisch-Technische Bundesanstalt (Germany); I. Gemeinhart, O. Gemeinhart, J. Schorr, M. Taupitz, Charité-Universität Berlin (Germany); A. Vater, S. Vollmer, K. Licha, M. Schirmer, Bayer Schering Pharma AG (Germany) [6631-32]
- 11.45: Spectroscopic imaging in the near field with an aperture less solid-immersion lens system, T. Merz, R. W. Kessler, Reutlingen Univ. (Germany) [6631-33]
- 12.00: Evaluation of a fiber-optic fluorescence spectroscopy system to assist neurosurgical tumor resections, M. A. Ilias, F. Westermarck, M. Brantmark, Linköping Univ. (Sweden); S. Andersson-Engels, Lunds Univ. (Sweden); K. Wårdell, Linköping Univ. (Sweden) [6631-34]
- 12.15: Combination of panoramic and fluorescence endoscopic images to obtain tumor spatial distribution information useful for bladder cancer detection, S. Olijnyk, Y. Hernandez-Mier, W. W. Blöndel, C. Daul, D. Wolf, Ecole Nationale Supérieure d'Electricité et de Mécanique - Nancy (France) [6631-35]
- Lunch/Exhibition Break 12.30 to 13.30

Conference 6631 continues page 21.

Conf. 6632 (TLA) SESSION 5

Room 11 Tues. 10.30 to 12.15

PDT: Preclinical and Clinical Studies

Chair: Herbert G. Stepp, Ludwig-Maximilians-Universität München (Germany)

- 10.30: Photodynamic therapy of non melanoma skin cancer murine model by topical application of a novel mTHPC liposomal formulation, E. Alexandratou, M. Kyriazi, National Technical Univ. of Athens (Greece); T. A. Trebst, CeramOptec GmbH (Germany); S. Gräfe, biolitec AG (Germany); D. M. Yova, National Technical Univ. of Athens (Greece) [6632-19]
- 10.45: Photodynamic therapy of bladder cancer: a phase I study using hexyl-aminolevulinate, M. J. Bader, D. Zaak, Ludwig-Maximilians-Universität München (Germany); M. Ehlers, M. Krieger, MTC GmbH (Germany); T. Pongratz, W. Beyer, C. G. Sief, H. G. Stepp, Ludwig-Maximilians-Universität München (Germany) [6632-21]
- 11.00: Photodynamic therapy for the treatment of Crohn's disease: preclinical and clinical results (Invited Paper), L. Favre, D. Vekub, Ctr. Hospitalier Univ. Vaudois (Switzerland); F. Borle, Ecole Polytechnique Fédérale de Lausanne (Switzerland); D. Bachmann, Ctr. Hospitalier Univ. Vaudois (Switzerland); T. Gabrecht, Ecole Polytechnique Fédérale de Lausanne (Switzerland) and Ctr. Hospitalier Univ. Vaudois (Switzerland); H. Bouzourene, Ctr. Hospitalier Univ. Vaudois (Switzerland); G. A. Wagnières, H. van den Bergh, Ecole Polytechnique Fédérale de Lausanne (Switzerland); P. Michetti, M. Orther, Ctr. Hospitalier Univ. Vaudois (Switzerland) [6632-22]
- 11.30: Interstitial PDT of glioblastoma with 5-ALA: clinical studies and method for measurement of sensitizer concentration (Invited Paper), W. Beyer, T. J. Beck, R. Sroka, J. Mehrkens, W. Rächinger, Ludwig-Maximilians-Universität München (Germany); W. Sumner, Heinrich-Heine-Universität Düsseldorf (Germany); F. Krath, R. Baumgartner, H. G. Stepp, Ludwig-Maximilians-Universität München (Germany) [6632-23]
- 12.00: Spectroscopic monitoring of topically applied temoporfin for photodynamic therapy, N. Bendsoe, K. Svanberg, S. Andersson-Engels, Lund Univ. Hospital (Sweden) [6632-24]
- Lunch/Exhibition Break 12.15 to 13.30

Conference 6632 continues page 21.

Conf. 6633 (BOLS) SESSION 4

Room BO.R2 Tues. 10.30 to 12.30

Understanding Life Processes: Innovative Analysis, Detection and Diagnostic Methods IV

Chair: Michael Schmitt, Friedrich-Schiller-Universität Jena (Germany)

- 10.30: Autofocus algorithms for digital-holographic microscopy, P. Langerhans, B. Kemper, G. von Bally, Univ. Münster (Germany) [6633-13]
- 10.45: Analysis of cellular structure and dynamics with digital holography microscopy, P. P. Marquet, Ctr. Hospitalier Univ. Vaudois (Switzerland); T. Colomb, F. Charrière, Ecole Polytechnique Fédérale de Lausanne (Switzerland); J. G. Kühn, Ecole Polytechnique Fédérale de Lausanne (Switzerland); Y. Emery, Lycée Tec SA (Switzerland); B. Rappaz, P. Jourdain, P. J. Magistretti, Ecole Polytechnique Fédérale de Lausanne (Switzerland) [6633-14]
- 11.00: Dynamic in vivo analysis of drug induced actin cytoskeleton degradation by digital holographic microscopy, J. Schnekenburger, I. Bredebusch, W. Dörschke, G. von Bally, B. Kemper, Univ. Münster (Germany) [6633-15]
- 11.15: Multicolor single molecule spectroscopy for the study of complex interactions and dynamics, P. Timmelfeld, D. Fetting, R. Kasper, Bielefeld Univ. (Germany) [6633-16]
- 11.30: High resolution spectral optical coherence microscopy assists diabetes research, R. A. Leitgeb, M. L. Villiger, T. Lasser, Ecole Polytechnique Fédérale de Lausanne (Switzerland); P. Meda, Univ. de Genève (Switzerland); W. Pralong, Ecole Polytechnique Fédérale de Lausanne (Switzerland) [6633-17]
- 11.45: Ultrafast dynamics in a live cell irradiated by femtosecond laser pulses, H. Kawano, C. Hara, The Institute of Physical and Chemical Research (Japan); T. G. Etoh, Kinki Univ. (Japan); A. Miyawaki, The Institute of Physical and Chemical Research (Japan) [6633-18]
- 12.00: Non-linear and ultra high-speed imaging for explorations of the murine and human heart, L. Kaestner, P. Lipp, Univ. des Saarlandes (Germany) [6633-19]
- 12.15: Improving the optical contrast of backscattering signal in reflectance-based imaging with gold nanoshells, J. C. Y. Kah, National Univ. of Singapore (Singapore); T. Chow, Nanyang Technological Univ. (Singapore); M. C. Olivo, National Cancer Ctr. Singapore (Singapore); B. Ng, Nanyang Technological Univ. (Singapore); C. J. R. Sheppard, National Univ. of Singapore (Singapore) [6633-20]
- Lunch/Exhibition Break 12.30 to 13.30

Conference 6633 continues page 21.

Tuesday 19 June

• 13.30 to 16.00

Conf. 6627 (OCT)
SESSION 9

Room 5 Tues. 13.30 to 15.00

Retinal Imaging II

Chair: **Christoph K. Hitzinger**, Medizinische Univ. Wien (Austria)

13.30: **Correcting ocular aberrations with a high stroke deformable mirror**, S. G. Tuohy, A. Bradd, Univ. of Kent (United Kingdom); A. G. Podoileanu, Univ. of Kent at Canterbury (United Kingdom); N. Chateau, Imagine Eyes (France) [6627-45]

13.45: **Quantification of the photoreceptor layer thickness: normative data and macular hole patients**, B. A. Sander, Copenhagen Univ. Hospital Glostrup (Denmark); T. M. Jørgensen, Technical Univ. of Denmark (Denmark) [6627-46]

14.00: **Scattering optical coherence angiography with 1-um swept source optical coherence tomography**, Y. Yasuno, Univ. of Tsukuba (Japan); Y. Hong, Univ. of Tsukuba (Japan) and Korea Advanced Institute of Science and Technology (Japan); S. Makita, M. Yamanari, Univ. of Tsukuba (Japan); M. Akiba, Yamagata Promotional Organization for Industrial Technology (Japan); M. Miura, Tokyo Medical Univ. Kasumigaoka Hospital (Japan) and Univ. of Tsukuba (Japan); T. Yatagai, Univ. of Tsukuba (Japan) [6627-47]

14.15: **Optical coherence angiography for the retina and choroid**, S. Makita, Univ. of Tsukuba (Japan); Y. Hong, Univ. of Tsukuba (Japan) and KAIST (South Korea); M. Miura, Tokyo Medical Univ. Kasumigaoka Hospital (Japan) and Univ. of Tsukuba (Japan); M. Yamanari, T. Yatagai, Y. Yasuno, Univ. of Tsukuba (Japan) [6627-48]

14.30: **In-vivo 3-D imaging of age-related macular degeneration using optical frequency domain imaging at 1050 nm**, D. M. de Bruin, Massachusetts General Hospital (USA); J. F. DeBoer, Harvard Medical School (USA) and Wellman Ctr. for Photomedicine (USA); D. L. Burnes, J. Loewenstein, C. Kerbage, G. N. Maguluri, B. H. Park, Massachusetts General Hospital (USA); A. Yun, Harvard Medical School (USA) and Wellman Ctr. for Photomedicine (USA) [6627-49]

14.45: **Three-dimensional high speed OCT at 1050 nm vs. 800 nm: Reduced scattering for enhanced penetration and through cataracts and into choroidal tissue**, B. Povaiay, B. M. Heman, A. Unterhuber, Cardiff Univ. (United Kingdom); H. Sattmann, Medical Univ. Vienna (Austria); F. Zeller, Ludwig Boltzmann Institut (Austria); J. E. Morgan, Cardiff Univ. (United Kingdom); C. Falkner-Radler, C. Glittenberg, S. Binder, Ludwig Boltzmann Institut (Austria); W. Drexler, Cardiff Univ. (United Kingdom) [6627-50]

Poster Viewing 15.00 to 16.00
Coffee Break 16.00 to 16.30

Conference 6627 continues page 26.

Conf. 6631 (NOI)
SESSION 7

Room B12 Tues. 13.30 to 15.00

Assorted Novel Technologies

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

13.30: **Laser interference measurement of glucose in liquids**, H. M. El Ghandour, Ain Shams Univ. (Egypt) [6631-36]

13.45: **Combination of time-domain optical brain imaging and DC magnetoencephalography for studying neurovascular coupling**, H. Wabnitz, T. Sander, Physikalisch-Technische Bundesanstalt (Germany); A. Liebert, Institute of Biocybernetics and Biomedical Engineering (Poland); M. Möller, Hochschule für Technik und Wirtschaft des Saarlandes (Germany); S. Leistner, B. Mackert, Charité Universitätsmedizin Berlin (Germany); R. Macdonald, L. Trahms, Physikalisch-Technische Bundesanstalt (Germany) [6631-37]

14.00: **A novel optical detector concept for dedicated and multi-modality in vivo small animal imaging**, J. Peter, R. B. Schulz, D. Unholtz, W. Semmler, Deutsches Krebsforschungszentrum (Germany) [6631-38]

14.15: **Optical vibrocardiography for non contact monitoring of the cardiac activity: correlation with heart sounds from phonocardiography**, L. Scalise, M. De Melis, U. Morbiducci, E. P. Tomasini, Univ. Politecnica delle Marche (Italy) [6631-39]

14.30: **Observation of IPL spectra using detector system incorporating broadband optical filters**, D. M. Clarkson, Univ. Hospitals Coventry and Warwickshire NHS Trust (United Kingdom) [6631-40]

14.45: **Wavelet-based terahertz local tomography**, X. Yin, The Univ. of Adelaide (Australia) [6631-41]

■ End of Conference

Conf. 6632 (TLA)
SESSION 6

Room 11 Tues. 13.30 to 15.00

Ophthalmology: Cornea and Retina

Chair: **Holger Lubatschowski**, Laser Zentrum Hannover e.V. (Germany)

13.30: **Temperature control during diode laser welding in a human cornea**, F. Rossi, P. Mattioli, R. Pini, Istituto di Fisica Applicata Nello Carrara (Italy); L. Menaboni, Azienda USL 4 (Italy) [6632-25]

13.45: **Femtosecond laser keratoplasty: reducing side effects and improving penetration depth**, K. Plamann, V. Nuzzo, O. Albert, G. A. Mourou, École Nationale Supérieure de Techniques Avancées (France); M. Savoldelli, Hôpital Hôtel Dieu (France); D. Donat, Hôpital Hôtel Dieu (France) and Hôpital Édouard Herriot (France); J. Legeats, Hôpital Hôtel Dieu (France) [6632-26]

14.00: **Femtosecond refractive eye surgery: study of laser parameters for even more efficiency and safety**, R. Le Harzic, Fraunhofer-Institut für Biomedizinische Technik (Germany); C. Wüllner, Wavelight Laser Technologie AG (France); D. Bruneel, Univ. Jean Monnet Saint-Etienne (France); C. Döntzky, Wavelight Laser Technologie AG (Germany); K. König, Fraunhofer-Institut für Biomedizinische Technik (Germany) [6632-27]

14.15: **Retinal temperature determination during laser photocoagulation** (Invited Paper), R. Brinkmann, Univ. zu Lübeck (Germany); J. U. Stalljohann, B. Weber, Medizinisches Laserzentrum Lübeck GmbH (Germany); K. Schlott, J. Kandulla, R. Birngruber, Univ. zu Lübeck (Germany) [6632-28]

14.45: **Interferometric optical online dosimetry for selective retina treatment (SRT)**, H. Stoehr, L. Praszynski, A. Fritz, R. Brinkmann, Univ. zu Lübeck (Germany) [6632-29]

Conference 6632 continues page 26.

Conf. 6633 (BOLS)
SESSION 5

Room BO.R2 Tues. 13.30 to 14.30

Understanding Life Processes: Innovative Analysis, Detection and Diagnostic Methods V

Chair: **Michael Schmitt**, Friedrich-Schiller-Univ. Jena (Germany)

13.30: **Tip-enhanced Raman scattering: pushing the limits of structural analysis** (Invited Paper), V. Deckert, Institute for Analytical Sciences Dortmund (Germany) [6633-21]

14.00: **Wide field surface plasmon-enhanced total internal reflection fluorescence microscopy: application to live cell imaging**, V. Studer, Y. Goullam-Houssen, E. Le Moal, A. Simon, Z. Lenkei, E. Fort, École Supérieure de Physique et de Chimie Industrielles (France) [6633-22]

14.15: **Surface-enhanced Raman scattering substrates based on nanometre scale structures on butterfly wings**, J. J. Moger, N. L. Cornes, G. Winter, P. Vukusic, C. P. Winlove, The Univ. of Exeter (United Kingdom) [6633-23]

SESSION 6

Room BO.R2 Tues. 14.30 to 16.00

Engaging Life Processes: New Photonics Micromanipulation Tools I

Chair: **Josef A. Käs**, Univ. Leipzig (Germany)

14.30: **Recent progresses in optical trap-and-stretch of red blood cells** (Invited Paper), A. E. T. Chou, G. B. Liao, Y. Chen, A. V. Karmanyan, C. Lin, National Yang-Ming Univ. (Taiwan) [6633-24]

15.00: **Lasers as unique tools for cell manipulation** (Invited Paper), K. Schütze, P.A.L.M. Microlaser Technologies GmbH (Germany) [6633-25]

15.30: **Studying red blood cell agglutination by measuring electrical and mechanical properties with a double optical tweezers**, A. Fontes, H. P. Fernandes, A. de Thomas, L. C. Barbosa, M. d. L. Barjas-Castro, C. L. Cesar, Univ. Estadual de Campinas (Brazil) [6633-26]

15.45: **Automated microinjection system for adherent cells**, S. Youkou, Y. Suto, M. Ando, A. Ito, Fujitsu Labs. (Japan) [6633-27]

Coffee Break 16.00

Conference 6633 continues page 27.

Poster presenters may post their poster papers Tuesday morning and will need to remove their posters immediately following the poster session that afternoon. Poster authors must be at their papers during the poster session from 15:00-16:00 to discuss the poster with session attendees.

Conf. 6628 (DOS)

Chair: **Dietrich Schweitzer**, Friedrich-Schiller-Universität Jena (Germany)

- ✓ **Multifocal multiphoton microscopy using a novel field of view zoom scanning protocol**, L. Liu, L. Wang, J. Qu, Z. Lin, Z. Fu, H. Niu, Shenzhen Univ. (China) [6628-11]
- ✓ **Glass based fluorescence reference materials**, A. Engel, C. R. Otterman, V. Rupertus, SCHOTT AG (Germany); U. Resch-Genger, K. Hoffmann, Bundesanstalt für Materialforschung und -prüfung (Germany); U. Kynast, Fachhochschule Muenster (Germany) [6628-24]
- ✓ **Reflectance spectrophotometry as intraoperative assessment of perfusion in rectal anastomosis: a feasibility study**, A. Karliczek, Martini Hospital (Netherlands) and Groningen Univ. Medical Ctr. (Netherlands); D. A. Benaron, Spectros Corp. (USA); P. Baas, A. van der Stoep, Martini Hospital (Netherlands); T. Wiggers, Groningen Univ. Medical Ctr. (Netherlands); G. M. van Dam, Groningen Univ. Medical Ctr. (Netherlands) and BioOptical Imaging Ctr. Groningen (Netherlands) [6628-42]
- ✓ **In vivo measurement of the carotenoid level using portable resonance Raman spectroscopy**, Y. Shao, J. Qu, Y. He, Shenzhen Univ. (China) [6628-43]
- ✓ **A diffusion approximation model of light transport in multi-layered skin tissue**, M. I. Makropoulou-Loukogiannaki, E. Kaselouris, E. A. Drakaki, A. A. Seratetides, National Technical Univ. of Athens (Greece) [6628-44]
- ✓ **Intracellular protein mass spectroscopy using mid-infrared laser ionization**, K. Awazu, S. Suzuki, Osaka Univ. (Japan) [6628-49]
- ✓ **Time-resolved diffuse optical spectroscopy of small tissue samples**, P. Taroni, D. Cornelli, A. Farina, A. Pifferi, Politecnico di Milano (Italy); A. Kienle, Univ. Ulm (Germany) [6628-50]
- ✓ **Single photon spectrometer for biomedical application: new developments**, S. S. Tudisco, L. L. Lanzano, F. F. Musumeci, S. S. Privitera, A. A. Scordino, Istituto Nazionale di Fisica Nucleare (Italy) and Univ. di Catania (Italy); G. G. Fallica, M. M. Mazzillo, D. D. Sanfilippo, G. G. Valvo, STMicroelectronics (Italy) [6628-51]

Conf. 6629 (DOI)

Chair: **Rinaldo Cubeddu**, Politecnico di Milano (Italy)

- ✓ **Functional imaging of autoregulation**, R. L. Barbour, SUNY/Downstate Medical Ctr. (USA) and NIRx Medical Technologies, LLC (USA); Y. Pei, NIRx Medical Technologies, LLC (USA); M. Farber, SUNY/Downstate Medical Ctr. (USA); H. L. Graber, SUNY/Downstate Medical Ctr. (USA); D. Sreedharan, SUNY/Downstate Medical Ctr. (USA); C. H. Schmitz, NIRx Medical Technologies, LLC (USA); G. T. Voelbel, G. R. Wylie, J. Lengfelder, J. Deluca, Kessler Medical Rehabilitation Research and Education Corp. (USA) [6629-23]
- ✓ **High frequency oscillations in brain hemodynamic response**, A. Akin, Bogazici Univ. (Turkey); H. Bolay, Gazi Univ. (Turkey) [6629-50]
- ✓ **Analysis of skin recovery from mechanical indentation using diffuse lighting and digital imaging**, N. T. Clancy, M. J. Leahy, Univ. of Limerick (Ireland); G. E. Nilsson, C. Anderson, Linköping Univ. (Sweden) [6629-51]
- ✓ **Filtering effect to improve the reconstructed image quality of diffuse optical imaging**, M. Pan, Tung Nan Institute of Technology (Taiwan); C. Chen, L. Chen, M. Pan, National Central Univ. (Taiwan) [6629-52]
- ✓ **Time-gated, intensified CCD camera for imaging of a non-homogeneous medium at null source-detector separation**, P. L. Sawosz, M. Kacprzak, A. Liebert, R. Maniewski, Institute of Biocybernetics and Biomedical Engineering (Poland) [6629-53]
- ✓ **Development of a computer vision binocular system for non-contact small animal model skin cancer tumour imaging**, D. S. Gorpas, M. Kyriazi, K. Poltopoulos, D. M. Yova, National Technical Univ. of Athens (Greece) [6629-54]
- ✓ **Three dimensional near infrared tomography of the breast**, M. E. Eames, Univ. of Exeter (United Kingdom); B. W. Pogue, Dartmouth College (USA); H. Dehghani, Univ. of Exeter (United Kingdom) [6629-56]
- ✓ **Monitoring muscle metabolic indexes by time-domain near infrared spectroscopy during knee flex-extension induced by functional electrical stimulation**, A. Torricelli, D. Contini, L. Spinelli, R. Cubeddu, Politecnico di Milano (Italy); F. Molteni, Ctr. di riabilitazione Villa Baretta, Ospedale Valduce (Italy); S. Ferrante, A. Pedrocchi, G. Ferrigno, Politecnico di Milano (Italy) [6629-57]

- ✓ **Continuous performance test assessed with time-domain functional near infrared spectroscopy**, A. Torricelli, D. Contini, L. Spinelli, M. Caffini, M. Butti, G. Basselli, A. M. Bianchi, Politecnico di Milano (Italy); A. Bordini, IRCCS E. Medea (Italy); S. Cerutti, R. Cubeddu, Politecnico di Milano (Italy) [6629-58]
- ✓ **Measurement of the phase function of phantoms and biological media with a 2 axis goniometer**, R. Michels, A. Kienle, Univ. Ulm (Germany) [6629-59]
- ✓ **An instrument for small animal 3D-diffuse and fluorescence optical imaging**, P. Poulet, Univ. Louis Pasteur (France) [6629-60]
- ✓ **Spatial resolved diffuse reflection as a tool for determination of size and embedding depth of blood vessels**, A. V. Bykov, M.V. Lomonosov Moscow State Univ. (Russia) and Univ. of Oulu (Finland); A. V. Priezzhev, M.V. Lomonosov Moscow State Univ. (Russia); R. A. Myllyla, Univ. of Oulu (Finland) [6629-61]
- ✓ **Optical tomography of small tissue volumes with the ERT: frequency-domain sensitivity analysis**, X. Gu, Columbia Univ. (USA); U. Netz, J. Beuthan, Charité-Universität Medicine Berlin (Germany); A. H. Hielscher, Columbia Univ. (USA) [6629-62]
- ✓ **Transmission RF diffuse optical tomography instrument for human breast imaging**, K. Lee, S. D. Konecky, A. Corlu, R. Choe, T. Durduran, A. G. Yodanis, Univ. of Pennsylvania (USA) [6629-63]
- ✓ **Correction of dead-time related distortions in time-correlated single photon counting at high count rates**, H. Wabnitz, Physikalisches Technische Bundesanstalt (Germany); M. Möller, Hochschule für Technik und Wirtschaft des Saarlandes (Germany); W. Becker, Becker & Hickl GmbH (Germany); R. Macdonald, Physikalisches Technische Bundesanstalt (Germany) [6629-64]
- ✓ **A new cerebral hemorrhage auto-segment mechanism**, T. Shen, Beijing Institute of Technology (China) [6629-65]
- ✓ **Approach to estimating low contrast inclusion with a priori guidance**, M. Pan, C. Chen, L. Chen, National Central Univ. (Taiwan); M. Pan, Tung Nan Institute of Technology (Taiwan) [6629-66]

Tuesday 19 June

Poster presenters may post their poster papers Tuesday morning and will need to remove their posters immediately following the poster session that evening. Poster authors must be at their papers during the poster session from 15.00-16.00 to discuss the poster with session attendees.

Conf. 6632 (TLA)

Chair: Alfred Vogel, Univ. zu Lubeck (Germany)

- ✓ **Mechanisms in photodynamic therapy: photosensitizers and cellular localization on K562 cells.** R. Ion, Institutul National de Cercetare (Romania) and Valahia Univ. (Romania); M. Neagu, G. Manda, C. Constantin, Victor Babes National Institute (Romania); M. Calin, National Institute of R&D for Optoelectronics (Romania) ... [6632-57]
- ✓ **Photodynamic therapy as a method of choice in the treatment of multifocal oral leukoplakia.** A. Z. Kawczyk-Krupka, W. Latos, A. Kosciarz-Grzesiok, A. Misiak, A. E. Ledwon, S. Kwiatek, A. Sieron, Medical Univ. of Silesia, Katowice (Poland) ... [6632-58]
- ✓ **Real-time evaluation of tissue properties for feed-back dosimetry in interstitial photodynamic therapy.** J. Axelsson, A. Johansson, Lunds Tekniska Hogskola (Sweden); J. Swartling, T. Johansson, Spectracure AB (Sweden); S. Palsson, Lunds Univ. (Sweden); J. Stenstrom, Spectracure AB (Sweden); K. Svanberg, N. Bendsoe, Lund Univ. Hospital (Sweden); S. Svanberg, S. Andersson-Engels, Lunds Tekniska Hogskola (Sweden) ... [6632-59]
- ✓ **Antimicrobial activity of water-soluble cationic porphyrins.** G. V. Gylukhandanyan, Institute of Biotechnology (Armenia); R. K. Ghazaryan, Yerevan State Medical Univ. (Armenia); A. Hovsepian, M. Paronyan, S. S. Ghanbarian, Institute of Biotechnology (Armenia); A. G. Tovmasyan, Yerevan State Medical Univ. (Armenia); A. G. Gasparian, N. Babayan, Yerevan State Univ. (Armenia); G. V. Gylukhandanyan, Institute of Biotechnology (Armenia) ... [6632-61]
- ✓ **Synthesis and anticancer activity of new water-soluble cationic metalloporphyrins.** A. G. Tovmasyan, R. K. Ghazaryan, L. Sahakyan, Yerevan State Medical Univ. (Armenia); G. Gasparian, N. Babayan, Yerevan State Univ. (Armenia); G. V. Gylukhandanyan, Institute of Biotechnology (Armenia) ... [6632-61]
- ✓ **Aqueous gel as effective delivery system of 5-aminolevulinic acid.** V. M. Negrimovsky, N. A. Sakharova, Organic Intermediates and Dyes Institute (Russia); N. I. Kazachkina, A. A. Pankratov, R. I. Yakubovskaya, P. A. Herten Moscow Research Oncological Institute (Russia); E. A. Lukyanets, G. N. Vorozhtsov, Organic Intermediates and Dyes Institute (Russia) [6632-62]

• ✓ Posters

Poster presenters may post their poster papers Monday morning and will need to remove their posters on Wednesday at the end of the conference. Poster authors should be at their papers during the poster session on Tuesday from 16.30-17.30 to discuss the poster with session attendees.

Conf. 6633 (BOLS)

Chair: Jürgen Popp, Friedrich-Schiller-Universität Jena (Germany)

- ✓ **Evaluation of drug release from PLGA nanospheres containing betamethazone.** M. E. Khoshroshahi, J. Tavakoli, M. Enayati, S. Shafiei, Amirkabir Univ. of Technology (Iran) ... [6633-49]
- ✓ **A field test study of our non-invasive thermal image analyzer for deceptive detection.** S. Sumriddechakorn, A. Sombonkaew, National Electronics and Computer Technology Ctr. (Thailand); T. Sodong, I. Promduang, N. Sumriddechakorn, Office of the Council of State (Thailand) ... [6633-50]
- ✓ **Singlet oxygen luminescence reveals oxygen depletion in albumin suspension.** J. Baier, M. Lohli, J. Regensburger, T. Maisch, W. Bäumer, Univ. Regensburg (Germany) ... [6633-51]
- ✓ **Development and performance characteristics of flash lamp pumped Yb:YAG, Cr:Ti:Ho:YAG, Er:Ti:Ho:YLF laser sources and investigation of their potential biological applications.** A. A. Seratetnides, D. N. Papadopoulos, N. K. Karadimitriou, B. J. Klinkenberg, National Technical Univ. of Athens (Greece) ... [6633-52]
- ✓ **A fiber optic sensor for measuring respiratory changes in chest-circumference.** M. Pinchas, A. Avraham, A. Babchenko, I. Faib, S. Mizrahi, M. Nitzan, Jerusalem College of Technology (Israel) ... [6633-53]
- ✓ **Spontaneous ultra-weak photon emission from human hands varies diurnally.** M. Cirra, Czech Technical Univ. in Prague (Czech Republic) and Institute of Photonics and Electronics of Academy of Sciences (Czech Republic); E. P. A. Van Wijk, International Institute of Biophysics (Germany); R. Van Wijk, Univ. Utrecht (Netherlands) ... [6633-54]
- ✓ **Spectral analysis of photoinduced delayed luminescence from human skin in vivo.** F. F. Musumeci, Univ. di Catania (Italy) and LNS-INFN (Italy); L. L. Lanzano, Istituto Nazionale di Fisica Nucleare (Italy) and Univ. di Catania (Italy); S. S. Privitera, LNS-INFN (Italy) and Univ. di Catania (Italy); S. S. Tudisco, Istituto Nazionale di Fisica Nucleare (Italy); A. A. Scordino, Istituto Nazionale di Fisica Nucleare (Italy) ... [6633-55]
- ✓ **Improving spFRET by confining molecules in nanopipettes.** J. Vogelsang, S. Doose, M. Sauer, P. Tinnefeld, Univ. Bielefeld (Germany) [6633-56]
- ✓ **Analyzing the influence of contact-induced quenching processes on Förster resonance energy transfer.** R. Brune, S. Doose, M. Sauer, Univ. Bielefeld (Germany) ... [6633-57]
- ✓ **Sonoluminescence from ultrasound contrast agent microbubbles.** P. A. Campbell, P. A. Prentice, Univ. of Dundee (United Kingdom) ... [6633-58]
- ✓ **Time-resolved diffuse optical spectroscopy of wood.** C. D'Andrea, A. Farina, D. Cornelli, A. Pifferi, P. Taroni, G. Valentini, R. Cubeddu, Politecnico di Milano (Italy) ... [6633-59]
- ✓ **Discrimination of normal and colorectal cancer using Raman spectroscopy and fluorescence.** Y. Wang, Shenyang Ligong Univ. (China) [6633-60]
- ✓ **MUSE: MULTI SENSORS Sphere.** S. S. Tudisco, L. Lanzano, Istituto Nazionale di Fisica Nucleare (Italy) and Univ. di Catania (Italy); F. F. Musumeci, Univ. di Catania (Italy); S. S. Privitera, Istituto Nazionale di Fisica Nucleare (Italy) and Univ. di Catania (Italy); A. A. Scordino, Istituto Nazionale di Fisica Nucleare (Italy) and Univ. di Catania (Italy) ... [6633-61]
- ✓ **Methods of the probe luminescence in the detection of the dynamically structured state of human serum albumin.** A. G. Melnikov, Saratov State Univ. (Russia) ... [6633-62]
- ✓ **Raman spectroscopy as an analytical tool for non-destructive investigation.** P. Roesch, S. Reitzenstein, M. A. Strehle, D. Berg, Friedrich-Schiller-Universität Jena (Germany); M. Baranska, H. Schulz, E. Rudloff, Bundesanstalt für Züchtungsforschung an Kulturpflanzen (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) ... [6633-64]
- ✓ **Raman spectroscopic characterization of secondary metabolites in plants.** K. R. Strehle, P. Roesch, Friedrich-Schiller-Universität Jena (Germany); H. Schulz, Bundesanstalt für Züchtungsforschung an Kulturpflanzen (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) and Institut für Physikalische Hochtechnologie e.V. (Germany) ... [6633-65]
- ✓ **SERS as analytical tool for detection of bacteria.** D. Cialla, P. Roesch, Friedrich-Schiller-Universität Jena (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) and Institute of Photonic Technology (Germany) ... [6633-66]

Tuesday 19 June • ✓ Posters

Poster presenters may post their poster papers Tuesday morning and will need to remove their posters immediately following the poster session that afternoon. Poster authors must be at their papers during the poster session from 15.00-16.00 to discuss the poster with session attendees.

Conf. 6628 (DOS)

- ✓ **Depth retrieval of a fluorescent inclusion inside a tissue-simulating phantom using picosecond time-resolved imaging.** R. Bourayou, T. Betz, Charité-Universität Berlin (Germany); J. Voigt, J. Berger, Physikalisch-Technische Bundesanstalt (Germany); J. M. Steinbrink, Charité-Universität Berlin (Germany); R. Macdonald, B. Ebert, Physikalisch-Technische Bundesanstalt (Germany) [6628-62]
- ✓ **Clinical and pathophysiological aspects of hyperglycemia by ATR-FTIR spectroscopy.** N. S. Eikje, K. Aizawa, T. Sota, Waseda Univ. (Japan) [6628-63]
- ✓ **Excitation emission matrix measurements support use of a broad excitation range for the determination of cardiovascular risk from skin autofluorescence.** M. Koetsier, H. L. Lütgers, T. P. Links, A. J. Smits, R. Graaff, Groningen Univ. Medical Ctr. (Netherlands) [6628-65]
- ✓ **Spectroscopic study of demineralization and restoration processes in dental enamel.** T. N. Sokolova, E. L. Surmenko, Saratov State Technical Univ. (Russia); V. V. Tuchin, Saratov State Univ. (Russia); A. Kishen, National Univ. of Singapore (Singapore); Y. V. Chebotarevsky, Saratov State Technical Univ. (Russia) [6628-66]
- ✓ **Ocular fundus diagnostics and treatment in pseudo-transformed light with digital processing of the image.** T. N. Sokolova, Saratov State Technical Univ. (Russia); I. B. Solovychik, V. Y. Maximov, Saratov Regional Ophthalmologic Hospital (Russia); E. L. Surmenko, Saratov State Technical Univ. (Russia) [6628-67]

Conf. 6629 (DOI)

- ✓ **Intra-operative probe for brain cancer: feasibility study.** M. Vu Thi, Univ. Paris-Sud II (France) [6628-68]
- ✓ **Pancreatic tissue assessment using fluorescence and reflectance spectroscopy.** M. Chandra, Univ. of Michigan (USA); D. Heldt, D. Simeone, B. McKenna, J. Scheiman, Univ. of Michigan Medical School (USA); M. Mycek, Univ. of Michigan (USA) [6628-69]
- ✓ **Reconstruction of stratum corneum profile of porcine ear skin after tape stripping using UV-VIS spectroscopy.** A. P. Popov, Univ. of Oulu (Finland); J. Lademann, Humboldt Univ. zu Berlin (Germany); A. V. Priezzhev, M.V. Lomonosov Moscow State Univ. (Russia); R. A. Myllylä, Univ. of Oulu (Finland) [6628-70]
- ✓ **Fluorescence lifetime imaging through turbid media reconstructed in the Fourier domain using time gated imaging data.** V. Y. Soloviev, Univ. College London (United Kingdom); K. Tahir, J. A. McGinty, D. S. Elson, M. A. A. Neil, A. Sardini, J. V. Hainal, Imperial College London (United Kingdom); S. R. Arridge, Univ. College London (United Kingdom); P. M. W. French, Imperial College London (United Kingdom) [6629-67]
- ✓ **Near infra-red imaging through a scattering medium using the NOISE technique.** A. M. Cuddihy, B. M. Hennelly, R. O'Neill, C. Markham, National Univ. of Ireland/Maynooth (Ireland) [6629-68]

Conf. 6632 (TLA)

- ✓ **Influence of choroidal perfusion on retinal temperature increase during retinal laser treatments.** K. Hermann, Univ. zu Lübeck (Germany); C. Föhr, Univ. Eye Hospital (Germany); J. U. Stalljohann, Medizinisches Laserzentrum Lübeck GmbH (Germany); G. Apiou-Sbirlea, Air Liquide (France); J. Kandulla, Univ. zu Lübeck (Germany); R. Birngruber, R. Brinkmann, Medizinisches Laserzentrum Lübeck GmbH (Germany) [6632-69]
 - ✓ **Cationic colloidal gold assisting delivery of macromolecular fluoresceins into target CHO-K1 cells by focused femtosecond laser.** Z. Li, Z. Zhang, Xi'an Jiaotong Univ. (China); G. Hüttmann, Univ. zu Lübeck (Germany) [6632-72]
- Coffee Break 16.00 to 16.30

Tuesday 19 June • Posters

Poster presenters may post their poster papers Monday morning and will need to remove their posters immediately on Wednesday at the end of the conference. Poster authors must be at their papers during the poster session from 16.30-17.30 to discuss the poster with session attendees.

Conf. 6633 (BOLS)

- ✓ **Characterization of silver nanoparticles deposited by an enzyme**, T. Schüler, R. Möller, Friedrich-Schiller-Universität Jena (Germany); A. Steinbrück, W. Fritzsche, Institut für Physikalische Hochtechnologie e.V. (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) and Institute of Photonic Technology (Germany) [6633-67]
- ✓ **Towards an understanding of the mode of action of fluoroquinolone drugs**, U. Neugebauer, Friedrich-Schiller-Universität Jena (Germany); U. Schmidt, K. Baumann, Technische Universität Braunschweig (Germany); U. Holzgrabe, Universität Würzburg (Germany); M. Schmitt, J. Popp, Friedrich-Schiller-Universität Jena (Germany) [6633-68]
- ✓ **Raman label for DNA detection by means of SERS**, K. K. Hering, R. Möller, J. Popp, Friedrich-Schiller-Universität Jena (Germany) [6633-69]
- ✓ **Physical limits to autofluorescence signals recordings in the rat olfactory bulb in vivo: a Monte Carlo study**, B. L'Heureux, H. Gurdien, L. Pinot, R. Mastropolito, F. Lefebvre, P. Lanéce, F. Pain, Univ. Paris-Sud II (France) [6633-70]
- ✓ **Towards ultra-stable fluorescent dyes for single-molecule spectroscopy**, R. Kasper, Bielefeld Univ. (Germany) [6633-71]
- ✓ **Two photon microscopy for studies of xenobiotics in human skin**, C. Simonsson, M. Smedh, C. Jonsson, M. B. Ericson, A. Karlberg, Göteborg Univ. (Sweden) [6633-72]
- ✓ **Uncovering of melanin fluorescence in human skin tissue**, M. Scholz, G. Stankovic, G. S. Seewald, D. Leupold, LTB Lasertechnik Berlin GmbH (Germany) [6633-73]
- ✓ **Image reconstruction of the location of macro-inhomogeneity in random turbid medium by using artificial neural networks**, B. A. Veksler, Cranfield Univ. (United Kingdom); A. V. Kovaleva, Saratov State Univ. (Russia); I. V. Meglinski, Cranfield Univ. (United Kingdom); I. L. Maksimova, Saratov State Univ. (Russia) [6633-74]
- ✓ **Photoinduced electron transfer (PET)-probes for the study of enzyme activity at the ensemble and single-molecule level**, S. Henkenjohann, S. Doose, P. Tinnefeld, M. Sauer, Bielefeld Univ. (Germany) [6633-75]
- ✓ **Towards a real-time technology for the identification of native bioaerosols**, M. Krause, P. Roesch, Friedrich-Schiller-Universität Jena (Germany); M. Lankers, rapID Particle Systems GmbH (Germany); H. Thiele, Kayser-Threde GmbH (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) and Institute for Physical Hightechnology (Germany) [6633-76]
- ✓ **Drug search: in situ UV Raman microscopic localization of anti malaria active agents in plant material**, T. Frosch, L. Zedler, M. Schmitt, Friedrich-Schiller-Universität Jena (Germany); T. Noll, G. Bringmann, Univ. Würzburg (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) [6633-77]
- ✓ **A parallel approach for sub-wavelength molecular surgery using gene-specific positioned metal nanoparticles as laser light antennas**, A. Csaki, G. Festag, F. Garwe, Institut für Physikalische Hochtechnologie e.V. (Germany); G. Maubach, Institute of Bioengineering and Nanotechnology (Singapore); K. Masek, Friedrich-Schiller-Universität Jena (Germany); I. Riemann, Fraunhofer-Institut für Biomedizinische Technik (Germany); T. Schüler, A. Steinbrück, Institut für Physikalische Hochtechnologie e.V. (Germany); A. Weise, Friedrich-Schiller-Universität Jena (Germany); K. König, Fraunhofer-Institut für Biomedizinische Technik (Germany); W. Fritzsche, Institut für Physikalische Hochtechnologie e.V. (Germany) [6633-78]
- ✓ **Investigation of biotic and abiotic soil components by means of various spectroscopic methods**, A. Waller, P. Roesch, S. Jezewski, M. Reinicke, E. Kothe, Friedrich-Schiller-Universität Jena (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) and Institut für Physikalische Hochtechnologie, Jena (Germany) ... [6633-79]
- ✓ **Characterization of human plasma by means of vibrational spectroscopy**, M. K. Harz, R. Claus, P. Roesch, C. Bockmeyer, K. Kentouche, Friedrich-Schiller-Universität Jena (Germany); H. Deigner, Univ. of East Anglia Norwich (United Kingdom); J. Popp, Friedrich-Schiller-Universität Jena (Germany) [6633-80]
- ✓ **Retinal image quality with the different types of intraocular lenses including new idea of the hybrid IOLs**, D. Siedlecki, M. Zajac, J. Nowak, Politechnika Wroclawska (Poland) ... [6633-81]
- ✓ **Peptide-based optical contrast agents for targeting of intestinal malignancies**, A. Frey, N. Rockendorf, N. Fujimoto, K. Wehry, Research Ctr. Borstel (Germany); M. Bürger, Gesellschaft für Silizium Mikrosysteme mbH (Germany); J. Helfmann, Laser- und Medizin-Technologie GmbH Berlin (Germany) [6633-82]
- ✓ **Objective evaluation of linear feature orientation in a two-dimensional image: applications on skin imaging**, G. N. Stamatas, A. Nkengne, A. Lopes, C. Bertin, A. Rossi, Johnson & Johnson Consumer France S.A.S. (France) [6633-83]
- ✓ **Development of microfluidic structures for high throughput flow cytometric characterization of blood cells**, H. Yildirim, Physikalisch-Technische Bundesanstalt (Germany); J. Theisen, Technische Universität Berlin (Germany); K. Brattke, Physikalisch-Technische Bundesanstalt (Germany); C. Sprenger, M. Schmidt, Technische Universität Berlin (Germany); J. Neukammer, Physikalisch-Technische Bundesanstalt (Germany) [6633-84]
- ✓ **Highly sensitive detection of target molecules using a new fluorescence-based bead assay**, S. Scheffler, D. Strauss, M. Sauer, Univ. Bielefeld (Germany) [6633-85]
- ✓ **Protein chip analysis by probing time-resolved UV-fluorescence**, P. M. Schellenberg, Institut für Physikalische Hochtechnologie e.V. (Germany); R. Dietrich, Schott Jenaer Glas GmbH (Germany); W. Fritzsche, Institut für Physikalische Hochtechnologie e.V. (Germany); K. O. Greulich, P. Grigariavicius, Fritz Lipmann Institute (Germany); U. Horn, Hans-Knoll-Institute (Germany); D. Knoll, Schott Jenaer Glas GmbH (Germany); S. Peters, Institut für Physikalische Hochtechnologie e.V. (Germany) ... [6633-86]
- ✓ **Useful sun strategy based on light-converting materials**, R. N. Khranov, Institute for Theoretical and Experimental Physics (Russia); G. Cheremisin, B. M. Snelnikov, V. A. Vorobiev, IOLink Ky (Finland) [6633-87]
- ✓ **Diffractometry analysis of human and rat erythrocytes deformability under ischemia**, A. E. Lugovtsov, A. V. Priezzhev, S. Y. Nikitin, V. B. Kosheliev, M.V. Lomonosov Moscow State Univ. (Russia) [6633-88]
- ✓ **Ultraweak delayed luminescence of dry seeds**, R. Neurohr, G. A. Stanciu, Univ. Politehnica Bucuresti (Romania) [6633-89]
- ✓ **Preparation and optical characterization of core-shell bi-metal nanoparticles**, A. Steinbrück, A. Csaki, G. Festag, T. Schüler, W. Fritzsche, Institut für Physikalische Hochtechnologie e.V. (Germany) [6633-90]
- ✓ **Luminescent nanoparticles for molecular medicine**, H. Hummel, V. Weiler, Philips Research Labs. (Germany); W. Hohelsel, Bayer Technology Services GmbH (Germany); C. Walter, M. Haase, Univ. Osnabrück (Germany) [6633-91]
- ✓ **Studying sigma54-dependent transcription at the single-molecule level using alternating-laser excitation (ALEX) spectroscopy**, M. Heilemann, K. Lymeropoulos, Univ. of Oxford (United Kingdom); S. Wigneshwararaj, M. M. Buck, Imperial College London (United Kingdom); A. N. Kapanidis, Univ. of Oxford (United Kingdom) [6633-92]
- ✓ **The luminescent manifestation of the DNA: tribetamid interaction**, A. O. Dudko, National Taras Shevchenko Univ. of Kyiv (Ukraine) [6633-93]

Tuesday 19 June • 16.30 to 17.30

Conf. 6627 (OCT)

SESSION 10

Room 5 Tues. 16.30 to 17.30

Polarisation sensitive OCT

Chair: **Johannes F. DeBoer**, Massachusetts General Hospital (USA)

16.30: Polarization sensitive OCT in patients with macula and nerve head disorders (*Invited Paper*), C. K. Hitzinger, E. Götzinger, M. Pircher, B. Baumann, S. Michels, W. Gellerauer, C. Vass, U. Schmidt-Erfurth, Medizinische Univ. Wien (Austria) ...[6627-51]

17.00: Polarization-sensitive Fourier-domain optical coherence tomography for the imaging the anterior segment disorder of the eyes, M. Miura, Tokyo Medical Univ. Kasumigaoka Hospital (Japan) and Univ. of Tsukuba (Japan); M. Yamanari, Univ. of Tsukuba (Japan); Y. Watanabe, H. Mori, Tokyo Medical Univ. (Japan) and Univ. of Tsukuba (Japan); T. Iwasaki, Tokyo Medical Univ. (Japan); A. E. Elsner, Indiana Univ. (USA); K. Kawana, T. Oshika, T. Yatake, Y. Yasuno, Univ. of Tsukuba (Japan)[6627-52]

17.15: Mueller coherency matrix method for contrast image in tissue polarimetry, J. L. Arce-Diego, F. Fanjul-Vélez, D. Pereda-Cubán, Univ. de Cantabria (Spain)[6627-54]

■ End of Conference

Conf. 6632 (TLA)

SESSION 7

Room 11 Tues. 16.30 to 17.30

Ophthalmology: Lens

Chair: **Ralf Brinkmann**, Univ. zu Lübeck (Germany)

16.30: Ophthalmic drug delivery utilizing two-photon absorption: a novel approach to treat posterior capsule opacification, H. Kim, J. K. Trager, M. Zorn, N. Haberkorn, N. Hampf, Philipps-Univ. Marburg (Germany)[6632-30]

16.45: Materials for intraocular lenses enabling photo-controlled tuning of focal length in vivo, J. K. Träger, H. Kim, Philipps-Univ. Marburg (Germany); N. Hampf, Philipps-Univ. Marburg (Germany) and University of Marburg (Germany)[6632-31]

17.00: Fs-Lentotomie: changing the accommodation amplitude of presbyopic human crystalline lenses by fs laser pulses, S. Schumacher, Laser Zentrum Hannover e.V. (Germany); U. Oberheide, Laserforum Köln e.V. (Germany); H. Theuer, M. Fromm, T. Ripken, Laser Zentrum Hannover e.V. (Germany); G. Garten, Laserforum Köln e.V. (Germany); W. A. Ertmer, Univ. Hannover (Germany); H. Lubatschowski, Laser Zentrum Hannover e.V. (Germany)[6632-32]

17.15: Femtosecond laser-induced cavitations in the lens of the human eye, L. Kessel, J. Nyman, M. Harbst, Copenhagen Univ. Hospital Glostrup (Denmark); M. v. d. Poel, Danmarks Tekniske Univ. (Denmark); M. Larsen, Univ. of Copenhagen (Denmark) and Kennedy Institute - National Eye Clinic (Denmark)[6632-33]

Conference 6632 continues page 27.

Wednesday 20 June • 09.00 to 10.00

Conf. 6628 (DOS) SESSION 1

Room B13 Wed. 09.00 to 10.00

Devices and Methods for Clinical Application I

Chair: Ralf Brinkmann, Univ. zu Lübeck (Germany)

- 09.00: **A robust spectral sensor for point-of-care diagnostics**, S. Schonfelder, H. S. Santos, R. Peters, Boehringer Ingelheim microParts GmbH (Germany) [6628-01]
 - 09.15: **Spectroscopic imaging using acousto-optic tunable filters**, M. Boughlifa, M. P. Whelan, European Commission (Italy) [6628-02]
 - 09.30: **Human maxillary sinus monitoring using tunable diode laser spectroscopy**, L. Persson, M. Andersson, T. Svanberg, Lund Univ. (Sweden) [6628-03]
 - 09.45: **Spatially-resolved in-vivo measurement system for estimating the optical properties of tissue in the wavelength range 1000-1700nm**, P. Hjalmarsson, S. N. Thennadi, Newcastle Univ. (United Kingdom) [6628-04]
- Coffee Break 10.00 to 10.30
Conference 6628 continues page 28.

Conf. 6629 (DOI) SESSION 1

Room 5 Wed. 09.00 to 10.00

New Technologies

Chair: Andreas H. Hielscher, Columbia Univ. (USA)

- 09.00: **Wavelet-based model reduction applied to fluorescence diffuse optical tomography**, A. Frassati, A. DaSilva, J. Dinten, Lab. d'Electronique de Technologie de l'Information (France); D. Georges, Institut National Polytechnique de Grenoble (France) [6629-01]
 - 09.15: **Digital signal processor based dynamic optical tomography imaging system**, A. H. Hielscher, J. M. Lasker, J. M. Masciotti, Columbia Univ. (USA); C. Schmitz, SUNY/Downstate Medical Ctr. (USA); Y. Li, A. Bur, C. J. Fong, Columbia Univ. (USA) [6629-02]
 - 09.30: **Speckle pattern characterization by circular statistics**, M. C. Peron, E. Delchelle, Univ. Paris 12 Val-de-Marne (France); S. Guyot, Ecole Polytechnique (France) [6629-03]
 - 09.45: **Phantom study on contrast mechanisms in time-domain fluorescence imaging**, O. Sterkelner, D. Grosnick, A. J. Hagen, Physikalisch-Technische Bundesanstalt (Germany); R. Ziegler, T. Nielsen, Philips Research Labs. (Germany); R. Macdonald, H. H. Rinneberg, Physikalisch-Technische Bundesanstalt (Germany) [6629-04]
- Coffee Break 10.00 to 10.30
Conference 6629 continues page 28.

Conf. 6632 (TLA) SESSION 8

Joint Session with WLT-German Scientific Laser Society

Room 11 Wed. 09.00 to 10.00

Laser Catapulting

Chairs: Alfred Vogel, Univ. zu Lübeck (Germany); Karsten König, Fraunhofer-Institut für Biomedizinische Technik (Germany)

- 09.00: **Laser micromanipulation of cells and tissue (Invited Paper, Presentation Only)**, K. Schütze, P.A.L.M. Microlaser Technologies GmbH (Germany) [WLT-83]
 - 09.30: **Principles of laser catapulting of live cells**, A. Vogel, N. Linz, V. Horneffer, Univ. zu Lübeck (Germany) [6632-34]
 - 09.45: **Laser microbeams as versatile tools for stem cell purification and clonal expansion**, A. Buchstaller, Ludwig-Maximilians-Univ. München (Germany); Y. Niyaz, P.A.L.M. Microlaser Technologies GmbH (Germany); S. Soria-Lopez, Ludwig-Maximilians-Univ. München (Germany); K. Schütze, P.A.L.M. Microlaser Technologies GmbH (Germany) [6632-35]
- Coffee Break 10.00 to 10.30
Conference 6632 continues page 28.

Conf. 6633 (BOLS) SESSION 7

Room BO.R2 Wed. 09.00 to 11.00

Engaging Life Processes: New Photonics Micromanipulation Tools II

Chair: Hans-Peter Berlien, Elisabeth Klinik (Germany)

- 09.00: **Optical deformability as a new cell marker (Invited Paper)**, J. A. Käs, Univ. Leipzig (Germany) [6633-28]
 - 09.30: **Live cell opto-perforation by femtosecond laser pulses**, J. Baumgart, Laser Zentrum Hannover e.V. (Germany); W. Binig, A. Ngezhayeva, W. A. Ermer, Univ. Hannover (Germany); H. Lubatschowski, A. Heisterkamp, Laser Zentrum Hannover e.V. (Germany) [6633-29]
 - 09.45: **Automatic segmentation of cell nuclei in bladder tissue for karyometric analysis**, V. R. Korde, College of Optical Sciences/The Univ. of Arizona (USA); H. G. Bartels, J. Ranger-Moore, J. K. Barton, The Univ. of Arizona (USA) [6633-30]
- Coffee Break 10.00 to 10.30
Conference 6633 continues page 28.

Conf. 6628 (DOS)

SESSION 2

Room B13 Wed. 10.30 to 12.15

FLIM and 2-Photon Excitation

Chair: Dietrich Schweitzer, Friedrich-Schiller-
Univ. Jena (Germany)

10.30: Monitoring cellular metabolic pathways by
wavelength- and time-resolved intracellular
autofluorescence (*Invited Paper*), Y. Wu, W. Zheng, J.
Y. Qu, Hong Kong Univ. of Science and Technology
(Hong Kong China) [6628-05]
11.00: Spectral and time-resolved studies on ocular
structures, D. Schweitzer, Friedrich-Schiller-Univ. Jena
(Germany); S. Jentsch, Fachhochschule Jena
(Germany); S. Schenke, C. U. Biskup, Friedrich-
Schiller-Univ. Jena (Germany); E. R. Gaillard, Northern
Illinois Univ. (USA); M. Hammer, Friedrich-Schiller-
Univ. Jena (Germany) [6628-06]
11.15: Multi-spectral FLIM of tissue
autofluorescence, W. Becker, V. Katsoulidou, A.
Bergmann, Becker & Hickl GmbH (Germany) [6628-07]

11.30: Multiphoton imaging and fluorescence
lifetime studies on unstained cells and tissue at
cryogenic conditions, M. Stark, D. Dörr, A. Ehlers, D.
Sauer, Fraunhofer-Institut für Biomedizinische Technik
(Germany); R. Bückle, S. Martin, F. Ehrhart, J. Baunach,
A. Katsen-Globa, H. Zimmermann, JenLab GmbH
(Germany); K. König, Fraunhofer-Institut für
Biomedizinische Technik (Germany) [6628-08]
11.45: Intrinsic optical signals of brains in rats
during loss of tissue viability: effect of brain
temperature, S. Kawachi, S. Sato, H. Oogawa, H.
Nawashiro, M. Kikuchi, National Defense Medical
College (Japan) [6628-09]

12.00: Sensing metabolic activity in tissue
engineered constructs, M. Chandra, R. H. Wilson, W.
Lo, K. Vishwanath, K. Izumi, S. Feinberg, M. Mycek,
Univ. of Michigan (USA) [6628-10]
Lunch/Exhibition Break 12.15 to 13.15

Conference 6628 continues page 29.

Conf. 6629 (DOI)

SESSION 2

Room 5 Wed. 10.30 to 12.30

Image Reconstruction

Chair: Hamid Dehghani, Univ. of Exeter (United
Kingdom)

10.30: Evaluation of the image reconstruction
algorithm for near infrared tomography by virtual
head phantom (*Invited Paper*), H. Kawaguchi, E.
Okada, Keio Univ. (Japan) [6629-05]
11.00: Near-surface sensitivity suppression way for
diffuse reflective optical tomography: simulation
and a phantom study, K. Fukuda, Tokyo Metropolitan
College of Industrial Technology (Japan); M. Fujii,
Sophia Univ. (Japan) [6629-06]
11.15: Novel method for depth-resolved brain
functional imaging by time-domain NIRS, D. Contini,
L. Spinelli, A. Torricelli, A. Pifferi, R. Cubeddu,
Politecnico di Milano (Italy) [6629-07]
11.30: Spatial a priori information in fluorescence
molecular tomography by use of spectrally resolved
fluorescence emission, J. Axelsson, J. Svensson, S.
Andersson-Engels, Lunds tekniska Högskola (Sweden)
[6629-08]

11.45: Wavelength optimization in multispectral
diffuse optical tomography considering
uncertainties in absorption spectra, B. Brendel, T.
Nielsen, Philips Research Labs. (Germany) [6629-09]
12.00: Optimized determination of absorption
changes from moments of time-of-flight
distributions for a two-layer tissue model, A. Liebert,
Institute of Biocybernetics and Biomedical Engineering
(Poland); H. Wabnitz, C. Elster, Physikalisch-Technische
Bundesanstalt (Germany) [6629-10]

12.15: Depth selective diffuse optical computed
topography: simulations and phantom experiments,
M. Fujii, A. Kawanaka, K. Nakayama, Sophia Univ.
(Japan) [6629-11]
Lunch/Exhibition Break 12.30 to 13.30

Conference 6629 continues page 29

Conf. 6632 (TLA)

SESSION 9

Joint Session with WLT—German
Scientific Laser Society

Room 11 Wed. 10.30 to 12.35

Focused Laser Effects I

Chairs: Karsten König, Fraunhofer-Institut für
Biomedizinische Technik (Germany); Alfred
Vogel, Univ. zu Lübeck (Germany)

10.30: Simulation of ultrashort pulse induced optical
breakdown plasmas generated at high numerical
aperture focusing, C. L. Arnold, Laser Zentrum
Hannover e.V. (Germany); W. A. Ermer, Univ. Hannover
(Germany); H. Lubatschowski, Laser Zentrum Hannover
e.V. (Germany) [6632-36]
10.45: Femtosecond laser-induced nanocavitation,
N. Linz, S. Freidank, Univ. zu Lübeck (Germany); G.
Palttauf, Karl-Franzens-Univ. Graz (Austria); A. Vogel,
Univ. zu Lübeck (Germany) [6632-37]
11.00: Luminescent high-energy density
femtosecond plasmas in bulk aqueous materials, A.
Vogel, N. Linz, S. Freidank, Univ. zu Lübeck (Germany);
G. Palttauf, Karl-Franzens-Univ. Graz (Austria) [6632-38]
11.15: Laser micromachining in living cells (*Invited
Paper, Presentation Only*), F. S. Pavone, Univ. degli
Studi di Firenze (Italy) [WLT-84]
11.45: Laser nanosurgery for stem cell research
(*Presentation Only*), A. Heisterkamp, Laser Zentrum
Hannover e.V. (Germany) [WLT-82]
12.10: Femtosecond laser nanoprocessing for
manipulation of stem cells (*Presentation Only*), K.
König, IBMT St. Ingbert (Germany) [WLT-77]

12.10: Influence of laser parameters on
femtosecond near-infrared opto-injection of living
cells (*Presentation Only*), C. Peng, R. E. Palazzo, I.
Wilke, Rensselaer Polytechnic Institute
(USA) [WLT-199]
12.20: Effects of pulse duration and pulse energy on
laser microbeam-induced cell lysis and membrane
permeabilization, A. N. Hellman, Univ. of California/
Irvine (USA); K. R. Rau, Tata Institute of Fundamental
Research (India); P. A. Quinto-Su, V. Venugopalan, Univ.
of California/Irvine (USA) [6632-39]
Lunch/Exhibition Break 12.30 to 13.30

Conference 6632 continues page 29.

Conf. 6633 (BOLS)

SESSION 7 Continued

10.30: Axial optical trapping and position detection
through a dielectric interface for an arbitrary beam,
A. A. Neves, L. C. Barbosa, Univ. Estadual
de Campinas (Brazil); A. Campos, R. Cingolani, Univ.
degli Studi di Lecce (Italy); D. Pignano, Istituto per la
Microelettronica e Microsistemi (Italy); C. L. Cesar, Univ.
Estadual de Campinas (Brazil) [6633-31]
10.45: Vascular end-to-side soldering using a dye-
enhanced albumin solder, S. Bogni, A. Alfieri, M.
Reinert, M. A. Constantinescu, E. Knall, A. Bregy, M.
Frenz, Univ. Bern (Switzerland) [6633-32]

SESSION 8

Room BO.R2 Wed. 11.00 to 12.30

From Lab to Bedside: Biomedical Optics
in Clinical Routine I

Chair: Gert von Bally, Univ. Münster (Germany)

11.00: Photodynamic therapy: state-of-the-art and
further perspectives (*Invited Paper*), H. Berlien,
Elisabeth Klinik (Germany) [6633-33]
11.30: Skin cancer imaging and evaluation by
multidimensional non-linear microscopy, R. Cicchi, S.
Sestini, V. De Giorgi, D. Stambouli, P. Carli, D. Massi, E.
S. Pavone, Univ. degli Studi di Firenze (Italy) [6633-34]
11.45: In vivo micro-lesion of single dendrite with
femtosecond laser pulses, L. Sacconi, Univ. degli Studi
di Firenze (Italy); R. Panteri, Univ. Campus Bio-Medico
(Italy); A. Masi, Univ. degli Studi di Firenze (Italy); G.
Diana, Istituto Superiore di Santa (Italy); M. Buffelli, Univ.
degli Studi di Verona (Italy); F. Keller, Univ. Campus Bio-
Medico (Italy); F. S. Pavone, Univ. degli Studi di Firenze
(Italy) [6633-35]

12.00: Online-visualization in cartilage tissue
engineering by two-photon microscopy, K. Liefarth, R.
Schäde, S. Grohmann, Institut für Bioprozess- und
Analysemesstechnik e.V. (Germany); J. Martini, K.
Tönsing, D. Anselmetti, Bielefeld Univ.
(Germany) [6633-36]
12.15: Raman spectroscopic investigations of cellular
components in liquor cerebrospinalis, M. K. Harz, M.
Kieritopir, P. Roesch, E. Straube, T. Deufel, J. Popp,
Friedrich-Schiller-Univ. Jena (Germany) [6633-37]
Lunch/Exhibition Break 12.30 to 13.30

Conference 6633 continues page 29

Conf. 6628 (DOS)
SESSION 3

Room B13 Wed. 13.30 to 16.00

Tissue Characterization by Optical Methods

Chair: Maryann Fitzmaurice, Case Western Reserve Univ. (USA)

- 13.30: Detection of early bronchial cancer by autofluorescence bronchoscopy: from spectroscopic studies to videodendoscopy (*Invited Paper*), B. Lovisa, T. Gabrecht, Ecole Polytechnique Fédérale de Lausanne (Switzerland); B. Weber, Richard Wolf GmbH (Germany); H. van den Bergh, G. A. Wagnières, Ecole Polytechnique Fédérale de Lausanne (Switzerland) [6628-12]
- 14.00: Multiple fluorescence-analysis (MFA) for qualitative tissue diagnosis in the oral cavity, R. Pauli, C. Betz, M. Havel, R. Sroka, H. G. Stepp, A. Leung, Ludwig-Maximilians-Universität München (Germany) [6628-13]
- 14.15: Reflectance spectrophotometry as intraoperative assessment of microperfusion in esophageal anastomosis: a feasibility study, A. Karliczek, Groningen Univ. Medical Ctr. (Netherlands) and Martini Hospital (Netherlands); D. A. Benaron, Spectros Corp. (USA); P. Baas, A. van der Stoep, Martini Hospital (Netherlands); T. Wiggers, G. M. van Dam, Groningen Univ. Medical Ctr. (Netherlands) [6628-14]

- 14.30: FTIR biochemical imaging of the prostate: an in vitro proof of concept study, M. Isabelle, Gloucestershire Hospitals NHS Foundation Trust (United Kingdom); J. J. Aning, Gloucestershire Royal Hospital (United Kingdom); H. W. Gilbert, Gloucestershire Royal Hospital NHS Foundation Trust (United Kingdom); N. Stone, Gloucestershire Royal Hospital (United Kingdom) [6628-15]
- 14.45: Cardiac tissue characterization via optical spectroscopy techniques, B. Lin, D. L. Matthews, Univ. of California/Davis (USA); S. G. Demos, Lawrence Livermore National Lab. (USA) [6628-16]
- 15.00: Variation of skin autofluorescence with age and gender in humans, R. Graaf, H. L. Luitjers, A. M. Van Roon, M. Koetsier, T. P. Links, Groningen Univ. Medical Ctr. (Netherlands); H. J. G. Bilo, Isala Clinics, Zwolle (Netherlands); A. J. Smit, Groningen Univ. Medical Ctr. (Netherlands) [6628-17]

- 15.15: Analysis of breast tissue calcifications using FTIR spectroscopy, R. N. Baker, N. Shepherd, Gloucestershire Royal Hospital (United Kingdom); K. D. Rogers, Cranfield Univ. (United Kingdom); N. Stone, Gloucestershire Royal Hospital (United Kingdom) [6628-18]
- 15.30: Optical spectroscopy for therapeutic guidance in breast conserving therapy, M. D. Keller, S. K. Majumder, Vanderbilt Univ. (USA); M. C. Kelley, Vanderbilt Univ. Medical Ctr. (USA); A. Mahadevan-Jansen, Vanderbilt Univ. (USA) [6628-19]
- 15.45: Detecting skin malignancy using elastic light scattering spectroscopy, M. Canpolat, A. Akman, A. Ciftcioglu, E. Alpsoy, Akdeniz Univ. (Turkey) [6628-20]

Coffee Break 16.00 to 16.30

Conference 6628 continues page 31

Conf. 6629 (DOI)
SESSION 3

Room 5 Wed. 13.30 to 16.15

Tissue Optical Properties

Chair: Jean-Michel Tualle, Ctr. National de la Recherche Scientifique (France)

- 13.30: Assessment of collagen absorption and related potential diagnostic applications (*Invited Paper*), P. Taroni, A. Giusto, A. Pifferi, Politecnico di Milano (Italy); N. S. Shah, Univ. of California/Irvine (USA); L. Spinelli, A. Torricelli, R. Cubeddu, Politecnico di Milano (Italy) [6629-12]
- 14.00: Influence of cell shape on the optical properties of human erythrocytes, M. C. Meinke, Charité-Universität Berlin (Germany); M. Friebe, Laser- und Medizin-Technologie GmbH, Berlin (Germany); G. J. Müller, Charité-Universität Berlin (Germany) [6629-13]
- 14.15: Detection and characterization of an optical inhomogeneity by diffuse photon-pairs density wave in a multiple-scattering medium, L. Yu, National Yang-Ming Univ. (Taiwan); J. Wu, L. Su, National Central Univ. (Taiwan); C. Chen, Y. Chan, National Yang-Ming Univ. (Taiwan); C. Chou, National Yang-Ming Univ. (Taiwan) and National Central Univ. (Taiwan) [6629-14]

- 14.30: Depth-resolution by continuous-wave imaging, E. B. Aksel, A. Akin, Bogaziçi Univ. (Turkey) [6629-15]
- 14.45: CW and time domain procedures for accurate calibration of optical properties of liquid diffusive media at NIR wavelengths, F. Martelli, Univ. degli Studi di Firenze (Italy); L. Spinelli, A. Farina, A. Pifferi, A. Torricelli, R. Cubeddu, Politecnico di Milano (Italy); G. Zaccanti, Univ. degli Studi di Firenze (Italy) [6629-16]
- 15.00: Determination of the optical properties of turbid media by measurement of the spatially and spectrally resolved reflectance, M. Pliz, A. Kienle, Univ. Ulm (Germany) [6629-17]

- 15.15: Light attenuation through turbid slabs calculated by solutions of the Maxwell equations, J. Schäfer, A. Kienle, F. K. Forster, Institut für Lasertechnologien in der Medizin und Messtechnik (Germany); A. Srey, Univ. Ulm (Germany) [6629-18]
- 15.30: Path-length correction for the haemoglobin-concentration measurement using the skull cranial window by multi-spectral imaging analysis, K. Sakaguchi, S. Furukawa, Keio Univ. (Japan); T. Katsura, K. Yamazaki, H. Kawaguchi, A. Maki, Hitachi, Ltd. (Japan); E. Okada, Keio Univ. (Japan) [6629-19]
- 15.45: Time-resolved measurement of the scattered light with an interferometric method based on the use of a camera, D. Ertori, K. Zarychta, E. Tinet, S. Arviller, J. Tualle, Ctr. National de la Recherche Scientifique (France) [6629-20]

- 16.00: Determination of the optical properties of anisotropic biological media using isotropic and anisotropic diffusion models, A. Kienle, Univ. Ulm (Germany); C. Wetzel, Institut für Lasertechnologien in der Medizin und Messtechnik (Germany); A. L. Bassi, D. Cornelli, P. Taroni, A. Pifferi, Politecnico di Milano (Italy) [6629-21]
- Coffee Break 16.15 to 17.00
- Conference 6629 continues page 30.

Conf. 6632 (TLA)
SESSION 10

Room 11 Wed. 13.30 to 16.00

Joint Session with WLT - German Scientific Laser Society

Nanoparticle and Chromophore Assisted Cell Surgery

Chair: Gereon Hüttmann, Univ. zu Lübeck (Germany)

- 13.30: Mechanisms of selective nanophotothermolysis with gold nanoparticles, V. K. Pustovalov, Belarusian Institute of System Analysis (Belarus); A. S. Smetannikov, A.V. Lukov Heat and Mass Transfer Institute (Belarus); V. P. Zharov, Univ. of Arkansas for Medical Sciences (USA) [6632-40]
- 13.45: Selective protein knockout by laser-induced heating of gold nanoparticles, M. Bever, Univ. zu Lübeck (Germany); R. Rahmazzadeh, Research Ctr. Borstel (Germany); G. Hüttmann, Univ. zu Lübeck (Germany) [6632-41]
- 14.00: Cell and protein inactivation with optical absorbers (*Invited Paper*), R. Rahmazzadeh, J. Gerdies, T. Scholzen, Research Ctr. Borstel (Germany); G. Hüttmann, Univ. zu Lübeck (Germany) [6632-42]

- 14.30: Laser-activated nanoparticle-directed cell elimination (*Invited Paper*), F. Levold, A. Linmer, Univ. Bonn (Germany); G. Hüttmann, Univ. zu Lübeck (Germany); E. Endl, Univ. Bonn (Germany) [6632-43]
- 15.00: Progress in gene transfection by the use of laser-induced stress wave, S. Sato, National Defense Medical College (Japan); M. Terakawa, M. Obara, Keio Univ. (Japan) [6632-44]
- 15.15: Towards a selective photochemical inactivation of the progesterone receptor, W. S. L. Straus, Univ. Ulm (Germany); K. Raunegger, C. Hoedl, E. Haslinger, Karl-Franzens-Universität Graz (Austria); R. W. Steiner, Univ. Ulm (Germany); H. W. Schramm, Karl-Franzens-Universität Graz (Austria) [6632-45]

- 15.30: Efficacy of a single high dose versus multiple low doses of IIT on wounded skin fibroblasts, D. H. Hawkins, H. Abrahamson, Univ. of Johannesburg (South Africa) [6632-46]
- 15.45: Lab-on-a-chip: The future of single cell analysis? (*Presentation Only*), E. Eriksson, M. Goksör, Göteborg Univ. (Sweden) [MLT-85]
- Coffee Break 16.00 to 16.30
- Conference 6632 continues page 30.

Conf. 6633 (BOLS)
SESSION 9

Room BO.R2 Wed. 13.30 to 15.00

From Lab to Bedside: Biomedical Optics in Clinical Routine II

Chair: Gert von Bally, Univ. Münster (Germany)

- 13.30: Miniaturized pulse oximeter sensor for continuous vital parameter monitoring, J. Fiala, S. Reichelt, Albert-Ludwigs-Universität Freiburg (Germany); P. Bringer, Albert-Ludwigs-Universität Freiburg (Germany); A. Werber, H. Zappe, Albert-Ludwigs-Universität Freiburg (Germany); K. Förster, R. Klemm, C. Hellmann, F. Beyersdorf, Univ. Hospital Freiburg (Germany) [6633-38]
- 13.45: Examination of in vivo tear film stability after eye blink and the eye drying, D. H. Szczesna, H. T. Kasprzak, Z. M. Kulas, Politechnika Wroclawska (Poland); U. Stenevi, Sahlgren's Univ. Hospital (Sweden) [6633-39]
- 14.00: Characterization of reperfusion dynamics following long-term renal ischemia in a rat model using tissue autofluorescence, R. N. Raman, Univ. of California/Davis Medical Ctr. (USA); D. L. Matthews, Univ. of California/Davis (USA) and Lawrence Livermore National Lab. (USA); C. Troppmann, Univ. of California/Davis Medical Ctr. (USA); S. G. Demos, Lawrence Livermore National Lab. (USA) and Univ. of California/Davis (USA) [6633-40]

- 14.15: In vivo study of contrasting properties of gold nanoparticles for optical coherence tomography, E. V. Zagaynova, Nizhny Novgorod State Medical Academy (Russia); M. V. Shirmanova, Nizhny Novgorod State Univ. (Russia); A. G. Orlova, V. A. Kamensky, Institute of Applied Physics (Russia); M. Y. Kirillin, Oulun Yliopisto (Finland); I. V. Balalaeva, Nizhny Novgorod State Univ. (Russia) [6633-41]
- 14.30: Optical sensor based system to monitor carries activity in children, A. Shrestha, R. Tahir, A. Kishen, National Univ. of Singapore (Singapore) [6633-42]
- 14.45: Advanced non invasive light activated therapy for root canal disinfection, A. Kishen, S. George, National Univ. of Singapore (Singapore) [6633-43]

Conference 6633 continues page 30

Conf. 6629 (DOI)

SESSION 4

Room 5 Wed. 16.30 to 18.00

Chair: Henricus J. C. M. Stenborg
Univ. Medical Ctr. (Netherlands)

16.30: **Imaging of metabolic and vascular reactivity in joints with dynamic optical tomography** (*Invited Paper*), A. H. Hiescher, J. M. Lasker, C. J. Fong, E. Dwyer, Columbia Univ. (USA) [6629-22]

17.00: **Non-invasive, depth-selective recovery of fluorescence signals from the adult human head by time-domain measurements**, J. M. Steinbrink, Charité-Universität Berlin (Germany); H. Wabnitz, A. Jellow, Physikalisch-Technische Bundesanstalt (Germany); H. Obrig, Charité-Universität Berlin (Germany); R. Macdonald, Physikalisch-Technische Bundesanstalt (Germany) [6629-24]

17.15: **Algorithms for muscle oxygenation monitoring corrected for adipose tissue thickness**, D. Geraskin, Univ. of Applied Sciences Koblenz (Germany); P. Platen, J. Franke, Ruhr Univ. Bochum (Germany); M. Kohl-Bareis, Univ. of Applied Sciences Koblenz (Germany) [6629-25]

17.30: **Assessment of muscle vascular disease with diffuse light**, G. Yu, T. Durduran, C. Zhou, G. Lech, R. Choe, E. R. Mohler, A. G. Yodanis, Univ. of Pennsylvania (USA) [6629-26]

17.45: **IDOT imaging of vascular autoregulation in healthy and TBI subjects**, H. L. Graber, SUNY/Downstate Medical Ctr. (USA) and NIRx Medical Technologies, LLC (USA); M. Farber, D. Sreedharan, SUNY/Downstate Medical Ctr. (USA); Y. Pei, NIRx Medical Technologies, LLC (USA) and NIRx Medical Technologies, LLC (USA); C. H. Schmitz, NIRx Medical Technologies, LLC (USA); G. T. Voelbel, G. R. Wylie, J. Lengenfelder, J. Deluca, Kessler Medical Rehabilitation Research and Education Corp. (USA); R. L. Barbour, SUNY/Downstate Medical Ctr. (USA) and NIRx Medical Technologies, LLC (USA) [6629-27]

Conference 6629 continues page 31.

Conf. 6632 (TLA)

SESSION 11

Joint Session with WLT – German

Scientific Laser Society

Room 11 Wed. 16.30 to 18.30

Focussed Laser Effects II

Chairs: Karsten König, Fraunhofer-Institut für Biomedizinische Technik (Germany); **Alfred Vogel**, Univ. zu Lübeck (Germany)

16.30: **Laser-mediated perforation of plant cells**, M. M. Weimer, Fraunhofer-Institut für Lasertechnik (Germany); H. Schinkel, Fraunhofer Institut für Lasertechnik (Germany); P. Jacobs, Fraunhofer-Institut für Lasertechnik (Germany); S. Schillberg, Fraunhofer Institut für Lasertechnik (Germany); S. Schillberg, Fraunhofer Institut für Lasertechnik (Germany) [6632-47]

16.45: **Optical knocking out of single cells in tumor spheroids** (*Presentation Only*), A. A. Luchuganova, Fraunhofer-Institut für Biomedizinische Technik (Germany) [WLT-78]

17.00: **Dosimetry in cellular optoporation by real-time monitoring of bubble formation**, N. Linz, V. Hornfeiter, S. Feldank, A. Vogel, Univ. zu Lübeck (Germany) [6632-48]

17.15: **Cost-effective generation of nano- and microeffects in cells and tissues by ns laser pulses**, A. Vogel, N. Linz, S. Feldank, Univ. zu Lübeck (Germany); G. Paltari, Karl-Franzens-Universität Graz (Austria) [6632-49]

05.30: **3D-Laser assisted processing of biocompatible polymers for biomedical applications on the cellular level** (*Presentation Only*), M. Stark, IBMT St. Ingbert (Germany) [WLT-79]

17.45: **Laser assisted processing of cross-linked alginate hydrogel** (*Presentation Only*), F. Ehrhart, IBMT St. Ingbert (Germany) [WLT-80]

18.00: **New developments in femtosecond laser corneal refractive surgery** (*Presentation Only*), R. Leharz, JentLab (Germany) [WLT-81]

18.15: **Femtosecond laser scanning microscopy and surgery of epithelial membranes** (*Presentation Only*), M. Krause, Universitätsklinikum Homburg (Germany) [WLT-86]

■ End of Conference

Conf. 6633 (BOLS)

SESSION 10

Room BO.R2 Wed. 15.00 to 17.30

Biophotonics in Environmental and Security Research

Chair: Jürgen Popp, Friedrich-Schiller-Universität Jena (Germany)

15.00: **Optical sensors in water monitoring** (*Invited Paper*), G. Gauglitz, Univ. Tübingen (Germany) [6633-44]

15.30: **Fast and reliable identification of microorganisms by means of Raman spectroscopy**, P. Roesch, M. K. Harz, M. Krause, U. Neugebauer, Friedrich-Schiller-Universität Jena (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) and Institut für Physikalische Hochtechnologie e. V. (Germany) [6633-45]

15.45: **A reproducible surface-enhanced Raman spectroscopy approach: online SERS measurements in a segmented microfluidic system**, K. R. Strehle, D. Cialla, Friedrich-Schiller-Universität Jena (Germany); T. Henkel, G. Mayer, Institut für Physikalische Hochtechnologie e. V. (Germany); J. Popp, Friedrich-Schiller-Universität Jena (Germany) and Institut für Physikalische Hochtechnologie e. V. (Germany) [6633-46]

Coffee Break 16.00 to 16.30

16.30: **A passive terahertz camera** (*Invited Paper*), H. Meyer, T. May, V. Zakosarenko, S. Anders, Institut für Physikalische Hochtechnologie e. V. (Germany); G. Thorwirth, Jena-Optik GmbH (Germany); E. Kreyss, N. Jethava, Max-Planck-Institut für Radioastronomie (Germany) [6633-47]

17.00: **Biosensing with T-ray spectroscopy**, B. M. Fischer, D. Abbott, The Univ. of Adelaide (Australia) [6633-48]

Closing Remarks 17.15 to 17.30

■ End of Conference

Conf. 6628 (DOS)

SESSION 4

Room 11 Thurs. 09.15 to 10.00

Devices and Methods for Clinical

Chairs: Junle Qu, Shenzhen Univ. (China); Ralf Brinkmann, Univ. zu Lübeck (Germany)

- 09.15: **New method to detect caries via fluorescence.** J. Eberhart, Durr Dental GmbH & Co. KG (Germany); M. Fritzen, Univ. Bonn (Germany); M. Thoms, Durr Dental GmbH & Co. KG (Germany) and Univ. of Erlangen (Germany) [6628-21]
- 09.30: **Polarization optical spectroscopy: the technique for puncture diagnosis.** V. A. Kamensky, N. M. Shakhova, P. D. Agiba, A. Mjakov, Institute of Applied Physics (Russia) [6628-22]
- 09.45: **Combined fiber optical-thermal sensor for noninvasive monitoring of blood and human tissue through diffuse scattering and metabolic parameters.** V. A. Saetchnikov, E. A. Tcherniavskaya, Belarusian State Univ. (Belarus); G. Schweiger, Ruhr Univ. Bochum (Germany) [6628-23]

Coffee Break 10.00 to 10.30

Conference 6628 continues this page.

Conf. 6629 (DOI)

SESSION 5

Room 5 Thurs. 08.30 to 10.00

Brain Imaging

Chairs: Eiji Okada, Keio Univ. (Japan); Rainer Macdonald, Physikalisch-Technische Bundesanstalt (Germany)

- 08.30: **Modeling of influence of frontal sinus on NIRS signal of brain activation.** D. Yamamoto, Keio Univ. (Japan) [6629-28]
- 08.45: **Optical tomographic imaging of activation of the infant auditory cortex using perturbation Monte Carlo with anatomical a priori information.** J. K. Heiskala, Helsinki Univ. of Technology (Finland) and Consultant (Finland) and Univ. of Helsinki (Finland); M. Kotilahti, L. T. Liptanen, P. J. Hiltunen, Helsinki Univ. of Technology (Finland) and Univ. of Helsinki (Finland); P. E. Grant, Massachusetts General Hospital (USA) and Consultant (USA); I. T. Nissila, Massachusetts General Hospital (USA) [6629-29]
- 09.00: **Cerebral oxygenation monitoring during cardiac bypass surgery in infants with broad band spatially resolved spectroscopy.** J. Soschinski, Univ. of Applied Sciences Koblenz (Germany); U. Fischer, Univ. zu Köln (Germany); D. Geraskin, Univ. of Applied Sciences Koblenz (Germany); M. Kohl-Bareis, Bemmik, Univ. zu Köln (Germany); M. Kohl-Bareis, Univ. of Applied Sciences Koblenz (Germany) [6629-30]
- 09.15: **Comparison of various methods to enhance depth selectivity in time-domain brain imaging.** H. Wabnitz, Physikalisch-Technische Bundesanstalt (Germany); A. Liebert, Institute of Biocybernetics and Biomedical Engineering (Poland); D. Contini, L. Spinelli, A. Torricelli, Politecnico di Milano (Italy) [6629-31]
- 09.30: **Time-resolved non-contact diffuse optical tomography measurements with ultra-fast time-correlated single photon counting avalanche photodiodes.** Y. Bérubé-Lauzière, V. Robichaud, É. Lapointe, Univ. de Sherbrooke (Canada) ... [6629-32]
- 09.45: **Transient tissue dynamics in the stimulated human brain measured by time-resolved diffusing-wave spectroscopy.** T. Gislis, J. Li, F. Jallion, G. Dietsche, T. Elbert, B. Rockstroh, G. Maret, Univ. Konstanz (Germany) [6629-33]

Coffee Break 10.00 to 10.30

Conference 6629 continues this page.

Conf. 6628 (DOS)

SESSION 5

Room 11 Thurs. 10.30 to 12.15

Drugs and Analysis of Cells and Body

Chairs: Georges A. Wagnières, École Polytechnique Fédérale de Lausanne (Switzerland)

- 10.30: **Optical pharmacokinetics measurement of photosensitising drug concentrations for photodynamic therapy.** M. R. Austwick, J. Woodhams, C. Elliot-Laize, V. Chalau, A. J. MacRobert, Univ. College London (United Kingdom); I. J. Bigio, Boston Univ. (USA); S. G. Bown, Univ. College London (United Kingdom) [6628-25]
- 10.45: **Study of antiangiogenic drugs by fluorescence imaging and spectroscopy of a contrast agent in mice.** G. Valentini, C. D'Andrea, R. Ferrari, A. Pifferi, R. Cubeddu, Politecnico di Milano (Italy); D. Caronia, M. Martinelli, R. Giavazzi, Istituto di Ricerche Farmacologiche Mario Negri (Italy) [6628-57]
- 11.00: **Fluorescence based fast diagnostics platform for the direct and indirect immunodiagnostic analysis methods.** R. Mannila, VTT Optical Instruments (Finland); T. Pulli, H. K. Saari, K. Tappura, VTT Information Technology (Finland); J. Tuupurainen, I. Vikholm-Lundin, H. Valimäki, VTT Elektronikka (Finland); A. Niskanen, Anki Biotech Oy (Finland) [6628-27]
- 11.15: **FT-infrared spectroscopic studies of lymphoma, lymphoid, and myeloid leukemia cell lines.** J. Babrah, R. Lush, A. Rye, K. McCarthy, Gloucestershire Hospitals NHS Foundation Trust (United Kingdom); C. Bessant, Cranfield Univ. (United Kingdom); N. Stone, Gloucestershire Hospitals NHS Foundation Trust (United Kingdom) [6628-28]
- 11.30: **Analysis of tissue specific progenitor cell differentiation using FT-IR.** K. Ishii, A. Kimura, T. Kushibiki, K. Awazu, Osaka Univ. (Japan) ... [6628-29]
- 11.45: **Alignment techniques for preparation of protein-containing surfactant nematic cells.** M. M. Omelchenko, Institute of Physical Optics (Ukraine) [6628-30]
- 12.00: **Spectral analysis of esophagus cancer using fluorescence and Raman spectroscopy.** D. Wang, Shenyang Ligong Univ. (China) [6628-31]

Lunch/Exhibition Break 12.15 to 13.45

Conference 6628 continues page 32.

Conf. 6629 (DOI)

SESSION 6

Room 5 Thurs. 10.30 to 12.30

Fluorescence Imaging

Chair: Simon R. Arridge, Univ. College London (United Kingdom)

- 10.30: **Time-of-flight non-contact fluorescence diffuse optical tomography with numerical constant fraction discrimination (*Inverted Paper*).** Y. Bérubé-Lauzière, V. Robichaud, Univ. de Sherbrooke (Canada) [6629-34]
- 11.00: **Double labeling optical fluorescence tomography for rodents using a multiwavelength scheme.** R. Bourayou, Charité-Universität Berlin (Germany); J. M. Steinbrink, Charité-Universität Berlin (Germany); J. Kohns, R. Cordell, P. Bahmani, A. Wunder, U. Lindauer, Charité-Universität Berlin (Germany); F. Lehmann, Dyonics GmbH (Germany); A. Villringer, U. Dirnagl, Charité-Universität Berlin (Germany) [6629-35]
- 11.15: **360° free space fluorescence molecular tomography using silhouette surface reconstruction.** T. R. Lasser, Munich Univ. of Technology (Germany); N. Deliolanis, A. Soubret, Massachusetts General Hospital (USA); J. Ripoll, Foundation for Research and Technology (Greece); V. Ntziachristos, Massachusetts General Hospital (USA) [6629-36]
- 11.30: **Whole body in vivo examination of small animals by simultaneous X-Rays/optical tomography: component types of fluorescent labels.** A. Da Silva, T. Bordy, M. Debordieu, J. Dinten, P. Pellet, P. Rizo, Lab. d'Electronique de Technologie de l'Information (France) [6629-37]
- 11.45: **Time-domain fluorescence diffuse optical tomography in heterogeneous media.** S. Fortier, F. Leblond, ART Advanced Research Technologies Inc. (Canada) [6629-38]
- 12.00: **Multi-channel time-domain fluorescence mammography.** A. J. Hagen, O. Steinkeller, D. Grosenick, Physikalisch-Technische Bundesanstalt (Germany); M. Möller, Hochschule für Technik und Wirtschaft des Saarlandes (Germany); R. Ziegler, T. Nielsen, Philips Research Labs. (Germany); K. Lauritsen, PicoQuant GmbH (Germany); R. Macdonald, H. H. Rimeberg, Physikalisch-Technische Bundesanstalt (Germany) [6629-39]
- 12.15: **Time-resolved imaging of fluorescence inclusions in optically turbid medium.** M. Kacprzak, P. L. Sawosz, A. Liebert, R. Maniewski, Institute of Biocybernetics and Biomedical Engineering (Poland) [6629-40]

Lunch/Exhibition Break 12.30 to 13.30

Conference 6629 continues page 32.

Conf. 6628 (DOS)

SESSION 6

Room 14C Thurs. 13.30 to 15.45

Radiative Transfer and Modelling

Chairs: Karsten König, Fraunhofer-Institut für Biomedizinische Technik (Germany); Martin Stark, Fraunhofer-Institut für Biomedizinische Technik (Germany)

13.30: Object localization within turbid slab media using time-resolved transillumination contrast functions: a finite element approach, V. M. Pron, J. L'Huillier, Ecole Nationale Supérieure d'Arts et Métiers (France) [6628-32]

13.45: Semi-analytical method for rapid calculation of time-resolved reflectance from bi-layered tissue models, R. H. Wilson, K. Vishwanath, M. Myoek, Univ. of Michigan (USA) [6628-33]

14.00: Computational analysis of light scattering from collagen fiber networks, D. Arifler, Eastern Mediterranean Univ. (Cyprus); I. Pavlova, The Univ. of Texas/Austin (USA); A. Gillenwater, The Univ. of Texas M.D. Anderson Cancer Ctr. (USA); R. R. Richards-Kortum, Rice Univ. (USA) [6628-34]

14.15: An in vitro study on skin cancer phantoms to test diffuse reflectance spectroscopy's ability to detect depth and thickness variations at several collecting to excitation fiber separations, M. Anouroux, Ctr. de Recherche en Automatique de Nancy (France) and Ctr. Alexis Vautrin (CAV) (France); G. Diaz Ayll, E. Pery, W. W. Blondel, F. H. Guillemin, Ctr. de Recherche en Automatique de Nancy (France) [6628-35]

14.30: Physiological spectroscopic imaging for diagnosis of skin cancer, K. P. Nielsen, A. Bhandari, B. Hamre, L. Zhao, PhotoSense AS (Norway); G. A. Ryzhikov, M. S. Biryulina, Geminali AS (Norway); J. J. Stannæs, PhotoSense AS (Norway); K. H. Stannæs, Baiter Inc. (USA); L. Akslen, L. Rustad, Helse Bergen Haukeland Univ. Hospital (Norway) [6628-36]

14.45: Improvements in Alzheimer's disease diagnosis using principle components analysis (PCA) in combination with Raman spectroscopy, J. K. J. Acher, C. D. Sudworth, The Univ. of Liverpool (United Kingdom); D. M. Mann, Univ. of Manchester (United Kingdom); R. A. Black, The Univ. of Liverpool (United Kingdom); N. Stone, Gloucestershire Royal Hospital (United Kingdom) [6628-37]

15.00: Reflection spectroscopy for assessment of the kinetics of bilirubin and hemoglobin in bruises, B. Stam, J. de Wit, Univ. van Amsterdam (Netherlands); L. L. Randberg, Norwegian Univ. of Science and Technology (Norway); M. C. G. Aalders, Univ. van Amsterdam (Netherlands) [6628-38]

Conf. 6629 (DOI)

SESSION 7

Room 14C Thurs. 16.30 to 19.00

Breast Imaging

Chair: Brian W. Pogue, Dartmouth College (USA)

16.30: fDOT for in vivo follow-up of tumor development in mice lungs (*Invited Paper*), A. Koenig, L. Hervé, A. Da Silva, J. Dinten, J. Boulet, M. Berger, Lab. d'Electronique de Technologie de l'Information (France); V. Josseland, ANIMAGE (France); J. Coll, Institut Albert Bonniot (France); P. Peltié, P. Rizo, Lab. d'Electronique de Technologie de l'Information (France) [6629-41]

17.00: MRI-guided NIR spectroscopy of breast cancer tumors: pilot studies, B. W. Pogue, Dartmouth College (USA) [6629-42]

17.15: The twenty photoacoustic mammoscope (PAM): first clinical results, S. Manohar, S. Vaartjes, J. v. Hespren, J. Klaase, F. v. d. Engh, W. Steenbergen, T. G. van Leeuwen, Univ. Twente (Netherlands) [6629-43]

17.30: Breast cancer detection, characterization, and therapy monitoring using diffuse optical methods, R. Choe, S. D. Konecky, A. Corlu, K. Lee, C. Zhou, T. Durduran, M. A. Rosen, M. D. Schall, B. J. Czerniecki, J. C. Tchou, B. Chance, A. G. Yodh, Univ. of Pennsylvania (USA) [6629-44]

17.45: Diffuse correlation/wave spectroscopy for measurement of cerebral blood flow at the intensive care unit, T. Durduran, C. Zhou, B. Eldow, R. Choe, G. Yu, S. Kashner, B. Cucchiara, J. H. Greenberg, J. A. Detre, A. G. Yodh, Univ. of Pennsylvania (USA) [6629-45]

18.00: Rapid intraoperative diagnosis of sentinel node metastases in breast cancer using elastic scattering spectroscopy scanning, M. R. Austwick, W. D. Chicken, S. Somasundaram, B. R. Clark, A.

Mosse, M. Falzon, G. Kocjan, Univ. College London (United Kingdom); I. J. Bigio, Boston Univ. (USA); S. G. Bown, M. Keshigir, Univ. College London (United Kingdom) [6629-46]

18.15: Monitoring hemodynamic responses to antivasular therapy and ionizing radiation assessed by diffuse optical spectroscopies, U. Sunar, Univ. of California/San Diego (USA); S. Makonnen, C. Zhou, H. Wang, G. Yu, T. Durduran, W. M. F. Lee, A. G. Yodh, Univ. of Pennsylvania (USA) [6629-47]

18.30: Radiotherapy dosimetry assessment with optical projection tomography, G. Zacharakis, Foundation for Research and Technology-Hellas (Greece); A. Papadakis, Univ. Hospital of Heraklion (Greece); F. Zacharopoulos, Univ. General Hospital of Heraklion (Greece); A. Garofalakis, Foundation for Research and Technology-Hellas (Greece); T. Maris, Univ. General Hospital of Heraklion (Greece); J. Ripoll, Foundation for Research and Technology-Hellas (Greece) [6629-48]

18.45: Early prediction of treatment response of head and neck cancers with diffuse optical spectroscopies, U. Sunar, Univ. of California/San Diego (USA); S. Kim, R. Choe, H. Poptani, H. Quon, T. Durduran, C. Zhou, G. Yu, S. Nikola, B. Chance, A. G. Yodh, Univ. of Pennsylvania (USA) [6629-49]

■ End of Conference

Participants

Names shown in bold are Members of SPIE.

A	Aarier, Dizeem [6628-34]S6 Armstrong, David P. [6630-15]S4 Arnold, Cord L. [6632-36]S9 Aridge, Simon R. [6628-19]S4, 6629 ProgComm, 6629 S6 SessChr, [6629-77]SP Austwick, Martin R. [6628-25]S5, [6629-46]S7 Avraham, Assaf [6633-53]SP Abramovich, Gil [6631-47]SP Abdulhalim, Ibrahim S. [6627-58]SP, [6631-50]SP Abrahamse, Heidi [6632-49]S10 Achilefu, Samuel 6626 ProgComm Ackermann, Alexander [6632-05]S1 Adler, Desmond C. [6627-01]S1, [6627-09]S2 Adlerstein, Daniel [6628-29]S5, [6628-49]SP, [6632-54]SP1 Axelsson, Johan [6629-08]S2, [6632-59]SP2	B Baas, Peter [6628-14]S3, [6628-42]SP Babayán, Nelly [6632-61]SP2 Babchenko, Anatoly [6633-53]SP Babrah, Jaspreet [6628-28]S5 Bacharis, Costas [6632-66]SP2 Bachmann, Adrian H. [6627-17]S4, [6627-66]SP Bachmann, Alexander [6632-05]S1 Bachmann, Daniel [6632-22]S5 Baddeley, David [6630-01]S1 Bader, Markus J. [6632-21]S5 Bahmani, Peyman [6626-16]S4, [6629-35]S6 Baier, Jürgen [6632-15]S4, [6633-09]S2, [6633-51]SP Bajraszewski, Tomasz [6627-34]S7 Baker, James R. [6631-31]S6 Baker, Rebecca N. [6628-19]S3 Balalaeva, Irina V. [6633-41]S9 Baraldi, Patrizia [6631-10]S3 Baranska, Malgorzata [6633-64]SP Barata, António J. [6630-43]SP Barbanyka, Gregor [6632-08]S2 Barbosa, Luiz C. [6633-26]S6, [6633-31]S7 Barbour, Randall L. [6629-23]SP, [6629-27]S4 Barbul, Alexandre [6631-17]S4 Bardin, Fabrice [6631-27]S5 Bardoni, Alessandra [6629-58]SP Barias-Castro, Maria de Lourdes [6633-26]S6 Barton, Jennifer K. 6627 ProgComm, 6627 S3 SessChr, [6627-26]S6, [6633-30]S7 Bartos, Holger S. [6628-01]S1 Baselli, Giuseppe [6629-58]SP Bassi, Andrea L. [6629-21]S3, [6631-48]SP Baumann, Bernhard [6627-32]S6, [6627-51]S10	Baumann, Knut [6633-68]SP Baumgart, Judith [6633-29]S7 Baumgartner, Reinhold [6632-23]S5 Bäumler, Wolfgang [6632-09]S2, [6632-15]S4, [6632-17]S4, [6633-09]S2, [6633-51]SP Baurach, Jennifer [6628-08]S2 Bazant-Hegemark, Florian [6627-65]SP Bazin, Roland [6630-30]S6 Beck, Tobias J. [6632-08]S2, [6632-23]S5 Becker, Wolfgang [6628-07]S2, [6629-64]SP, [6630-07]S2 Bednarkiewicz, Artur [6630-09]S2 Beleut, Manfred [6627-44]S8 Bellecci, Carlo [6632-07]S2 Benaron, David A. [6628-14]S3, [6628-42]SP Bendiksen, Ragnar [6626-23]SP Bendsoe, Niels [6632-24]S5, [6632-59]SP2 Bennink, Gerardus [6629-30]S5 Bennink, Martin L. 6633 ProgComm Bennion, Ian [6631-55]SP Ben-Yakar, Adela [6630-25]S5 Berg, Dorothea [6633-64]SP Berger, Joern [6626-09]S3 Berger, Jörn [6628-62]SP, [6631-32]S6 Berger, Michel [6629-41]S7 Bergmann, Axel [6628-07]S2, [6630-07]S2 Bergmann, Thorsten [6630-40]SP Berlien, Hans-Peter 6633 S7 SessChr, [6633-33]S8 Bertin, Christiane [6633-83]SP Bérubé-Lauzière, Yves [6626-29]SP, [6629-32]S5, [6629-34]S6, [6633-06]S1 Bessant, Conrad [6628-29]S5 Betz, Christian [6628-13]S3 Betz, Thomas [6628-62]SP Beuthan, Jürgen [6629-62]SP Beyer, Marco [6632-41]S10 Beyer, Wolfgang [6632-08]S2, [6632-21]S5, [6632-23]S5 Beyersdorf, Friedhelm [6633-38]S9 Bhandari, Anak [6628-36]S6 Bianchi, Anna M. [6629-58]SP Biandu, Rufin [6631-51]SP Bigio, Irving J. [6628-25]S5, [6629-46]S7 Bilo, Henk J. G. [6628-17]S3 Bilyi, Alexander I. [6627-52]SP, [6631-57]SP Bilyy, Rostyslav O. [6631-57]SP Binder, Susanne [6627-31]S6, [6627-50]S9	Binger, Philipp [6633-38]S9 Binns, Allison [6627-14]S4 Bintig, Willem [6633-29]S7 Birk, Udo J. [6630-01]S1 Birngruber, Reginald [6632-28]S6, [6632-67]SP2, [6632-69]SP2 Biryulina, Marina S. [6628-36]S6 Bisailon, Charles-Etienne [6627-24]S5 Biskup, Christoph U. [6628-06]S2 Black, Richard A. [6628-37]S6 Blagosklonov, Oleg [6626-25]SP Blagova, Radga [6632-08]S2 Blandin, Pierre [6630-10]S2 Blattner, Cedric [6627-17]S4 Bliznakova, Irina [6628-60]SP Blondel, Walter W. [6628-35]S6, [6631-35]S6 Boas, David A. SympComm Bockmeyer, Clemens [6633-80]SP Boeth, Heide [6628-58]SP Bogni, Serge [6633-32]S7 Boley, Hayrunnisa [6629-50]SP Boller, Denis [6627-43]S8 Bonn, Mischa [6630-27]S5 Boppert, Stephen A. 6627 ProgComm Bordy, Thomas [6629-37]S6 Borisova, Ekaterina G. [6628-60]SP Borle, Francois [6632-22]S5 Bornemann, Jörg [6627-03]S1 Boruh, Bosanta R. [6630-21]S4 Boschaart, Nienke [6631-29]S6 Bouchard, Jean-Pierre [6632-18]S4 Bouchard, Richard R. [6627-13]S3 Boudoux, Caroline [6630-32]S6 Bouhild, Mounir [6628-02]S1, [6630-09]S2 Boulahdour, Hatem [6626-57]S5 Bouma, Brett E. [6630-32]S6 Bourayou, Riad [6626-01]S1, [6626-16]S4, [6628-62]SP, [6629-35]S6 Boutet, Jérôme [6629-41]S7 Bouzourene, Hanifa [6632-22]S5 Bowen, Stephen G. [6628-25]S5, [6629-46]S7 Bradou, Adrian [6627-45]S9 Brantilla, Marco [6626-17]S4 Brantmark, Martin [6631-34]S6 Brattke, Kerstin [6633-84]SP Bredelbusch, Ilona [6633-15]S4 Bregy, Amadé [6633-32]S7 Bremer, Christoff 6626 ProgComm Brendel, Bernhard [6629-09]S2 Briandet, Romain [6630-10]S2 Brinkmann, Gerhard [6633-77]SP Brinkmann, Ralf [6628-69]SP 6628 S1 SessChr, 6628 S4 SessChr, 6632 S7 SessChr, [6631-17]S4, [6633-14]S4	Briskin, Cathrin [6632-27]S6 Brown, Stanley B. 6632 ProgComm Brune, Ralf [6633-57]SP Bruneel, David [6632-27]S6 Buckstaller, Andrea [6632-35]S8 Buch, Alfred [6631-13]S3 Buckle, Martin M. [6633-92]SP Buckle, Rainer [6628-08]S2, [6630-30]S6 Budinskaya, Maria [6632-63]SP2 Buffell, Mario [6633-35]S8 Bur, Andres [6629-02]S1 Burgholzer, Peter [6631-06]S2 Burger, Mario [6633-82]SP Burgholzer, Victor V. [6628-15]S4 Burmester, I. [6632-64]SP2 Burnes, Christine [6627-08]S2 Burnes, Daina L. [6627-49]SP Buschmann, Volker [6630-12]S3 Butti, Michele [6629-58]SP Buttner, Edler [6630-16]S4, [6630-26]S5 Bykov, Alexander V. [6629-61]SP	[6632-04]S1, [6632-28]S6, [6632-29]S6, [6632-67]S2, [6632-68]SP2, [6632-69]SP2, [6632-70]SP2 Chen, Chien-Hung [6629-52]SP, [6629-66]SP Chen, Chung-Hung [6629-14]S3 Chen, Juan [6626-02]S1, [6626-10]S3 Chen, Liang-Yu [6629-52]SP, [6629-66]SP Chen, Nanguang [6627-33]S7 Chen, Royce W. [6627-18]S4 Chen, Xiaolan [6628-54]SP Chen, Ying-Ju [6628-05]S1 Chen, Yin-Quan [6633-24]S6 Chen, Zhongping 6627 Chr, [6627-36]S7 Cheng, Chi-Hsiang [6627-60]SP Cheremisin, Georg [6633-87]SP Chernomordik, Victor V. [6628-15]S4 Chernyshev, I. [6632-64]SP2 Chickin, Wayne D. [6629-46]S7 Chiou, Arthur E. T. 6633 ProgComm, 6633 S3 SessChr, [6633-24]S6 Chiu, Chien-Wei [6627-60]SP Choe, Regine [6629-26]S4, [6629-44]S7, [6629-45]S7, [6629-49]S7, [6629-63]SP Chong, Changho [6627-04]S1, [6627-05]S1 Chou, Chien [6627-69]SP, [6629-14]S3, [6630-22]S4 Chow, Tzu-Hao [6627-61]SP, [6627-64]SP, [6633-20]S4 Ciaglia, Dana [6633-46]S10, [6633-66]SP Cicchi, Riccardo [6633-34]S8 Cifra, Michel [6633-54]SP Clarkson, Douglass M. [6631-40]S7 Cittoglu, Akir [6628-20]S3 Cingolani, Roberto [6633-31]S7 Clancy, Neil T. [6629-51]SP Clark, Benjamin R. [6629-46]S7 Clarkson, Douglas M. [6631-40]S7 Claus, Ralf [6633-80]SP Coll, Jean-Luc [6629-41]S7 Colomb, Tristan [6631-15]S3, [6633-14]S4 Colonna, Anne [6630-30]S6 Comas, Laurent [6626-25]SP Comelli, Daniela [6628-50]SP [6629-21]S3, [6633-59]SP Comsa, Daria C. [6626-07]S2 Comtois, Maxime [6626-29]SP Constantin, Carolina [6632-57]SP2 Constantinescu, Mihai A. [6633-32]S7 Contini, Davide [6628-56]SP, [6629-07]S2, [6629-31]S5, [6629-57]SP, [6629-58]SP, [6631-10]S3, [6631-11]S3 Corbin, Ian [6626-10]S3 Cordelleres, Fabrice P. [6630-06]S1 Cordell, Ryan [6629-35]S6
----------	---	---	---	--	--	--

Participants

Corlu, Alber [6629-44]S7, [6629-63]SP	Demos, Stavros G. [6628-16]S3, [6631-23]S4, [6633-40]S9	Durduran, Turgut [6629-26]S4, [6629-44]S7, [6629-45]S7, [6629-47]S7, [6629-49]S7, [6629-63]SP	Fanjul-Vélez, Félix [6627-54]S10, [6632-11]S3	Franco, Sandra M. B. [6631-59]SP	Geitzenauer, Wolfgang [6627-51]S10
Corrier, Jean-Francois [6632-18]S4	Depoursinge, Christian D. 6631 Chr, 6631 S1 SessChr, 6631 S2	Durr, Nicholas J. [6630-25]S5, [6630-25]S5	Farber, Mark [6629-23]SP, [6629-27]S4	Frank, Julia [6629-25]S4	Gelfusa, Michela [6632-07]S2
Correa, Natalie L. [6633-23]S5	SessChr , 6631 S3 SessChr, 6631 S4 SessChr, 6631 S5 SessChr, 6631 S6 SessChr, 6631 S7 SessChr, 6631 SP SessChr, [6631-15]S3, [6631-17]S4, 6633 ProgComm	Duval, Aurélien [6631-27]S5, [6629-22]S4	Farina, Andrea [6628-50]SP, [6629-16]S3, [6633-59]SP	Frassati, Anne [6629-01]S1	Gellikonov, Grigory V. [6627-70]SP
Cova, Sergio [6631-11]S3		Dwyer, Edward [6629-22]S4	Farkas, Daniel L. 6630 ProgComm, 6630 S1 SessChr	Friedank, Sebastian [6632-37]S9, [6632-48]S11, [6631-32]S6	Gellikonov, Valentine M. [6627-70]SP
Csaki, Andrea [6633-78]SP,			Farrall, Thomas J. [6626-07]S2, [6631-43]SP	Gemeinhardt, Ines [6626-09]S3, [6631-32]S6	Gemeinhardt, Nils C. [6627-67]SP
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	Deppe, Herbert [6632-03]S1		Favicochio, Rosy [6626-08]S2	Gemeinhardt, Ole [6626-09]S3, [6631-32]S6	Gemeinhardt, Ole [6626-09]S3, [6631-32]S6
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	Destrochers, Johanne [6633-08]S1		Favre, Laurent [6632-22]S5	French, Paul M. W. [6629-67]SP, [6630-20]S4, [6630-44]SP, 6633 ProgComm	Georges, Didier [6629-01]S1
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	Detre, John A. [6629-45]S7		Feinberg, Stephen [6628-10]S2	Frenz, Martin 6632 ProgComm, 6632 S3 SessChr, [6633-82]SP	Geraskin, Dmitri [6628-58]SP,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	Deufel, Thomas [6633-37]S8		Feldmann, Jochen [6628-40]S6, [6631-32]S6	Frey, Andreas [6633-82]SP	Gerdes, Johannes [6632-42]S10
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	Dholakia, Kishan		Fenz, Susanne [6630-01]S1	Friebel, Moritz [6629-13]S3	Gerhardt, Nils C. [6627-67]SP
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Ferguson, Robert A. [6627-21]S5	Friedl, Peter [6630-16]S4	Gerritsen, Hans C. 6630 ProgComm
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Fernandes, Ana G. [6630-43]SP	Friedman, Ron [6627-58]SP	Gerten, Georg [6632-32]S7
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Fernandes, Heloise P. [6633-26]S6	Friedrich, Oliver [6626-26]SP	Getman, Vasy B. [6631-57]SP
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Fernández, Enrique J. [6627-19]S4, [6627-31]S6	Fritz, Andreas [6632-29]S6,	Ghambaryan, Sona S. [6632-60]SP2
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Ferrante, Simona [6629-57]SP	Fritzsche, Wolfgang [6633-67]SP, [6633-78]SP, [6633-86]SP,	Ghambaryan, Sona S. [6632-60]SP2
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Ferrari, Raffaele [6628-57]S5, [6631-46]SP	Froehly, Luc [6627-43]S8	Ghazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Ferraro, Pietro [6631-16]S4	Fromm, Michael [6632-32]S7	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Ferrigno, Giancarlo [6629-57]SP	Frost, Torsten [6633-77]SP	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Festag, Grit [6633-78]SP, [6633-90]SP	Fu, Zhe [6628-11]SP	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Fetting, Daniel [6633-16]S4	Fujii, Mamiko [6629-06]S2,	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Fiala, Jens [6633-38]S9	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Fillipidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-57]S5, 6629 Chr, 6629 SP SessChr, [6629-07]S2,	[EBOO7SE1-501]SPLN2,		Flippidis, George [6630-02]S1	Fujimoto, James G. 6627	Giazaryan, Robert K. [6632-60]SP2,
Cubeddu, Rinaldo [6626-17]S4, [6628-5					

Participants

Names shown in bold are Members of SPIE.

O	[6632-18]S4 Pauli, Romana [6628-13]S3 Pavlova, Ina [6628-34]S6 Pavone, Francesco S. [6630-03]S1, 6633 ProgComm, [6633-34]S8, [6633-35]S8, [WLT-84]S9 Pedersen, Finn [6627-08]S2 Pedrocchi, Alessandra [6629-57]SP Peh, Yaling [6629-23]SP; [6629-27]S4 Peltie, Philippe [6629-37]S6, [6629-41]S7 Peng, Cheng [WLT-199]S9 Perea-Cubán, David [6627-54]S10 Perlasamy, Annmasi 6630 Chr, 6630 S2 SessChr Péron, Marie Cécile [6629-03]S1 Persson, Linda [6628-03]S1 Pery, Emilie [6628-35]S6 Peter, Jörg [6626-19]S4, [6631-38]S7, [6631-53]SP Peters, Ralf-Peter [6628-01]S1 Peters, Sven [6633-86]SP Peterson, Wilma [6626-11]S3 Petrenko, M. [6632-65]SP2 Phillips, Richard T. [6628-40]S6 Piazzesi, Gabriella [6630-03]S1 Pifieri, Antonio [6626-17]S4, [6628-50]SP; [6628-57]S5, [6629-07]S2, [6629-12]S3, [6629-16]S3, [6629-21]S3, [6631-10]S3, [6631-11]S3, [6633-59]SP Pliz, Marco [6629-17]S3 Pinchas, Moshe [6633-53]SP Pini, Roberto [6632-25]S6 Pinot, Bertrand [6630-30]S6 Pircher, Michael [6627-32]S6, [6627-51]S10 Piroddi, Nicoletta [6630-03]S1 Piron, Vianney M. [6628-32]S6 Pisignano, Dario [6633-31]S7 Piston, David W. 6630 ProgComm, 6630 S3 SessChr Pitris, Constantinos 6627 S8 SessChr, 6627 ProgComm, [6627-20]S5 Pivetti, Christopher D. [6633-40]S9 Plamann, Karsten [6632-26]S6 Platen, Petra [6629-25]S4 Plehanov, Vladimir I. [6626-27]SP Plesea, Lucian [6627-28]S6 Plukker, John [6628-14]S3 Podoleanu, Adrian G. 6627 ProgComm, 6627 S7 SessChr, [6627-28]S6, [6627-40]S8, [6627-45]S9 Podoprigora, Guennady I. 6626-25]SP Poel, Mike v. d. [6632-33]S7 Poggessi, Corrado [6630-03]S1 Pogue, Brian W. [6626-06]S2, [6626-07]S2, [6631-43]SP,	[6626-13]S4, 6629 Chr, 6629 S7 SessChr, [6629-42]S7, [6629-56]SP Pohner, Vincent [6630-20]S4 Politoopoulos, Kostas [6629-54]SP Pongratz, Thomas [6632-21]S5 Popov, Alexey P. [6628-70]SP Popov, Vladimir O. [6626-27]SP Popp, Jürgen 6633 Chr, 6633 S SessChr, 6633 S10 SessChr, 6633 SP SessChr, [6633-37]S8, [6633-45]S10, [6633-46]S10, [6633-64]SP, [6633-65]SP, [6633-66]SP, [6633-67]SP, [6633-68]SP, [6633-69]SP, [6633-76]SP, [6633-77]SP, [6633-79]SP, [6633-80]SP Poptani, H. [6629-49]S7 Poulet, Patrick [6629-60]SP Pouvalay, Boris [6627-14]S4, [6627-19]S4, [6627-30]S6, [6627-31]S6, [6627-50]S9 Pozzi, Chiara [6626-24]SP Pralong, William [6633-17]S4 Prentice, Paul A. [6633-58]SP Preza, Chrysanthie [6630-13]S3 Prieazhev, Alexander V. [6627-23]S5, [6633-48]SP Privitera, Simona S. [6628-51]SP, [6633-55]SP, [6633-61]SP Prokhorov, Viatcheslav [6627-02]S1 Promduang, Ithipol [6633-50]SP Psycharakis, Stylianos [6626-08]S2, [6626-14]S4 Ptaszynski, Lars [6632-29]S6, [6632-68]SP2, [6632-70]SP2 Pulli, Timo [6628-27]S5 Pushkin, Sergey V. [6626-25]SP Pustovalov, Victor K. [6632-40]S10	Rappaz, Benjamin [6631-15]S3, [6631-17]S4, [6633-14]S4 Raschke, Gunnar [6628-40]S6 Rau, Kaustubh R. [6632-39]S9 Raunegger, Katrin [6632-45]S10 Rayavarapu, Raja G. [6626-11]S3, [6631-08]S2 Read, Mike D. [6627-65]SP Reddy, Durnani [6630-45]SP Reed, Jason [6630-46]SP Regensburger, Johannes [6633-51]SP Reich, Oliver [6632-05]S1 Reichelt, Elias [6627-18]S4 Reichelt, Stephan [6627-55]SP, [6633-38]S9 Reinert, Michael [6633-32]S7 Reinicke, Martin [6633-79]SP Reitzenstein, Sebastian [6633-64]SP Rembges, Diana [6631-14]S3 Resch-Genger, Ute [6628-24]SP Richards-Kortum, Rebecca R. [6628-34]S6 Ricollieu, Christian [6630-06]S1 Riemann, Iris [6630-30]S6, [6631-28]S6, [6633-78]SP Riesenberg, Rainer [6630-17]S4, [6630-18]S4, [6631-62]SP Riley, Jason D. [6626-15]S4 Rimke, Ingo [6630-16]S4, [6630-26]S5 Ringler, Moritz [6628-40]S6, [6628-59]SP Rinia, Hilde A. [6630-27]S5 Rinneberg, Herbert H. [6629-04]S1, [6629-39]S6 Ripken, Tammo [6632-32]S7 Ripoll, Jorge [6626-08]S2, [6626-14]S4, [6629-36]S6, [6629-48]S7 Ritchie, Alastair W. S. [6628-15]S3 Ritzche, Laurie J. [6627-69]SP Rizo, Philippe [6629-37]S6, [6629-41]S7 Robichaud, Vincent [6629-32]S5, [6629-34]S6 Rockendorf, Niels [6633-82]SP Rockstroh, Brigitte [6629-33]S5 Roesch, Petra [6633-37]S8, [6633-45]S10, [6633-64]SP, [6633-65]SP, [6633-66]SP, [6633-76]SP, [6633-79]SP, [6633-80]SP Rogers, John A. [6627-40]S8 Rogers, Keith D. [6628-18]S3 Rollins, Andrew M. [6627-09]S2 Romanov, Oleg G. [6632-11]S3 Rosa, Carla C. [6627-40]S8 Rosen, Mark A. [6629-44]S7 Rosen, Richard B. [6627-40]S8 Rossi, Ana [6633-83]SP Rossi, Francesca [6632-25]S6	Roth, Christian M. [6633-03]S1 Rotherberg, Florence G. [6627-09]S2 Rozzi, Tullio [6631-45]SP Rudin, Markus 6626 ProgComm Rudloff, Eicke [6633-64]SP Rueck, Angelika C. [6630-28]S5 Rupertus, Volker [6628-24]SP Rustad, Lisbeth [6628-36]S6 Rüttiger, Steffen [6628-03]S1, [6630-12]S3 Ryder, Alan G. [6628-61]SP Rye, Adam [6628-28]S5 Ryzhikov, Gennady A. [6628-38]S6	Schillberg, Stefan [6632-47]S11 Schinkel, Helga [6632-47]S11 Schirner, Michael [6626-09]S3, [6631-32]S6 Schlag, Peter M. [6626-03]S1 Schlossberg, Howard R. NonPartic Schlott, Kerstin [6632-28]S6, [6632-67]SP2 Schmidt, Claus-Georg [6632-08]S2 Schmidt, Ulrike [6633-68]SP Schmidt, Martin [6633-84]SP Schmidt-Erfurth, Ursula [6627-51]S10 Schmitt, Michael 6633 S4 SessChr, 6633 S5 SessChr, [6633-68]SP, [6633-77]SP Schmitz, Christoph [6629-02]S1, [6629-23]SP, [6629-27]S4 Schnall, Mitchell D. [6629-44]S7 Schneckenburger, Herbert [6633-04]S1, [6633-08]S2 Schneider, Marc [6630-35]S6 Schneckenburger, Juergen [6633-12]S3, [6633-15]S4 Schnorr, Jörg [6626-09]S3, [6631-32]S6 Scholz, Matthias [6633-73]SP Scholzen, Thomas [6632-42]S10 Schonfelder, Sven [6632-01]S1 Schrage, Norbert F. [6627-10]S3 Schraml, Rüdiger [6632-17]S4 Schramm, H. Wolfgang [6632-45]S10 Schuler, Thomas [6633-67]SP, [6633-78]SP, [6633-90]SP Schulz, Hartwig [6633-64]SP, [6633-65]SP Schulz, Ralf B. [6626-19]S4, [6631-38]S7, [6631-50]SP Schumacher, Silma [6632-32]S7 Schütze, Karin [6632-35]S6, [6633-25]S6, [WLT-83]S8 Schwarz-Finsterle, Jutta [6630-01]S1 Schweiger, Gustav [6628-23]S4 Schweiger, Martin [6626-19]S4 Schweitzer, Dietrich 6628 Chr, 6628 SP SessChr, 6628 S2 SessChr, [6628-06]S2 Schwerner, Alexander [6628-40]S6 Scordino, Agata A. [6628-51]SP, [6633-55]SP, [6633-61]SP Seebacher, Christian [6630-14]S3 Seewald, Gunter S. [6633-73]SP Seifert, Frank [6631-32]S6 Seitz, Michael [6632-05]S1 Sekhar, Chandra S. [6627-66]SP Semmler, Wolfhard [6626-19]S4, [6631-38]S7, [6631-53]SP Seratetides, Alexander A. [6628-44]SP, [6632-66]SP2, [6633-52]SP Sestini, Serena [6633-34]S8 Setakim, Alexey [6632-52]SP1
----------	--	--	--	--	--

Participants

Shafiei, Sara [6633-49]SP	Stone, Nicholas [6627-65]SP, [6628-15]S3, [6628-16]S3, [6628-28]S5, [6628-37]S6	Tavakoli, Javad [6633-49]SP	Troyanova, Petranka [6628-60]SP	Vasold, Rudolf [6632-17]S4	Vasold, Rudolf [6632-17]S4
Shafirstein, Gal [6632-09]S2	Stopp, Sebastian [6632-03]S1	Tavernarakis, Nektarios [6630-02]S1	Tsavlitskiy, German [6631-50]SP	Vass, Clemens [6627-51]S10	Vass, Clemens [6627-51]S10
Shah, Natasha S. [6629-12]S3	Stracke, Frank [6630-35]S6	Tavlatian, Bertrand [6626 ProgComm	Tualle, Jean-Michel [6629-20]S3	Vater, Axel [6626-09]S3, [6631-32]S6	Vater, Axel [6626-09]S3, [6631-32]S6
Shakhova, Natalia M. [6627 ProgComm, [6628-22]S4	Strassl, Martin [6632-02]S1	Tcherniak, Elna A. [6628-23]S4	Tuchin, Valery V. MeetingVIP, [6628-66]SP, [6633 ProgComm, [6633 S1 SessChr, [6628-51]SP, [6633-55]SP [6633-61]SP	Veksler, Boris A. [6633-74]SP	Veksler, Boris A. [6633-74]SP
Shao, Yonghong [6628-43]SP	Strauss, Wolfgang S. L. [6632-45]S10, [6633-04]S1	Tchennadi, Suresh N. [6628-04]S1	Tuchin, Valery V. MeetingVIP, [6628-66]SP, [6633 ProgComm, [6633 S1 SessChr, [6628-51]SP, [6633-55]SP [6633-61]SP	Venugopalan, Vasan [6632-39]S9	Venugopalan, Vasan [6632-39]S9
Sharareh, Shiva [6631-23]S4	Strehle, Katrin R. [6633-46]S10, [6633-65]SP	Thauer, Heike [6632-32]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vekub, Dominique [6627-68]S1	Vekub, Dominique [6627-68]S1
Shen, TingZhi [6629-65]SP	Strehle, Marion A. [6633-64]SP	Thieme, Hans [6633-76]SP	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vermette, Patrick [6633-06]S1	Vermette, Patrick [6633-06]S1
Shen, TingZhi [6628-18]S3	Strey, Alfred [6629-18]S3	Thiemann, Maik [6630-40]SP	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vernon, Marcia L. [6632-18]S4	Vernon, Marcia L. [6632-18]S4
Shepherd, Colin J. R. [6627-61]SP, [6627-64]SP, [6633 ProgComm, [6633-20]S4	Stringari, Chiara [6630-03]S1	Tinetti, Eric [6629-20]S3	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vertu, Stanislas G. [6627-62]SP	Vertu, Stanislas G. [6627-62]SP
Shen, TingZhi [6629-65]SP	Strojinik, Marija [6631-42]SP	Tinnerfeld, Philip [6633-02]S1, [6633-16]S4, [6633-56]SP, [6633-75]SP	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vikholm-Lundin, I. [6628-27]S5	Vikholm-Lundin, I. [6628-27]S5
Sheppard, Colin J. R. [6627-61]SP, [6627-64]SP, [6633 ProgComm, [6633-20]S4	Studier, Vincent [6633-22]S5	Tjokro, Cahyadi [6627-64]SP	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Villa, Anna M. [6626-24]SP	Villa, Anna M. [6626-24]SP
Shen, TingZhi [6629-65]SP	Su, Li-Chen [6629-14]S3	Tkaczuk, Eric R. [6631-31]S6	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Villiger, Martin L. [6627-17]S4, [6627-44]S8, [6633-17]S4	Villiger, Martin L. [6627-17]S4, [6627-44]S8, [6633-17]S4
Shen, TingZhi [6629-65]SP	Su, Ping-Jung [6630-11]S3	Togashi, Deniso M. [6628-61]SP	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Villinger, Arno [6629-35]S6	Villinger, Arno [6629-35]S6
Shen, TingZhi [6629-65]SP	Sudworth, Caroline D. [6628-37]S6	Tolstik, Alexei L. [6632-11]S3	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vishwanath, Karthik [6628-10]S2, [6628-33]S6	Vishwanath, Karthik [6628-10]S2, [6628-33]S6
Shi, Yi-Wei [6631-48]SP	Sugijura, Tadao [6630-41]SP	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vladimir, Hovhannysyan [6630-11]S3	Vladimir, Hovhannysyan [6630-11]S3
Shidlovski, Vladimir R. [6627-02]S1	Suhling, Klaus [6630-55] SessChr	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Voelbel, Gerald T. [6629-23]SP, [6629-27]S4	Voelbel, Gerald T. [6629-23]SP, [6629-27]S4
Shiyagin, Pavel A. [6627-70]SP	Summich, Walter [6632-23]S5	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vogel, Alfred [6632 Chr, 6632 S9 SessChr, 6632 S8 SessChr, 6632 S11 SessChr, 6632 SP2 SessChr, 6632 SP1 SessChr, [6632-34]S8, [6632-37]S9, [6632-38]S9, [6632-48]S11, [6632-49]S11	Vogel, Alfred [6632 Chr, 6632 S9 SessChr, 6632 S8 SessChr, 6632 S11 SessChr, 6632 SP2 SessChr, 6632 SP1 SessChr, [6632-34]S8, [6632-37]S9, [6632-38]S9, [6632-48]S11, [6632-49]S11
Shin, Woojin [6627-53]SP	Sun, Tzu-Lin [6630-39]SP	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vogel, Martin [6626-26]SP	Vogel, Martin [6626-26]SP
Shirmanova, Marina V. [6626-27]SP, [6633-41]S9	Sun, Ulas [6626-28]SP, [6629-47]S7, [6629-49]S7	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vogel, Mika W. [6631-02]S1, [6631-04]S1	Vogel, Mika W. [6631-02]S1, [6631-04]S1
Shishkov, Milen S. [6630-32]S6	Surmenko, Elena L. [6628-66]SP, [6628-67]SP	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vogelsang, Jan [6633-56]SP	Vogelsang, Jan [6633-56]SP
Shramenko, Mikhail V. [6627-02]S1	Sut, Yoshinori [6632-27]S6	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Voglis, Giannis [6630-02]S1	Voglis, Giannis [6630-02]S1
Shrestha, Annie [6633-42]S9	Suzuki, Sachiko [6628-49]SP	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Voigt, Jan [6626-03]S1, [6626-09]S3, [6628-62]SP, [6631-32]S6	Voigt, Jan [6626-03]S1, [6626-09]S3, [6628-62]SP, [6631-32]S6
Siedlecki, Damian [6633-81]SP	Svanberg, Katarina [6628-03]S1, [6632-24]S5, [6632-59]SP2	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Völker, Andreas [6631-13]S3	Völker, Andreas [6631-13]S3
Sieron, Aleksander [6632-53]SP1, [6632-58]SP2	Svanberg, Sune [6628-03]S1, [6632-59]SP2	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vollmer, Sonja [6626-09]S3, [6631-32]S6	Vollmer, Sonja [6626-09]S3, [6631-32]S6
Signorelli, Cosma D. [6632-07]S2	Svensson, Jenny [6629-08]S2	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	von Bally, Gert [6633 CoChr, 6633 S8 SessChr, 6633 S9 SessChr, [6633-12]S3, [6633-13]S4, [6633-15]S4	von Bally, Gert [6633 CoChr, 6633 S8 SessChr, 6633 S9 SessChr, [6633-12]S3, [6633-13]S4, [6633-15]S4
Signorelli, Francesco [6632-07]S2	Svensson, Tomas [6628-03]S1	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	von Wegner, Frederic [6626-26]SP	von Wegner, Frederic [6626-26]SP
Simeone, Diane [6628-69]SP	Szwed, Johannes [6632-59]SP2	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vorobiev, Viktor A. [6633-87]SP	Vorobiev, Viktor A. [6633-87]SP
Simon, Anne [6633-22]S5	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vorozhtsov, G. N. [6632-64]SP2	Vorozhtsov, G. N. [6632-64]SP2
Simonsson, Carl [6633-72]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vorozhtsov, Georgy N. [6632-62]SP2, [6632-63]SP2, [6632-65]SP2	Vorozhtsov, Georgy N. [6632-62]SP2, [6632-63]SP2, [6632-65]SP2
Sinelnikov, Boris M. [6633-87]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vu, Thi, Minh-Hong [6628-68]SP	Vu, Thi, Minh-Hong [6628-68]SP
Singh, Janak [6627-33]S7	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP	Vukusic, Peter [6633-23]S5	Vukusic, Peter [6633-23]S5
Singh, Megha [6628-51]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Slump, Kees [6631-09]S2	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Smedh, Maria [6630-29]S6,	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Smetanik, Andrei S. [6632-40]S10	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Smit, Andries J. [6628-17]S3, [6628-65]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Smith, Danielle K. [6630-25]S5	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
So, Peter T. C. [6630 ProgComm, [6630 S6 SessChr, [6630-23]S5	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Sodsoong, Tawee [6633-50]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Sokolov, Konstantin V. [6630-25]S5	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Sokolova, Tatiana N. [6628-66]SP, [6628-67]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Soller, Thomas [6628-59]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Solovychik, Igor B. [6628-67]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Soloviev, Vadim Y. [6629-67]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Somasundaram, Santosh [6629-46]S7	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Somboonkaew, Arnote [6633-50]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Song, InCheon [6630-38]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Soria-Lopez, Susana [6632-35]S8	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Soschinski, Jan [6629-30]S5	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Sota, Takayuki [6628-63]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Soubret, Antoine [6629-36]S6	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Sperl, Jonathan I. [6631-02]S1, [6631-04]S1	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		
Spigulis, Janis [6628-55]SP	Szczeszna, Dorota H. [6633-39]S9	Tomasi, Enrico P. [6631-39]S7	Tudisco, Salvatore S. [6628-51]SP, [6633-55]SP [6633-61]SP		

Participants

Names shown in bold are Members of SPIE.

Walter, Angela [6633-79]SP
Walter, Claudia [6633-91]SP
Walter, Joachim [6630-14]S3
Wathler, Julia [6627-12]S3
Wan, Kaiyu [6626-03]S1
Wang, Chun-Chin [6630-33]S6
Wang, Deli [6628-31]S5, [6628-64]SP
Wang, Hsing-Wen [6629-47]S7
Wang, Jing [6630-47]S
Wang, Lei [6628-11]SP
Wang, Ruikang K. [6627-21]S5, [6627-65]SP
Wang, Tsung-Jen [6630-04]S1, [6630-05]S1
Wang, Yue [6633-60]SP
Wardell, Karin [6631-34]S6
Watanabe, Yui [6627-52]S10
Watanabe, Michiko [6627-09]S2
Webb, David J. [6631-55]SP
Weber, Benjamin [6632-28]S6, [6632-67]SP2
Weber, Bernd-Claus [6628-12]S3
Weber, Bruno [6631-13]S3
Weber, Petra [6633-04]S1,
[6633-08]S2
Wehner, Martin M. [6632-47]S11
Wehry, Karin [6633-82]SP
Weiland, Yanina [6630-01]S1
Weiler, Volker [6633-91]SP
Weise, Anja [6633-78]SP
Weiss, Barbara [6630-35]S6
Weizel, Julia [6627 ProgComm, 6627 S2 SessChr
Wendel, Martina [6627-06]S2
Wenning, Ann-Marie K. [6630-29]S6
Werber, Armin [6627-55]SP,
[6633-38]S9
Werner, Martin [6632-01]S1
Wessel, Armin [6627-08]S2
Westermarck, Frida [6631-34]S6
Westphal, Volker [6630-19]S4
Wetzel, Corinna [6629-21]S3
Whelan, Maurice P. [6628-02]S1,
[6630-09]S2, [6631-14]S3
Wiedemann, Joerg [6626-04]S1
Wieger, Verena [6632-02]S1
Wiggers, Theo [6628-14]S3,
[6628-42]SP
Wigneshwararaj, Sivaramesh
[6633-92]SP
Wilke, Ingrid [WLT-199]S9
Will, Fabian G. [6627-35]S7
Willmink, Rene [6631-07]S2,
[6631-09]S2
Wilson, Brian C. [6626-02]S1, 6633 ProgComm
Wilson, David L. [6627-09]S2
Wilson, Robert H. [6628-10]S2,
[6628-33]S6

Wilson, Tony [6630 Chr, 6630 S4 SessChr, 6630 SP SessChr,
[6630-24]S5
Winlove, C. Peter [6633-23]S5
Winter, Christian [6627-11]S3,
[6627-57]SP
Winter, Gemma [6633-23]S5
Wintner, Ernst [6632-02]S1
Wisweh, Henning [6632-06]S1
Wojtkowski, Maciej [6627-16]S4, [6627-34]S7
Wolf, Didier [6631-35]S6
Woodhams, Josephine [6628-25]S5
Wu, Jheng-Syong [6629-14]S3
Wu, Tzong-Yuan [6626-05]S1
Wu, Yicong [6628-05]S2
Wüllner, Christian [6632-27]S6
Wunder, Andreas [6626 ProgComm,
6626 S4 SessChr, [6626-01]S1,
[6626-16]S4, [6629-35]S6
Wunderlich, Michael [6628-59]SP
Wuttig, Andreas [6630-18]S4
Wylie, Glenn R. [6629-23]SP,
[6629-27]S4
X
Xiao, Hua [6628-54]SP
Xie, Sunny [6630 ProgComm,
[6630-26]S5
Xu, Yingshun [6627-33]S7
Xu, Yong [6629-23]SP, [6629-27]S4
Y
Yakubovich, Sergei D. [6627-02]S1
Yakubovskaya, Raisa I. [6632-62]SP2
Yamada, Ichiro [6627-62]SP
Yamamoto, Daisuke [6629-28]S5
Yamanari, Masahiro [6627-16]S4,
[6627-47]S9, [6627-48]S9,
[6627-52]S10
Yamaoka, Yoshitaka [6631-01]S1
Yamazaki, Kyoko [6629-19]S3
Yarynovska, Ivanna H. [6628-52]SP
Yasuno, Yoshiaki [6627 ProgComm,
[6627-16]S4, [6627-47]S9,
[6627-48]S9, [6627-52]S10
Yatagai, Toyohiko [6627-16]S4,
[6627-47]S9, [6627-48]S9,
[6627-52]S10
Yau, Hon-Fai [6630-22]S4
Yardinfar, Siavash [6631-47]SP
Ye, Jing Y. [6631-31]S6
Yelbuz, Talat M. [6627-08]S2
Yelin, Dvir [6630-32]S6
Yildirim, Hülya [6633-84]SP
Yin, Xiaoxia [6631-41]S7

Proceedings of SPIE

European Conferences on Biomedical Optics

Vol#	Title (Editor)	Prepublication Price
6626	Molecular Imaging (K. Licha/V. Ntziachristos)	\$53
6627	Optical Coherence Tomography and Coherence Techniques III (P. E. Andersen/Z. Chen)	\$100
6628	Diagnostic Optical Spectroscopy in Biomedicine IV (D. Schweizer/M. Fitzmaurice M.D.)	\$100
6629	Diffuse Optical Imaging of Tissue (B. W. Pogue/R. Cubeddu)	\$90
6630	Confocal, Multiphoton, and Nonlinear Microscopic Imaging III (T. Wilson/A. Periasamy)	\$70
6631	Novel Optical Instrumentation for Biomedical Applications III (C. D. Depeursinge)	\$90
6632	Therapeutic Laser Applications and Laser-Tissue Interactions III (A. Vogel)	\$100
6633	Biophotonics 2007: Optics in Life Science (J. Popp)	\$105

Proceedings will be available an average of 6 weeks after the meeting.

See order form on page 40.

Publication Order Form

☐ SPIE Member
 SPIE ID # _____

First Name _____ M.I. _____ Last Name _____
 Title _____
 Company _____
 Address (include Mail Stop) _____
 City _____ State/Province _____ Zip/Postal Code _____
 Country other than USA _____
 Phone _____ Fax _____
 E-Mail Address (SPIE does not sell e-mail addresses) _____ Date of Birth (Optional) _____
☐ Check this box if you do not wish to receive information from organizations other than SPIE.

Proceedings and Publications

Fill in the volume or order number(s) and price(s) of the publications you wish to order below.

QTY.	VOL NO.	TITLE	PRICE (USD)

CA, FL, WA residents add sales tax; Canadian residents must add GST \$ _____ USD
 Shipping/Handling (Books & CD-ROMs) \$ _____ USD
 U.S. 5% of order total [2-3 weeks delivery] Elsewhere 10% of order total [3-5 weeks delivery]
 Express Shipping: U.S. \$15 USD for 1st item; \$10 USD each addl item [2-3 days delivery]
 Elsewhere \$30 USD for 1st item; \$15 USD each addl item [1 week delivery]

Method of Payment

☐ Check enclosed. Payment in U.S. dollars (by draft on a U.S. bank or international money order) is required.
 Do not send currency. Wire transfers from banks must include a copy of the transfer order.

☐ Charge to my: ☐ VISA ☐ MasterCard ☐ Discover ☐ American Express ☐ Diners Club

Card Number _____

Expiration date _____

Signature _____

☐ Purchase order enclosed (Purchase orders must be preapproved).

All orders must be PREPAID in U.S. dollars. Prices subject to change without notice. No returns without written authorization of SPIE. ITEMS WILL NOT BE SHIPPED UNLESS PAYMENT IS RECEIVED.

European Conferences on Biomedical Optics 2007 • CustomerService@SPIE.org • Tel: +1 360 676 3290 • SPIE.org/ebo

☐ SPIE Member
 SPIE ID # _____

For Office Use Only
 Date _____
 Amt. Recd. _____
 CC Cash Check TC
 Check # _____
 P.O. # _____
 IDN # _____
 ORD # _____
6013

PUBLICATIONS TOTAL
 \$ _____ USD

SUBTOTAL
 \$ _____ USD

TOTAL
 \$ _____ USD

Notes

European Conferences on **Biomedical Optics**

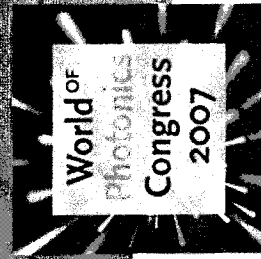
ICM—International Conference Centre Munich, Germany
17–21 June 2007

SPIE.org/ebo

Cosponsored by

SPIE

OSA—Optical Society of America



18th International Congress on Photonics in Europe

co-located with LASER 2007, World of Photonics

Messe München GmbH, Messegelände, 81823 München, Tel. (+49 89) 949-114 68, info@photonics-congress.com

www.photonics-congress.com