

BIOPHOTONICS INDUSTRY FORUM

hosted by

**UNIVERSITY OF CALIFORNIA BIOPHOTONICS
ALLIANCE (UCBA)**

Friday, January 20th, 2012

8:00 AM to 5:30 PM



Mission Bay Conference Center at UCSF
1675 Owens Street
San Francisco, CA 94143-3008

Dear Participants,

Welcome to the first ever Biophotonics Industry Forum, an event hosted by the University of California Biophotonics Alliance (UCBA) and sponsored by the UC Office of the President.

The University of California campuses, Lawrence Livermore National Laboratory (LLNL), and Lawrence Berkeley National Laboratory (LBNL) have formed a consortium for biophotonics research, education and development, named University of California Biophotonics Alliance. This consortium is coordinated by the Center for Biophotonics Science and Technology (CBST), headquartered at UC Davis in the Northern California region, and the Beckman Laser Institute and Medical Clinic (BLI) at UC Irvine in the Southern California region.

The Biophotonics Industry Forum brings together academics, graduate students, postdoctoral researchers, national lab researchers, participants from private industry, entrepreneurs and the venture community, all of whom work in, are interested in, or develop products for the exciting and expanding field of Biophotonics – the application of photon-based technology and methods to biosciences and medicine.

The purpose of this event is to forge strong relationships and partnerships among the university campuses, national labs and the private sector. We believe the best way to do this is by getting us together to highlight the cutting-edge biophotonics research and education activities of the UC and national laboratory campuses and talk about how to partner with the university and/or spin new companies out of it.

In particular, the Biophotonics Industry Forum will provide opportunities to:

- Highlight biophotonics research and education activities across UC, LLNL and LBNL
- Network with faculty, students, postdocs, researchers, technology transfer and industry alliance officers, scientists from industry, entrepreneurs, and the VC community
- Identify collaborative projects with the private sector (industry, entrepreneurs, and the VC community) and among multiple campuses
- Identify technologies available for licensing, either by established companies or by start-ups
- Receive input from colleagues in industry on unmet needs that may be fulfilled using biophotonics science and technology
- Receive input from industry colleagues, entrepreneurs and VCs regarding how to improve the University and National Labs as partners for innovation and commercialization

We very much appreciate the time you will spend with us today and look forward to productive discussions and potential partnerships to follow. Additionally, our vision is that biophotonics and its applications will contribute to enhancing the economy of the State of California by creating much-needed products, companies and jobs.

Sincerely,

The Biophotonics Industry Forum organizing committee

Dennis L. Matthews, Professor of Medicine, UC Davis, UCBA Co-Chair

Bruce Tromberg, Professor of Medicine and Bioengineering, UC Irvine, UCBA Co-Chair

Amy L. Gryshuk, PhD, Biosciences Program Development Liaison, LLNL

Gabriela Lee, MS, MBA, Chief Knowledge Transfer Officer, CBST, UC Davis

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AGENDA

- 8:00 – 8:30 AM **Registration and breakfast**
- 8:30 – 8: 50 AM **Welcoming Remarks and Goals for Today** - Dennis Matthews, PhD, Director, Center for Biophotonics Science & Technology (CBST) at UC Davis and Bruce J. Tromberg, PhD, Director, Beckman Laser Institute at UC Irvine
- 8:50 – 9:00 AM **William T. Tucker**, PhD, Innovation Alliances and Services (IAS) Executive Director, UC Office of the President
- 9:00 – 9:30 AM **Identifying a Partner That Will Help Grow a Bench Top Concept to a Finished Product –**
Eric Whitters, PhD, Global Head, Research, Novartis Diagnostics
- Historically, it is estimated that fewer than 3% of all emerging technologies have been developed from bench top concept to a final finished product. Although various complications have resulted in the high failure rate, one common feature of the successful launches was an appropriate partner to help shepherd the technology through the turbulent development process. Finding an appropriate partner, therefore, would seem to be tantamount to other factors important to a growing company. Novartis Diagnostics has demonstrated success in commercializing products and supporting collaboration partners. This short discussion will focus on people, processes and projects that have been successful over the past few years in driving these opportunities to the market place.
- 9:30 – 10:30 AM **UCBA Presentations** – biophotonics research projects at UC and National Labs campuses
- 9:30 AM Alex Zuern, PhD, UCB
 - 9:40 AM Jay Sharping, PhD, UCM
 - 9:50 AM Bahman Anvari, PhD, UCR
 - 10:00 AM Jim Schuck, PhD, LBNL
 - 10:10 AM Andrew Goodwin, PhD, UCSD
 - 10:20 AM Bruce Tromberg, PhD, UCI
- 10:30 – 10:40 AM **Morning break**
- 10:40 – 11:40 AM **UCBA Presentations** – biophotonics research projects at UC and National Labs campuses (continued)
- 10:40 AM Laura Marcu, PhD, UCD
 - 10:50 AM Ted Laurence, PhD, LLNL
 - 11:00 AM Joel Kubby, PhD, UCSC
 - 11:10 AM Warren Grundfest, PhD, UCLA
 - 11:20 AM Bo Huang, PhD, UCSF

- 11:40 AM – 12:25 PM **Panel session #1 – Industry-university relations - How to work with UC and the National Labs?**
- MODERATOR: Jay Sharping, PhD, UCM
 - o Diether Recktenwald, PhD, VP Advanced Technology, BD Biosciences
 - o Rupa Rao, PhD, Systems Engineer, Abbott Diagnostics
 - o Paul Goodwin, MS, Director of Advanced Applications and Technical Fellow, API/GE Healthcare
 - o Giacomo Vacca, PhD, Founder & President, Kinetic River Corp.
 - o Tony Lazar, MBA, Founder, NeuroSapient, Inc.
- 12:30 – 2:00 PM **Lunch and poster session**
- 2:00 – 2:45 PM **Panel session #2 – Launching a company out of the University of California Campuses or National Labs**
- MODERATOR: Jim Schuck, PhD, LBNL
 - o William Tucker, PhD, Executive Director, Innovation Alliances and Services, UCOP
 - o Douglas Crawford, PhD, Associate Director, QB3
 - o David Cuccia, PhD, CTO & CEO, Modulated Imaging, Inc. (UCI spin-out)
 - o Tom Anderson, PhD, CEO, Visitube (UCD spin-out)
 - o Tod Stoltz, MBA, Visitube (UCD spin-out)
 - o Neven Karlovac, PhD, CEO, Holomic LLC (UCLA spin-out)
- 2:45 – 3:15 PM **An Overview of Robotic Surgery and Ways that Intuitive Surgical Likes to Work with Academic Groups** – Jonathan Sorger, PhD, Director of Medical Research, Intuitive Surgical
- Intuitive Surgical designs and manufactures highly-complex robotic systems for use in minimally-invasive surgical applications. These master-slave tele-robotic systems consist of several multi-degree-of-freedom robotic manipulators that are used to measure motion inputs from the surgeon and to maneuver surgical instruments. Imaging and vision are key to the success of robotic surgery, and advancements in biophotonics will drive future applications. Jonathan will give an overview of the technology, the basics of which originated from academic & government laboratories, describe ways in which the Company currently works with outside collaborators.
- 3:15 – 3:25 PM **Afternoon Break**
- 3:25 – 4:10 PM **Panel session #3 – Recommendations for the future.**
- MODERATOR: Bruce Tromberg, PhD, UCI
- 4:10 – 4:25 PM **Facilitating Engagements with National Laboratories and Universities** – Amy L. Gryshuk, PhD, Biosciences Program Development Liaison, LLNL and Gabriela Lee, MS, MBA, Chief Knowledge Transfer Officer, CBST, UC Davis
- 4:25 – 4:45 PM **Ending remarks – Drs. Dennis Matthews and Bruce Tromberg**
- 4:45 – 5:30 PM **Networking session – Beverages & hors d'oeuvres**