NATO OTAN Advanced Study Institute Biophotonics

Biophotonics - From Fundamental Principles to Health, Environment, Security and Defence Applications
September 29-October 9, 2004
Crowne Plaza Hotel
101 Lyon Street, Ottawa, ON, Canada

Wednesday, September 29, 2004 **Sessions will be held in the Frontenac/Joliet Room *unless indicated***	
08:00 – 08:30	**Registration and Breakfast**
08:30 – 09:00	**Official Opening**
09:00 – 10:00	*"Introduction to Biophotonics – I"* Dr. Paras Prasad, Institute for Lasers, Photonics and Biophotonics, University at Buffalo, USA
10:00 – 10:30	**Coffee Break**
10:30 – 11:30	*Biophotonics – an Emerging Technology Paradigm – I* Dr. Bill Colston, Lawrence Livermore National Laboratory, USA
11:30 – 13:30	**Lunch and Networking**
13:30 – 14:30	*Biophotonics – an Emerging Technology Paradigm – II* Dr. Bill Colston, Lawrence Livermore National Laboratory, USA
14:30 – 15:30	*"Eye Optics – Fundamentals, Instrumentation and Applications – I"* Dr. Réjean Munger, University of Ottawa, Eye Institute, Canada
15:30 – 16:00	**Coffee Break**
16:00 – 17:00	*"Optics of Blood – Methods and Applications – I"* Dr. Alexander Priezzhev, Moscow State University, Russia
Thursday, September 30, 2004	
08:00 – 08:30	**Breakfast**
08:30 – 09:30	*"Introduction to Biophotonics – II"* Dr. Paras Prasad, Institute for Lasers, Photonics and Biophotonics, University at Buffalo, USA
09:30 – 10:30	*Problem-Based Learning Session* Dr. Bill Colston, Lawrence Livermore National Laboratory, USA
10:30 – 11:00	**Coffee Break**
11:00 – 12:00	*"Optics of Blood – Methods and Applications – II"* Dr. Alexander Priezzhev, Moscow State University, Russia
12:00 – 14:00	**Lunch and Networking**
14:00 – 15:00	*Problem-Based Learning Session* Dr. Paras Prasad, Institute for Lasers, Photonics and Biophotonics, University at Buffalo, USA
15:00 – 16:00	*"Commercialization of the Confocal MACROscope"* Dr. Ted Dixon, Biomedical Photometrics Inc., Canada
16:00 - 16:30	**Coffee Break**
16:30 – 17:30	*"Eye Optics – Fundamentals, Instrumentation and Applications – II"* Dr. Réjean Munger, University of Ottawa, Eye Institute, Canada
18:30 – 20:30	**Reception – Pinnacle Room**

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Friday, October 1, 2004	
08:00 – 08:30	**Breakfast**
08:30 – 09:30	*Problem-Based Learning Session* Dr. Réjean Munger, University of Ottawa, Eye Institute, Canada
09:30 – 10:30	*Problem-Based Learning Session* Dr. Alexander Priezzhev, Moscow State University, Russia
10:30 – 11:00	**Coffee Break**
11:00 – 12:00	*"Biochip and Nano-Technologies and Applications – I"* Dr. Tuan Vo-Dinh, Center for Advanced Biomedical Photonics, USA
12:00 – 14:00	**Lunch and Networking**
14:00 – 15:00	*"Biochip and Nano-Technologies and Applications – II"* Dr. Tuan Vo-Dinh, Center for Advanced Biomedical Photonics, USA
15:00 – 16:00	*International Science & Technology Center (ISTC) in Russia: Projects Overview*
16:00 – 16:30	**Coffee Break**
16:30 – 18:30	**Poster Session I – Chaudière Room** ASI Students
Saturday, October 2, 2004 – Biophotonics Lab Demos held at Algonquin College 1385 Woodroffe Avenue, Bldg. T, Ottawa, ON K2G 1V8	
08:00 – 08:30	**Breakfast**
08:30	**Bus Departs Crowne Plaza Hotel for Algonquin College**
09:00 – 12:00	*Biophotonics Demonstrations at Algonquin College* *Dr. Wilson, Dr. Matthews, Dr. Munger*
12:00 – 14:00	**Lunch and Networking**
14:00 – 16:00	*Biophotonics Demonstrations at Algonquin College* *Dr. Wilson, Dr. Matthews, Dr. Munger*
16:00	**Bus Departs Algonquin College for the Crowne Plaza Hotel**
Sunday, October 3, 2004 – Explore the Nation's Capital: Ottawa, ON, Canada	
08:00 – 08:30	**Breakfast – 101 Café & Bar**
TBA	**Bus Departs Crowne Plaza Hotel for Tour of Ottawa** *Note: only for those that register in advance*
Monday, October 4, 2004	
08:00 – 08:30	**Breakfast**
08:30 – 09:30	*"Photonics in Neurosciences – I"* Dr. Yves de Koninck, Centre de recherche, Université Laval Robert-Giffard, Canada
09:30 – 10:30	*"Photonics in Neurosciences – II"* Dr. Yves de Koninck, Centre de recherche, Université Laval Robert-Giffard, Canada
10:30 – 11:00	**Coffee Break**
11:00 – 12:00	*"Biophotonics Light Delivery Systems - I"* Dr.Moshe Ben-David, Tel-Aviv University, Israel
12:00 – 14:00	**Lunch and Networking**
14:00 – 15:00	*"Biophotonics Light Delivery Systems - II"* Dr. Moshe Ben-David, Tel-Aviv University, Israel
15:00 – 16:00	*Science and Technology Center in Ukraine (STCU): Projects Overview*
16:00 – 16:30	**Coffee Break**
16:30 – 18:30	**Poster Session II – Chaudière Room** ASI Students

NATO Advanced Study Institute - September 29-October 9, 2004, Ottawa, ON, Canada	
Tuesday, October 5, 2004	
08:00 – 08:30	**Breakfast**
08:30 – 09:30	*Problem-Based Learning Session* Dr. Yves de Koninck, Centre de recherche, Université Laval Robert-Giffard, Canada
09:30 – 10:30	*Problem-Based Learning Session* Dr. Moshe Ben-David, Tel-Aviv University, Israel
10:30 – 11:00	**Coffee Break**
11:00 – 12:00	"*Integrated Biosensors*" Dr. Alexander Cartwright, University at Buffalo, USA
12:00 – 14:00	**Lunch and Networking**
14:00 – 18:00	**Enjoy Your Afternoon**
18:00 – 19:00	*"Application of Biophotonics - I"* Dr. Dennis Matthews, Center for Biophotonics Science and Technology University of California, USA
19:00 – 19:30	**Coffee Break and Networking**
19:30 – 21:30	*Presentations by the Centre for Biophotonics Science and Technology, University of California* Dr. Dennis Matthews, Center for Biophotonics Science and Technology University of California, USA
Wednesday, October 6, 2004	
08:00 – 08:30	**Breakfast**
08:30 – 09:30	"*Fluorescence Spectroscopy and Microscopy – I*" Dr. Herbert Schneckenburger, Fachhoschschulee Aalen Biophotonics Group Institute of Applied Research, Germany
09:30 – 10:30	*Photodynamic Therapy - I* Dr. Brian Wilson, University of Toronto, Canada
10:30 – 11:00	**Coffee Break**
11:00 – 12:00	*"Application of Biophotonics - II"* Dr. Dennis Matthews, Center for Biophotonics Science and Technology University of California, USA
12:00 – 14:00	**Lunch and Networking**
14:00 – 15:00	*"Bioluminescence and Chemiluminescence - I"* Dr. Varban Savov, Sofia University, Bulgaria
15:00 – 16:00	*Presentations by Participants*
16:00 – 16:30	**Coffee Break**
16:30 – 17:00	*Presentations by Participants*
17:00 – 18:00	**Roundtable Discussion - Biophotonics Education Programs**
Thursday, October 7, 2004	
08:00 – 08:30	**Breakfast**
08:30 – 09:30	"*Fluorescence Spectroscopy and Microscopy – II*" Dr. Herbert Schneckenburger, Fachhoschschulee Aalen Biophotonics Group Institute of Applied Research, Germany
09:30 – 10:30	*Photodynamic Therapy - II* Dr. Brian Wilson, University of Toronto, Canada
10:30 – 11:00	**Coffee Break**
11:00 – 12:00	*"Bioluminescence and Chemiluminescence - II"* Dr. Varban Savov, Sofia University, Bulgaria

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Thursday, October 7, 2004 (cont.)	
12:00 – 14:00	**Lunch and Networking**
14:00 – 15:00	*Problem-Based Learning Session* Dr. Brian Wilson, University of Toronto, Canada
15:00 – 16:00	*Problem-Based Learning Session* Dr. Herbert Schneckenburger, Fachhoschschulee Aalen Biophotonics Group Institute of Applied Research, Germany
16:00 – 16:30	**Coffee Break**
16:30 – 18:00	*Presentations by Participants*
18:30 – 20:30	**Reception – Pinnacle Room**
Friday, October 8, 2004	
08:00 – 08:30	**Breakfast**
08:30 – 09:30	"*Tissue and Blood Optical Properties Control - I*" Dr. Valery Tuchin, Saratov State University, Russia
09:30 – 10:30	*"Biophotonics Simulations: Light Scattering from Bio-Cells – I"* Dr. Stoyan Tanev, Vitesse Re-Skilling™ Canada Inc.
10:30 – 11:00	**Coffee Break**
11:00 – 12:00	*Presentations by the Centre for Biophotonics Science and Technology, University of California* Dr. Dennis Matthews, Center for Biophotonics Science and Technology University of California, USA
12:00 – 14:00	**Lunch and Networking**
14:00 – 18:00	**Enjoy Your Afternoon**
18:00 – 19:00	*Problem-Based Learning Session* Dr. Varban Savov, Sofia University, Bulgaria
19:00 – 19:30	**Coffee Break and Networking**
19:30 – 21:00	*Presentations by Participants*
Saturday, October 9, 2004	
08:00 – 08:30	**Breakfast**
08:30 – 09:30	"*Tissue and Blood Optical Properties Control – II*" Dr. Valery Tuchin, Saratov State University, Russia
09:30 – 10:30	*"Biophotonics Simulations: Light Scattering from Bio-Cells –II"* Dr. Stoyan Tanev, Vitesse Re-Skilling™ Canada Inc.
10:30 – 11:00	**Coffee Break**
11:00 – 12:00	*Problem-Based Learning Session* Dr. Valery Tuchin, Saratov State University, Russia
12:00 – 12:15	**Closing Remarks**
12:15 – 14:00	**Lunch and Departure**