

WINTER COLLEGE ON BIOPHOTONICS:

Optical Imaging and Manipulation of Molecules and Cells

(10 - 21 February 2003)

Bulletin N. 1

The Abdus Salam International Centre for Theoretical Physics (ICTP), in collaboration with the International Commission for Optics (ICO), the Optical Society of America (OSA) and the International Society for Optical Engineering (SPIE) will organize a Winter College on Biophotonics: Optical Imaging and Manipulation of Molecules and Cells, which will be held at ICTP, Trieste, Italy, from 10 to 21 February 2003. This Bulletin contains the request for participation form and preliminary information.

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LOCAL ORGANIZER:

G. Denardo (ICTP and University of Trieste, Italy).

I. PURPOSE AND NATURE

The College will expose the participants to the basic and recent achievements in the theory and applications of laser based techniques for the study of biomolecules and biological objects. The programme consists of lectures by international experts, group discussions and laboratory demonstrations. The aim is to provide the background needed to follow the most advanced literature.

MAIN TOPICS

- ***Introduction to cell and molecular biophysics***
- ***Optical manipulation of biological samples***
- ***Advances in microscopy and endoscopy***
- ***Optical metrology***
- ***Imaging optical tissue***
- ***Biomedical spectroscopy***

The programme will also include some demonstrations and laboratory exercises.

The LAMP (Laser, Atomic and Molecular Physics) programme will include group discussions and internal seminars by participants. Those who intend to deliver a seminar are expected to come to ICTP prepared with all the material needed for their talk.

The College will be followed by a topical event:

ICS Training Course on Laser Based Tools for Optical Imaging in Biology and Medicine (24 - 28 February 2003).

(Information on receiving application forms for this event, to be found on **page 3** of this Bulletin).

The ICO - ICTP Prize (nominations are solicited) will be awarded during the ICTP Winter College (see info. on **Pages 4 and 5**).

II. PARTICIPATION

Scientists and students from all countries that are members of the UN, UNESCO or IAEA can attend the College. The main purpose of the Centre is to help research workers from developing countries through a programme of training activities within a framework of international cooperation. However, students and post-doctoral scientists from developed countries are also welcome to attend. As the College will be conducted in English, participants should have an adequate working knowledge of that language.

As a rule, travel and subsistence expenses of the participants are borne by the home institutions. However, limited funds are available for some participants from developing countries, who will be selected by the Organizers. Such financial support is available only for those who attend the entire activity. As scarcity of funds allows travel to be granted only in a few exceptional cases, every effort should be made by candidates to secure support for their fare (or at least half-fare) from their home country. There is no registration fee to attend the College.

Deadline for the RECEIPT of request for participation form:

1 November 2002

Candidates should complete and sign the attached "Request for Participation" form (also obtainable via e-mail: smr1495@ictp.trieste.it, using as subject "get bulletin", or via WWW Server: <http://www.ictp.trieste.it/>), and send it to:

**the Abdus Salam International Centre for Theoretical Physics
Winter College on Biophotonics (smr 1495)
Strada Costiera 11
I-34014 Trieste, Italy**

Any attachments to the request for participation, relevant to extra information for selection purposes, should not exceed 6 pages.

The decision of the Organizing Committee will be communicated to all candidates as soon as possible.

If you wish to attend the course :

**ICS Training Course on
Laser Based Tools for Optical Imaging in Biology and Medicine
24 - 28 February 2003**

please request the relevant application form directly from:

**International Centre for Science and High Technology (ICS) - UNIDO
AREA Science Park
Padriciano, 99
34012 Trieste (Italy)**

Tel: +39-040-9228125

Fax: +39-040-9228122

Email: varnier@ics.trieste.it

ICO/ICTP Award 2003: call for nominations

ICO, the International Commission for Optics, has established three awards: the «ICO Prize», the ICO Galileo Galilei Award and the ICTP/ICO Award. The latter was established jointly with ICTP and the International Commission for Theoretical Physics. The deadline for the ICTP/ICO Award is 10 November 2002. Calls for nominations for the other two awards will be published in the October 2002 issue of the ICO newsletter.

ICO, the International Commission for Optics, and ICTP, the Abdus Salam International Centre for Theoretical Physics, Trieste, have agreed to establish a joint prize, called the ICO/ICTP Award. It is reserved for young researchers from developing countries (as defined by the United Nations), who conduct their research in a developing country. The award will be given to scientists less than 40 years old (on December 31 of the year for which the award is given), who are active in research in Optics and have contributed to the promotion of research activities in Optics in their own or another developing country. While the ICO web page www.ico-optics.org has complete information, the instructions below should be appropriate to prepare a nomination.

The award consists of the following:

- 1) the ICO gives a cash amount of US\$1000 and a diploma;
- 2) the ICTP invites the winner to attend a three weeks College at Trieste at the next appropriate opportunity, and to give a seminar on his/her work. ICTP will pay for travel and living expenses. In February 2003, the ICTP will host an ICTP/ICO/OSA/SPIE Winter College on Biophotonics.

The award will be delivered to the winner at Trieste in the presence of representatives of ICO and ICTP. The award is given every year. The winner is selected on the basis of nominations received by the Award Committee in response to a call published by both ICO and ICTP. The nominations must be documented by a complete curriculum vitae including a list of publications and selected reprints (no more than three), as well as a complete employment history and a description of the nominee's achievements for the promotion of research activity in developing countries.

The first winners of the award were:

- 2000: Arbab Ali Khan (Pakistan)
- 2001: Arashmid Nahal (Iran) and Fernando Perez Quitian (Argentina)
- 2002: Alphan Sennaroglu (Turkey)

The Award Committee consists of Prof. A.A. Friesem of Weizmann Institute, Israel, Chair, Prof. G. Denardo of ICTP, Trieste, Italy, Prof. A. Consortini of University of Florence, Italy and Dr. M. Danailov of Synchrotron Trieste, Italy.

Return your nomination form, together with supporting information, no later than **10 November 2002**, to the Award Committee Chair, Professor Asher A. Friesem, the Weizmann Institute of Science, P.O. Box 26, Rehovot 76100, Israel, friesem@wicc.weizmann.ac.il, with a copy to Professor G. Denardo, the Abdus Salam International Centre for Theoretical Physics, Strada Costiera, 11, I-34100 Trieste, Italy, denardo@ictp.trieste.it .

Nomination instructions for the ICO/ICTP Award 2003

Nominations should document all sections listed below:

Full name of nominee

Nominator's name and address

Nominator's signature, date

Date of birth of nominee

Business address

Academic background, education (College or University, location, major field degree, year awarded)

Academic honours

Employment history (position, organization, duties, dates)

Publications, patents, unpublished reports, papers presented at meetings etc. (attach a list of those you deem pertinent)

Honours and awards

Scientific achievements for which the candidate is nominated for this award (attach a separate sheet)

Notes:

- The formal Rules of the ICO Awards are available on the ICO Web Page <http://www.ico-optics.org> .
- Nominators are encouraged to generate supporting letters. Each supporting letter must come from a different country or ICO territory and bring some additional information to the case. The number of supporting letters will not be a selection criterion.
- The recipient will be expected to give a presentation based upon his/her achievements at the next appropriate ICTP/ICO event.