4. **Professor (Dr.) Engin U. Akkaya**
Department of Chemistry, and
UNAM-Institute of Materials Science and Nanotechnology
Bilkent University, Ankara 06800, Turkey

TARGET AUDIENCE

Engineers, Scientists, Professors, Students, Medical technologists and other technical staff involved either in development, usage, etc. of medical technology products, especially in diagnostic, imaging analysis, sensing applications. It is also suitable for scientists and engineers and clinicians who are interested in future trends in biomedical engineering.

REGISTRATION

Those who are interested to participate in the workshop are requested to register. The registration fee is set at Rs 500/-.Registration fee for life members will be Rs 250/- and for students Rs 200/-. Registration fee can be paid through crossed demand draft favouring ISAS-Kerala Chapter payable at Ernakulam and should reach the convener/chairman latest by October 31st,2010.

For more information contact:

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Workshop on MOLECULAR PROBES – TECHNOLOGY AND APPLICATIONS

ORGANIZED BY

Indian Society of Analytical Scientists
Kerala Chapter

24/11/2010 9.00 A.M

VENUE

IMA House, Kaloor, Cochin

ISAS

The Indian Society of Analytical Scientists (ISAS) established in1983 is devoted to dissemination of scientific information in the area of Analytical Chemistry. It is the premier professional society of its kind in India facilitating cross fertilization of ideas and sharing experiences and forging links in the field of analytical chemistry and forging links between analytical scientists, academics and industry. ISAS has more than 2000 life members,12 chapters spread all over India. Over the years ISAS has already organized several national seminars on various topics of interest to analytical scientists. The Kerala Chapter, one of the most vibrant chapters of ISAS , was established in 2004.The Kerala Chapter of ISAS now propose to organize an one day workshop on Molecular Probes-Technology and Applications at Cochin Kerala State on 24/11/2010.

SCOPE

The main objective of this workshop is to provide an overview of the current state -of-the-art molecular probe technology and applications to students, teachers, research scientists working in R&D laboratories and industry. The Technology and applications of Molecular probes, have evolved constantly in the last few years and are increasingly being translated from the preclinical to the clinical level. Molecular probes allow for unique insights into specific disease mechanisms and holds great promise to change the practice of medicine by facilitating early disease detection, establishment of novel therapies, and selection of patients for treatment based on their individual disease biology (the paradigm of "personalized medicine"). They have numerous applications in sensing and imaging of important molecules causing health problems and diseases in humans as well as other animals. Molecular probes visualize specific cellular or sub cellular processes that occur before changes in morphology and function. This is highly relevant because impairments of such processes often are precursors or earliest stages of various diseases. They are also involved in the early response to therapy or may identify candidates most suitable for a specific therapy. Probes for multiple molecular pathways, including cardiac metabolism, cell death, neurotransmission, receptors, cell-matrix interaction and cell trafficking have been developed in early experimental work and are increasingly translated into the clinical arena. Several laboratories in India are carrying out advanced research in the area of molecular probes. Bridging the gap between research and commercialization is essential if we're to capture the true economic, social and health benefits of the research being done at various research laboratories and universities in India. This workshop was crafted out of discussions among the leading probe development and imaging groups in India, including world-class teams located at universities, research institutes, hospitals and cancer centres from across the country. Scientists, technologies and students from all over India are participating in the programme . The technologies, therapies, services and products discussed during the programme will help improve the well-being of all Indians while positioning India at the forefront of priority research areas. The workshop also aims to provide students with the fundamental building blocks and core knowledge on molecular probes technology and various sensing mechanisms. It will cover molecular probe design and development especially with regards to applications in analyte sensing and imaging . The workshop will provide excellent opportunities for both formal presentations and informal discussions for participants from all over the country on various aspects of the technology and applications of molecular probes in the typical informal settings at Cochin.

TOPICS COVERED

1. Molecular Imaging Basics
2. Designing and creating molecular probes
3. Evaluation and Validation of molecular Probes
4. Applications Analyte sensing
5. Molecular Imaging Applications
6. Towards Human Clinical Research

MAIN SPEAKERS

1 **Dr A. Ajayaghosh** (2007), Winner of Several National and International awards including the prestigious Shanti Swarup Bhatnagar Prize in Chemical Sciences in 2007), Head- Photosciences and Photonics Group, Chemical Sciences and Technology Division (CSIR), National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum,695 019, India.

2. **Professor (Dr.) Bradley D. Smith**
Department of Chemistry and Biochemistry,
University of Notre Dame, Indiana, 465 56
USA

3. **Professor (Dr.) Seiichi Uchiyama**
Graduate School of Pharmaceutical Sciences,
The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku,
Tokyo 113-0033, Japan.