

# Spanish Society's 5th International Symposium Focuses on Improving Quality of Laboratory Tests

The quality of the clinical laboratory is fundamental for the safety of patients as it implies the reduction of errors, the analysis of the causes of their pathology and the avoidance of their recurrence. The Spanish Society of Clinical Biochemistry and Molecular Pathology (SEQC), whose members are seeking to obtain the highest level of quality in their work, has organized the 5th International Clinical Laboratory and Quality Symposium, with the objective of disseminating and updating knowledge to help the doctor to diagnose, forecast, treat and follow up patients in the most effective way possible. In order to do this, the 200+ attendees have reviewed subjects covering all laboratory activities, such as the change in the analysis request and the current tools for the preparation and handling of sam-

ples, the comparison between laboratories with first rate programs, the impact of the provision on patient care and the formal recognition of the laboratory quality.

According to Dr. Francisco Ramón Bauzá, member of the SEQC and of the Symposium organizing committee, "the regular organization of this type of training activities has contributed to the notable improvement seen in recent years in the quality of laboratories."

This improvement has been evident, for example, in the reduction in the variability, shown through external quality guarantee programs or the increase in laboratories certified by the ISO 9001 standard or accredited according to the ISO 15189 standard. Specifically, the variability between laboratories in some tests, such as blood glucose, has gone from the 10% in 1995 to the current 4%.

"It is also important to highlight the cooperation between several Scientific Societies in order to guarantee quality, such as the existence of a common journal, the organization of a unified congress or the existence of joint working groups on quality," said Doctor Carmen Ricós, member of SEQC and of the organizing committee.

Currently, to measure quality levels of laboratories, the SEQC organizes 28 programs covering a total of 189 biological quantities, a preanalysis quality program and quality indicators program.

### Internationalization

The Symposium's program has included vastly experienced, widely published, relevant international speakers who are members of internationally recognized working groups.

"We wanted to invite speakers from other countries, because the laboratory organizations in different countries are becoming more and more alike and it allows the discussion of common problems and the suggestion of possible solutions," both speakers said.

Photo: The Symposium organizing committee with some of the speakers visiting the modernist pavilions in the Hospital de la Santa Creu i Sant Pau.

#### **IFCC OFFICE**

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Where the Omics Community Collaborates

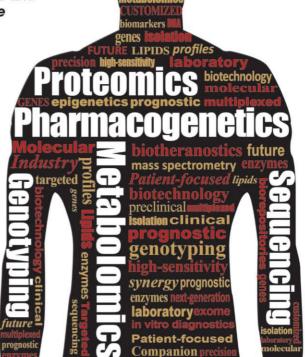
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## Labs Are Vital is "Still" Changing and We "Still" Want You to Be Involved

by Graham Beastall, IFCC President; Ellis Jacobs, Labs Are Vital Board, IFCC Representative

We are pleased to tell you that the Labs Are Vital Members Board, with representatives from IFCC, WASPaLM (World Association of Societies of Pathology & Laboratory Medicine), ASCP (American Society of Clinical Pathology) and IFBLS (International Federation for Biomedical Laboratory Science), has successfully transitioned the program to one driven and managed by a consortium of global professional bodies.

We all stand by the original goals for the program, and are committed to making *Labs Are Vital* a powerful voice in support of the essential contribution laboratory medicine makes to our healthcare system.

The success of the new Labs Are Vital program

depends on active engagement from large numbers of individual laboratory medicine specialists. Over sixty blogs have been posted on the *Labs Are Vital* website, www.labsarevital.com, on topics ranging from evidence of clinical value of lab and disease state management to patient safety and professional development. There are also LRV Facebook and Twitter accounts. We are seeking to expand involvement and invite you to help by promoting *Labs Are Vital* through individual participation as well as through your society.

As an individual specialist you are actively encouraged to register on the new program website at www.labsarevital.com to:

· Post blogs and start discussions

- Comment on stories
- Share your own experiences and contribute to our online toolbox

As an IFCC Member society, you are encouraged to provide a link to www.labsarevital.com on your society website. Your society, or regional federation, is also invited to consider becoming an Affiliate Member of *Labs Are Vital*, which provides the opportunity to have a community page on the LRV website, in your native language, which can contain subject matter of unique interest to your area of the world. Please contact Ellis Jacobs (labsarevital@ifcc.org) for further information about becoming an Affiliate Member.

By working together, we can continue to spread the message that *Labs Are Vital*.

### IFCC Programs Available to Assist Developing Countries

One of the goals of IFCC is to help improve the quality of Clinical Laboratory testing and management, with the ultimate goal of assisting laboratories to achieve accreditation. With this in mind a leaflet was designed, under the coordination of Immediate Past-president Prof. Jocelyn Hicks and EB member Prof. Vanessa Steenkamp, to assist developing countries in understanding the programs that are available for Member associations and their individual members. It serves as an interpretation of the "De-

veloping Quality Competence in Medical Laboratories" (DQCML) program.

IFCC recognizes that the extent and quality of laboratory testing in many developing countries lags behind what is accepted as needed in advanced countries. In many developed countries it is stated, although without scientific proof, that 50%–70% of medical decisions are based on laboratory test results. This underlying importance of laboratory testing is a primary reason why IFCC, within the limits of its resources, is de-

termined to assist the progressive evolution of laboratory testing in developing countries.

This leaflet provides a list of IFCC programs available for developing countries which will make it easier for scientists to assess information in a way that will not cause them a finan-

cial burden. We trust that you will benefit from this list of programs, which is available on the website at www.ifcc.org

For further information, contact Vanessa Steenkamp (Email: vanessa.steenkamp@up.ac.za) and Jocelyn Hicks (Email: hicksjmb@gmail.com)

### Saudi Society Becomes 89th IFCC Member

We welcome the 89th Full Member of IFCC: the Saudi Society for Clinical Chemistry

The new IFCC member had been established in the Kingdom of Saudi Arabia, in Riyadh City. The second main branch of Society is established in Jeddah.

The Saudi Society for Clinical Chemistry focuses on:

- Development of scientific and professional thinking in the sphere of the society specialization and promotion of the performance of the society members in field of chemical laboratories and medical chemistry and diagnosis of diseases on the basis of the laboratory testing results.
- Providing opportunities for those working in the field of the society, to

participate in the process of scientific development as guided by the Society.

- Facilitating exchange of scientific achievements that occur in the Society field of specialty. Such exchange can be made inside and outside the Kingdom.
- Providing advice and studies to the different organizations concerned with respect to matters which are within the activities of the Society.
- Participation in laying down professional standards in the field of the Society activities and following up on the proper utilization of those standards
- Participation in elevating the level of awareness among the public in the different health fields within the field of Society activities.



# JACLaS EXPO 2014

**EXHIBIT-INFORMATION** 

KOBE INTERNATIONAL EXHIBITION HALL
KOBE CITY, JAPAN

OCTOBER, 9 (THU), 10 (FRI), 11 (SAT)

JACLaS EXPO 2014 will be held simultaneously with the 46th congress of the Japan Society for Clinical Laboratory Automation.

Japanese Association of Clinical Laboratory Systems JACLaS





# My IFCC Professional Scientific Exchange Program (PSEP) Experience

by Myriam Oliveira Rodriguez, Hospital San Agustín-Avilés, Asturias, Spain

rist of all, I would like to express my sincere gratitude to the IFCC Professional Scientific Exchange Program (PSEP) for giving me the opportunity to work under the supervision of Prof. Richard O'Kennedy in the Biomedical Diagnostic Institute (BDI).

Point of Care Testing (POCT) is defined as medical diagnostic testing performed outside the clinical laboratory in close proximity to where the patient is receiving care. POC tests are important in settings where timing is critical (e.g., emergency rooms), where laboratory facilities are nonexistent or resources are low (e.g., in developing countries). These devices help deliver appropriate and prompt treatments and improve clinical outcomes.

The BDI is a multidisciplinary research institute focused on the development of biomedical diagnostic devices and has collaborative programs with Dublin City University, in addition to other institutions. Its focus areas are principally clinical diagnostics in

oncology, cardiovascular and infectious diseases. Typically, these devices involve the capture, detection and analysis of cells or biomolecules.

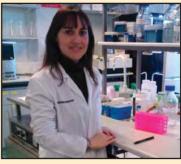
My 3-month stay in Dublin was divided in two parts. In the beginning I worked in the Applied Biochemistry Research Group, internationally recognized for its expertise in immunoassays and in the generation of monoclonal, polyclonal and recombinant antibodies. One of the main objectives of this Group is the generation of antibodies against new biomarkers for cancer diagnosis. My project in this laboratory was the purification and characterization of antibodies against prostate specific membrane antigen (PSMA), a transmembrane protein expressed in all types of prostatic tissues and whose concentration is associated with the tumor grade. Some of the techniques that I used were affinity chromatography, protein expression (SDS and Western Blot), enzyme linked immunoassays (ELISA) and surface plasmon resonance.

I spent the second part of my stay in the Microfluidics Group. The BDI Microfluidics team develops novel micro and nanofluidic technologies for biomedical diagnostics and systems biology.

In the last years BDI have had projects in the development of devices for POC diagnostic for colorectal cancer, lab-on-a-disc platform that facilitates cost-efficient and automated counts of CD4+ cells in blood, platforms for a standard liver assay panel from whole blood consisting of six enzymatic assays fully integrated on a disc, extraction of RNA from blood, etc.

My project in the Microfluidics Group was to design a centrifugal microfluidic lab-on-a-disc system to develop an automated ELISA to detect prostate cancer.

Microfluidic platforms enable the miniaturization, integration and automation of biochemical assays. In the centrifugal platform, all the processes are controlled by a frequency protocol. With the outstand-



ing help and supervision of Dr. Mishra, Dr. Kinahan and Dr. Nwainkire my project yielded encouraging results. The advantages of this system over the conventional ELISA in a plate are the fully automation, lower time and volume requirements and in the ability to use whole blood.

I wish to express my gratitude to Dr. Francisco Alvarez (President of the Spanish Society of Clinical Biochemistry) for supporting my request for this stay, Dr. Rafael Venta (Head of Department of Clinical Biochemistry at San Agustin Hospital, Avilés) for always encouraging me in my initiatives, Prof. Richard O'Kennedy for letting me be part of his group and see the progress in the design of POC devices and also the PSEP-Committee for making it possible.

### News from the IFCC Website

Interview with Thomas Sudhof, 2013 Nobel Prize in Physiology



The El Microscopio, the IFCC web radio, interviewed the recipient of the Nobel Prize in Physiology or Medicine 2013, Prof. Thomas C. Südhof (co-awardee with James Rothman, PhD, and Randy Schekman, PhD). They were awarded the prize for their discoveries of machinery regulating vesicle traffic, a major transport system in our cells. In his interview, Prof. Südhof talks us about his discoveries and the contribution to clinical chemistry and laboratory medicine.

### IFCC Task Force-on Cardiac Biomarkers

mplementation and use of high-sensitivity cardiac troponin assays in practice, and the calculation of the clinically-relevant change (delta) values, can be challenging. The IFCC Task Force on Clinical Applications of Cardiac Bio-markers (TF-CB) has prepared two helpful documents that are now available in both extended and pocket formats for immediate and easy consultation.

### IFCC 2013 Annual Report

The IFCC Annual Report 2013 is now available. This lists all the activities performed in 2013 by IFCC at a glance. The Annual Report 2013 includes the reports of the IFCC Officers, National or Area Societies and Regional Federations, giving the opportunity to communicate their activities to other members. The Annual Report 2013 has been compiled by Dr. Sergio Bernardini, IFCC Secretary. A message from the IFCC President, Dr. Graham Beastall, welcomes the reader.

#### APFCB News 2013

The Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine 2013 News is now available. This special issue, published after the 13th APFCB Congress in Bali, will allow you to enjoy a glimpse of this well organized and successful event. This issue also features updates on member society activities and some useful articles from both regular and corporate members. An article on the Importance of Warfarin Genotyping in Asians completes the issue. The attractive painting on the cover page, "Cherry Blossom Time in Japan," has been graciously contributed by Prof. Tan It Koon, founder and past president of APFCB, from his precious artwork.

