



OUR MISSION IS TO BE THE LEADING ORGANIZATION IN THE FIELD OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE WORLDWIDE

eNewsletter



IFCC NEWS, Jan-Feb 2005 issue
By Ellis JACOBS, IFCC News Editor

EDITORIAL A NEW YEAR, A NEW PRESIDENT!



JOCELYN M. HICKS
IFCC PRESIDENT
GENETICS AND IVF INSTITUTE
FAIRFAX, VA, UNITED STATES

January 1, 2006 marked a very important day in my life as I assumed the Presidency of the IFCC. I am both delighted by the opportunity and awed by the responsibility. I follow many successful Past Presidents.

My major goals are to keep constant or to improve upon the very important current scientific activities and to work diligently on improving the quality of laboratory results worldwide. This is a critical effort in order that patients are diagnosed correctly and treated appropriately. There are many laboratories in developing nations that do not use quality control materials to ensure accuracy of results. Some developing, and even some developed, nations have no accreditation program. It is clearly impossible to solve all of these problems during my tenure as President, but with the help of my colleagues in the IFCC I expect to develop programs to effect some positive changes. Dr. Thomas Whitehead, who sadly died recently, was a pioneer in these areas. He set up quality control programs in Mexico and Thailand. I hope to expand on his important work.

As we are all aware, several natural disasters have occurred recently. These include the tsunamis in Asia, hurricanes Katrina and Rita in the United States, mudslides in Guatemala, and earthquakes in Pakistan and India. Disasters such as these are accompanied by disease and nutritional challenges. In addition, there are major pandemics that are occurring, such as SARS, Avian flu and the ongoing scourge of HIV infections. In the case of SARS, laboratories in Australia and Asia responded quickly to bring appropriate testing to affected areas. As a global federation in laboratory medicine, we need to be prepared to help in the appropriate testing for AIDS and assisting local laboratories in achieving high standards. Sometimes, all that may be necessary is to develop connections to other areas in the world that need assistance.

Communication is always considered to be an issue in any business, whether it is in industry or in a hospital. Communication, by definition, is a two-way process. In the IFCC, we must work hard to achieve this. I will commit to making sure that National Representatives, Presidents of our Member Associations and Societies and our corporate partners are kept informed of what the IFCC is doing. I invite all of you to communicate with members of our Executive Board and our Divisions.

During my first year in office, I plan to develop a set of goals with the Executive Board, and I will communicate these to all members of the IFCC. I hope to have feedback from all of you. I have an excellent Board with which to work; we represent all parts of the world. The Past President is Austrian, the Vice President is from the Czech Republic, the Secretary is from Finland, the Treasurer is a Syrian, the Corporate Member is from Germany, and the three At-Large members are from Argentina, Malaysia and the United Kingdom.

I wish everyone a healthy and successful 2006.

LABORATORY MEDICINE IN URUGUAY: ADVANCES AND NEW CHALLENGES

CONTRIBUTED BY DR. STELLA RAYMONDO, IFCC NATIONAL REPRESENTATIVE, URUGUAY

As general information, Uruguay is one of the smallest countries of South America with three million and a quarter of people, and about of one hundred of labs.

The Uruguayan Biochemical Association (ABU in Spanish), a member of the IFCC in Latin America, is deeply committed to the improvement of all professionals working in the Clinical Chemistry and Laboratory Medicine field. In order to achieve that goal courses are organized, meetings arranged, and the Association supports organizations. Among all the local events planned by ABU, the one that deserves and requires most of our attention is the Clinical Chemistry Congress, a highlight in our cultural environment, held every two years in Montevideo.

This Congress is a cultural tradition that begun in 1997, and because of its importance, it's still standing. It is considered one of the major scientific activities in the field of Biochemistry in our country: a meeting where our professionals and technicians can keep their knowledge up-to-date, find out about the latest technologies introduced in the country, buy the latest edited books, and... have fun while doing so, thanks to the social activities held at the end of the day. Every other September the Congress covers different topics, according to the needs and interests expressed by the community. Previous meetings were based on a single topic: two meetings ago it was the making of our own reference values, and the last one centered on accreditation in the clinical laboratory. However, this year the motto was "Update and New Strategies": instead of picking a single subject, a series of state-of-the-art topics were chosen and presented to our scientific community. The advertisement begun months before, through posters, brochures, and the web page <http://www.aqfu.org.uy/abu>

The different activities of the Conference were symposiums, courses, and general conferences. Every morning 90 persons attended to one of the three simultaneous courses held in different rooms of the NH Columbia Hotel; every single course was imparted by excellent researches and speakers, both from our country and abroad. The different topics were:

1. *The various uses of Molecular Biology in the clinical laboratory*, a relatively new technique in our environment. The course was taught by Dr. Patricia Esperón, Professor of Molecular Biology in our Chemistry School, and well-known researcher on Molecular Genetics issues such as genetics and prevention of cardiovascular diseases.
2. *Spermograms*, its importance, the studies it implies and their interpretation. Dr. José María Montes, President of the Uruguayan Association for Human Reproduction was the distinguished lecturer of this course.
3. *Biological Variation and Reference Values*. It was imparted by our International Visiting Lecturer of IFCC, Dr. Xavier Fuentes-Arderiu, whose work is world-wide known, and needs no introduction from our part.

The different symposiums lasted 2 hours and were attended almost 230 people, who had to choose among two simultaneous activities. 14 different topics were chosen to be worked on the symposiums: some of them were presented by Uruguayan scientists, although 12 of all lectures were from different countries, such as Spain, Paraguay and Argentina. The chosen topics for the symposiums were:

1. *Immunity and Aterogenesis.*
2. *S.aureus community-acquired infection nowadays.*
3. *Bone marrow transplant.*
4. *Update in self-immune diseases.*
5. *New approaches in monitoring of therapeutic drugs.*
6. *Genetic aspects of cardiovascular risks.*
7. *Gonadic Digenesis.*

8. *Update in Diabetes.*
9. *Advances in education and teaching of the Clinical Biochemist.*
10. *Health and Environment.*
11. *Update in Quality Management in the Clinical Laboratory.*

The six different general conferences were at noon and in late afternoon, while no other activity was happening. Distinguished lecturers, great professionals in their work fields, were invited for the conferences, which were based on:

1. *Uncertainty in measurement.* Dr. Xavier Fuentes Arderiu (Spain)
2. *Management of Clinical Analysis Laboratory.* Prof. Dra. Montserrat Blanes (Paraguay)
3. *Legal aspects of our trade.* Dra. Clara Chames (Argentina)
4. *Analytical guidelines in oral, faringeal and facial infections.* Prof. Dra. Laura Pivel. (Uruguay)
5. *Stem Cells Banks.* Dr. Orlando Echegoyen (Argentina)
6. *Mastering of Natural Forces, a challenge for science: the SIS (Selective inverted sump) system.* Ing. Rafael Guarga. (Uruguay)

The Congress lasted three days, from September 16th, until September 18th. It was a satisfying experience, for both attendants and organizers. We're all looking forward to the next experience, on September 2007.

REMEMBER

LETTERS TO THE EDITOR SECTION ADDED TO THE IFCC eNEWS

Do you agree or disagree with an editorial?

Is something bothering you?

Is there an issue you would like to inform others about?

Then write a letter to the editor.

See what others are saying about the IFCC, about key health care issues or share your thoughts by providing a letter of your own.

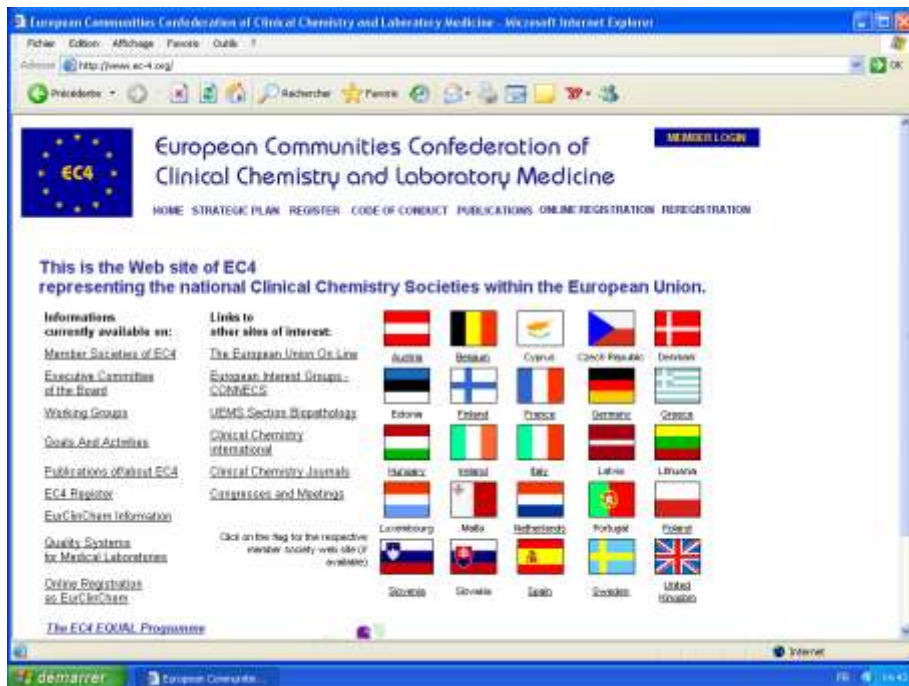
Please send any letter you would like published to the eNews Editor, Dr. Ellis Jacobs, at ejacobs@wadsworth.com.

"GREEN LIGHT FOR HARMONIZATION IN EUROPE..."

CONTRIBUTED BY DAMIEN GRUSON PH.D., IFCC NEWS WORKING GROUP

The fact:

The directive regarding "Harmonization for Specialists in Clinical Chemistry and Laboratory Medicine in Europe" was voted by the ministers' council the 6th of June and was published in the official journal the 30th of September. Acceptance of this directive is a wonderful support for the harmonization and the standardization of Clinical Biology in Europe. It gives the possibility to every European laboratory professional to register in a unique European database of Clinical Laboratory Medicine in Europe. This is an advice for European laboratory professional: register now! The European Register of Specialists in Clinical Chemistry and Laboratory Medicine opened in January 1999 and by November 2003 it comprised more than 1500 practitioners from 15 different countries, and the numbers are rising rapidly. Registrants include both scientific and medically qualified practitioners.



How to register?

An on-line application form to join the European Register of Specialists in Clinical Chemistry and Laboratory Medicine may be obtained from the EC4 website (www.ec-4.org). Once completed this should be submitted electronically and a printout, together with a curriculum vitae and a single payment of 50 EUR, should be sent to the address given for the appropriate country. Successful applicants are admitted to the register for a five-year period, with no annual fee. A certificate is issued to all registrants. Subsequent re-registration will require the registrant to demonstrate that he/she is still in active practice and undertaking continuing professional development.

The Perspective of the Profession

The existence of a strong European Register of Specialists in Clinical Chemistry and Laboratory Medicine:

- Provides an important benchmark of quality across the profession within Europe.
- Develops the corporate identity of Clinical Chemistry and Laboratory Medicine in Europe.
- Assists with the promotion of Clinical Chemistry and Laboratory Medicine within Europe.
- Assists greater understanding of the practice of Clinical Chemistry and Laboratory Medicine within Europe.
- Provides a basis for pursuing agreed projects of common interest to the profession.
- Strengthens the influence of EC4 in dealings with other professional societies and the diagnostics industry.
- Increases the likelihood that the profession of Clinical Chemistry and Laboratory Medicine will be afforded Common Platform Status within the European Union.
- Provides a pool of experts who may be willing to work for the good of the profession.



ROFAR AWARDS ANOTHER 1.2 MILLION SWISS FRANCS TO FUND GROUND-BREAKING ANEMIA-RELATED RESEARCH IN EUROPE AND THE USA.

In just 18 months, RoFAR has awarded funding to 21 international research projects

Basel, Switzerland, 10th December 2005. RoFAR (The Roche Foundation for Anemia Research) announced today that it has awarded a further 1.2 million Swiss Francs (\$USD 900 000) to seven new anemia-related research projects proposed by scientists and physicians in Austria, Switzerland, the UK and the USA. Since it began in 2004 RoFAR has provided essential funding totalling 4.1 million Swiss Francs (\$USD 3.1 million) to support novel research.

Beyond the known impact of anemia in kidney disease and cancer, new avenues of exploration are opening up which suggest anemia is implicated in chronic diseases such as inflammation and rheumatoid arthritis, and may be a factor in congestive heart failure and stroke. It is also thought that erythropoietin, the hormone which regulates the number of red blood cells, has a protective effect in the body. For these reasons RoFAR is dedicated to advancing the field of anemia, its associated complications and outcomes, and erythropoietic agents.

Announcing the awards, Dr Jim Armitage, member of the RoFAR Board of Trustees and an oncologist at the University of Nebraska Medical Center, USA, said “The depth and breadth of submissions for the RoFAR awards certainly reinforces that research into anemia is robust, and far-reaching and there are very compelling scientific questions that the medical community would like to answer. Our understanding of anemia and its impact on chronic kidney disease, cancer and other illnesses will grow through the work of these inquiring scientists.”

The funding of the Foundation consists of donations from F. Hoffmann-La Roche Ltd., with an initial sum of 16 million Swiss Francs over the first four years. The funds are distributed as grants of up to 200,000 Swiss Francs, distributed over one or two years.

Grant applications are open to all established research centres. For more information on award winning projects and submission dates for the next funding cycle please visit our website (www.rofar.org).

About the Foundation

RoFAR is a non-profit, independent charitable funding body that aims to encourage innovative research that will open new avenues of exploration in the study of anemia, its mechanisms, outcomes and treatments. The foundation is legally independent from F. Hoffmann-La Roche Ltd. and is guided solely by the Board of Trustees according to its charter.

The Foundation structure involves eight Trustees, from renal, cardiology, haematology, epidemiology and oncology spheres and a Scientific Advisory Board. The Board of Trustees are Nathan Levin, USA (Chair); James Armitage, USA; Charles Herzog, USA; Adeera Levin, Canada; Jean François Morere, France; Neil Powe, USA; Eberhard Ritz, Germany; and Lars Birgersson, USA.

Cycle III award winners

1. The Impact of Erythropoietin on the Hypoxic Ventilatory Response of mouse and men. Prof. Max Gassmann, University of Zurich, Switzerland.

2. **Effects of systemic erythropoietin therapy on cerebral autoregulation and the incidence of delayed ischemic deficits in patients with aneurysmal subarachnoid haemorrhage.** Mr. Peter J. Kirkpatrick, Addenbrooke's Hospital, United Kingdom.
3. **Roles of Sox6 in erythropoiesis.** Dr. Véronique Lefebvre, Cleveland Clinic Foundation, United States.
4. **Effect of Erythropoietin on Brain Injury and Regeneration in Bacterial Meningitis.** Prof. Stephen, Leib, University of Bern, Switzerland.
5. **Recombinant human erythropoietin: A new treatment for Friedreich's ataxia.** Dr. Barbara Scheiber-Mojdehkar, Medical University of Vienna, Austria.
6. **Erythropoietin or erythrocyte transfusion for anemia?** Prof. Jürg Schifferli, University Hospital Basel, Switzerland.
7. **Erythropoietin neuroprotection in retinal neurodegeneration.** Dr. Marcela Votruba, Cardiff University, United Kingdom.

For further information:

Further information about the Foundation and full details about how to apply for a grant can be found on the RoFAR website www.rofar.org or please contact the RoFAR secretariat on: Telephone: +41 41 377 3669, Fax: +41 41 377 5334 or e-mail: admin@rofar.org

IFCC AUSPICES FOR CONFERENCES AND CONGRESSES

CONTRIBUTED BY ALBERT D. FRASER, CHAIR, IFCC CONGRESS AND CONFERENCE DIVISION

The Congress and Conference Division (CCD) of the IFCC has the mandate to coordinate all congress and conference activities for the federation. Promotion of upcoming scientific meetings and congresses is a valuable service offered to IFCC member societies by the IFCC office.

An excellent way to help promote national society meetings is via the IFCC auspices programme. CCD is responsible for reviewing applications from national society member meetings and other scientific meetings applying for IFCC auspices for their conference and congresses. Granting of IFCC auspices is very straightforward and is based primarily on the scientific content of meetings that are open to all scientists. The IFCC Auspices application (pdf file) is available on the web site: http://www.ifcc.org/divisions/CCD/Documents/ifcc_auuspices1.pdf. IFCC auspices can be applied for by completion of a one-page form. The auspices application form is also available from the IFCC office as a Word file if you prefer to complete the application electronically.

Two major benefits of obtaining IFCC auspices is that your meeting announcement is sent out electronically to a very large IFCC distribution list at no cost to you and your meeting is also granted permission to use the IFCC logo in your promotional material.

It is important to remember, however, that IFCC auspices must be applied for each individual meeting or conference. Secondly, having IFCC participation in your meeting (such as a visiting lecturer, etc.) does not automatically grant IFCC auspices. National societies must remember that IFCC auspices are a completely separate process from other IFCC involvement in your meetings. Secondly, optimal benefit comes to your meeting if you apply for IFCC auspices 6 – 12 months prior to your congress.

If you have any questions on granting of IFCC auspices or on the policies on this matter, please look at the IFCC web site or contact me as Chair of the Congress and Conference Division of the IFCC.

RISK MANAGEMENT TOOLS FOR IMPROVED PATIENT SAFETY WORKSHOP ANNOUNCED BY CLINICAL AND LABORATORY STANDARDS INSTITUTE

Wayne, PA, USA—5 December 2005—Clinical and Laboratory Standards Institute (CLSI, formerly NCCLS) has announced it will follow up March 2005's groundbreaking Quality Control for the Future workshop with a workshop titled Risk Management Tools for Improved Patient Safety, to take place in conjunction with the organization's annual Leadership Conference, from 26-28 April 2006 in Vienna, Virginia, outside of Washington, DC.

Quality Control for the Future has launched a continuing flurry of press, scholarly articles, and public debate throughout the healthcare world on the topic of equivalent quality control, along with collective innovation on new regulatory options to better accommodate different sectors of the patient-testing field. Risk Management Tools for Improved Patient Safety will focus specifically upon defining current problems in risk management, reviewing currently employed mechanisms and solutions, and describing a systematic risk management approach, providing attendees with concrete tools with which to return to their workplaces for practical application.

Presenters will include Joe Boone, PhD, of the Centers for Disease Control and Prevention (CDC), who will address risk created by laboratory errors; Donald Powers, PhD, of Powers Consulting Services, who will explain the benefit of extending the risk management process used by IVD manufacturers to the clinical laboratory; and Tina Krenc of Abbott Diagnostics, who will introduce available risk management tools, their specific uses, and their limitations.

However, says CLSI Director, Standards and Quality Jennifer McGeary, MT(ASCP), MSHA, the main focus of the day will be upon providing the audience "take-home knowledge" of risk management tools they can implement to manage risk and eliminate error, with afternoon training sessions focusing on hazard analysis, process mapping, FME(C)A, fault tree analysis, and HACCP.

Co-sponsors of the event include AdvaMed, the American Association for Clinical Chemistry (AACC), CLMA, COLA, the Canadian Society for Medical Laboratory Science, and the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC).

For more information on the Risk Management Tools for Improved Patient Safety workshop and the 2006 CLSI Leadership Conference, visit www.clsi.org, or call +610.688.0100.

Clinical and Laboratory Standards Institute is a global, nonprofit organization dedicated to developing medical standards and guidelines through a consensus process that balances the perspectives of industry, government, and the healthcare professions.

"A DAY OF CLINICAL BIOLOGY IN THE CEDAR COUNTRY..."

CONTRIBUTED BY DAMIEN GRUSON PH.D., IFCC NEWS WORKING GROUP

3rd of December 2005, Beirut, Lebanon. The sun is shining, the city is awake and people seem to be happy. 15 years after the end of a horrible war and human tragedy, Lebanon is ready to continue its long history and for a one-day stop of Clinical Biology in this wonderful country.

Lebanon has a heritage almost as old as the earliest evidence of mankind. Its geographic position as a crossroads linking the Mediterranean Basin with the great Asian hinterland has conferred on it a cosmopolitan character and a multicultural legacy. Lebanon has an Arab culture colored by Western influences. At different periods of its history, Lebanon has come under the domination of foreign rulers, including Assyrians, Babylonians, Persians, Greeks, Romans, and Ottomans. Although often conquered, the Lebanese take pride in their rebellions

against despotic and repressive rulers. Moreover, despite foreign domination, Lebanon's mountainous terrain has provided it with a certain protective isolation, enabling it to survive with an identity all its own. Its proximity to the sea has ensured that throughout its history Lebanon has held an important position as a trading center. This tradition of commerce began with the Phoenicians and continued through many centuries, remaining almost unaffected by foreign rule and the worst periods of internal strife.

With such history and traditions, illustrated by the emblematic cedar, Lebanon has to be a respected country. For a similar tradition in healthcare and Clinical Laboratory Medicine, Lebanon has to be considered a strategic place for healthcare exchanges.



So, this third of December, the wonderfully rebuilt city of Beirut was the host for a great day of Clinical Biology. This symposium was organized in the "Hôtel-Dieu de France", the major hospital of Beirut, and under the hospitality of the St-Joseph University. "La journée de Biologie" was focused on the new biomarkers in clinical biology and an important place was given to the cardiovascular area. Indeed, in Lebanon, mortality from heart diseases is about 6000, for a global population of 3.6 million, and deaths from stroke events are 2000. Prevalence of Diabetes is 7.0%. Questions of a new early marker of acute myocardial infarction, like myeloperoxidase, and application of multimarker strategy to cardiovascular diseases were largely debated. This day attracted a national and international audience and its success is mainly due to Pr. Hermine AYDENIAN, Hotel-Dieu laboratory head chief, in collaboration with Dr. Fadi HOBEICHE, president of the national syndicate of the clinical biologists.



From right to left: Dr. F. Hobeiche, Dr. D. Gruson, Pr. H. Aydenian, L. Blokker, Pr. Halaby and Dr. Macaron.

In conclusion, this very pleasant symposium of Clinical Biology in Beirut was a real opportunity to discover the magnificent country of Lebanon, to underscore the excellence of work and studies performed by laboratory professionals in Lebanon and to appreciate the dynamism of the national society for Clinical Biology.

LIGHT-HEARTED CLINICAL CHEMISTRY

A lecture with obstacles.

In memory of Professor Tom Whitehead, Birmingham, UK, who passed away in October this year.

In the late 1970s and early 1980s Gerald Siest released some of his impressive energy in organising fabulous conferences for his European and overseas colleagues in the Abbey of Pont-a-Mousson, France. One year the contingent from the United Kingdom included Tom Whitehead, international clinical chemist if any, always smiling and full of stories, some of which have appeared in this column.

Many of us including Tom were accommodated in a wing to the monastery, where a bathroom was shared between two bedrooms and could be entered from either side. One evening after a fluid meal the idea came up that we should play a practical joke on Tom, who had an excellent sense of humour. A strategy was worked out. The person sharing the bathroom with Tom should take a late shower and then block the bathroom for Tom, expecting that he would be back late from his supper. Our doubts about the practicality of the joke were quickly dispersed, when it was discovered that there were plenty of cardboard boxes in the exhibition area and it was felt that the exhibitors would only be too happy to find their rubbish removed when they arrived in the morning. After several raids into the exhibition hall Tom's bathroom was soon tightly packed with boxes from floor to ceiling, wall to wall, and we all went to bed. Next morning we listened to Tom's excellent but uncharacteristically muted presentation.

At tea break the colleague, sharing bathroom with Tom, said that he had heard muffled sounds coming from the other side both during the night and before the start of the morning session. However, the soundproofing provided by the cardboard boxes had prevented him from deciphering the spoken words.

Recollected by Magnus Hjelm

IFCC DOCUMENTS PUBLISHED IN 2005

Bergmeyer Conferences-Roche Diagnostics Master Discussions:

Kallner A, Muller MM, Poppe W. 10th Bergmeyer Conference-Roche Master Discussion. Diabetes Mellitus and Cardiovascular Disease. Scand J Clin Lab Invest 2005; 65 (Suppl. 240):1-56.

SD 8.1 Scientific Division

Panteghini M, Forest JC. Standardization in laboratory medicine: new challenges. Clin Chim Acta 2005; 355:1-12.

8.2.6 Committee on Nomenclature, Properties and Units

Nordin G, Klintonberg B, Persson B, Forsum U. Can a laboratory investigation be called anything? "The NPU system" sorts out the concepts and gives systematic stringency. Lakartidningen 2005; 102:1308-1315.

SD-C 8.2.19 Committee on Standardisation of Markers of Cardiac Damage

Apple FS, Panteghini M, Raykilde J, Mair J, Wu AH, Tate J, Pagani F, Christensen RH, Jaffe AS. Quality specifications for B-type natriuretic peptide assays. Clin Chem 2005; 51:486-493.

Apple FS, Wu AH, Mair H, Ravkilde J, Panteghini M, Tate J, Pagani F, Christenson RH, Mockel M, Danne O, Jaffe AS. Future biomarkers for detection of ischemia and risk stratification in acute coronary syndrome. Clin Chem 2005; 51:810-824.

SD-C 8.2.21 Committee on Reference System of Enzymes

Ferard G, Imbert-Bismut F, Messous D, Piton A, Ueda S, Poynard T, Lessinger JM. A reference material for traceability of aspartate aminotransferase (AST) results. Clin Chem Lab Med. 2005; 43:549-553.

SD-C 8.2.22 Committee on Point of Care Testing

Ben Rayana MC, Burnett RW, Covington AK, D'Orazio P, Fogh-Andersen N, Jacobs E, Kulpmann WR, Kuwa K, Larsson L, Lewenstam A, Maas AH, Mager G, Naskalski JH, Okorodudu AO, Ritter C, St John A. Guidelines for sampling, measuring and reporting ionized magnesium in undiluted serum, plasma or blood. Clin Chem Lab Med 2005; 43:564-569.

D'Orazio P, Burnett RW, Fogh-Andersen N, Jacobs E, Kuwa K, Kulpmann WR, Larsson L, Lewenstam A, Maas AH, Mager G, Naslalski JW, Okorodudu AO. Approved IFCC Recommendation on Reporting Results for Blood Glucose (Abbreviated). Clin Chem 2005; 51:1573-1576.

SD-WG 8.3.16: Working Group on Standardization of HCG Measurements:

Bristow A, Berger P, Bidart JM, Birken S, Norman R, Stenman UH, Sturgeon C. Establishment, value assignment, and characterization of new WHO reference reagent for six molecular forms of human chorionic gonadotropin. Clin Chem 2005; 51:177-182.

UPCOMING IFCC RELATED MEETINGS IN 2006

Laboratory Automation: Advanced Tools for Improving the Practice of Medicine, Okura Hotel, Amsterdam, The Netherlands, 16-17 Mar, 2006, www.aacc.org/meetings/labauto_amsterdam06

XVII Congreso Latinoamericano de Bioquímica Clínica , Hotel Yacht and Resort, Asunción, Paraguay , 4-7 April, 2006, www.ifcc.org/products/congresses/HotelYachtCasinoResorting.pdf

ArabMedLab 2006 – XI Arab Federation of Clinical Biochemistry Congress, VII Syrian Clinical Laboratory Association Conference, Damascus, Syria, 29 Apr – 2 May, 2006, www.scla.org.sy/html/7th_conf/2nd_announce.php

American Association for Clinical Chemistry 2006 Annual Meeting, Chicago, IL, US 23-17 Jul, 2006, www.aacc.org/2006am

21th International Symposium in Critical Care and Point of Care Testing, “Refining Point of Care Testing Strategies for Critical and Emergency Care.” Quebec City, Canada, 28-30 Sept 2006, www.aacc.org/meetings/cpoc05

III "Biologie Prospective" Santorini Conference 2006, Santorini Island, Greece, 28 Sep – 2 Oct, 2006, biol.prospective-conf.u-nancy.fr