EDITORIAL - CCD AND CONGRESS ACTIVITIES OF IFCC

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Core IFCC values include promoting the science of clinical chemistry and laboratory medicine worldwide and providing education for national societies and their memberships. One of the key mechanisms for offering education and new advances in clinical aspects and research in our discipline is through the regional and international congresses of clinical chemistry and laboratory medicine. In 1996, the IFCC Executive board established a Congress and Conference Division (CCD) with the mandate to coordinate all congress and conference activities for the federation. The main tasks of CCD include:

1. Monitoring of the organization and development of each international congresses of Clinical Chemistry and Laboratory Medicine (ICCCLM). For the ICCCLM held in Orlando, USA (hosted by the AACC) in July 2005, CCD received regular updates on congress planning and on aspects of the programme and activities relevant to the IFCC and to the clinical chemists attending from around the world. Now that the highly successful Orlando Congress is past, CCD attention will focus on the next two triennial international congresses scheduled for Fortaleza, Brazil (IFCC Worldlab 2008 ICCCLM) from 28 September - 02 October 2008 and the IFCC Worldlab 2011 scheduled for Berlin, Germany.

2. Monitoring the organization and development of the four regional congresses of clinical chemistry and laboratory medicine (RCCCM). One example of this activity is assuring that these congresses proceed according to the IFCC Guidelines for Regional Congresses of Clinical Chemistry and Laboratory Medicine. Effective in 2005, a CCD member will be a full member of the organizing committee for each future regional and international congress. This active CCD participation will assure that there is always someone speaking on behalf of IFCC on the organizing committees and providing IFCC support and advice to each congress organizing committee. A CCD member (Professor Istvan Vermes) from the Netherlands is a member of the organizing committee for the 17th IFCC FESCC European Congress of Clinical Chemistry and Laboratory Medicine (EuroMedLab 2007) scheduled for Amsterdam from 03 – 07 June 2007. Professor Tomris Özben (Turkey) is on the organizing committee for the 11th Arab Federation of Clinical Biology congress (ArabMedLab 2006) being held in Damascus, Syria from 29 April - 02 May 2006. Dr. Andreas Rothstein (Columbia) is the CCD member liaison for the next COLABOCLI Latin American Congress of Clinical Biochemistry scheduled for Asuncion, Paraguay from 04 – 07 April 2006. In the Asia Pacific region, the newest CCD member (Dr. Sunil Sethi from Singapore) is the CCD liaison for the Asian Pacific Congress of Clinical Biochemistry scheduled for Beijing, China from 14 – 19 October 2007.

3. Oversight and management of the triennial IFCC General Conference. Approximately half way between each international congress, an IFCC General Conference is held. These
conferences are scheduled at a time and location where each individual IFCC working units can get together for division and working group meetings and offer an opportunity to learn about other IFCC programmes. The General Conferences differs from all other congresses in that it is primarily a business meeting, not a scientific meeting. General Conferences are organized by CCD and IFCC head office staff. Representatives of each national society member and corporate members of IFCC are invited to attend the general Conference. The most recent General Conferences were held in Dubrovnik, Croatia (2001) and in Sousse, Tunisia in 2004. The location and time for next General Conference (2007) has not been chosen. In 2005, national societies and corporate members were polled about their experiences with previous General Conference and asked for suggestions on how to improve the General Conferences. CCD will review the responses at their next meeting in November 2005.

4. **Guidance on “How to Organize a Successful Congress”**
A timetable with specific deadlines prior to a congress is available for anyone on the IFCC web site. CCD is also responsible for reviewing applications from national society member meetings and other scientific meetings who apply for IFCC auspices for their conference and congresses. Granting of IFCC auspices is very straightforward and is based on the scientific content of meetings which must be open to all scientists. IFCC auspices can be applied for by completion of a one page form available on the IFCC web site. 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 and your meeting is also able to use the IFCC logo in promotional material.

5. **Selection of future IFCC Worldlab sites**
CCD developed a point rating system that is used when evaluating the member country applicants for future IFCC Worldlab congresses. This point system is transparent to member countries applying to host future IFCC Worldlab congresses (ICCCLM). The point rating system is sub-divided into five categories that are: 1. Participation 2. Facilities 3. Accommodation 4. Financial and 5. Miscellaneous. The application and point system is available for review via a link on the IFCC web site (Congress and Conference Division): http://www.ifcc.org/divisions/CCD/Documents/ICCCLM_Guidelines_2004_Revised_May_2005.pdf. Recently, Emmezeta Congressi based in Milan, Italy has been designated as the preferred IFCC meeting/congress professional congress organizer. Emmezeta works closely with CCD on various congress matters such as the evaluation of applications for FESCC (EuroMedLab) congresses and ICCCLM congresses. Specifically, Emmezeta evaluates the proposed commercial exhibits site, hotels, and the logistics of hosting a major IFCC congress in the site proposed by a member society.

Unlike other IFCC divisions, the administrative structure of CCD is straightforward. There is an executive committee and no working groups. In October 2005, there are six CCD members: Andreas Rothstein (CO), Tomris Özben (TK), Sunil Sethi (SG), the CCD secretary István Vermes (NL), the EB representative Vladimir Palicka (CZ) and the Chair Albert D. Fraser (CA). New members are chosen from the nominations submitted by member societies. Several of the current CCD members served initially as associate members based on national society nominations and their interest and participation in CCD activities. These associate members were subsequently made full members by the Executive Board. Further information about CCD activities is available from any CCD member.
This past August, the Catalan Association of Clinical Laboratory Sciences (hereafter the ACCLC) turned 10 years old. For all who have worked for this scientific organisation and have contributed to its growth, this is an important event. Through 10 years of intense work the “kid” grew healthy and strong and learned to satisfy the necessities of its country in the field of clinical laboratory sciences.

During this period the ACCLC has organised 5 national congresses, 3 European symposia and about 40 educational activities (courses, seminars, debates, etc.). Additionally, thirteen books were edited.

In 2000 the ACCLC initiated its e-journal *In vitro veritas* (ISNN 1697-5421; [http://www.acclc.es/invitroveritas](http://www.acclc.es/invitroveritas)) that publishes both original articles and some Catalan translations of previously published articles. The official website of the ACCLC ([http://www.acclc.es](http://www.acclc.es)), where *In vitro veritas* is housed, has had over 20,000 visits.

The ACCLC has published two international proposals, one regarding subcontracting clinical laboratory examinations (1) and another one regarding the multicenter production of reference values (2).

Presently, the ACCLC is constituted by 180 members, of which 12 are corporate members. ACCLC’s members may be specialists in clinical biochemistry, haematology, immunology, clinical microbiology, and general clinical laboratory —called clinical biology in the Council Directive 93/16/EEC of the European Union (3)— as well as other university graduates in biochemistry, biology, chemistry, medicine and pharmacy working or interested in clinical laboratory sciences.

On behalf of the Executive Board of the ACCLC, I would like to express our satisfaction by the development of the ACCLC in these 10 years, and our disposition to collaborate with any national or international organisation devoted to any branch of clinical laboratory sciences.

**References**


Everywhere, we see a changing role for Laboratory Medicine in the panoply of services in healthcare, and in part as a result of globalization. We see a changing role for Industry and Corporate Members in providing their goods and services to the hospitals and to the Clinical Laboratory community. These roles are changing because there is new discovery and evolution in medical sciences, technologies, and continuing evolution (and revolution) in national and world economies. A particular challenge for IFCC is that these changes and evolutions occur at different rates, and in different directions in the geographical zones that are represented in IFCC, having the most important role in the standardization of laboratory methods. IFCC is also involved in the current trends in instrumentation and technology which are key disciplines in laboratory medicine. Many IFCC laboratory scientists are looking to the future based on the driving forces toward technology for miniaturization and micro fluid, with applications ranging from bedside analysis geared toward instituting prompt and optimal therapy to molecular analysis of pathogens and the study of mechanisms of malignancy.

Other main activity in IFCC is in the continuing professional education of the membership, with an impressive portfolio of publications, congresses, symposia and Master Conferences. The challenges that are faced will influence what is done, how it is done, how often, with how many people, and so on.... The way to go forward with IFCC activities will be by adaptation and by anticipation of challenges and changes. The development of human resources and expertise for laboratory medicine is an essential area for establishing networks and good collaborations. Human resource and scientific level were and remains the most critical factors in determining the level of performance in the health care delivery and for the attainment of national health goals in all countries. The dynamic nature of the IFCC in responding to the needs of the countries and in forecasting future trends have put IFCC in a leadership position in terms of management of change and responses to a changing health care "industry". A change in this "industry" required a change in the knowledge, skills and attitude of those who run this industry. In other words, change in the practice requires development and in the set of knowledge, skills and attitude needs to perform. The changes that are taking place in the world at the social, economic, technological and scientific levels have created new challenges to all citizens of the world, and have imposed new realities for international organizations, requiring them to respond in a constructive and a very fast manner. What we witness now, in terms of changing in the biomedical sciences and health technologies, requires from us to adopt a new way of thinking for problem solving and for being creative.

The pattern of diseases is changing. Some diseases have been eliminated, while others are emerging. In some of our countries, "communicable diseases" are pertaining, while in most countries, we have the other type of "non-communicable diseases". These diseases will continue to press as a result of the life-styles people have. This shift requires the patient to know what he/she should do rather than what the "health services" should do for him/her. The emphasis is on the behavior which is based on a well-informed decision. The society is getting more educated, more informed and more opened to the outside world. The major part of globalization actually refers to global access to information using the information and communication facilities. The patient knows more than his doctor about his own illness and the new developments about its research and treatment. The patient has access to health and medical information equal to his/her doctor, which is a challenge to the health care provider. This has resulted in more power to the end-use, the client, the citizen and the patient. The emerging of the information society, the knowledge-based economy, the globalisation in general
is based on availability of information and communication technology (ICT) infrastructure and services. For any citizen or community to be part of these changes, active participation is required in response to changing needs of IFCC National Societies and Corporate Members, and in taking advantage of the technical tools that are needed and available. To achieve these goals a close collaboration with the other full members, with the FESCC and with the other regions is a prerequisite.

THE H5N1 HEALTH THREAT

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H5N1 is actually at the Europe frontiers. European people and the world are afraid by this virus and the possibility of a large pandemic. What is exactly H5N1? What are the possibilities for laboratories to confirm in H5N1 infection? How to prevent and treat H5N1? Here come some complementary informations about this “special” Influenza virus.

1. What is H5N1?
Influenza A (H5N1) virus – also called “H5N1 virus” – is an influenza A virus subtype that occurs mainly in birds. It was first isolated from birds (terns) in South Africa in 1961. Like all bird flu viruses, H5N1 virus circulates among birds worldwide, is very contagious among birds, and can be deadly. H5N1 is a highly pathogenic strain of avian influenza (bird flu). Bird flu viruses do not usually infect humans, but several cases of human infection with bird flu viruses have occurred since 1997. The first known appearance of this type of flu in humans was in Hong Kong during 1997. The infection of humans coincided with an epidemic of avian influenza, caused by the same strain, in Hong Kong’s poultry population. The name H5N1 refers to the subtypes of surface antigens present on the virus: hemagglutinin type 5 and neuraminidase type 1. As of July 21, 2005, one hundred nine cases of human infection have been confirmed resulting in fifty-five deaths outside of China. Thirteen countries across Asia and Europe have been affected. Additionally, more than one hundred twenty million birds have died from infection or been culled. Usually these flu viruses are transported worldwide in the intestines of wild birds, and are non-lethal. However, this variant has mutated into the most lethal strain of avian influenza ever recorded. Such occurrences are natural and have happened in the past, as in the influenza pandemic caused by the 1918 Spanish flu.

Infected birds shed flu virus in their saliva, nasal secretions, and feces. Susceptible birds become infected when they have contact with contaminated excretions or surfaces that are contaminated with excretions. It is believed that most cases of bird flu infection in humans have resulted from contact with infected poultry or contaminated surfaces.

Symptoms of bird flu in humans have ranged from typical flu-like symptoms (fever, cough, sore throat and muscle aches) to eye infections, pneumonia, severe respiratory diseases (such as acute respiratory distress), and other severe and life-threatening complications. The symptoms of bird flu may depend on which virus caused the infection.
2. **What are the possibilities for laboratories to confirm in H5N1 infection?**

Highly pathogenic avian influenza A (H5N1) is classified as a select agent and must be worked with under Biosafety Level (BSL) 3+ laboratory conditions. Respiratory virus cultures should not be performed in most clinical laboratories and such cultures should not be ordered for patients suspected of having H5N1 infection. Clinical specimens from suspect A (H5N1) cases may be tested by PCR assays using standard BSL 2 work practices in a Class II biological safety cabinet. In addition, commercial antigen detection testing can be conducted under BSL 2 levels to test for influenza.

Laboratory testing for influenza should be performed as recommended by the WHO:

- **Diagnosis of influenza A virus infections include:**

  1. **Rapid antigen detection.** Results can be obtained in 15–30 minutes.
     - Near-patient tests for influenza. These tests are commercially available (Nicholson, Wood & Zambon, 2003).
     - Immunofluorescence assay. A widely used, sensitive method for diagnosis of influenza A and B virus infections and five other clinically important respiratory viruses.
     - Enzyme immunoassay. For influenza A nucleoprotein (NP).

  2. **Virus culture.** Provides results in 2–10 days. Both shell-vial and standard cell-culture methods may be used to detect clinically important respiratory viruses. Positive influenza cultures may or may not exhibit cytopathic effects but virus identification by immunofluorescence of cell cultures or haemagglutination-inhibition (HI) assay of cell culture medium (supernatant) is required.

  3. **Polymerase chain reaction and Real-time PCR assays.** Primer sets specific for the haemagglutinin (HA) gene of currently circulating influenza A/H1, A/H3 and B viruses are becoming more widely used. Results can be available within a few hours from either clinical swabs or infected cell cultures. Additionally several WHO Collaborating Centres are developing PCR and RT-PCR reagents for non-typical avian/human influenza strains (Fouchier et al., 2000; Lee & Suarez, 2004).

- **Identification of avian influenza A subtypes**

  **Immunofluorescence assay**
  Immunofluorescence assay (IFA) can be used for the detection of virus in either clinical specimens or cell cultures. Clinical specimens, obtained as soon as possible after the onset of symptoms, are preferable as the number of infected cells present decreases during the course of infection. Performing IFA on inoculated cell cultures is preferable as it allows for the amplification of any virus present.
  Materials required:

  **Virus culture**
  Virus isolation is a sensitive technique with the advantage that virus is available both for identification and for further antigenic and genetic characterization, drug susceptibility testing, and vaccine preparation. MDCK cells are the preferred cell line for culturing influenza viruses. Identification of an unknown influenza virus can be carried out by IFA using specific monoclonal antibodies (see above) or, alternatively, by haemagglutination (HA) and antigenic analysis (subtyping) by haemagglutination inhibition (HAI) using selected reference antisera. Unlike other influenza A strains, influenza A/H5 will also grow in other common cell lines such as Hep-2 and...
RD cells. Standard biosafety precautions should be taken when handling specimens and cell cultures suspected of containing highly pathogenic avian influenza A.

3. **How to prevent and treat H5N1?**

- **H5N1 Vaccine**
  
  There currently is no vaccine to protect humans against the H5N1 virus that is being seen in Asia. However, vaccine development efforts are under way. Research studies to test a vaccine to protect humans against H5N1 virus began in April 2005. Preliminary results obtained from 115 (some sources say 113) of the vaccine recipients showed a strong enough immune response to ward off the virus. The doses that were most effective contained 90 micrograms of H5N1 antigen in each of two shots, compared with the 15 micrograms of antigen given via a single injection in typical annual flu vaccinations. The vaccine, made by Sanofi Pasteur, will next be tested in adults over age 65, likely beginning in about a month, according to the Associated Press (AP), and trials in children will follow shortly thereafter. Safety issues will be examined in these groups as well as optimal dosing levels. Normally, older people, children, and people with chronic diseases are most at risk for complications of influenza. The H5N1 strain may not fit this pattern; mortality rates in the 1918 flu pandemic were highest in otherwise healthy young adults. The high doses needed for protection against H5N1 pose obvious challenges in regard to production capacity. The 2 million US doses already ordered might cover only 450,000 people. Supplying even the amount of vaccine ordered for yearly US influenza vaccination programs is problematic, as evidenced by last flu season’s shortage when the Chiron company was unable to produce the almost–50 million doses it was to supply to the United States. In a flu pandemic, vaccine for the worldwide population would be needed.

- **H5N1 treatment**
  
  The H5N1 virus currently infecting birds in Asia that has caused human illness and death is resistant to amantadine and rimantadine, two antiviral medications commonly used for influenza. Two other antiviral medications, oseltamavir and zanamavir, would probably work to treat flu caused by the H5N1 virus, though studies still need to be done to prove that they work. Oseltamivir (Tamiflu) from Roche is used to treat some types of influenza (flu) in patients who have had symptoms of the flu for 2 days or less. Oseltamivir is in a class of drugs called neuraminidase inhibitors. These drugs work by stopping the growth and spread of the flu virus. Oseltamivir helps shorten the time of flu symptoms such as nasal congestion, sore throat, cough, muscle aches, tiredness, headache, fever, and chills. Oseltamivir comes as a capsule to take by mouth. It is usually taken twice daily for five days. Oseltamivir may be taken with or without food.
"I thought that many IFCC readers would find this short article regarding the status of Laboratory Medicine in a Romanian Laboratory interesting. This article highlights one of the concerns we should have regarding quality. As the writer, Dr Camelia Grigore states, there are no standards for Quality Control. In many developing countries this relates to the high costs of external Quality Control and to the costs of daily QC materials.

This article was recently published in the Newsletter of The International Association of Pediatric Laboratory Medicine. I hope that you enjoy reading it.

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President-Elect, IFCC

The evolution of laboratory medicine closely tracks the progress of medicine in general. The technological level of medical laboratories, the expertise and training of their personnel and the amount and frequency of the investments they receive reflect the condition of an entire healthcare system.

Before 1989, in Romania, as in other Eastern European countries, laboratory medicine faced a severe shortage of modern technology. Automated laboratory instruments in the 80’s was available only in university clinics and hospitals. However, wherever they were introduced, the new instruments improved the use of hematology and biochemistry in diagnosis. In the 1990’s PCR technology, mass spectrometry and genetics made their way to Eastern Europe bringing both hope and concern. Hope due to new diagnostic opportunities they opened up and concern caused by their associated costs. New targets such as near-patient testing and online analysis have also become possible, yet not as widely available as the technology would have permitted.

For decades, the main goal of laboratory medicine in Eastern Europe was to reduce the gap that separated it from Western countries as fast and as efficiently as possible. Challenges have always been the same: (i) How to schedule technology upgrades? (ii) How to retrain professionals? (iii) How to minimize the associated costs and time? There was been no question but that both the technical platform and the professionals had to undergo major restructuring.

In 1991, the Children’s Hospital in Sibiu began the process of upgrading its laboratory. The first step was Biochemistry, which received semi-automated photometers and ready-to-use reagents. Switching from manual routine work to a faster and more precise technology required personnel training. Fully automated analyzers arrived in subsequent years. In 1994, Hematology was the second department to be improved. After the first automated hematology analyzer arrived in our laboratory, doctors had to read fewer slides, allowing them to concentrate on new fields of interest. Immunology was the last sector to be upgraded. The ELISA readers offered physicians the possibility to detect HIV and Hepatitis B and C, which became major priorities in our health care.

Opportunities to upgrade our technical platform exploded in the 90’s as Eastern Europe was increasingly perceived as a market hungry for equipment and medical technology, and tens of companies invaded it with exciting and competitive offers. While this situation looked beneficial
for laboratory medicine, the costs became increasingly significant as more sophisticated instruments and reagents were selected. Optimizing the performance-cost ratio of equipment acquisition has been a major task for laboratory management, educated before 1989 at a time when the health care was planned and executed by the state in a centralized way. We had to learn to choose the best equipment that our money could buy. Collecting information, talking to sales people and attending exhibitions became the new routine for laboratory management people. It was in 1994 when we were first invited to an exhibition organized by a company that provided medical supplies. Two years later, in 1996, was the first time I attended an international laboratory instruments exhibition.

In a market-based economy, a technology-dependent health care system is driven by its budget. Applied to laboratory medicine, it has become obvious that the amounts of money a lab could allocate for its equipment ultimately defined the quality of the service it can provide. Unfortunately, in Romania as in other countries in Eastern Europe, medical laboratory techniques currently in use, still range from top-end automated analysis to old manual methods. A highly equipped laboratory demands highly-trained staff, which, unlike equipment, cannot be upgraded overnight. Doctors have been the natural leaders of this process. The staff had to switch to new instruments for their daily routine work, to quickly learn new protocols, even English in order to read the instruction manuals. Searching the Internet was one of the most recent challenges we faced (I had my first access in 1999). Doctors have started attending congresses, exhibitions, making visits or short training stays in medical laboratories abroad, especially in new areas such as immunology, genetics and molecular biology. We all had to learn: managers, how to optimize the cost-efficiency of the lab; doctors, how to support clinicians by exploiting new laboratory methods; and, technicians how to use the new equipment to execute analysis previously done manually. Quality control became the main criterion in laboratory evaluation at the time when, in many Eastern European countries, the National Control System is still in its infancy, and there are no national standards for good laboratory practice.

Despite all these achievements, laboratory medicine in Romania still needs well-trained technical, medical and managerial staff. As in all other countries in Eastern Europe, Romania has insufficient medical staff, due in part to low salaries in this field. Health officials have looked for new ideas to address the situation of laboratory medicine. One of the first steps taken by the government has been the externalization of laboratories. Private laboratories are more dynamic and have larger budgets to purchase new instruments. Consequently, a number of public laboratories were acquired by private companies.

During the last 10 years (1995-2005), laboratory medicine in Romania has changed tremendously. With the perspective of becoming part of the European Union, Romania's laboratory medicine, is required to satisfy the European standards in the field. The strategy to achieve this goal includes projects for (i) cooperation for the advancement of clinical chemistry and laboratory medicine science, (ii) harmonization in the field of training professionals, (iii) cooperation and harmonization of accreditation and quality systems of medical laboratories, (iv) cooperation to introduce a common professional view in ISO and CEN, (v) harmonization in defining guidelines on a European level for the performance of the profession and the laboratory management of diseases. All these are serious challenges for the laboratory professionals and for the health care officials. Indeed, change has been the law of life for Romanian laboratory medicine and we, the people working in the medical laboratories, are both proud of our achievements and confident in our capacity to overcome the new challenges of the future.
Recently, the Mexican Association of Clinical Biochemistry (AMBC) (www.ambcmexico.org.mx) and the Mexican Entity of Accreditation (ema) (www.ema.org.mx) signed an agreement of collaboration on laboratory accreditation. This new alliance will focus its attention in providing courses, workshops and conferences, technical expertise and guidelines’ support to the AMBC Membership and to laboratories interested in achieving accreditation.

AMBC, created in 1963 and ema, created in 1999, are now working in parallel to improving the competency of the clinical laboratories in Mexico. This new project will involved visits to the 32 States in the country that in conjunction with the efforts ema has put together integrating a group of organizations working in standardization, quality, safety, environment, and metrology will facilitate the dissemination of this information.

This initiative of collaboration between both organizations was made a reality last June 28, 2005 after Dr Rosa I Sierra Amor, President AMBC and Ing Maribel Lopez, Executive Director at ema signed the agreement. AMBC will be providing the professional expertise needed at ema in conducting the evaluations required for laboratory accreditation; therefore, the accreditation process will be done by ema with the support of AMBC professionals whose credentials are accepted by the Ethics committee at ema. AMBC also joined ema membership simultaneously as part of this new collaboration.

This project born with the creation of a Working Group for the clinical laboratories, where ISO 15189:2003 was translated first, and already is in the process to be approved as a Mexican Standard NMX-EC-15189-IMNC, 2005. The translation took place at the Working Group established by the Mexican Committee on Standardization and Certification (www.imnc.gob.mx) that was formed by volunteer’s laboratoriants that provided assistance, time and help in this process, which after 18 months of hard work came to a reality.

Hopefully, with the help of ema and AMBC, the laboratories in Mexico will begin the accreditation process, which still is on voluntary basis, but than in few years from now, will help to improve the quality of the laboratory services providing accurate information to the community.
Global standards-development organization Clinical and Laboratory Standards Institute (CLSI, formerly NCCLS) has received a $365,000 USD cooperative agreement from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (HHS/CDC) for capacity-building assistance for global HIV/AIDS laboratory guidelines and standards development.

The year-long agreement is funded by the President’s Emergency Plan for AIDS Relief (PEPFAR), which the U.S. Department of State describes as “the largest commitment ever by a single nation toward an international health initiative—a five-year, $15 billion [USD], multifaceted approach to combating the disease in more than 100 countries around the world.”

Through the agreement, CLSI will assist in training the citizens of the nations most afflicted by HIV/AIDS in building a sustainable infrastructure for the development of long-term testing capacity—using, in particular, sound laboratory practices for HIV screening.

CLSI Executive Vice President Glen Fine, MS, MBA, says the cooperative agreement is an opportunity for CLSI to expand upon its expertise in the development of best practices, by putting those practices into action against one of the world’s most formidable healthcare crises.

“We will develop partnerships with healthcare leaders in highly affected nations to discover how to best use our standards and guidelines in the fight against HIV/AIDS,” says Fine.

Founded in 1967, CLSI has been developing its presence as a global leader in healthcare standards over the past four decades, with 4000 organizations from the industry, government, and professional sectors worldwide currently participating as members and volunteers.

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.

Critical issues and key trends in the laboratory were at the top of the agenda when a panel of eight experts in preanalytical systems assembled in July for the BD European Scientific Opinion Leader Forum. The meeting was held July 23, 2005, in Orlando, Florida, one day prior to the opening of the XIX International Congress of Clinical Chemistry and IFCC/ACC 2005 Annual Meeting held in that U.S. city. The dual purpose of the Forum was to discuss issues that are currently affecting clinical labs and to identify issues that will have an impact on labs in the coming decade. Becton Dickinson (BD), a global healthcare technology company specializing in production of medical devices and diagnostic systems, sponsored the meeting. "The objective was to bring together prominent thought leaders in laboratory medicine to discuss critical issues in the preanalytical phase of laboratory medicine and identify opportunities to improve patient care by addressing those issues and new trends.” said Dr. Sol Green, BD's Director of
European Affairs and a panel member. Experts who made up the international panel were; Sol Green, PhD, BD; European Director, Clinical Affairs, United States; Pr Honorary Walter Guder, Germany; Pr Vladimir Palicka, Degree, IFCC EB member, Czech Republic; Ghassan Shannan, IFCC Treasurer elect, Syria; Ana Stankovic, world-wide medical director, BD USA, United States; Dr Cathie Sturgeon, Scotland-UK; Dr Anne Vassault, France, Dr Bernard Gouget, PhD, Coordinator, Medical Expertise, French Hospital Federation, France. Pr Sam Narayanan, USA served as facilitator for the Forum. Bob Ferrigno, TVP and General manager, BD Europe, United Kingdom, and Jonathan Barrett, European marketing director, BD Europe, attended as observers and commentators.

Agenda points discussed by the distinguished Forum panel during their five-hour discussion included:

• Key trends and critical issues in the laboratory: Improvements needed in the clinical lab, current and projected challenges in the lab.

• Current trends in laboratory requirements for sample quality: Major barriers to managing samples, projected changes in those challenges over the next 10 years, factors that affect sample quality, the management and impact of samples with potentially compromised quality.

• Challenges to improving laboratory efficiency: Steps that slow down throughput, the effect of improvements to efficiency on lab priorities, current areas of efficiency improvement, projected areas for improvement over the next decade, the rationale for designating areas for improvement.

• Key requirements for improving sample turnaround time: Identification of gates in turnaround time, the causes of those gates.

• Outlook on new sample requirements: Expected changes in samples and types of samples over the next 10 years, current preparations for those changes, barriers that prevent new types of samples from being more broadly used in today's lab.

• Measurement of clinical outcomes and the implications of poor outcomes: Responsibility for clinical outcomes, the medical profession's stake in outcomes, leading causes of poor outcomes, impact and costs of compromised outcomes.

Plans are underway to publish a comprehensive report on the Forum discussion and other subjects (e.g.: quality of serum samples, issues with centrifugation) addressed by the panel. Commenting on the this inaugural panel discussion, Bob Ferrigno said, "The Opinion Leader Forum proved to be very beneficial. This discussion provided insights that will serve as a foundation for ongoing development of products and educational materials. Given the success of this Forum, BD will continue to work with selected scientific leaders across Europe to education and build awareness on the impact of preanalytical variables and the solutions to minimize patient-care errors caused by those variables." BD has indicated that it is considering sponsorship of future Opinion Leader Forums to continue the dialogue that began with this group. Additional Forum activities being considered are BD-sponsored studies, opinion papers, and advisory services that focus on improving the preanalytical phase of medicine.
Clinical data derived from proper body fluid procedures and accurate test results are essential to make the appropriate diagnosis and administer the proper therapy to patients, but variables can influence the results reported. Because these variables are loosely defined, inconsistency from one institution to another may exist.

To counter these inconsistencies, Clinical and Laboratory Standards Institute (CLSI) and the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) have partnered to publish Body Fluid Analysis for Cellular Composition; Proposed Guideline (H56-P), which provides recommendations for:

- collection and transport of body fluids,
- numeration and identification of cellular components, and
- guidance for qualitative and quantitative assessment of body fluid.

This guideline describes manual and automated methods to enumerate cellular components and to identify normal and abnormal elements. It also addresses additional studies that may be used for body fluid testing in the routine clinical laboratory.

H54-P is intended for medical technologists, pathologists, microbiologists, cytologists, nurses, and other healthcare professionals responsible for the collection and transport of body fluid specimens to the clinical laboratory, as well as the processing, testing, and reporting of results. It is also intended for manufacturers of products or instruments used for body fluid testing.

H56-P is now available for purchase through Clinical and Laboratory Standards Institute, at +610.688.0100, or www.clsi.org.

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.
As molecular testing methods become more commonly implemented, solid proficiency schemes are needed to further the development of this complex and rapidly growing area in laboratory medicine.

Recognizing the essential role and responsibility of the organizations that provide these services, Clinical and Laboratory Standards Institute (CLSI), and the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) have partnered to develop the recently-approved guideline, Proficiency Testing (External Quality Assessment) for Molecular Methods (MM14-A).

The document, which will guide organizations that employ molecular testing methods in best practices, will also serve clinical laboratories with a benchmark for evaluation of new programs or, taken in principle, to guide their own program development when necessary.

MM14-A provides guidelines for a quality proficiency testing program, including:

- reliable databases;
- design control in the choice of materials and analytes;
- good manufacturing processes;
- documentation procedures;
- complaint handling;
- corrective and preventive action plans; and
- responsive timing of reports.

This guideline is available for purchase through Clinical and Laboratory Standards Institute, at +610.688.0100, or www.clsi.org.

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.

May 12th 2005 was a very special day in the making of our association, Singapore Association of Clinical Biochemists (SACB). It was the occasion for the first ever American Association for Clinical Chemistry (AACC-SACB) scientific event in this part of the world title "Laboratory Automation: Smart Strategies for Success". Associate Professor Sunil Sethi, president of the SACB welcomed the delegates and in his opening remarks he thanked the speakers, sponsors, organizing committee and event organizer for the success of the Conference.
Approximately 200 participants attended the 2-day conference from the all parts of the world, with major participations from the Australasia and the ASEAN countries. It was truly an international gathering of professionals in the Laboratory Diagnostics world. Major players in the diagnostic business included Abbott Laboratories, Bayer Healthcare Diagnostics, Beckman Coulter, Dade Behring, Roche Diagnostics and Sysmex.

There were 8 plenary lectures that stretched over Day-1 morning and Day-2 afternoon. In between these lectures, held concurrently were symposia by the 6 industry sponsors who had brought in their Automation experts to share their experience and knowledge.

The topics covered ranged both hardware to software, the laboratory information system and future innovative aspects of Laboratory Automation. The materials were useful for the laboratorians who are either thinking of automating or updating their knowledge on Automation.

The first lecturer Dr Jin Kim in his lecture on “A review of Clinical Laboratory Automation Platforms and Strategies” summarised the future in Automation is as in an affordable tailor-made Laboratory system and integration services that are beyond the those of Total Laboratory Automation services.

Dr Lo Yun-Chuen’s “Key Issues and Impact of Automation Implementation” followed this, and he shared his experiences in the Laboratory Automation System at his Hong Kong laboratory.

The connectivity loop from patient to laboratory to ordering clinician is a reality in Singapore Healthcare System, and this was delivered by Dr Benjamin Ong in his lecture on “Processes in e-ordering and e-verification in the context of a nationwide EMR (Electronic Medical Reporting)”

The effectiveness of the Point-of-care (POCT) devices could be realised if there were better uptake on the software connectivity standard (POCT1-A) that was designed to facilitate connectivity between POCT sites and the different healthcare information systems. Dr Andrew St John addressed this point in his lecture on “Point of Care Connectivity”.

There are intelligent software tools available to complement the automating laboratories. Dr Glenn Edwards said in his lecture on “Intelligent Software Tools to Reduce Error” that the utility of these tools would need critical evaluation on its requirement and functionality. He believed that the usage had resulted in enhanced data integrity, reduced reporting errors, and staff experience in a more effective and rewarding work environment.
Dr Alan Lloyd described further on application of intelligent software tools in his lecture on “Expert Systems in the Clinical Laboratory”. He explained the nature of complexity in a Pathology Report and how the various features of the expert system had overcome such difficulty and intensive interpretation was possible.

Dr Stephen Kahn’s lecture title “Laboratory Automation: A Promise fulfilled” aptly described the strategy of Laboratory Automation in his Core Lab. The promise of automation fulfilled through operations standardisation, improve data management, reduce test turnaround times, increased productivity, auto verification protocols and institution-wide computerised physician order entry, had contributed to reduced costing expenditure. In addition, increase in billable tests; gross revenue and net revenue were achieved.

Lastly, the most interesting (or worrying for the medical technologists!) has been this lecture by Dr Jun Nonomura (translated form Japanese) on “Rationalisation of Lab Operations by New-generation Automation Systems”. Pictures of hidden tracks in his Automation Laboratory and the “lonely” specimens tubes moving in silence between floors and laboratories were shown (and are etched in memories). Dr Nonmura used the examples of Toyota’s “kaizen”, “Monozukuri”, “Genchi Genbutsu” to describe his current concept of an Automation Laboratory.

In conclusion, the outcome of the conference on Laboratory Automation has been positive. There were opportunities to learn from the different systems as the major industry suppliers showcased their hard wares. In addition, opportunities abound for learning from the best in Automation. Finally, the automated pathology report could has started at bedside where the specimen life starts off as a barcode, find its way to the Laboratory Automation System, travels its course through a series of intelligent checks before it is formalised as useful data for effective patient care.

CALL FOR NOMINATIONS FOR THE 2006 IFCC/ABBOTT AWARD FOR SIGNIFICANT CONTRIBUTIONS TO MOLECULAR DIAGNOSTICS

To the National Representatives and Presidents of IFCC Members Societies and Corporate Members:

Dear Friends and Colleagues,

I am pleased to announce a call for nominations for the 2006 IFCC/Abbott Award for Significant Contributions to Molecular Diagnostics. The Award is sponsored by Abbott Molecular Diagnostics and has been created to honour an individual who has made unique contributions to the promotion and understanding of Molecular Biology and its application in Clinical Chemistry and Laboratory Medicine throughout the world.

This award is given annually on the occasion of either an International or a Regional IFCC Congress. Previous winners of this award are Professor Peltonen (2002), Professors Bertina and Reitsma (2003), Professor Ferrari and Professor Wittwer (2005).

A nomination package needs to include (1) a statement as to the reasons for the nomination, highlighting the accomplishments of the individual, which warrant the nomination and (2) a complete curriculum vitae of the nominee including a bibliography. This documentation together with the nominating letter should be in English. The nominee need not be aware that a nomination has been made on her or his behalf. The officers of the IFCC or members of the IFCC Awards Committee are not eligible for the award during their tenure of office.
Nominations should be mailed to Professor Carl A. Burtis, chair of the IFCC Awards Committee before December 1, 2005 at the following address:
C. A. Burtis, PhD
Health Services Division
Oak Ridge National Laboratory
Bethel Valley Road
Oak Ridge, TN 37831-6220
USA
cxb@ornl.gov

Respectfully yours,

[Signature]

Carl A. Burtis
Chair
IFCC Awards Committee

THE APFCB GROWS

JOSEPH LOPEZ, PRESIDENT APFCB

The membership of the Asian and Pacific Federation of Clinical Biochemistry continues to grow. At the Council meeting of March 2002, in New Delhi, the membership stood at just 12 voting (i.e. full) members all of which were national or area associations and societies of clinical biochemistry within the Asia-Pacific region.

Two resolutions adopted at recent Council meetings that have contributed to a substantial growth in membership in recent months. A resolution passed at the Council Meeting in New Delhi in March 2002, led the way for admission of Corporate Members while the resolution to amend the constitution made at the Council meeting in Perth, in September 2004, widened the scope for the admission of affiliates members.

Just 30 months after the New Delhi meeting, the APFCB membership now stands at 13 voting, 1 affiliate and 15 corporate members. The newest voting member is the Pakistan Society of Chemical Pathologists and the APFCB’s first Affiliate member is the Chinese Association of Clinical Laboratory Management. While the overall growth in membership is a very satisfying, we need to bear in mind that several countries and many IVD companies that are indigenous to the region are still not represented in the APFCB.

The current members of the APFCB are as follows:

Voting Members
Australasian Association of Clinical Biochemists (AACB)
Chinese Society of Clinical Chemistry (CSCC)
Hong Kong Society of Clinical Chemistry (HKSCC)
Association of Clinical Biochemists of India (ACBI)
Indonesian Association for Clinical Chemistry (IACC)
Japan Society of Clinical Chemistry (JSCC)
Korean Society of Clinical Chemistry (KSCC)
Malaysian Association of Clinical Biochemistry (MACB)
Pakistan Society of Chemical Pathologists (PSCP)
Singapore Association of Clinical Biochemistry (SACB)
Association for Clinical Biochemistry, Taipei, China (CACB)
Thailand Association of Clinical Biochemists (TACB)
Vietnamese Association of Clinical Biochemistry (VACB)

Corporate Members
Abbott, Bayer, BD, Beckman Coulter, Bio-Rad, Dade-Behring, Daiichi Pure Chemicals (Japan)
JenCo (Singapore), Nicholas Piramal (India), Olympus, Ortho-Clinical Diagnostics, Ometech,
Randox, Roche and Sysmex

Affiliate Member
Chinese Association of Clinical Laboratory Management

10TH INTERNATIONAL CONGRESS OF PAEDIATRIC LABORATORY MEDICINE (ICPLM), 3-6TH SEPTEMBER 2005 AT RAFFLES CITY CONVENTION CENTRE, SINGAPORE

The Singapore Association of Clinical Biochemists (SACB) co-jointly with International Association of Paediatric Laboratory Medicine (IAPLM), Asian and Pacific Federation of Clinical biochemistry (APFCB), International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) and in collaboration with KK Women’s and Children’s Hospital, Singapore Paediatric Society, National University Hospital Children’s Medical Institute and College of Paediatrics and Child Health, organised the ICPLM.

ICPLM ORGANIZING COMMITTEE AND GUESTS. LEFT TO RIGHT:
SHARON SAW, WONG MOH SIM, ONG SIEW KIM, QUAK SOON HOCK, KLAUS KOHSE, JOCelyn HICKS, SUNIL SETHI,
DR BALAJI SADASIVAN, EDDIE ANG, MARY NG, KL TAN, EDWARD TAN, TAN SHIOW PIN
26 International speakers and 330 participants attended the meeting. The diagnostics and pharmaceutical industry occupied the 30 available booths. Professors Hicks and Kohse awarded the 2 best Poster Awards selected from the displayed posters that covered a wide range of research topics in Paediatric Laboratory Medicine.

The pre-congress workshop was held on 3rd September 05 at the KK Women’s and Children’s Hospital. The workshop consisted of 4 lectures in the morning and a hands-on laboratory experience on molecular diagnosis in the afternoon.

Dr Balaji Sadasivan, Senior Minister Of State, Ministry Of Information, Communications and The Arts & Ministry Of Health declared open the Congress. In his address, he proposed to screen all newborns using the tandem mass spectrometry by year 2006. SACB President Associate/Professor Sunil Sethi, IAPLM President Professor Klaus Kohse, APFCB President Mr Jospeh Lopez and IFCC President-Elect Professor Jocelyn Hicks all delivered welcoming speeches. The Unity School Children entertained the guests. The keynote speaker Dr KL Tan, paediatrician documented the history of paediatric medicine in Singapore with nostalgia and memorable occasions.

Each day, the Congress started with a Plenary of 4 speakers and followed by concurrent symposia in the afternoon, a total 3 plenary sessions and 6 symposia during the Congress.

Day 1 Plenary covered the “Infectious Diseases”. Professor Joseph Campos, USA) started the session with his lecture on “What’s New in Pediatric Microbiology”. He systematically reviewed the trends of emergence of several new infectious diseases (e.g. human coronavirus, HCoV-NL63) and development of anti microbial resistance (e.g. Staphylococcus aureus resistance to penicillinase-resistant to penicillins) in pediatric patients.

This was followed by Professor Ahmed El-Saifi’s (Egypt) lecture on “Helicobacter pylori-a friend or a foe?” where he discussed the important findings on; i) childhood acquisition of H.pylori and its relationship to gastric diseases in adulthood, and ii) the eradication of H.pylori and its association with gastric diseases or obesity.
Professor Tony Nelson (Hong Kong) lectured on “Rotavirus and the Need for Vaccination”. He discussed the ongoing study on the possibility of an introduction of a rotavirus vaccine to the Asian population to help reduce the rotavirus disease burden. The fourth speaker was Dr Hannah Sprecher (Israel) who spoke on “The Clinical Microbiology Laboratory in the era of Molecular Diagnosis”. She lectured on the diagnostic approach to microbial infections and the needs for standardisation as tools in the emerging challenges in Clinical Microbiology.

The Symposia for the Day 1 were: i) Symposium 1 - Allergy & Clinical Immunology by A/Professor Lee Bee Wah (Singapore), A/Professor Leung Ting Fan (Hong Kong), Professor Christopher WK Lam (Hong Kong) and Dr Wang De-yun (Singapore), and ii) Pediatric Obesity: A New Healthcare Challenge by A/Professor Vijay Laxmi Grey, (Canada), Dr William E.Winter (USA), Dr Gary W.K. Wong (Hong Kong) and Professor Khosrow Adeli, (Canada).

Day 2 Plenary lectures focused on “Pediatric Oncology & Hematology”. Professor Gregory Reaman (USA) started the session with his “Recent Advances in Childhood Cancer: Insights from the Biology and Future Promise”. He summarised the improved outcome of childhood cancer as requiring the coordinated integration of correlative biology studies with well-controlled clinical trials and translational of basic molecular genetics to refinement of therapy directed at specific molecular lesion. The progress of tailored therapy that has resulted in excellent survival of childhood cancer was further emphasised by A/Professor Allen EJ Yeoh (Singapore) in his lecture on “Improving treatment of childhood acute lymphoblastic leukaemia therapy in Singapore”. The 3rd speaker Professor Suthat Fucharoen (Thailand) lectured on “Disease modifier genes in Thalassemia” concentrated on the SNPs analysis in the globin chain gene mutation. A refreshing topic on “Hemachromatosis: A Pediatric Disease” was delivered by Dr Gillian Lockitch (Canada). She described the genetic loci for the biochemical implication and the current concepts of iron metabolism with regard to the management of pediatric hemachromatosis.

The Symposia for the Day 2 were: i) Symposium 1 – Pharmacogenomics and Role of Tandem Mass Spectrometry in the Clinical Laboratory by Professor Alexander Vinks (USA), Professor Philip Walson (USA), Professor Susan Tett (Australia) and Professor Steven Soldin (USA), and ii) Symposium 2 –Difficult Pediatric Diagnosis by Dr James Bondam (UK), Dr Thuppil Venkatesh (India) and Dr Tan It Koon (Singapore).

Day 3 Plenary lectures were on “Challenges in Pediatric Disease “. Dr Lee Yung Seng’s (Singapore) lecture on “Maternal Graves' Disease and the Effects on the Newborn” involved the clinical manifestations of the hypothyroidism in the newborn as a result of exposure of across placenta transfer of anti-thyroid drugs from maternal thyrotoxicosis treatment. A/Professor Loke Kah Yin’s (Singapore) lecture on “Recent Advances in the Assessment of the Growth Hormone-IGF-1 Axis” provided fresh insights into the molecular abnormalities of GH receptor in childhood GH disorders and how these abnormalities have helped to elucidate the physiological components governing normal growth. A/Professor Stacey Tay (Singapore) spoke on “Advances in the Diagnosis of Neurometabolic Disorders” and how the progress in genetic and metabolic testing together with clinical features could help in the interpretation/diagnosis of a child with inborn error of metabolism with neurological problems. The 4th speaker Dr Andre Mattman’s (Canada) lecture on “Early Detection: Challenges in Screening for Reduced GFR in Children” addressed the suitability of an estimated glomerular filtration rate (eGFR) formula to be effective at screening for renal insufficiency and monitoring change in renal function over time in the paediatric population.
The Symposia for the Day 3 were: i) Symposium 1 – Challenges in Neonatal Laboratory Medicine by A/Professor Denise LM Goh (Singapore), Dr Renze Bais (Australia), Dr Donald Young (USA) and Dr Samuel Rajadurai (Singapore), and ii) Symposium 2 – Laboratory Medicine in the Adolescent by Professor Jocelyn Hicks, Dr Helena Gleeson (UK), Dr Reinald Motz (Germany) and Professor Heinrich Schmidt-Gayk (Germany).

The ICPLM has been most informative on the current topics or challenges in Paediatric Laboratory Medicine. A majority of the diseases could be explained and managed by current knowledge in molecular genetics. In conclusion, the ICPLM has successfully brought together world-renowned experts in their respective fields to provide a comprehensive educational experience for the laboratory physicians, scientists, technologists and clinicians.

**ICPLM Speakers. Left to right: Denise Goh, Wong Moh Sim, Renze Bais, Samuel Rajadurai, Donald Young, Sunil Sethi.**

The following documents have been published by IFCC Divisions/Committees/Working Groups:

**SD-C 8.2.22 Committee on Point of Care Testing (SD-WG 8.3.3 Working Group on Selective Electrodes)**


The following recently published papers relate to IFCC documents:

UPCOMING IFCC RELATED MEETINGS IN 2005/2006


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


2006, biol.prospective-conf.u-nancy.fr