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DEVELOPMENTS IN CPD

There will be changes in the IFCC Communications and Publications Division (CPD) at the end of 2018.

The electronic newsletter (eNews) of the IFCC falls under the portfolio of the CPD. I will be completing my second term as eNews editor. Khosrow Adeli will complete his second term as CPD chair. Edgard Delvin will also complete his second term as Vice chair/PR coordinator & chair.

I will be the new CPD chair from 2019 and we will have a new eNews editor and PR coordinator and chair of the Public Relations committee.

The eNews (electronic newsletter of the IFCC)

It has been six years since I took over and there have been a number of substantial changes in the format and frequency of the newsletter.

The newsletter has increased to a frequency of ten issues per year and it is available in PDF and flip-book HTML formats. The print production of the newsletter was subcontracted to Insoft Digital. The contract with Insoft Digital started in 2014 and by November 2018 will have already produced 33 editions in digital “flip-book” format and PDF versions.

The newsletter has grown over the years and we took steps to limit the page numbers, and cut costs by reducing the length of the articles. We also changed the agreement with Insoft in 2017 to take the additional pages into account. We have undertaken strict editing by imposing word limits and limiting of photos and also used hyperlinks to provide supplementary information.

Requests for articles are sent to all eNewsletter WG members, National Societies liaisons and National Representatives (through the IFCC Office) with a reminder of the deadlines.

The reports of the IFCC Young Scientists task force and the PSEP reports from awardees have featured prominently to highlight the contribution of the IFCC to international clinical chemistry and to feature contributions of members.

The new eNews editor will be Katherina Psarra, from Greece, and she will start her term in January 2019.

I would like to thank Mrs Silvia Colli-Lanzi for her outstanding assistance over the past 6 years, Khosrow Adeli for his excellent leadership and the immense pleasure of working with him in the CPD. He has left very big shoes to fill. I would also like to thank Edgard Delvin for the interactions we had and it was also a great pleasure to work with him on public relations matters.

The eJIFCC (electronic journal of the IFCC)

As was reported previously and also at the IFCC General Conference, the electronic journal of the IFCC (eJIFCC) is now indexed on PubMed and the profile and quality of the articles is worthy of mention as the journal is being widely read and referenced.

There are plans to apply for citation count indexing (eg. “impact factor” listing and equivalent) and this will increase the international profile. It is noteworthy that the citation counts of the eJIFCC can be currently tracked on Google Scholar and I did a quick analysis of the most cited articles. The following are the most cited articles based on Google Scholar:


Our triennial General Conference is one of the most important items on the IFCC calendar. It brings together National Society representatives to work with IFCC officers to identify the current major issues for our profession and to advise on our strategic plan to effectively address our mission.

In order to plan for the future it is useful to think about why professional societies exist? Why do national societies join the IFCC? Why should clinical laboratory specialists join national societies?

Three basic answers come to mind from my own experience. I want professional organizations to support me through (1) assistance to meet my daily challenges in providing optimal clinical laboratory practice; (2) guidance to pursue a fulfilling career; and (3) the opportunity for meeting, networking and exchanging views with other clinical laboratory specialists.

To develop a strategy to meet the challenges of providing optimal laboratory practice we need to consider our work environment and the major challenges facing healthcare providers internationally. Our laboratories are facing increased demands without the appropriate resources as a result of growing rates of chronic diseases, increasing patient expectations, ageing of populations, increasing costs of medical advances and limited growth of healthcare budgets. These are difficult and uncertain times for our profession but it is similar for all healthcare workers. We as professionals have a responsibility and self-interest to discover and test alternate methods for delivering sustainable healthcare. We need to be part of the solution not part of the problem.

During the conference a short poll was taken of the delegates with some 60% indicating that their major challenge in the laboratory was funding either the allocated budget or reimbursement constraints. Approximately 15% identified either quality laboratory performance or training and continuing professional development as their major challenges and some 5% identified either the introduction of new technologies and new biomarkers into the laboratory or opportunities for career development.

WHAT IS THE IFCC STRATEGIC PLAN TO ADDRESS THESE CHALLENGES?

A. Clinical laboratory funding; budget or reimbursement constraints

The Executive Board has discussed this issue over some time and is working to develop tools and conduct research to demonstrate and leverage the value of laboratory medicine.

It is evident that implementing quality analytical procedures such as standardization and harmonization are necessary for optimal clinical laboratory practice.
but by themselves they appear to be insufficient. We have been improving the quality of our practice over some 50 years but our achievements have rarely been recognized across the clinical disciplines or by financial controllers. We need an extra dimension to this work. We can publicise these achievements but we need to publicise them based on evidence.

Therefore we need to build a high quality evidence base, including peer-reviewed scientific publications, reporting the impacts of quality analytical improvements on patient and financial outcomes. We also need to leverage the value of laboratory medicine by using these data to raise the profile of laboratory medicine across the health disciplines including the financial controllers.

The IFCC is responding on a number of levels.

1. The Education and Management Division (EMD) has established a Joint Committee with WASPaLM on the Value Proposition in Laboratory Medicine (C-VPLM). It aims to conduct research on the use of the value proposition to demonstrate the impact of medical tests on patient outcome and healthcare expenditure and to develop a compendium of tools for such research to be widely conducted by clinical laboratory specialists.

2. The IFCC is a partner in the UNIVANTS of Healthcare Excellence Award² with AACC, EHMA, Modern Healthcare, Abbott Diagnostics and others to administer this Award and identify and publicise the work of teams of healthcare workers undertaking projects to demonstrate the value of laboratory medicine. A major component of the prize for the first round winners will be the opportunity to present their work in a symposium at WorldLab 2020 Seoul.

B. Quality laboratory performance/quality laboratory specifications

Quality clinical laboratory practice continues to lie at the heart of optimal patient outcomes. While we seek to demonstrate the value of laboratory medicine, quality is the key component of value. The level of quality we need is identified by the quality laboratory specifications which is a major focus of the European Federation of Laboratory Medicine (EFLM). Furthermore defining optimal pre-analytical practice is being undertaken by EFLM and the IFCC South American Regional Federation, COLABIOCLI. Each of the regional federations is conducting scientific projects.

The inclusion of representatives of each of the Regional Federations on the Executive Board of IFCC, which commenced in 2018, has brought us closer together. This development renders the work being undertaken by the Regional Federations more accessible to the international audience. Although each of the Regional Federations is able to effectively publicise these achievements, the IFCC can assist to ensure the availability of this work internationally.

Standardization of assays remains a key component of quality laboratory performance. The IFCC Scientific Division continues to provide leadership in this area and has generated an enviable record. This work is translated into our routine clinical laboratories by the Joint Committee for Traceability in Laboratory Medicine, (JCTLM) a partnership between IFCC, International Bureau of Weights and Measures (BIPM) and International Laboratory Accreditation Cooperation (ILAC). JCTLM is a key resource for the In Vitro Diagnostics Industry to ensure the assays in our laboratories are striving for optimal quality.

The IFCC is further developing its work in this area to include harmonization of clinical assays through hosting the International Consortium for Harmonization of Clinical Laboratory Results (ICHCLR)³ as well as IFCC becoming an ICHCLR Council member.

General Conference in session (L-R): Howard Morris, IFCC President, David Kinniburgh, IFCC Secretary, Tomris Ozben, IFCC Treasurer, Rolf Hinzmann, IFCC Corporate Representative

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Article continued on next page
C. New technologies, new biomarkers
Approximately 5% of responding General Conference delegates identified the introduction of new technologies and new biomarkers in routine clinical laboratory practice as a major challenge. The IFCC has responded through the establishment of a fourth Division, the Emerging Technologies Divisions (ETD). The Division has established three committees during 2018, Committee-Emerging Technologies in Paediatric Laboratory Medicine, Committee on Mobile Health and Bioengineering in Laboratory Medicine and Committee for Omics Translation. Working Groups are being established under each committee to conduct projects.

D. Training and continuing professional development
Continuing major investment in the eAcademy is under way via collaboration between the EMD and CPD to ensure the IFCC can provide quality on-line training and continuing professional development for our members. A major accomplishment has been the design of a curriculum. All IFCC educational activities will be leveraged by focussing on the eAcademy through utilising a variety of resources for the production of webinars including Visiting Lecturer Program presentations, authors of eJIFCC articles as well as selected speakers. Coordinators are currently preparing learning objectives and multiple choice questions for each webinar so that participants can obtain IFCC certification for their educational activities.

We hope that National Societies can utilise the eAcademy webinars as an educational resource for meetings as the experience is likely to be enhanced when groups of members come together to listen to the webinars, discuss the topics and undertake the examination to obtain certificates. We urge National Societies to make the eAcademy a resource to build your national society by providing training and continuing professional development.

E. Opportunities for career development
The IFCC offers numerous programs for young scientists to develop their careers. These include involvement with the Task Force for Young Scientists and their innovative use of social media for networking and skills development, the availability of scholarships for attendance at international congresses, and scholarships through the Professional Scientific Exchange Programme (PSEP) to develop high level scientific skills and the Professional Management Exchange Programme (PMEP) to develop appropriate quality management skills. Details of these schemes are available on the IFCC website.4

In 2018 the IFCC expanded the Mentoring Programme through establishment of the IFCC Working Group for Personal Support (WG-PS), which matches a Young Scientist with a well-respected experienced laboratory practitioner based on shared interests. The programme is conducted by e-mail and/or Skype at no cost to any participant. It enables an Associate to seek advice on any laboratory or research issue on an on-going basis and the Mentor is required to answer the Associate’s questions or find someone who can.

IFCC MEMBERSHIP
The IFCC is currently a federation of 92 national societies as Full members, 15 national societies as Affiliate members and 42 Corporate members representing more than 45,000 clinical laboratory specialists. These membership categories are recognized and defined within our Statutes and Rules along with the Regional Federations. Over recent years there has been considerable discussion regarding the limitations of expanding the numbers of Full Members, particularly in disciplines of laboratory medicine other than chemistry.5

In order for the IFCC to expand our skills in these disciplines the EB will encourage recruitment of Affiliate Members. EB will place before IFCC Council a motion to change the dues structure of Affiliate Members from a flat fee to one based on membership numbers and World Bank socioeconomic status – similar to the Full Membership dues structure but at a discount because of the nature of Affiliate Membership.

Corporate membership is recognized by the EB as critical for the translation of developments in assay standardization and harmonization to achieve comparability between assays to the routine clinical laboratory. The EB aims to publicize to Corporate Members that they have largely the benefits of Full and Affiliate members including access to IFCC expertise and to submit proposals for projects to be undertaken by IFCC functional units. A Task Force, reporting to the EB, comprising of Corporate Members’ representatives,
will be established in 2019 to identify and prioritize their needs with particular reference to possible projects. Those projects recommended to be undertaken will be assigned to the appropriate Division.

CONCLUSION
Our profession is facing unprecedented challenges and the need for active and effective professional organizations has never been so great. The IFCC has adopted a wide-ranging strategic plan including extending the skills of our members to measure the value of laboratory medicine and providing extensive on-line educational resources for training and professional development. We look forward to closer interactions between national societies, regional federations and corporate members to ensure all members can contribute to optimal patient outcomes.

REFERENCES
1. Wu L, Jülicher P, Liu L; ChiMei Medical Center, Tainan, Taiwan and Abbott Diagnostics, Germany Poster, ISPOR 7th Asia-Pacific Conference, 3-6 September 2016, Singapore.
2. www.UnivantsHCE.com
3. www.harmonization.org
4. www.ifcc.org

Budapest IFCC General Conference presentations

The IFCC General Conference “Laboratory medicine: Preparing for the 2020’s” held in Budapest on 10 and 11 November 2018 provided an excellent environment for IFCC officers and National and Corporate representatives to meet and discuss present activities and projects, and to plan and decide on future actions of the organisation.

Sixty-five countries were represented, with a total of 249 IFCC officers and National Representatives and 60 accompanying persons.

A focus on progresses and trends, an opportunity to understand and invest in the value of laboratory medicine, and an opportunity to continue to work together to advance excellence in laboratory medicine for better healthcare worldwide.

Click here to download the Budapest presentations

News from the IFCC Website

Traceability in Laboratory Medicine at the General Conference on Weights and Measures (CGPM)

The 26th General Conference of CGPM was held in Versailles from 13-16 November 2018. The CGPM is an important global conference and business meeting on metrology, which is held every four years. This year’s CGPM meeting attracted global media attention because of the approval of a resolution to revise the international system of units (SI) so that they are all now linked to physical constants.

Read more
This is the eighth in a series of articles about the *Clinical Chemistry* Trainee Council (CCTC), a free multi-lingual online educational program for laboratory medicine trainees and their mentors (www.traineecouncil.org).

Over 12,500 registrants from 157 countries currently use the CCTC, approximately 40% are from emerging and developing countries.

The CCTC website houses a variety of educational materials and activities including a seven-lecture course on fundamentals of epidemiology with a focus on study design in laboratory medicine by Dr. Julie Buring, a Professor at Harvard Medical School in Boston. This course is housed under the section entitled Webcasts.

In this course, Dr. Buring discusses essential concepts in clinical study design and basic epidemiology using relevant examples from laboratory medicine to illustrate the various points.

Appropriate study design is essential for the accurate evaluation of the value of a laboratory test. Unfortunately, study design is often not properly taught, if at all, during graduate or post-graduate training in laboratory medicine. In fact, one of the main reasons for manuscript rejection in *Clinical Chemistry* is poor study design.

This course will help to remedy this deficiency. The titles of the various lectures are listed in Table 1.

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<th>Table 1</th>
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This course has been shown to be useful and popular among students, trainees, and faculty members and has been incorporated in the curriculum of training programs in laboratory medicine.

We encourage all trainees in laboratory medicine and their mentors to take advantage of this free resource and register to gain access to these materials by going to www.traineecouncil.org. It takes less than a minute!

Enjoy the course on study design in laboratory medicine.
Accreditation: what’s next?

by Bernard Gouget

Chair-Human Health Care Committee-COFRAC
Chair, IFCC Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM)
SFBC-International Committee
General Secretary of the International Francophone Federation of Clinical Biology and Laboratory Medicine (FIFBCML)
Counselor for Public Health-FHF

Héléne Mehay

Director Human Health Care Section-COFRAC, France

The first “Accreditation & Human Health Forum” held by Cofrac took place on 6 November 2018 at the Salons de l’Aveyron in Paris (FR). Dedicated to the theme “accreditation, a lever for healthcare efficiency and safety”, this event welcomed more than 500 healthcare professionals concerned with accreditation (laboratory medicine specialists, pathologists and cytology specialists, radiologists, hospital managers, biomedical engineers, risk and quality managers, technicians, patient’s associations, Regional Health Authority representatives, etc … and members of the Human Health section of Cofrac.

This first Accreditation & Human Health forum under the patronage of Ms. Agnès Buzyn, Minister of Solidarity and Health, made it possible to take stock of accreditation in laboratory medicine and to put into perspective the improvements and optimizations expected and the 2020 deadline. It also permitted discussions of accreditation of delocalized laboratory medicine testing (POCT) as well as the voluntary accreditation of the pathological anatomy and cytology specialists, and the expansion in the near future of accreditation into the field of medical imaging, at the request of medical imaging professionals.

The first round table, coordinated by Bernard Dorosczuk, Director-General of Cofrac, in the presence of Catherine Grenier (French National Health Authority, HAS), Patrick Boutinon (France Assos Santé), Prof. Jacques Isopet (CHU Toulouse), François Cornu (Eurofins Biomnis) and Franck Lebeugle (AFNOR Certification), was dedicated to quality expectations, approaches and tools in healthcare.

Three major lessons were learned:

- Patient satisfaction must be considered in evaluating healthcare organizations, as well as the quality of medical laboratory services. This expectation has become one of the priorities of the “Ma Santé [My Health] 2022” plan that relates to improving healthcare quality and the appropriateness of procedures.

- Quality approaches must evolve by integrating new indicators measuring the results of patient management and by simplification for better compliance of healthcare professionals.

Bernard Gouget

Héléne Mehay

Article continued on next page
Digitization and artificial intelligence are tools that will permit improving diagnostic capacity via an infinite database analysis capacity. These tools, which will redefine the role of the laboratory medicine specialist and their relationship with clinicians and patients must be quickly integrated into healthcare.

The second round table, coordinated by Bernard Gouget, Chairman of the Human Health Section Committee, demonstrated the leading role played by France in Europe and internationally. Wim Huisman, representative of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) confirmed that ISO 15189 is now deployed in all European countries and recognized as an essential standard, whether accreditation is mandatory or voluntary. According to Lorraine Turner (UKAS), the United Kingdom is very advanced in the diversity of medical sector accreditations, especially in imaging and oncology, and standard ISO 15189 is predominantly applied.

The Joint Research Centre of the European Commission as an internal scientific department of the European Commission is at the centre of research and study of quality assessment methods in healthcare sectors. Luciana Neamtiu underlined all the benefits that an innovative approach could have in setting up a standard care pathway in the treatment of breast cancer, based on accreditation in laboratory medicine, pathology and medical imaging, as well as on the evaluation of good healthcare practices, in a harmonized European vision.

Anne-Sophie Degryse (Union of the In-Vitro Diagnostics Industry, SIDIV) reported on synergies between laboratory medicine specialists and the in-vitro diagnostics industry described in the “provider charter” as a support for the accreditation process, and the challenges posed by new technologies in the face of increasingly stringent European regulation. “Healthcare accreditation is undeniably a substantial international movement today,” reported Etienne Couelle, CEO of Synlab France. Beyond categorial interest, laboratory medicine accreditation is a source of harmonization of practices internationally, of excellence in services and optimization of laboratory medicine. The entire activity can be accredited, he added, and can only increase the confidence of users and patients in the quality of services rendered.”

The afternoon was dedicated to assessing laboratory medicine accreditation in France. Currently, 819 private and public medical laboratories are accredited for at least 50% of their activity. These figures prove that the profession was able to reorganize itself by appropriating the mandatory “accreditation tool”, in a context of changing healthcare needs and economic restructuring.

The afternoon workshops, led by Cofrac teams, took stock of the laboratory medicine accreditation process, its evolution and development. Hélène Méhay, Director of the Cofrac Human Health section, reported on strategic focus areas: optimizing and simplifying the accreditation process, notably by making processes digital and adapting evaluation protocols; recruiting and training evaluators; supporting development, in particular delocalized laboratory medicine and anatomical pathology and cytology testing and medical imaging; improving the accreditation service and its added value, especially by improved communication.

Professor Jérôme Salomon, Director-General of Health, closed the forum and put laboratory medicine into perspective in the face of the challenges of healthcare system reform.

“Laboratory medicine has become a critical element of the care pathway for our fellow citizens”, stated Jérôme Salomon; « We no longer talk about complementary examinations, but rather a three-part medical approach associating clinical and laboratory medicine and imaging.” The Director General of Health emphasized the important role of laboratory medicine specialists in antibiotics resistance and prevention of chronic diseases, and their role in the development of molecular biology, especially in the context of the France Genomic Plan for 2025.

“Laboratory medicine is currently one of the drivers of healthcare progress. This gives you great pride but also great responsibility”, concluded Prof. Jérôme Salomon.
The World Medical Association (WMA) recently held a conference on Medical Ethics together with a meeting of their General Assembly in Reykjavik, Iceland. The WMA is best known for crafting the Declaration of Geneva in 1948 and the Declaration of Helsinki in 1964. Both of these documents have been revised numerous times and have helped to form the cornerstone of what we now know as modern biomedical ethics.

The Medical Ethics conference covered a variety of topics from Euthanasia to medical professionalism. Interestingly, a number of laboratory medicine-related topics were covered. Here I will summarize some of the more interesting presentations.

**One of the first plenary sessions** was given by Kari Stefansson, CEO of DeCode Genetics. DeCode Genetics is a Biopharmaceutical company based in Reykjavík. Its goal is to identify human genes that are associated with common diseases using population studies, to guide development of candidate drugs for treatment. Tens of thousands of Icelanders have contributed their DNA & medical records to DeCode. During his presentation, Stefansson discussed the ethical quandary they now face because the company is aware of certain genetic conditions, such as mutations in the BRCA genes.

The subjects apparently never explicitly consented to be notified of personal health risks that might be discovered. Stefansson stated that is an ethical imperative to let the subjects know. Others have stated, including the government, that subjects have the right not to know. This is a classic medical ethics quandary of weighing patient autonomy against beneficence. I am sure we will hear more about this important topic in the future as more and more researchers uncover medically actionable genetic mutations. To read more about the DeCode debate, access the following links (https://pulitzercenter.org/reporting/right-not-know-when-ignorance-bliss-deadly, https://www.bbc.com/news/health-32024158).

A session on artificial intelligence (AI) in medical care highlighted some of the ethical issues confronting this technology. David O. Barbe, immediate past president of the American Medical Association (AMA), opened the session. Barbe indicated that “augmented intelligence” was the preferred terminology instead of AI. He also pointed out that the American Medical Association (AMA) had recently passed its first policy recommendations on augmented intelligence (https://www.ama-assn.org/ama-passes-first-policy-recommendations-augmented-intelligence).

The policy states that the AMA will “identify opportunities to integrate the perspective of practicing physicians into the development, design, validation and implementation of health care AI.” Barbe also discussed a recent special issue in the Journal of the American Medical Association (JAMA) that focused on AI (https://jamanetwork.com/journals/jama/issue/320/11).
It is clear that physicians appreciate the potential for AI to improve the quality of healthcare, but are cautious about the data used to develop it, how the programs are used and ultimately how it effects the patient-physician relationship. Andrew L. Beam of Harvard University discussed a deep learning algorithm for detecting diabetic retinopathy using retinal photographs (https://jamanetwork.com/journals/jama/fullarticle/2588763).

While exciting he cautioned that many things can affect the quality of the results. They were able to alter the results of the algorithm by making very minimal changes to the photographs that were imperceptible to the human eye. In addition, the program could accurately make other predictions about the patient including gender, age, smoking status and systolic blood pressure (https://www.nature.com/articles/s41551-018-0195-0). The discussion following this session was interesting, with participants concerned about physician unemployment and de-skilling. There was also concern about the accuracy of such tools. Of course, as laboratoryians, we recognize these concerns as common to the implementation of any new diagnostic tool, not just AI.

Another laboratory medicine-related symposium focused on clinical genetic newborn screening. Heidi Howard from the Centre for Research Ethics & BioEthics, Uppsala University in Sweden, discussed ethical, legal, social issues (ELSI) related to genetic screening and gene editing. Howard pointed out that newborn genetic screening does not obtain the consent of the child, but consent is implied because it is assumed to be in the best interest of the child. For that reason, she is opposed to whole genome sequencing newborns and thinks testing should focus on screening for treatable conditions. Howard discourages screening for anything that predicts the future health of the child. Howard went on to briefly discuss the ethics of gene editing. She pointed out that there are safety issues as somatic gene editing could lead to gene line changes.

Can parents, who are desperate to treat/cure (?) their children, really be considered truly informed? There are questions about acceptable uses of gene editing and is genetic testing and gene editing ultimately leading to eugenics. Is there equitable access to gene editing? Howard pointed out that the European Society of Human Genetics (ESHG) has created or endorses a number of recommendations regarding genomic testing (https://www.eshg.org/eshgdocs.0.html).

Finally, a related session focused on non-invasive prenatal testing (NIPT). Bjorn Hoffman, from the Norwegian University of Science and Technology and Oslo University posed many medical-ethical questions: What conditions should we screen for? How severe should the conditions be? Should genetic identification of sex be allowed? What about social characteristics? Who gets to decide what to screen for? Should it be the pregnant woman? Society? Medical health professionals? In what context should we screen? Patients with high risk of a genetic disease? Or all pregnant women? What should be done when a condition is identified? Treat? End the pregnancy?

Many of these ethical questions are the same for maternal serum screening. However there are some notable differences. NIPT will undoubtedly allow identification of a much wider range of genetic conditions. In addition, as with any genetic testing, there are implications for other related family members that may carry the same genetic mutations.

The session provided opposing points of view including a representative from the Danish National Association for Down syndrome who pointed out that patients with Down syndrome can be productive members of society and they defend their right to exist.

An argument was made for genetic diversity. Prenatal screening and subsequent pregnancy termination eliminated this diversity and de-valued the living-members of society with such conditions.

This is an important question. Can you value people with a disability at the same time as you de-value affected embryos? Clearly, part of the problem is that there is no cure for many of the conditions being screened. If the conditions were, in fact, safely treatable, it is unlikely that people would opt out of treatment in favor of genetic diversity. This is a difficult and sensitive ethical topic, which is unlikely to be solved any time soon.
During this meeting, the WMA General Assembly crafted and revised numerous policies, including a statement on gender equality in medicine (https://www.wma.net/policies-post/wma-statement-on-gender-equality-in-medicine/), as well as a resolution on migration (https://www.wma.net/policies-post/wma-resolution-on-migration/). For a complete list of the policies adopted during the meeting, you can visit the link to the following WMA website (https://www.wma.net/policy/).

In summary, the WMA Medical Ethics Conference provided an excellent discussion of the most recent ethical issues facing medicine. A number of these issues were directly related to laboratory-medicine. It is important for laboratorians to be aware of these issues to provide the best possible patient care.

The UNIVANTS of Healthcare Excellence Award application deadline is March 31, 2019. This award, in its inaugural year, recognizes interdisciplinary care teams around the world who have achieved measurable, innovative impact within the healthcare system. To learn more about the award and how to apply, visit this webpage.

If you know any healthcare teams that might be interested in applying, please let them know that the deadline is quickly approaching and share the application available here.

This year we partnered with leading healthcare organizations to launch the UNIVANTS of Healthcare Excellence Award program. The initiative set out to recognize interdisciplinary care teams around the world who have achieved measurable, innovative impact within the healthcare system. The program’s greater mission is to inspire new solutions within healthcare that will positively affect patients, clinicians, payors and health systems globally.

For more information, please visit UnivantsHCE.com.
Announcing the 1st Annual UNIVANTS of Healthcare Excellence Award, celebrating teams of UNIFIERS who have applied AVANT-GARDE approaches to achieve measurably better healthcare outcomes.

Learn more and apply for the UNIVANTS of Healthcare Excellence Award at UnivantsHCE.com.

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N° 9 September
N° 10 October
N° 11 November
N° 12 December

For prices and formats and any further information on how your company can gain unique access to international markets through advertising with us, please email us at: enews@ifcc.org.

www.ifcc.org
In Slovenia, the 2nd of October is the “Slovenian Day of Clinical Chemistry and Laboratory Medicine” and it marks the founding of the Slovenian Association for Clinical Chemistry and Laboratory Medicine (SZKKLM) in 1961.

In the 1950s, our colleagues who had been working in the field of medical biochemistry felt the lack of being interconnected within a professional society. They wished for a society that would pursue better recognition of medical biochemistry in Slovenian health care and enhance its professional development and value.

In 1958, the Slovenian Chemical Society established a Section of Biochemistry. Its members tried very hard to enrol medical biochemists as well.

On 2 October 1961, our colleagues of that time decided to join the Slovenian Pharmaceutical Society and established a Section of Medical Biochemists within it. The Society had 29 members (pharmacists, chemists, biologists, doctors and technicians) at the time and acted as a part of and within the Slovenian Pharmaceutical Society.

After 33 years, in 1995, the association became independent, under the name of Slovenian Association of Clinical Chemistry (SZKK) and with its own respective first statutes.

Throughout the years, professional activities, and the activities within the SZKK increased. The profession achieved noticeable progress and development within the society during the 70s and the 80s. At that time, the internal verification of quality of work within clinical chemistry laboratories was enhanced; external verification of quality of work was implemented; procedures of analysis were unified, educational system was improved and branched; permanent courses of education started including all profiles, with different levels of achieved education (technicians, engineers, specialists) and Republican professional College of Clinical Chemistry and Laboratory Medicine began to operate.

The number of members has steadily increased over the years and today the association connects 324 members with different educational backgrounds. More than half of them are university graduates in pharmaceutical, chemical, biological, biochemical or other biomedical professional fields. Most of them have also successfully completed specialisation in medical biochemistry at the Ministry of Health.
The common goal of the society and members is to ensure a constant development of clinical chemistry and laboratory medicine in Slovenia, following international standards.

In 1994, SZKK joined the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), and in the mid-90s, it joined the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM).

Since that time our members have been actively involved in various working groups and committees of the IFCC and EFLM.

In an effort towards better recognition and harmonization of our profession at the EFLM level, in March 2014, the society was renamed the Slovenian Association for Clinical Chemistry and Laboratory Medicine (SZKKLM).

SZKKLM is also associated with other Slovenian and foreign professional, scientific, research and educational institutions. In cooperation and under the auspices of IFCC and EFLM, the SZKKLM regularly organizes Slovenian and international congresses of clinical chemistry and laboratory medicine; conferences on the topic of accreditation and quality in medical laboratories.

By organizing regular professional meetings, seminars and workshops, we ensure continuing professional education for all of our members (including technicians, engineers and specialists). In close cooperation with the Croatian Society for Medical Biochemistry and Laboratory Medicine and with EFLM our society has regularly organized EFLM Continuing Postgraduate Course in Clinical Chemistry and Laboratory Medicine in Dubrovnik.

Considering the achieved equivalent standard of education since 1994 and EC4/EFLM registration, Slovenian specialists in medical biochemistry can also obtain the title of European Specialist in Laboratory Medicine (EuSpLM).

According to latest and actual efforts of EFLM/EC4 and our profession to become one of the automatic regulated profession in EU through revision of Directive for professional qualification 2005/36, we have achieved, as the first of 28 EC4 countries, the important and necessary confirmation and signature from our government for agreement and acceptance of European Common training Framework of specialist education for our profession in Slovenia.

In an effort, to increase the visibility of our profession, in 2014 SZKKLM, for the first time, organized the Open Day of Slovenian Clinical Laboratories, marking 2 October, the Slovenian Day of Clinical Chemistry and Laboratory Medicine.

Laboratories throughout Slovenia opened their doors to the wider public and organized guided tours. Patients, journalists and other health professionals were invited to the laboratories, where they were shown our working environment and diagnostic procedures.

The importance of our work in the health care field was presented, as well as the difficulties we are facing in our daily work.
On this occasion, we have also issued a common notice about the event in the form of a poster and the brochure that represents our profession and is from now on available for the patients and visitors in all clinical chemistry laboratories in Slovenia. These activities were extensively promoted in different media (TV broadcasts and news programs, newspapers, radio), at the national level and on local levels as well. The Open Day was warmly welcomed publicly and was well attended. Thus, it is clear that it will assist with the better recognition of our profession within our country and will undoubtedly become one of a traditional event on our “Day of Clinical Chemistry and Laboratory Medicine”.

News from the Spanish Society of Laboratory Medicine (SEQCML)

The National Clinical Laboratory Congress (LabClin 2018)

Between 24-26 October 2018, Bilbao hosted the main national scientific event for Laboratory Medicine, the National Clinical Laboratory Congress (LabClin 2018).

**Clinical laboratory professionals defend their role in improving health outcomes**

- Organized by the Spanish Society of Laboratory Medicine (SEQCML), the Spanish Association of Medical Biopathology-Laboratory Medicine (AEBM) and the Spanish Clinical Laboratory Association (AEFA)
- More than 100 speakers and moderators participated in the various scientific activities of the Congress, such as pre-congress courses, symposia, workshops, communications, posters, and conferences
- Autoimmunity, allergy, and immunology; genetics and molecular techniques; reproductive pathology and prenatal diagnosis; endocrinology and hormones; infectious diseases, medications and drugs of abuse, quality assurance; and cardiac and tumour markers, are just some of the topics that were addressed at this gathering
Bilbao, October 2018 - In October, Bilbao hosted the XII National Clinical Laboratory Congress (LabClin 2018), organized by the three national clinical laboratory societies, the Spanish Society of Laboratory Medicine (SEQCML), the Spanish Association of Medical Biopathology-Laboratory Medicine (AEBM) and the Spanish Clinical Laboratory Association (AEFA), which allowed for a Congress in which the interests of all laboratory professionals came together.

The importance of this congress is that it represented the principal national scientific event for laboratory medicine, which together with the multiple and varied training activities provided by each of the scientific societies and by the professionals themselves, made it a scientific reference for the field and reflects the enormous professional stimulation of the laboratory specialties.

Dr. Mercedes Martinez-Novillo González, president of the Congress Organizing Committee, affirmed that at the present time “the clinical laboratory area is being recognized as a field of knowledge whose leadership and visibility we must defend and proclaim, highlighting the role of the laboratory professional as a key figure in the current healthcare model, which is focusing increasingly on the patient, and reinforcing the role of Laboratory Medicine in improving health outcomes for citizens”.

High scientific level

The purpose of the Congress was to be a professional meeting point of the highest scientific quality, encouraging the attendance of expert professionals-in-training, facilitating the updating of knowledge and the approach to new challenges in the laboratory, as well as constituting a platform for the exchange of knowledge and experiences of enormous value, facilitating collaboration between different working groups.

For this, the scientific content and format of the Congress was key. Dr. Antonio Buño, president of the Committee of Congresses of the Spanish Society of Laboratory Medicine, explains that the creation of the scientific programme involved specialists of recognized prestige, both nationally and internationally, in each of the areas addressed”.

Specifically, the scientific programme was based on 13 thematic areas: autoimmunity, allergy and immunology; genetics and molecular techniques; reproductive pathology and prenatal diagnosis; endocrinology and hormones; infectious diseases and microbiology; technical evaluation, point-of-care testing (POCT); medications and drugs of abuse; renal and digestive function; pre-analytics; quality assurance, information technology and management; haematology and haemostasis; cardiac markers, and lipid and tumour markers.

Thanks to this variety of areas of knowledge, the Congress covered most of the fields that nowadays concern Laboratory Medicine specialists. In addition, given that “laboratory professionals are increasingly involved in hospital life, it is important to have knowledge of a broad range of disciplines, such as quality, management, research and teaching, innovation, etc., so these subjects also have their place in the scientific program,” said Dr. Martínez-Novillo.

“The official activities of the Congress program, such as pre-congress courses, symposia, and other sessions, were combined with workshops. All of this means that there were more than 35 different activities in total, and this ensured a broad coverage of the different clinical laboratory disciplines in a way that enabled the continuous training of the attendees (among whom were future specialists who are currently carrying out their periods of specialized training), and provided updates on hot topics in our specialty,” says Dr. Buño.

Throughout the three days of the congress (October 24, 25, and 26) there were numerous scientific activities - endorsed by the excellent results obtained in previous editions -, such as 4 pre-congress courses and 10 symposia, not counting the close to 15 workshops organized by in vitro diagnostic companies (IVD) conferences, and the presentation of communications and posters, among other activities in which more than 100 speakers and moderators participated.

Among the new highlights of this edition, it is worth mentioning the introduction of a debate session format, presenting a current topic that was the subject of debate between two positions. This new approach allowed us to provide new ways of sharing professional
opinions, framed in the current healthcare situation.

Likewise, for the first time, communications in English were presented, allowing us to receive work by professionals who were interested in participating in the congress but who are not able to do so in Spanish.

In addition, the IVD companies presented their latest news on both technical and knowledge fronts in this high level forum, contributing the criteria of innovation in the latest trends. “This platform represents a forum of interest for everyone, and in addition the participation and ongoing collaboration of these companies represents an endorsement of the specialties of Laboratory Medicine”, concluded the president of the Organizing Committee of the Congress.

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**The SEQCML**

The Spanish Society of Laboratory Medicine (SEQCML) -founded in 1976- currently includes more than 2,500 professionals, and its main objective is to bring together all scientists interested in the field of Laboratory Medicine, to promote the dissemination of scientific and technical publications, to organize meetings, courses and congresses of a national and international nature, to cooperate with other Scientific Societies, and to defend and promote the specialties within Laboratory Medicine as well as its associates. Likewise, the Society wishes to contribute to the study and recommendation of standardized methods and the establishment of guidelines and recommendations for training in the field of Laboratory Medicine.

For more information: [www.seqc.es](http://www.seqc.es).
The beautiful city of Naples hosted the 50th National Congress of the Italian Society of Clinical Biochemistry and Laboratory Medicine focused on “InnovAction in Laboratory Medicine” last on 16-18 October 2018. The Congress was organized by the SIBioC President, Prof. Sergio Bernardini, jointly with the Board of the Society and the Local Committee composed of members of the University of Naples and of important Research Institutes.

The value of laboratory medicine in the context of sustainable health care was the central theme addressed in the Round Table by representatives of laboratory medicine professionals, citizens and stakeholders.

A significant contribution was offered by Professors Howard Morris (IFCC President) and Francesco Salvatore with the lecturers on “The Value of Laboratory Medicine” and “Longevity, from Predictive Medicine to Laboratory Medicine” respectively.

The Inaugural Ceremony and the Congress have been enriched by the participation of members by IFCC Executive Board, Professors Michael Bennett, Bernard Gouget, Michael Neumaier and Maurizio Ferrari.

The intervention of Prof. Pradeep Kumar Pabla, chair of IFCC Task Force for Young Scientist (TF-YS), on skype from Delhi, represented an important link between the IFCC YS-TF and the Working Group Young Scientists (YS) of SIBioC, coordinated by Dr. Giulia Sancesario.

The relationship between IFCC TF-YS and SIBioC YS had already begun in Rome during the Conference “Laboratory Medicine: meeting the needs of the Mediterranean Nations” last July. Finally, during the Inaugural Ceremony, the SIBioC President also signed the twinning with Kosova Association of Clinical Chemistry - KACC, an IFCC full-member.

Scientific sessions focused on key topics in Laboratory Medicine, such as diagnostic appropriateness, liquid biopsy, biological drugs, extra-analytical variability, microbiome, integrated bio-banking in healthcare, technological innovation, multidisciplinary diagnostics in haematological, and neonatal and pediatric diseases.

The great attention to young professionals, expressed by the SIBioC President and the whole Society has manifested itself with a scientific session completely dedicated to the presentation of original contributions submitted by young researchers.

The session, namely “InnovAction: Diagnosis, Risk and Prevention” was attended by a large number of professionals. Travel Grants, three best posters awards and free registration of residents were made available to promote the active participation of young professionals to the Society.

Congress contributions have been published by the journal Clinical Chemistry and Laboratory Medicine (CCLM) and are now available at https://doi.org/10.1515/cclm-2018-1050.

In conclusion, the Congress offered an excellent opportunity for exchange and participation. We hope in the future to continue promoting the participation of young professionals to national and international societies and strengthening the collaboration between the YSs all over the world.
World Osteoporosis Day is celebrated worldwide every year on 20 October to create awareness of this important non-communicable disease. At the Aga Khan University, we have been celebrating this day since 2015. This year also, on 19 October 2018, the research group on ‘Bone and Mineral disorders’ of Aga Khan University conducted multidisciplinary symposia to celebrate World Osteoporosis Day.

This activity by the research group on ‘Bone and Mineral disorders’ of Aga Khan University, Service Lines Clinical Laboratories, Musculoskeletal and Medicine, Department of Continued Medical Education, AKU under the auspices of Pakistan Society of Chemical Pathology, Pakistan Orthopaedic Association and International Federation of Clinical Chemistry and Laboratory Medicine. Presenters from different specialties delivered talks related to diagnosis and management of different metabolic bone disorders, ranging from vitamin D deficiency to osteoporosis and advancements in Pharmacotherapies for osteoporosis.

Osteoporosis and vitamin D deficiency are prevalent in our part of the world. There are practice variations in treatment of these non-communicable disease. The aim of this programme was to improve the quality of care delivered to patients with osteoporosis and vitamin D deficiency by educating the physicians about the clinical utility of available biochemical and radiological investigations and the preventive role...
of lifestyle factors in bone health. Along with it advancements in pharmacological management of osteoporosis and vitamin D deficiency and updates on the preventive role the lifestyle factors that can play in achieving good bone health were addressed.

The event started with recitation of a few verses from Holy Quran followed by an online quiz conducted via ‘Kahoot’ to gain an idea about participants understanding of diagnosis and management of vitamin D deficiency and osteoporosis. The programme was divided into two parts, first, related to diagnosis, identification of risk factors and the second part focused on supplementation and pharmacotherapy of osteoporosis. Dr. Lena Jafri, Assistant Professor, Dept. of Pathology and Laboratory Medicine, AKU presented a talk on risk factors and radiological identification of osteoporosis. Following her talk Dr. Sibtain Ahmed, Senior Instructor, Dept. of Pathology and Laboratory Medicine, AKU gave his talk on ‘The Mat caused the fall but what caused the fracture’, an insight into the causes of secondary osteoporosis. This talk was followed by an important presentation by Dr. Romaina Iqbal, Associate Professor in Department of Community Health Sciences AKU, on ‘Bone Health and Lifestyle Factors’. She talked about the different simple life style modifications which can improve bone health.

Next was an interactive poster making session on the theme of Love your Bones: participants drew posters of a healthy and an osteoporotic bone and the best poster was awarded at the end of the programme.

The second part of the program started with a talk given by Dr. Hafsa Majid on ‘management of vitamin D deficiency: issues and challenges’. She addressed the need for cautious supplementation and monitoring patients when treating by mega-doses of vitamin D. Then Dr. Masood Umer, Associate Professor, Orthopedics, AKU presented on ‘Bisphosphonate use for osteoporosis’. He stressed the importance of drug holidays to prevent adverse effects related to continuous drug use and also shared clinical experience of patients presenting with atypical fractures. The last talk of the session was given by Dr. Mehmood Riaz, Associate Professor, Rheumatology, AKU on ‘Newer Therapies for Management of Osteoporosis’. He stressed the importance of selecting the best therapeutic strategy based on the individual patient. At the end Dr. Aysha Habib Khan, Associate Professor, Dept. of Pathology and Laboratory Medicine, AKU conducted the ‘Kahoot’ online quiz related to topics discussed in the presentations of this CME activity to assess the knowledge gained. This was followed by a panel discussion and certificate presentation to all the presenters and panelist.
A couple of EFLM papers have been added recently to our publication list.

The first one has been produced by the EFLM WG on Test Evaluation.

**Practical guide for identifying unmet clinical needs for biomarkers**


The paper illustrates the work carried on by the EFLM TE-WG in approaching the development of new biomarkers and testing strategies with a close attention to existing clinical pathways, including mapping of current pathways and identifying areas of unmet need. The WG has produced first a conceptual framework of the test evaluation cycle which is driven by the clinical pathway, inherent to which is the test purpose and role within the pathway that are defined by clinical need. To supplement this framework, the EFLM TE-WG has also published an interactive checklist for identifying unmet clinical needs for new biomarkers; a practical tool equally usable by laboratories, clinicians, researchers and industry. Both tools are available at the WG-TE web page (https://www.eflm.eu/site/page/a/1158).

The second one has been published by the indefatigable WG on Biological Variation (WG-BV).

**Systematic review of the biological variation data for diabetes related analytes**


The aim of this study was to quality assess publications reporting biological variation data for diabetes-related analytes using the Biological Variation Data Critical Appraisal Checklist (BIVAC) developed and made available to the scientific community by the WG-BV. BIVAC assessment of 47 publications delivered 1 A (highest quality), 3 B, 39 C and 4 D (poorest quality) gradings. Publications relating to adiponectin, C-peptide, IGF-1, IGFBP-3, lactate and pyruvate were all assessed as grade C. Meta-analysis enabled global BV estimates for all analytes except pyruvate, lactate and fructosamine.

It can be concluded that there remains a need for delivery of new high-quality BV studies for several clinically important analytes.
### IFCC's Calendar of Congresses, Conferences & Events

#### Calendar of IFCC Congresses/Conferences and Regional Federations' Congresses

<table>
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<tr>
<th>Date</th>
<th>Event Description</th>
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<td>May 19 - 23, 2019</td>
<td>XXIII IFCC - EFLM EuroMedLab Barcelona 2019</td>
<td>Barcelona, ES</td>
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<tr>
<td>Sep 11 - 13, 2019</td>
<td>COLABIOCLI Regional Congress 2019</td>
<td>Panama, PA</td>
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<tr>
<td>Nov 17 - 20, 2019</td>
<td>APFCB Regional Congress 2019</td>
<td>Jaipur, IN</td>
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<tr>
<td>May 16 - 20, 2021</td>
<td>XXIV IFCC - EFLM EuroMedLab Munich 2021</td>
<td>Munich, DE</td>
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<tr>
<td>May 21 - 25, 2023</td>
<td>XXV IFCC - EFLM WorldLab EuroMedLab - Rome 2023</td>
<td>Rome, IT</td>
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*Calendar continued on next page*
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<th>Date</th>
<th>Event</th>
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<td>Dec 5 - 6, 2018</td>
<td>4th Annual Meeting, Saudi Society for Clinical Chemistry</td>
<td>Riyadh, SA</td>
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<td>Dec 7 - 8, 2018</td>
<td>JBP 2018 - Journées de Biologie Praticienne</td>
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<tr>
<td>Dec 24 - 27, 2018</td>
<td>ICB 2018 - 2nd International Congress on Biomedicine</td>
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<td>Feb 7 - 8, 2019</td>
<td>International Congress on Quality in Laboratory Medicine</td>
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<tr>
<td>Mar 22 - 23, 2019</td>
<td>5th EFLM European Conference on Preanalytical Phase</td>
<td>Zagreb, HR</td>
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<td>“Preanalytical Challenges - time for solutions”</td>
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<td>Apr 4 - 5, 2019</td>
<td>10th European Symposium on Clinical Laboratory and In Vitro</td>
<td>Barcelona, ES</td>
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<td>Diagnostic Industry: 'The Clinical Laboratory in the Pregnancy</td>
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<td>Monitoring'</td>
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<td>Apr 11 - 12, 2019</td>
<td>15th Belgrade Symposium for Balkan Region</td>
<td>Belgrade, SRB</td>
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<td>May 1 - 3, 2019</td>
<td>Focus 2019 – Annual Meeting of the ACB</td>
<td>Glasgow, UK</td>
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<td>May 18, 2019</td>
<td>VII International Symposium Laboratory Medicine and Quality</td>
<td>Barcelona, ES</td>
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<td>- Satellite Meeting IFCC-EFLM EUROMEDLAB 2019</td>
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<tr>
<td>May 19, 2019</td>
<td>International Symposium : Breast Cancer and Environment</td>
<td>Barcelona, ES</td>
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<td>- Satellite Meeting IFCC-EFLM EUROMEDLAB 2019</td>
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<tr>
<td>May 19, 2019</td>
<td>International Symposium: Standardization and Recommendations</td>
<td>Barcelona, ES</td>
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<td>in the Laboratory of Haematology - Satellite Meeting IFCC-EFLM</td>
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<td>EUROMEDLAB 2019</td>
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<tr>
<td>Jun 29 - Jul 3, 2019</td>
<td>The 23rd International Conference on Laboratory Medicine</td>
<td>Chios Island, GR</td>
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<td></td>
<td>and Pathobiology: An expert forum in clinical and laboratory sciences</td>
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<tr>
<td>Sep 10 - 13, 2019</td>
<td>XXIV Congreso Latinoamericano de Bioquímica Clínica (COLABIOCLI) and</td>
<td>Panama City, PA</td>
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<td>XIV Congreso Nacional de Laboratoristas Clínicos de Panamá</td>
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<tr>
<td>Sep 25 - 27, 2019</td>
<td>Congreso Nacional Bioquímico CUBRA XV 2019</td>
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<tr>
<td>Jun 9 - 12, 2020</td>
<td>XXXVII Nordic Congress in Medical Biochemistry</td>
<td>Trondheim, NO</td>
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# IFCC MEMBERSHIP

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Egypt: Egyptian Association of Healthcare Quality and Patient Safety  
France: French National Network of Accredited Laboratories of Medical Biology (LABAC)  
India: Association of Medical Biochemists of India (AMBI)  
Iran: Iranian Association of Clinical Laboratory Doctors (IACLD)  
Jordan: Society for Medical Technology & Laboratories (SMTL)  
Kazakhstan: Public Association - Federation of Laboratory Medicine (FLM)  
Mexico: Federación Nacional de Químicos Clínicos (CONAQUIC A.C.)  
Nepal: Nepalese Association for Clinical Chemistry (NACC)  
Philippines: Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL)  
Russia: Regional Association for Clinical Laboratory Diagnosis, St. Petersburg  
Spain: Asociación Española de Farmacéuticos Analistas (AEFA)  
Turkey: Society of Clinical Biochemistry Specialists (KBUD)  
Ukraine: Association for Quality Assurance of Laboratory Medicine (AQALM)  

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## Regional Federations

Arab Federation of Clinical Biology (AFCB)  
African Federation of Clinical Chemistry (AFCC)  
Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine (APFCB)  
European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)  
Latin America Confederation of Clinical Biochemistry (COLABIOCLI)  
North American Federation of Clinical Chemistry and Laboratory Medicine (NAFCC)
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Starting in 2018, the Communications and Publications Division publishes ten editions of the e-News per year, including two double issues.

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N° 5 – May: by mid April
N° 6 – June: by mid May
N° 7/8 – July/August: by mid June
N° 9 – September: by mid August
N° 10 – October: by mid September
N° 11 – November: by mid October
N° 12 – December: by mid November

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