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International Federation of Clinical Chemistry and Laboratory Medicine



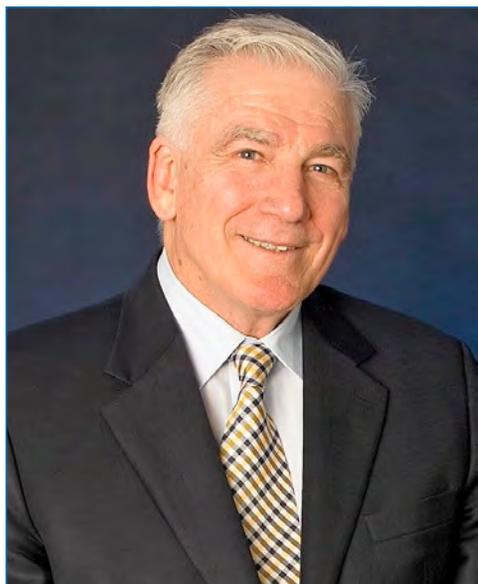
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Prof. H. Morris is the IFCC President-Elect



Prof. Howard Morris

The IFCC is pleased to announce that Prof. Howard Morris (of Adelaide, Australia), has been elected as IFCC President-elect. The term of IFCC President-elect will commence on January 1st, 2017, to be confirmed as IFCC President for the period January 1st, 2018 until 31st December 2020. **We congratulate Prof. Howard Morris, and wish him a fruitful co-operation for the promotion of clinical chemistry and laboratory medicine world-wide.**

Prof. Howard Morris currently holds positions as Professor of Medical Sciences, University of South Australia conducting research and teaching laboratory medicine and Clinical Scientist for SA Pathology, the public pathology provider for the state of South Australia. As a Clinical Scientist, he provides consultancy to medical practitioners and patients. With qualifications BSc(Hons), PhD, Fellow of the Australasian Association of Clinical Biochemists (FAACB) and Fellow of the Faculty of Science of the Royal College of Pathologists of Australasia FFSc(RCPA), he has 40 years' experience in laboratory medicine.

His working experience includes provision of routine services, management of an endocrine laboratory, research administration with 6 years as Director of a medical research institute. His research interests include the pathophysiology of metabolic bone disease, and biomarkers of disease including bone turnover from which he has produced 280 peer-reviewed publications, achieving some 10,000 citations, with over 4,000 citations since 2011. AU\$ 9 million has been awarded to fund his research.

Prof. Morris professional activities include serving as IFCC Vice-President (2012 – 2014) contributing to policy development for our profession and the IFCC to meet the requirements of the 21st century. He has previously served on the Executive Committee of the Scientific Division of the IFCC including Secretary, held memberships of two IFCC Task Forces, Global Strategy for Diabetes Mellitus and Clinical Liaisons, and International Scientific Committee, XXI WorldLab, Berlin, 2011. **A key aspect of his IFCC work has been to enhance interaction between laboratory medicine and clinical disciplines and patient groups.** Within the Asia Pacific Federation of Clinical Biochemistry and Laboratory Medicine

(APFCB) Prof. Morris served as Chair, Scientific Committee (2002 to 2005) and member Organising Committee, 10th Asia Pacific Congress of Clinical Biochemistry. Nationally he has served the AACB for over 30 years as Branch Chair and Education Representative, Chair or member of the Scientific Committee for AACB National Scientific Meetings and Convenor of Workshops, Chemical Pathology Courses and Symposia. Between 1998 and 2004, Prof. Morris served on the AACB Federal Council as National Representative to IFCC and APFCB and Editor of the Clinical Biochemist Reviews, published by the AACB in conjunction with the APFCB, (1994 to 2002). In 1993 he was an AACB Current Concepts Lecturer; in 2003 he was awarded an AACB Outstanding Service Medallion, 2004 the AACB W Roman Travelling Lectureship, 2009 Bio Innovation SA Bioscience Industry Leader Award, Louis Avioli Memorial Plenary Lecturer, American Society of Bone and Mineral Society, Finalist Excellence in Research for Public Good, South Australian Science Excellence Award, 2012 Association of Clinical Biochemists (United Kingdom) International Lecturer, 2015 Australian and New Zealand Bone and Mineral Society Career Achievement Award.

PROF. HOWARD MORRIS POSITION STATEMENT

Laboratory medicine faces significant challenges and the IFCC requires a dynamic Executive Board to provide leadership for our profession. These challenges face all in the delivery of healthcare however laboratory medicine faces particular issues arising from its perception as merely a service provider rather than a driver for optimal healthcare. Clinical laboratories are required to assume increased responsibilities for service provision and patient safety with ever decreasing budgets. Financial constraints also impact our corporate members, moderating their ability to collaborate in professional development and, at the same time, our academic basis is diminishing. Therefore IFCC professional leadership has never been more vital to provide strategies for improving the crucial role of laboratory medicine in patient care. To build on the foundation of 60 years of IFCC leadership in laboratory medicine I believe the following areas are critical.

1. Improving clinical laboratory performance through standardisation and traceability as it impacts on the rational use of clinical laboratory resources. International harmonization activities will further contribute to this field during the next triennium and the IFCC is required as a leading partner. A major challenge is to extend these activities to regions in which the current multi-national In-Vitro Diagnostic industry members are not the major provider of clinical laboratory instruments and reagents, in particular in the Asia Pacific and Central and South American regions.
2. Continue educational and training activities amongst our membership capable of meeting the needs of both developing and developed communities across general and specialised services including promotion of eLearning opportunities.
3. To ensure the financial sustainability of the IFCC.
4. Promote closer interaction between international organisations representing various disciplines of laboratory medicine to provide common engagement by our profession with clinical professionals and their international organisations as well as government organisations and other stakeholders in healthcare.

5. Enhance communication between our members through electronic platforms and increasing availability in non-English languages.
6. Extending our partnerships to relevant patient organisations.

The IFCC is a federation of national societies and corporate members. The major resource of the IFCC is the voluntary contributions of individual professionals arising from our membership. Thus the effectiveness of the IFCC is dependent on this committed support of members to meet our goals and commitments. The next EB is required to enhance and strengthen the relationships upon which our organisation is founded. As President I will work within the EB to direct the IFCC Divisions, Task Forces, Committees and Working Groups to meet strategic goals ensuring the widest consultation and discussion amongst the National Society representatives, the regional federations and our members as we chart our progress for the future development of laboratory medicine. My current employers fully support my professional activities and should I be elected I will be able to devote up to 75% of my time to IFCC responsibilities. As a Visiting Lecturer for IFCC I have discussed issues facing our profession with national representatives of 24 IFCC members and, as well, presented at 23 international or regional congresses.

I look forward to continuing these discussions, for you to provide your suggestions as to how best IFCC can assist to improve the practice of laboratory medicine in your country.

Howard Morris, PhD FAACB FFSc(RCPA)

Participation in the new electronic voting format has been very high. The elections have been conducted via electronic system in order to ensure the wider participation to this important moment in the IFCC life. Results can be seen at:

<https://electionbuddy.com/elections/33220/results/6sxyex7gx>.

The call for nomination for IFCC Secretary and IFCC Treasurer is currently open, until 15th December 2016. The Executive Board Members (Regional Members) election will take place in 2017.

IFCC announces its Distinguished Awards for the IFCC Congress (Durban, ZA - 2017)

by Howard Morris
Chair, IFCC Awards Committee



IFCC is proud to announce its Distinguished Awards for presentation at the IFCC Congress in October 2017, Durban, South Africa. The IFCC distinguished Awards are the highest honours that our federation can bestow to scientists and clinicians who work in clinical chemistry and laboratory medicine or related disciplines worldwide in recognition of their outstanding achievements, to publicize their exceptional research and other contributions that have improved medical and healthcare, and to stimulate and encourage other scientists to accelerate their efforts in advancing clinical chemistry and laboratory medicine.

On behalf of IFCC and its Awards Committee, I am pleased to call for nominations for the following seven (7) IFCC distinguished awards for presentation at the IFCC Congress in October 2017, Durban, South Africa.

These seven awards for 2017 are listed below and a more detailed description of them including the former honourees can be found [clicking on this link](#).

- **IFCC-Henry Wishinsky Award for Distinguished International Services - Sponsored by Siemens**
- **IFCC Award for Distinguished Contributions in Education - Sponsored by Abbott Diagnostics**
- **IFCC-Abbott Award for Significant Contributions in Molecular Diagnostics - Sponsored by Abbott Molecular**
- **IFCC Distinguished Award for Laboratory Medicine and Patient Care - Sponsored by Sekisui Diagnostic**
- **IFCC-Robert Shaffer Award for Outstanding Achievements in the Development of Standards for Use in Laboratory Medicine - Sponsored by NIST-CLSI**
- **IFCC Distinguished Award for Contributions to Cardiovascular Diagnostics - Sponsored by HyTest**
- **IFCC-Young Investigator Award - Sponsored by IFCC**

Nominations are welcome from the President or National Representative of the nominees' national society, which should be a full member of the IFCC. Each nomination should contain (1) a statement as to the reasons for nomination, (2) a full CV of the nominees including a bibliography, and (3) other letters of support (optional). They should be sent to Ms. Colli-Lanzi of the IFCC Office (colli-lanzi@ifcc.org).

The closing date for receipt of nominations is 31 January 2017.

Please do not hesitate to write to Ms. Colli Lanzi (colli-lanzi@ifcc.org) or me (howard.morris@health.sa.gov.au) if you have any queries.

For more information go to [The IFCC Awards Committee 2015-2017](#).

Developing quality competence in medical laboratories: a historical perspective

by Michael Thomas

Chair, Special Project for Developing Quality Competence
in Medical Laboratories



As my term of office as Chair of the Special Project for Developing Quality Competence in Medical Laboratories (DQCML) comes to a close at the end of this year it is perhaps appropriate to summarise its origin, ambitions and accomplishments since it was established a decade ago.

It was at the IFCC Executive Board meeting in Asuncion, Paraguay in 2006 under the presidency of Professor Hicks that there was recognition by the Board that the extent and quality of laboratory testing in many developing countries lagged behind what is commonly accepted as needed in advanced countries.

In many developed countries it is often stated, although with limited scientific proof, that as much as 80% of medical decisions are based on laboratory test results. This underlying importance of laboratory testing is a primary reason why IFCC, within the limits of its resources, determined to assist the progressive evolution of laboratory testing in developing countries.

The Executive Board challenged the Education and Management Division (EMD), at that time under the leadership of Janet Smith, as to ways in which support could be provided to improve the quality process within medical laboratories.

EMD's response was to propose a Special Project be established aimed at informing emerging laboratory services through their National Societies of the opportunities offered by IFCC to develop local quality competence which would focus on all aspects of quality, but concentrate particularly on internal quality

control, external quality assessment and working towards laboratory accreditation with the aim of adoption of a quality system in line with the international standard ISO 15189.

EB approved these recommendations and this led to the setting up of an Oversight Board under the direction of EMD that subsequently became known as the Special Project Group for Developing Quality Competence in Medical Laboratories (DQCML) in March 2007.

The Inaugural meeting of the Special Project Group took place in Amsterdam in June 2007 where it was immediately recognised that many of the aims and objectives of the project as proposed in a Quality Ladder starting at Internal Quality Control and culminating after a number of steps in ISO 15189 Accreditation would take a long time to achieve and it seemed sensible to consider the adoption of a modular approach.

The basic objective for the Project was agreed as being to assist in improving the quality of a laboratory medicine service as this was seen as an essential requirement for better patient care and improved clinical outcomes.

It was of course recognised that this was no mean task and that to achieve it would take many years. Members who would likely seek advice from the Special Project would probably be at



Article continued on next page

different stages of their development in implementing a Quality System.

It therefore became convenient to consider the process as a series of steps on a Quality Ladder with the possibility of joining the ladder at any point.



Furthermore it was recognised that the Quality Ladder would itself conveniently split into two components

- Firstly for those countries that would benefit from advice on the introduction of quality control and external systems of quality assurance
- And secondly for those countries that had a more mature understanding of quality and would benefit from more advanced help in working towards accreditation.

Funding was made available to provide advice and assistance rather than any on-going commitment to maintain systems already in place. And, at the outset, Professor Hicks had secured additional funding from Abbott Diagnostics for the Visiting Lecturer Programme and the DQCML would have access to that funding source.

Throughout its lifetime, the DQCML Project has drawn hugely on the experience and expertise of the Committees for Analytical Quality and Clinical Laboratory Management and more recently the Committee for Distance Learning. It has been through colleagues on all three of these committees that it has been possible to offer support workshops, lectures and webinars

geared to the particular rungs of the Quality Ladder template.

The first initiative delivered jointly by DQCML and the APFCB was a 5-day workshop in Spring 2009 in Sri Lanka on the "Role of accreditation in assuring analytical quality". The workshop was expertly led by Sam Vasikaran on behalf of APFCB and by Janet Smith on behalf of EMD and the DQCML and in keeping with the aims of the DQCML of developing transferable educational modules was later repeated in Macedonia.

The second dovetailed with a project in Vietnam being undertaken by the AACB under Renze Bais and which supported the Vietnamese in developing an internal programme of EQA.

Subsequently the DQCML activities have impacted on many member countries across the globe including Indonesia, Tunisia, The Philippines, Uruguay, Nepal, Romania and Russia.

Most recently the project has supported the delivery of two workshops in Ecuador. These workshops were delivered in Spanish which limits them being shared more widely amongst the IFCC membership but recognises the significant Spanish-speaking representation within IFCC.

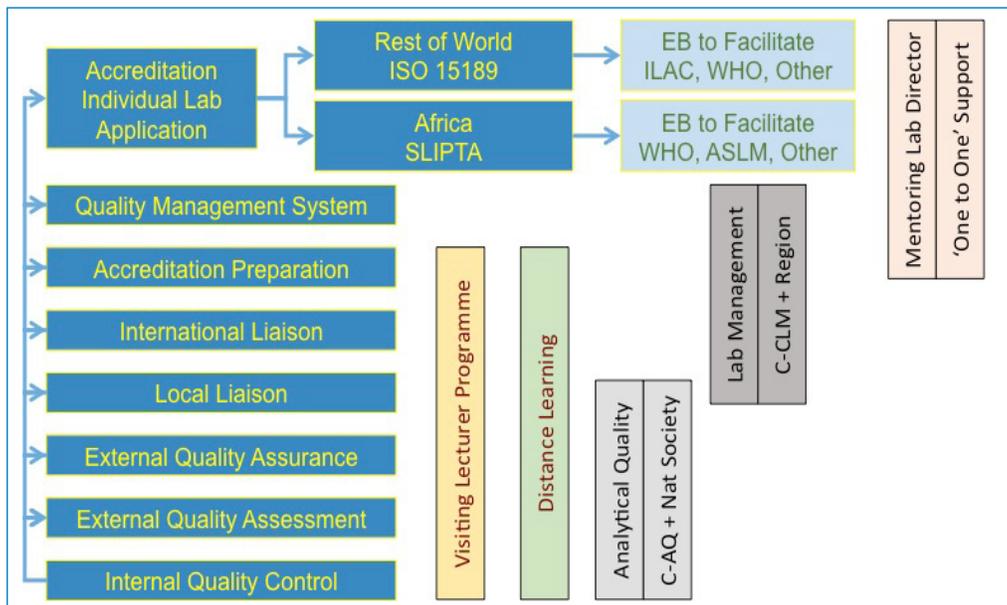
Over the ten years of its existence, the Project has benefitted from the huge expertise of its colleagues within EMD. The achievements of the DQCML has depended and ultimately succeeded through the collaboration, assistance and expertise of colleagues on other committees, notably that from C-AQ, C-CLM and C-DL.

The educational programmes the DQCML have delivered have been bespoke to the applicant member. Hence although they could be useful to other members there is, as yet, no consolidated resource that can be accessed. However it still remains the ambition and the ultimate aim of this Special Project to publish a bespoke Quality Manual bringing together the various initiatives and reflecting the stages in developing Quality Systems as a progression through each rung of the Quality Ladder.

More recently the DQCML has been encouraged to consider an extension of its role into Sub-Saharan

Africa where it will need to consider the Stepwise Laboratory Quality Improvement Process Towards Accreditation or SLIPTA way of achieving accreditation. Our first steps in that area will be in delivering through a one-day symposium and workshop in October 2016 at the 6th Scientific Conference of the Association of Clinical Chemists of Nigeria entitled "Sustaining Quality Practice and Process in Developing Countries". This opens a new and exciting door on DQCML activities.

It has meant that with the support of IFCC Presidents past and present that the DQCML Special Project continues and expands with renewed opportunities, priorities and challenges and it sees the Quality Ladder evolving with



significantly greater challenges and responsibilities than originally imagined.

Over the last ten years I believe that the DQCML has made a significant and useful impact in helping IFCC Members improve the quality of their laboratory medicine services.

I wish my successor, Professor Egon Amman, every success in leading the DQCML towards enhancing the quality of laboratory medicine services across the globe.

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Shaping the future of laboratory medicine

Demonstrating the value of laboratory medicine: using the value proposition

by Howard A. Morris



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Key words:

healthcare safety; healthcare quality;
clinical effectiveness, cost effectiveness;
value of laboratory medicine; value
proposition.

ABSTRACT

The provision of quality laboratory services for patient care to improve healthcare outcomes is at the centre of the work of the International Federation Clinical Chemistry and Laboratory Medicine (IFCC). Rising costs and demand for improvements in the quality of healthcare are leading to requirements for increasing services with reduced budgets. Such changes are driving discussions on value in healthcare. The dominant current model of funding for laboratory medicine is fee for service, which has focussed payers on costs and laboratory management on cost minimization. The past period has seen an era where quality of laboratory testing has been under pressure and large scale automation and market concentration emphasized to achieve economies of scale and scope to reduce costs.

Opportunities for future stepwise reductions in clinical laboratory costs are likely to have diminished. The focus is now on delivering improved testing in a cost-neutral, or at least, cost-effective manner. The IFCC has been advocating that laboratory medicine must 'add-value' to laboratory testing by improving patient outcomes

in addition to providing high quality analytical performance. Thus laboratory medicine must align with other disciplines in health services by focussing on value for money for payers and maximising health outcomes for patients. The outstanding question therefore for both our profession and the healthcare system is how the value of laboratory medicine can be effectively demonstrated and communicated? It is necessary for professional societies to provide leadership in this area by developing a compendium of tools for laboratorians to use in exemplifying the laboratory's value in the delivery of healthcare. The Value Proposition is considered an optimal tool to be applied to laboratory medicine.

INTRODUCTION

Laboratory Medicine is indispensable for healthcare and lies at the centre of the healthcare system. While in practice, laboratory medicine is part of the multi-disciplinary team directing the patient along their care pathway, this contribution is often unrecognized by both patients and payers such as insurers or government health providers. The service of laboratory medicine is

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often taken for granted by our clinical colleagues. Rising costs for healthcare, demand for improvements in the quality of healthcare and increased patient safety have led to requirements for increasing clinical laboratory services with reduced budgets. The dominant current model of funding for laboratory medicine is fee for service focussing payers on costs and laboratory management on cost minimization. The past period has seen an era where quality of laboratory testing has been under pressure and large scale automation and market concentration emphasized to achieve economies of scale and scope to reduce costs. Opportunities for future stepwise reductions in clinical laboratory costs are likely to have diminished.

While the statement that up to 70% of clinical decisions are informed by data from laboratory medicine with only about 4% of the health budget expenditure has often been quoted, robust data supporting such claims are now becoming available [1]. Rohr and colleagues interviewed a total of 79 cardiologists and oncologists from the USA and Germany with regard their use of in vitro diagnostics for clinical decision making with regard to initial diagnosis, monitoring of treatment, and post-treatment. They identified that laboratory medicine results led to a significant clinical decision in 66% of their patients. The authors calculated that laboratory medicine accounted for just 2.3% and 1.4% of total health care expenditure in the US and Germany respectively.

These data add substantially to quantifying the central role made by laboratory medicine to patient care, safety and outcomes. They are stimulating discussions on value in healthcare and highlight the requirement for clinical laboratories to make a qualitative change to the traditional practice of providing accurate and precise measurements. The IFCC has been advocating for clinical laboratories to 'add-value' by adopting practices to improve patient outcomes. Such actions require clinical laboratory professionals to understand the critical components for delivery of healthcare and factors driving their costs. As well they require our profession to develop metrics for evaluating the value of clinical laboratory practices.

The Process of Laboratory Medicine

The traditional concept for the process of laboratory medicine is that the patient presents to a clinician

with a health problem [2]. The clinical physical examination raises questions for which the clinician utilizes the laboratory medicine service to provide evidence to support a specific pathway for the delivery of healthcare. Once a specimen has been referred to the laboratory medicine service it enters three phases of processing: pre-analytical, analytical and post-analytical, which have been detailed previously [3]. A result from this process is generated and reported to the requesting clinician. The value from this process is only realized when the result influences the pathway of health care delivery for the patient. This is actually a simplistic model and much clinical care involves a patient interacting with more than one clinician, often specialists in different disciplines, each of whom are asking different questions and conducting various procedures some of which involve the clinical laboratory but others may be conducted by themselves. Other stakeholders in healthcare include those providing the facilities such as hospital administrators and those ultimately funding the healthcare service such as insurers or governments.

Current business models for the delivery of healthcare, including laboratory medicine, are primarily designed, managed, and executed in individual, independent units or silos and are assessed on the basis of activity. The consequences of an activity-based business model for healthcare are that each individual unit is managed according to their performance metrics rather than the product of the healthcare system which is the clinical pathway for the patient, and the contribution of the stakeholders. Thus, in the case of laboratory medicine, which operates on the fee-for-service (or cost-per-test) business model, there is primarily a focus on the quality of analytical performance, volume of activity and cost of delivery.

Clearly the basis of any contribution by the clinical laboratory to patient care and, perhaps most importantly, ensuring patient safety, is dependent on high quality analytical practices of assays fit for clinical purpose. We are well aware that our assays must be monitored by the highest levels of internal quality control and external quality assessment and this aspect may be considered as the first step in ensuring a quality clinical laboratory practice. Further actions for the quality laboratory service require pre-analytical

and post-analytical quality monitoring and assessment in various forms. Finally the implementation of clinical laboratory accreditation provides the means by which the clinical laboratory can monitor and manage each of these quality procedures.

The final step may be considered as adding value to healthcare, requiring not only improvement in efficiency and cost effectiveness but ensuring that laboratory outputs are improving clinical outcomes. Such activities as adding value largely occur 'outside' the laboratory and certainly require clinical laboratory professionals to monitor procedures outside the laboratory including for the pre-analytical phase providing instruction and guidance for appropriate specimen collection, transport and test selection. For the post-analytical phase improvement of the clinical effectiveness of clinical laboratory results includes clinical validation, clinical interpretation and advice and audit. Given that most errors in the laboratory occur in these pre- and post-analytical phases it is essential that we as professionals take responsibility for these areas of the service [3]. At the same time such activities improve our recognition amongst a wider section of the healthcare service.

Thus it is possible to describe the value-adding process as a series of steps similar to that for developing quality clinical laboratory practice. The basis or first step of value-adding is the provision of an efficient, cost effective laboratory service. This can involve the introduction of automation and Point of Care testing where appropriate. The second step is ensuring the cost effectiveness of laboratory services while the third step is adopting principles of clinical laboratory management to ensure the monitoring and management of these value-adding procedures. The value of clinical laboratory performance is also determined by the composition of the test menu for which the application of evidence-based laboratory medicine is necessary for optimal selection. The final step requires the assessment of value. It is at this step that the use of the value proposition methodology is being assessed.

Michael Porter [4] has described value in healthcare as "health outcomes achieved per dollar spent". Perhaps more importantly he states "Cost reduction without

regard to the outcomes achieved is dangerous and self-defeating, leading to false "savings" and potentially limiting effective care", since this is very often the situation in which we find ourselves. The question therefore is how we effectively demonstrate and communicate the true value of laboratory medicine to the healthcare system. It has been proposed that the adaption of the value proposition from the commercial world has benefits for demonstrating the value of laboratory medicine to the healthcare system not previously achieved [5]. A value proposition is a statement that describes the benefits of a service, to whom it is delivered, and how the benefits can be achieved. Thus the value proposition for laboratory medicine is expressed in terms of outcomes from guiding clinical decision making, the process of the care delivered and the resource required to deliver that care. The value proposition as means of leveraging the true value of laboratory medicine has recently been described in detail [6].

CONCLUSIONS

If the need for an outcome-based and value-based approach to healthcare is accepted, then the value of each contributor needs to be demonstrated and recognised. Such recognition should also be the basis by which healthcare is resourced, organized and delivered. Laboratory medicine should be part of the recognized healthcare team and the value of laboratory tests can be demonstrated through the form of a Value Proposition. The key objective of laboratory medicine is to contribute to guiding decision making that ensures the best health outcome for the individual patient, while minimising the risk, and at reasonable cost. The clinical and cost effectiveness to be gained from the appropriate utilisation of laboratory medicine can deliver clinical, operational and/or economic benefits spread across the whole care pathway, thereby addressing the interests and responsibilities of all stakeholders including the clinical laboratory. It is necessary for professional societies to provide leadership in this area by developing a compendium of tools for laboratorians to use in exemplifying the laboratory's value in the delivery of healthcare. The Value Proposition is considered an optimal tool to be applied to laboratory medicine.

ACKNOWLEDGEMENT

I thank my colleagues in the Joint IFCC-WASPaLM Working Group – Evaluating the Value of Laboratory Medicine for all their input; Christopher P Price, Andrew St John, Robert Christenson, Volker Scharnhorst, Michael Oellerich and Patti Jones.

REFERENCES

[1] Rohr U-P, Binder C, Dieterle T, et al. The Value of In Vitro Diagnostic Testing in Medical Practice: A Status Report. PLOS ONE | DOI:10.1371/journal.pone.0149856 March 4, 2016

[2] Lundberg GD. How clinicians should use the diagnostic laboratory in a changing medical world. Clin Chim Acta. 1999; 280: 3–11.

[3] Plebani M. The detection and prevention of errors in laboratory medicine. Ann Clin Biochem. 2010; 47: 101-10.

[4] Porter ME. A strategy for healthcare reform - toward a value based system. New Eng J Med 2009; 361: 109-12.

[5] Price CP, St John A. Anatomy of a value proposition for laboratory medicine. Clin Chim Acta. 2014; 436: 104–11.

[6] Price CP, St John A, Christenson R, et al. Leveraging the real value of laboratory medicine with the value proposition. Clin Chim Acta. 2016 Sep 17. pii: S0009-8981(16)30379-5. doi: 10.1016/j.cca.2016.09.006. [Epub ahead of print]

The EMD working group “Flow cytometry”

by **Ulrich Sack**
Leipzig, Germany



Prof. Ulrich Sack

Flow cytometry working group focusses on promoting recent developments in clinical flow cytometry. This is done in co-operation with national and international scientific organizations. The main activity is organizing courses. The scientific organizer is U Sack (Leipzig, DE), supported by C Lambert (St. Etienne, FR), A Spittler (Wien, AU), K Psarra (Athens, GR), C Rodriguez (Cordoba, AR), and AM Ivanov (St Petersburg, RU). Technical support, organization and technical equipment is generously provided by Beckman-Coulter.

The courses have a long tradition. Following an intermediate disruption in 2007, the first new flow cytometry course took place in 2012 in [Leipzig, Saxony,](#)

[Germany](#). The focus was flow cytometry in immunology and stem cell research. This course was given by specialists in analytic cytometry mainly outside haematology but including sorting. The local scientific supporter was the Translational Centre for Regenerative Medicine Leipzig (<http://www.trm.uni-leipzig.de>). Feedback by participants indicated strong appreciation with the high percentage of practical exercises.

The second course was organized in 2013 in co-operation with the ESCCA in [Saint-Etienne](#), France. The focus was on the monocyte-macrophage system. Parts of this course have been published ([Monocytes and macrophages in flow, Lambert et al., Cytometry B](#)). Again, the hands-on time and the scientific level were scored excellent by the participants.

The third course in 2014 was locally organized by Andreas Spittler in [Vienna, Austria](#), again in co-operation with the [ESCCA](#). Participants enjoyed the closed contact with experienced flow cytometrists and the intense hands-on training.

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In 2015, an additional workshop was offered under IFCC auspices in *Krems, Austria*. “*Extracellular Vesicles in Inflammation*” have been the topic of a meeting. Beside cutting edge presentations covering this topic, practical exercises were offered to the attendees. Furthermore, the flow cytometry workshop took place in *Athens, Greece*. The established principle was continued.

The first Latin American Course was offered in *Cordoba/Argentina* in 2016. Local support was given by the Rotary Club de Sierras Chicas and by the University of Cordoba. Course participants received personal information folders with all presentations and additional material. Another flow cytometry workshop will take place from 26-28 October 2016 in *St Petersburg (Russia)*. The established principle will be continued: intense interaction between participants and trainers; 3 topics a day with short introduction and extensive practical exercises; 3 day duration; and emerging and relevant scientific topics with clinical impact for daily practice.

For 2017, further courses in Latin America and Europe are in preparation. In February, an additional *flow cytometry winter school* will be offered in Saint-Etienne, France.

We will continue the successful principle of our courses:

- intense interaction between participants and trainers;
- 3 topics a day with short introduction and extensive practical exercises;
- 3 day duration;
- personalized information folders with all presentations and material for practice at home;
- emerging and relevant scientific topics with clinical impact for daily practice.

Last but not least, the 2009 edition of *Cellular Diagnostics* by Sack, Tarnok, and Rothe (Karger publishers) is still the most recent book in clinical flow cytometry, and it has been supported by the IFCC.

Congratulations to Dr. Ann Gronowski Chair of IFCC Task Force on Ethics

Awarded by AACC for her Outstanding Contributions in Education



Dr. Ann Gronowski

IFCC is pleased to announce that Dr. Ann Gronowski, Chair of IFCC *Task Force on Ethics* has been awarded by AACC for her Outstanding Contributions in Education. This AACC Award recognizes an individual who has devoted a major portion of his/her professional life to enhancing the practice and profession of clinical chemistry through education.

The educator selected for this award has made significant, innovative, and/or cumulatively outstanding contributions to education in clinical laboratory science. These contributions should include excellence in education beyond the local level, with widespread recognition of the recipient's excellence which may include teaching, directing, mentoring, writing, and speaking abilities, ideally to multiple levels of audiences.

Read Dr. Gronowski's biography at:

<https://www.aacc.org/community/awards/hall-of-fame/bios/a-to-k/ann-grownowski>

High Specialty Quality Control Training Mexico City, 2015-2016

*by Rosa Sierra-Amor
Member WG eNews, IFCC*

Quality control still is a key factor to improve performance in the laboratory. It is of a great interest to organize courses and lectures in quality topics and statistical tools to provide the expertise required to provide good laboratory services.

In Mexico City, two Courses on High Specialty on Quality Control took place in Mexico City, one in 2015, and a second in 2016. On both occasions, the participation of Dr. James Westgard, PhD and Sten Westgard, PhD, main leaders and tutors of the Mexican team was critical to provide the state of the art knowledge in this field. Local mentors in quality control were Mónica González, Marly Jaramillo, Ana Lucía Aguirre, Haydeé Hinojosa, Silvana Builes and Yurani Lopera.

This relevant course of 64 hours, organized by Quality Consulting hosted two different groups of experts in quality control in laboratory medicine. This was a very high specialized course, with the implementation of procedures and statistical tools to improve the analytical performance of laboratory professionals.

In total there were 40 students, from Mexico, Panama and Guatemala, formed by clinical chemists, laboratory technicians, and engineers from institutions, corporations and private organizations.

Module I: *Lecciones Básicas de Control de Calidad/basic lessons of quality control*

Module II: *Herramientas Estadísticas al Servicio del Control de Calidad/statistical tools for quality control services*

Module III: *Indicadores de Competencia Técnica/indicators of technical competence*

Module IV: *Rompiendo todas las reglas/breaking all rules.*

We thank our collaborators, we recognize with admiration their willingness to make this event an excellent course at an international level.



Successful continuation of 'Science meets Medicine'

by *Tomris Ozben*

IFCC Treasurer

Akdeniz University, Medical Faculty, Department of Clinical Biochemistry, Antalya, Turkey

On 8 June, Prof. Dr. Gökhan Hotamisligil gave a summary presentation at the Hotel Louis C. Jacob, Hamburg to 100 invited guests about new insights into the regulation of blood glucose levels and their relevance for the treatment of diabetes mellitus. Prof. Hotamisligil, one of the leading researchers in the field of diabetes mellitus, pointed out that for the year 2030 more than one billion Diabetes sufferers are forecast. The resulting treatment costs will be unmanageable for the international health systems without new therapeutic concepts.



Prof. Hotamisligil, a researcher at Harvard Medical School in Boston, USA, described in an impressive way the elucidation of a new mechanism for controlling the blood sugar level by the hormone AP2 and the resulting treatment options. In mice, the secretory form of AP2 regulates glucose production in the liver, systemic glucose level and insulin resistance. Elevated serum levels of AP2 are found in obese mice and humans and show a strong correlation to metabolic complications.

The research group of Prof. Hotamisligil developed a monoclonal antibody directed against the hormone AP2 that lowers blood sugar levels in obese mice, reduces fat mass and increases insulin sensitivity. If the impressive antidiabetic effects of this therapeutic antibody will be transmissible to humans it would be a key to a completely new therapeutic strategy in diabetes mellitus.

This event was a continuation of the new training series „**Science meets Medicine**“ under the auspices of the



International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), which was established 2015 jointly by the Institute of Clinical Chemistry and Laboratory Medicine at the University Medical Center Hamburg-Eppendorf and Sonic Healthcare Germany, represented by the Labor Lademannbogen.

For both responsible organizers, Prof. Dr. Thomas Renné (UKE) and Asst. Prof. Dr. Thomas Brinkmann (Labor Lademannbogen), the very positive response from the auditorium was a confirmation to further carry on this new training approach. For more information about the event, see:

www.science-meets-medicine.de

Left to right:

Dr. Weissmann, Prof. Dr. Renné, Asst. Prof. Dr. T. Brinkmann,
Prof. Dr. Hotamisligil,

IFCC General Conference in Madrid at a glance

by Bernard Gouget

Chair, IFCC General Conference

Chair, IFCC Nominations Committee, Counsellor Public Health FHF



Madrid General Conference: Opening Speakers

On 19-21 March 2016, the IFCC organized the XII General Conference in Madrid, Spain, under the slogan “Feeding the future of IFCC now!”. We were grateful to welcome 273 leaders from across labs and academia plus 59 accompanying attendees, providing the opportunity of reviewing the operational, scientific, and strategic management of the Federation in a collaborative and foresighted manner. We were joined this year by a large international community of scientists coming from 71 national societies, as well as students and young scientists and by 14 representatives from the industry. It was one of the biggest General Conferences in terms of number of participants.

A survey was conducted, in collaboration with the IFCC office, to help the Federation gain understanding of the scientific and educational needs and aspirations of the full members and partners, and to provide feedback on accumulated experience. We received 138 responses (out of a total 273) from the national representatives, chairs and members of functional units, corporate members, guests and speakers. 40% of respondents said that they participated for the first time at this IFCC-GC. The overall satisfaction rate was over 95%. We would like to say once again how grateful we are for the Greek speaker who gave an

excellent lecture on Mediterranean diet, he helped us to digest the food!

In addition to the board session, the event featured 18 plenary conferences, 12 training seminars, 3 round tables, numerous breakout discussions and networking opportunities covering various aspects of the IFCC strategic plan, and the progress and outcomes achieved by the IFCC functional units led by the divisions and the executive board.

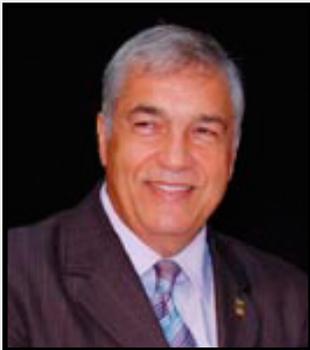
After the opening, the IFCC-EB Secretary chaired the EB session on the IFCC strategic plan and outlook for IFCC in the years ahead in terms of the financial situation. The IFCC President reported on the outcome of the SWOT analysis. He emphasized the need to provide strategies for improving the crucial role of Lab Medicine in patient care, and the importance of quality and use of the IFCC’s unique expertise in standardization. He stressed the fact that IFCC’s future increasingly depends on the activity of the regional federations. The presidents of the six regional federations participating in the round-table were convinced of the value of the dialogue with the IFCC toward reinforcing collaboration and encouraging efficient communications. This is the reason why the regional presidents will be seated at the EB beginning with 2018.

Article continued on next page



Group picture of Madrid General Conference participants

[Read the complete article by clicking on this link](#)



ULISSES TUMA, EB MEMBER 2009 - 2014 †

It is with great regret that the IFCC announces the death of Dr. Ulisses Tuma, Executive Board Member from 2009 to 2014. Dr Ulisses TUMA passed away on August 2, 2016. Dr. Tuma was President of SBAC from 2004 to 2010 period and he greatly contributed to the advancement of the profession.

[Read more](#)



News from the IFCC Website

IFCC eNews Flash - September 2016 Edition

In the September IFCC eNews Flash you will find updates on the EuroMedLab Congress - Athens, 11-15 June 2017, the presentation of eJIFCC on Cardiac Biomarkers, and a highlight on an eAcademy webinar on Children's Reference Intervals, the first of a series of four. Subscribe to ensure you receive all the latest news!

[Read more](#)

NEWS FROM REGIONAL FEDERATIONS AND MEMBER SOCIETIES



MTLS launched its periodic magazine

“Nabd Al-Mukhtabar” (Laboratory Pulse)



by *Lina Mashhour Assaf*
Chief Editor, *Lab Pulse* magazine



The Executive board of the Society with official sponsor the deputy of Minister of Health

On 23 July 2016, Medical Technology and Laboratory Society, Jordan, launched the first issue of its periodic magazine “Nabd Al-Mukhtabar” (*Laboratory pulse*) during a celebration and dinner party carried out under the patronage of his Excellency the Minister of health. The magazine will be published three times a year and will specialize in health areas, particularly in the field of medical technology and laboratory medicine hence the name “Lab Pulse”. It will serve the medical laboratory industry and those interested in this area from other health disciplines, in addition to the general public.



The cover of magazine

The main goal of creating this magazine was to serve laboratory personnel, through the transfer and exchange of experiences and providing updates of new developments in the different areas of specialization, and to increase the awareness of the importance of their work. In addition, it is meant to strengthen the social and professional ties between them.

Other objectives of creating this magazine were to contribute in the dissemination of health awareness among the general public, to educate them about the role of medical laboratory sector and shed light on the importance of this sector in the overall health process.

The magazine also aims to communicate between medical and laboratory personnel where medical personnel can learn about the many modern and sophisticated laboratory analysis techniques, and about the extent of the efforts made by the laboratory professionals to obtain results with high levels of accuracy and precision, leading to a deeper understanding and greater respect of the role of medical laboratory staff, and thus to place the profession where it fits side by side among the other medical specialties.

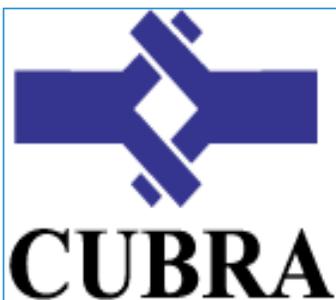


CUBRA - Comité Ejecutivo para 2016-2018

CUBRA - New Executive Board for 2016-2018

by Paula Vila

Secretaria Administrativa, CUBRA



Confederación Unificada Bioquímica de la República Argentina

PERSONERÍA JURÍDICA RESOLUCIÓN I.G.J. 646/96 | Representaciones Nacionales:

IFCC

International Federation of Clinical
Chemistry and Laboratory Medicine

COLABIOCLI

Confederación Latinoamericana
de Bioquímica Clínica

La Confederación Unificada Bioquímica de la República Argentina, **CUBRA**, se complace en informar que el pasado viernes 26 de agosto en el marco de la Asamblea del Consejo Confederal Ordinario, han sido designadas las siguientes autoridades para el periodo 2016 - 2018.

The Confederación Unificada Bioquímica de la Republica Argentina (**CUBRA**), is pleased to report that on 26 August 2016, during the Ordinary Assembly of the Confederation Council, the elections for the period 2016 - 2018 gave the following results:

COMITÉ EJECUTIVO CUBRA / EXECUTIVE BOARD CUBRA

Presidente/President: Dra. María Alejandra Arias (San Luis)

Vicepresidente/Vicepresident: Dr. Enrique H. Ocampos (Catamarca)

Secretario/Secretary: Dr. Héctor L. Betti (Prov. de Buenos Aires)

Prosecretario/Pro-secretary: Dr. Carlos D. Navarro (Córdoba)

Tesorero/Treasurer: Dr. Manuel A. Arca (Entre Ríos)

Protesorero/Pro Treasurer: Dra. Silvia B. Deus (Chubut)

Vocal Titular 1º/Member at large 1º: Dr. Miguel F. Acuña (Corrientes)

Vocal Titular 2º/Member at large 2º: Dr. Lisandro Travaglino (Río Negro)

Vocal Titular 3º/Member at large 3º: Dr. Enrique G. Bardi (Salta)

Vocal Titular 4º/Member at large 4º: Dr. Dante A. Spizzo (Chaco)

Vocal Suplente 1º/Member at large - Substitute 1º: Dra. Nora B. Pierángeli (Neuquén)

Vocal Suplente 2º/Member at large - Substitute 2º: Dr. Hugo A. Soria (Santiago del Estero)

Vocal Suplente 3º/Member at large - Substitute 3º: Dr. Antonio A. Casado (Prov. de Buenos Aires)

Vocal Suplente 4º/Member at large - Substitute 4º: Dra. María de la Merced Pérez (Villa Mercedes, San Luis)

Revisor de Cuentas Titular 1º/Auditor 1º: Dra. María Cecilia López (Chaco)

Revisor de Cuentas Titular 2º/Auditor 2º: Dr. Fernando D. L. Barale (Córdoba)

Revisor de Cuentas Titular 3º/Auditor 3º: Dr. Juan J. Somoza (La Pampa)

Revisor de Cuentas Suplente 1º/Auditor Substitute 1º: Dr. Javier I. Baabdaty (San Juan)

Revisor de Cuentas Suplente 2º/Auditor Substitute 2º: Dra. Rosa E. Mansilla (Santa Cruz)

Revisor de Cuentas Suplente 3º/Auditor Substitute 3º: Dr. Carlos A. Lamagni (Entre Ríos)



Workshop on 'Advanced Practice of Analytical Quality'

Curso taller 'Prácticas Avanzadas de Calidad Analítica' Quito, Ecuador - 2016

by *Maria del Carmen Pasquel*
Chair WG-IANT/RIA/CPD/IFCC

AACC

Better health through laboratory medicine.



The Wallace Coulter Foundation and the American Association of Clinical Chemistry (AACC) presented the workshop **“Advanced Practice of Analytical Quality”** that was held in Quito (EC), from 10 to 12 August 2016, at the JW Marriott hotel. The Central University of Ecuador gave its auspices to the event.

This workshop, given in the previous years 2013-2015, was for professionals and focused on the quality of clinical laboratories and in 2016 was aimed at university teachers from public and private academies as well as professionals from teaching hospitals, Service Ecuadorian Accreditation.

The participation of authorities from the Faculty of Chemical Sciences of the Central University of Ecuador is still very important.

Dra. Isabel Fierro, Dean of the Faculty was responsible for welcoming participants at the opening session

La Fundación Wallace Coulter y la Asociación Americana de Química Clínica (AACC por sus siglas en inglés), presentaron en la ciudad de Quito-Ecuador, del 10 al 12 de agosto del año en curso, el taller **“Prácticas Avanzadas de Calidad Analítica”**, se realizó en el hotel JW. Marriott y contó con el Aval Académico de la Universidad Central del Ecuador.

Este taller realizado los años 2013, 2014 y 2015 fue dado a profesionales enfocados en la calidad de los laboratorios clínicos y en 2016 estuvo dirigido a docentes universitarios provenientes de Academias públicas y privadas, también estuvieron invitados profesionales de hospitales docentes, del Servicio de Acreditación Ecuatoriano, siendo muy importante la participación de autoridades de la Facultad de Ciencias Químicas de la Universidad Central del Ecuador, la Dra. Isabel Fierro, Decana de la Facultad fue la encargada de dar la bienvenida a los participantes en la sesión



Autoridades, expositores, coordinadores y profesionales asistentes al curso - taller



Sr. Eduardo Callejas presenta una reseña de la biografía del Dr. Wallace Coulter

Article continued on next page



Dr. Benjamín Fernández, Dr. Elías Caro, Dra. Rosa Vélez, Dra. Piedad Jaramillo, Dra. María del Carmen Pasquel, Sr. Eduardo Callejas, Dr. Gabriel Migliarino y Dra. Lorena Díaz



Dr. Elías Caro y Sr. Eduardo Callejas, tuvieron una corta visita en la ciudad Mitad del Mundo

and was one of the managers for the realization of this event. The General session was coordinated by Dr. María del Carmen Pasquel.

Wallace Coulter Foundation was represented by Dr. Elías Caro and Mr. Eduardo Callejas, who presented part of the great work carried out by the Wallace Coulter Foundation in different countries and a review of the life of Dr. Wallace Coulter, a scientist who has contributed solidly to science and research worldwide and whose work and effort are still valid and that allows us to develop these events.

Two prestigious professionals directed the workshop: Dr. Benjamin Fernandez de Chile and Dr. Gabriel Migliarino of Argentina, who is also a collaborator and translator of the three books of Dr. James Westgard.

Wallace Coulter Foundation also provided digital presentations on:

- Systems Quality Management for Clinical Laboratory Basic Method;
- Validation Basic Quality;
- Control practices.

You can download these at no cost, thanks to the kindness of the President of the Foundation Dr. Elías Caro, at the site of IFCC on the link: <http://www.ifcc.org/ria/libros-y-revistas/>

inaugural y fue una de las gestoras para la realización de este evento, la coordinación General estuvo a cargo de la Dra. María del Carmen Pasquel.

Por la Fundación Wallace Coulter estuvieron el Dr. Elías Caro, y el Sr. Eduardo Callejas, quienes expusieron parte de la gran obra que realiza la Fundación Wallace Coulter en diferentes países y una reseña de la vida del Dr. Wallace Coulter, científico que ha aportado de forma sólida a la ciencia e investigación mundial cuyo trabajo y esfuerzo se mantienen vigentes y que permite desarrollar estos eventos.

Dos prestigiosos profesionales dictaron el taller, el Dr. Benjamín Fernández de Chile y el Dr. Gabriel Migliarino de Argentina, quien además es colaborador y traductor de los tres libros del Dr. James Westgard edición Wallace Coulter, que se entregaron de forma digital a los participantes y son:

- Sistemas de Gestión de la Calidad para el Laboratorio Clínico;
- Validación Básica de Método;
- Prácticas Básicas de Control de Calidad.

También los puede descargar sin costo, gracias a la gentileza del Presidente de la Fundación Dr. Elías Caro, en el sitio de IFCC en el link: <http://www.ifcc.org/ria/libros-y-revistas/>

The three days were intensive, and involved a first day theoretical explanation and two days more practical development. An initial assessment and a similar one at the end determined the degree of learning and familiarization with the software used and the knowledge imparted.

This year a new feature involved working with the EP15 A3 verification procedures for quantitative measurement and determining their accuracy, reliability and performance evaluation; the course was complemented with Good Laboratory Practice, proper planning and internal quality control.

The Wallace Coulter Foundation funded the entire event that was a success. Attendees staying at the host hotel also received all printed material and participation certificate and a memory stick with the content of the workshop where university professors taught new knowledge to their students, with the wider community ultimately benefiting.

Los tres días fueron intensivos, teniendo el primer día mayor explicación teórica y los dos días siguientes un mayor desarrollo práctico, una evaluación inicial y una similar al final, determinó el grado de aprendizaje y familiarización con el software utilizado y los conocimientos impartidos.

Este año una de las novedades fue el trabajar con el EP15 A3 para la Verificación de procedimientos de medida cuantitativos y así determinar su Precisión, Veracidad y Evaluación del desempeño; el curso se complementa con Buenas Prácticas de Laboratorio y una correcta planificación del control de calidad interno.

La Fundación Wallace Coulter financia todo el evento, que fue todo un éxito, los asistentes estuvieron hospedados en el hotel sede y recibieron además todo el material impreso, su certificado de participación y una memoria con el contenido del taller, los docentes universitarios impartirán estos nuevos conocimientos a sus estudiantes, siendo la comunidad en general la que finalmente se beneficia.



Canadian Society of Clinical Chemists (CSCC)

60th Annual Conference of CSCC Edmonton, 2016

by Jennifer Shea

CSCC Secretary— Clinical Biochemistry, Saint John Regional Hospital, New Brunswick, Canada

The 2016 Canadian Society of Clinical Chemists (CSCC) conference was held on 19-22 June, 2016 in Edmonton, Alberta. This year was the first joint conference of the CCMG (Canadian College of Medical Geneticists) and CSCC, and it also marked the milestones of the 60th anniversary of CSCC and the 30th anniversary of CACB (Canadian Academy of Clinical Biochemistry).

Dr. Timothy Caulfield started off the conference with an engaging keynote presentation titled “Is this Really a Revolution? Personalized Medicine and the Promise of Better Health”. Dr. Caulfield provided an entertaining and provocative summary of the current state and adoption of personalized medicine, highlighting examples of gaps in understanding. Dr. Caulfield’s keynote address was followed by four

equally interesting symposia encompassing a broad range of topics related to laboratory medicine.

Symposium 1: Interpretation of Results

The first symposium for the annual CSCC conference started off with the lecture on “Generation and Application of Data on Biological Variation – Newer Concept” by Professor Callum Fraser. The second speaker of the day was Dr. Kent C. Dooley who provided an overview of the bottom up and top down models of uncertainty of measurement and discussed the appropriate use of UM in clinical laboratory. The third speaker was Dr. Vathany Kulasingam who presented “Translational Omics: Over-Testing and Over-Treatment”. Dr. Kulasingam presented several examples of current omics projects initiated by private

organizations and the government and discussed the challenges for omics as screening tests.

Symposium 2: Diabetes Care

The second session focused on Diabetes care. Dr. Brenda Hemmelgarn first presented an example of how the laboratory can play a role in improving clinical care. Focusing on a common complication of diabetes, chronic kidney disease (CKD), Dr. Hemmelgarn discussed the value of lab data in overcoming a care gap often associated with diabetes patients. Next at the podium was Dr. Peter Senior who gave an update on the progress of islet cell transplantation as a diabetes treatment. The final speaker in this session was Dr. Philip Chen who gave an engaging presentation on patient centered testing.

Symposium 3: Maternal Serum Screening

The first speaker was Dr. Nathalie Lepage who provided an overview of the maternal serum biomarkers in

prenatal screening for Down syndrome, Trisomies 18 and 13, and open neural tube defects. Dr. Barry Hoffman then presented on the emerging area of cell free DNA and its applications in prenatal screening. Dr. Radha Chari concluded the afternoon with her presentation entitled *“Options for Prenatal screening for Trisomies in Canada”*.

Symposium 4: Women’s Health Symposium

The last symposium was dedicated to women’s health. Dr. Ann M. Gronowski started off the symposium by presenting *“The importance of studying women’s health.”* The second speaker was Dr. Beth Abramson who presented a talk entitled, *“Women’s CV Health – we’ve come a long way baby – or have we?”* The third speaker for the symposium was Dr. Dina Greene, who presented *“Providing effective healthcare and laboratory testing to the transgender community”*. Dr. Greene highlighted the system barriers, social obstacles and physiological obstacles faced by the transgender community.



A group of attendees at the meeting



News from the IFCC Website

IFCC Medal for Outstanding Service

IFCC is proud to announce its “IFCC Medal for Outstanding Service”.

It will be awarded to an individual in recognition of sustained service to IFCC at the highest level in promoting the international practice of Clinical Chemistry and Laboratory Medicine.

[Read more](#)



Vietnam Association of Clinical Biochemists (VACB)

11th National Congress of the VACB

*by Hoang Thi Bich Ngoc
President of VACB*

The 11th National Congress of the Vietnam association of Clinical Biochemists (VACB) was held on Friday, 26 August 2016 in Ha noi, our capital city. Delegates from many provinces of Vietnam such as Hanoi, Ho-chi-Minh city, Hai Phong, Hue, Da Nang, etc., participated in this congress.

The congress was chaired by Assoc. Prof. Hoang Thi Bich Ngoc. She is the president of 10th VACB. At the congress, the election of the next Executive Committee was concluded. The members of the new Executive Board were introduced and elected by the Local Association of Clinical Biochemists elected.

The new Executive Board of VACB consists of 29 members and have a term from 2016 to 2021. Assoc. Prof. Hoang Thi Bich Ngoc was elected President 11th term of the VACB.

PRESIDENT AND VICE PRESIDENTS OF VACB:

- **Assoc. Prof. Hoang Thi Bich Ngoc, *President.*** (hoangbichngoc.hs@gmail.com)
- **Assoc. Prof. Pham Thien Ngoc, *Vice president & General Secretary.*** (thienngoc2012@gmail.com)
- **MD. Tran Hoai Nam, *Vice president.*** (HoaiNamVThos@yahoo.com.vn)
- **MD. Nguyen Ngoc Luyen, *Vice president***
- **Pharmacist. Nguyen Thanh Tông, *Vice president***

The Scientific Conference was organized on Saturday, 27 August 2016, with nearly 20 presentations of studies in many different fields.



European Conference on Preanalytical Phase

SAVE THE DATE!



**4th EFLM-BD
European Conference on Preanalytical Phase**
Improving quality in the preanalytical phase through innovation



Under the Auspices of 

Dear Colleagues,

After meeting in Parma (2011), Zagreb (2013) and Porto (2015), it is with great pleasure, on behalf of the conference organizers, that you are invited to the 4th EFLM-BD European Conference on Preanalytical Phase, to be held on 24-25 March 2017 in Amsterdam (NL).

The conference is organized by the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) and sponsored by BD Diagnostics, Preanalytical Systems. The focus of the conference is the quality of the preanalytical phase of the laboratory work. It is the largest such conference in Europe.

The conference programme has been tailored by the scientific committee to deliver up-to-date knowledge in the field and create an open forum for interactive discussions. Your feedback during the previous meetings has guided us in the selection of the topics of this one.

Our guiding principle was to be different, pragmatic, practical and interactive, to address challenges, to raise questions and offer answers.

We will offer you an excellent programme, renowned speakers, lots of practical tools and tips. We therefore invite you to join us in Amsterdam. At the end of the day, it is you who will make this conference a great success.

Please save the date and mark your calendars for this interesting scientific conference in the beautiful city of Amsterdam. We are looking forward to your attendance!

Kind regards,
Ana-Maria Simundic
Conference Scientific and Organizing Committee, Chair

For more information visit:
www.preanalytical-phase.org

Laboratory personnel are primary dedicated to improving patient outcomes.
Don't miss the opportunity to attend the upcoming course dedicated to the topic and delivered
by distinguished keynote speakers in Leiden, The Netherlands.



With the auspices of



A course developed by the EFLM Working Group on Test Evaluation on the progress
of medical tests improving patient outcomes for laboratory professionals,
clinicians, biomarker researchers and healthcare companies



Developing medical tests that improve patient outcomes

Leiden (NL), 9-10-11 November 2016

Secure your space at a Course delivered by the EFLM Test Evaluation Working Group!

Keynote Speakers: Rita Horvath, Patrick Bossuyt, Sverre Sandberg, Sally Lord, Phillip J Monaghan, and others

Developing medical tests that improve patient outcomes 9-11 November, 2016, Leiden, Netherlands

Laboratory medicine has a poor record bringing new tests to market in a timely and effective way. Evidence based laboratory medicine (EBLM) provides the underlying principles for how a new biomarker should go through the test evaluation process but these principles alone do not appear to have guided better evaluation. This course aims to address that gap by extending the principles of EBLM to provide some practical tools for the key processes of test evaluation.

Key Features of 2½ day course:

The course will be interactive and talks by keynote speakers will be followed by practical assignments.

- Test evaluation – definitions and basic concepts
- Tools to conduct test evaluation including:
 - identifying unmet needs for biomarkers,
 - clinical pathway mapping to define the role and purpose of biomarkers in changing outcomes,
 - determination of analytical and clinical performance characteristics of biomarkers,
 - assessing the clinical effectiveness of biomarkers.
- Talks to highlight the differing perspectives and experience of key stakeholders and experts in test evaluation
- Practical assignments to understand the use of test evaluation tools.

Target Audience:

- Qualified laboratory professionals
- Researchers involved in biomarker development and test evaluation
- Clinicians involved in biomarker use and evaluation in clinical practice
- Healthcare company and regulatory representatives

For further information, visit the course website at: www.eflm-test-evaluation-course.eu



Hurry up!
Only few places left

EFLM thanks the following companies for the kind and unconditional support (preliminary list):



ROCHE DIAGNOSTICS (gold sponsor)



Abbott Diagnostics

12 papers have been published by EFLM functional units up to now this year; please find below the list. The papers are freely downloadable at the dedicated page of the EFLM website:

<http://www.eflm.eu/index.php/eflm-publications.html>

GUIDELINES & RECOMMENDATIONS

➤ **Fasting is not routinely required for determination of a lipid profile: clinical and laboratory implications including flagging at desirable concentration cut-points - a joint consensus statement from the European Atherosclerosis Society and European Federation of Clinical Chemistry and Laboratory Medicine.**

Nordestgaard BG, Langsted A, Mora S, Kolovou G, Baum H, Bruckert E, et al.

Eur Heart J; 2016;37:1944-58

A pivotal consensus, evidence-based document on the possibility to avoid fasting when determining a lipid profile. The document also contains precious indications on laboratory reports for lipids and lipoproteins.

POSITIONS & OPINION PAPERS

➤ **Order of blood draw: Opinion Paper by the European Federation for Clinical Chemistry and Laboratory Medicine (EFLM) Working Group for the Preanalytical Phase (WG-PRE).**

Cornes M, van Dongen-Lases E, Grankvist K, Ibarz M, Kristensen G, Lippi G, et al. Working Group for Preanalytical Phase (WG-PRE), European Federation of Clinical Chemistry and Laboratory Medicine (EFLM). Clin Chem Lab Med. 2016 doi: 10.1515/cclm-2016-0426.

In this opinion paper, EFLM WG-PRE supports the continued recommendation of ensuring a correct order of draw for venous blood collection to prevent sample contamination that could cause erroneous results.

➤ **Biomarker development targeting unmet clinical needs.**

Monaghan P, Lord SJ, St John A, Sandberg S, Cobbaert CM, Lennartz L, et al for the EFLM Working Group on

Test Evaluation.

Clin Chim Acta 2016;460:211-9

The checklist elaborated by the Working Group intends to achieve more efficient biomarker development and translation into practice.

➤ **Criteria for assigning laboratory measurands to models for analytical performance specifications defined in the 1st EFLM Strategic Conference.**

Ceriotti F, Fernandez-Calle P, Klee GG, Nordin G, Sandberg S, Streichert T, et al. on behalf of the EFLM Task and Finish Group on allocation of laboratory tests to different models for performance specifications (TFG-DM) Clin Chem Lab Med 2016 DOI 10.1515/cclm-2016-0091

Following the 1st EFLM Strategic Conference on quality specification, this report lists a number of laboratory tests under the most appropriate model for analytical performance specifications (APS). Cardiac troponins, glucose, HbA1c, cholesterol are allocated under model 1 (APS based on clinical outcomes); electrolytes, minerals and creatinine are allocated under model 2 (APS based on biological variation).

➤ **Patient identification and tube labelling –a call for harmonisation.**

van Dongen-Lases E, Cornes MP, Grankvist K, Mercedes Ibarz M, Kristensen GBB, Lippi G, et al. **on behalf of the Working Group for Preanalytical Phase (WG-PRE), European Federation of Clinical Chemistry and Laboratory Medicine (EFLM).** Clin Chem Lab Med 2016;54:1141-5.

This position paper raises awareness and provides recommendations for proper patient and sample identification procedures that are amongst the most critical steps in blood collection procedures that jeopardise the patient safety.

➤ **EFLM WG-Preanalytical phase opinion paper: local validation of blood collection tubes in clinical laboratories.**

Lippi G, Cornes MP, Grankvist K, Nybo M, Simundic AM
Clin Chem Lab Med 2016;54:755-60.

This consensus document provides a set of essential requisites, technical criteria and clinical issues for supporting laboratory professionals in organization blood collection tubes tenders and validating new devices before local routine implementation.

➤ **Laboratory medicine in the new healthcare environment.**

Ferraro S, Braga F, Panteghini M.
Clin Chem Med Lab 2016;54:523-33

The paper examines the role of laboratory medicine in the 21st century and points out how the awareness of the importance of clinical laboratories in the healthcare system should be reinforced.

REVIEWS & SURVEYS

➤ **Howwell do laboratories adhere to recommended clinical guidelines for the management of myocardial infarction: the CARDiac MARKer Guidelines uptake in Europe study (CARMAGUE)**

Collinson P, Hammerer-Lercher A, Suvisaari J, Apple FS, Christenson RH, Pulkki K, et al on behalf of the EFLM Working Group for Cardiac Markers
Clin Chem 2016; 62:1264-71

The paper presents the results of a questionnaire about the use of cardiac biomarkers in Europe and North America: significant differences are observed due to assay availability and different laboratory practices.

➤ **Is D-dimer used according to clinical algorithms in the diagnostic work-up of patients with suspicion of venous thromboembolism? A study in six European countries.**

Kristoffersen AH, Ajzner E, Rogic D, Sozmen EY, Carraro P, Faria AP, et al. for the joint EFLM-EQALM Working Group on Postanalytical Phase (WG-POST)
Thromb Res 2016;142:1-7

The survey explores how patients suspected of having venous thromboembolism (VTE) are investigated: the D-dimer is correctly requested only by 66% of physicians. These results should encourage scientific societies to improve the dissemination and knowledge of the current recommendations for the diagnosis of VTE

➤ **The role of European Federation of Clinical Chemistry and Laboratory Medicine Working Group for Preanalytical Phase in standardization and harmonization of the preanalytical phase in Europe.**

Cornes MP, Church S, van Dongen-Lases E, Grankvist K, Guimaraes JT, Ibarz M, et al.
Ann Clin Biochem 2016;53:539-47

The paper illustrates the work performed by the Working Group in Europe: as a result of the discussions at the third conference on pre-analytical phase, five main areas of interest have been identified. These are: test ordering, sample transport and storage, patient preparation, sampling procedures and management of unsuitable specimens

QUALITY MANAGEMENT AND LABORATORY ACCREDITATION

➤ **Accreditation process in European countries - an EFLM survey.**

Boursier G, Vukasovic I, Mesko Brguljan P, Lohmander M, Ghita I, Bernabeu Andreu FA, et al. on behalf of the Working Group Accreditation and ISO/CEN standards (WG-A/ISO) of the EFLM
Clin Chem Lab Med 2016;54:545-51

The results of this survey on accreditation show that while there are several variations in the approaches to accreditation of medical laboratories in the European countries, the ISO 15189 accreditation project has been widely accepted. The use of a unique standard and the cooperation among countries due to scientific societies, EFLM, accreditation bodies and EA enable laboratory professionals to move toward uniform implementation of the accreditation concept.

STANDARDISATION & HARMONISATION IN CLINICAL LABORATORIES

➤ **Harmonization initiatives in Europe.**

Ceriotti F.
eJIFCC 2016;27:23-9

The paper illustrates the different initiatives the EFLM Working Group on harmonization initiated this year. The first areas considered were the pre- and post analytical phase.

by Daniel Rajdl

Chair, EFLM WG Distance Education and e-Learning (WG-DE)

EFLM e-learning activities have recently been based on free webinars on “most wanted” topics in Laboratory Medicine. In addition to live webinars, EFLM WG-DE provides processed recordings of these webinars. A recent rearrangement of the main EFLM e-learning page has been set up.

“We tried to simplify the access to the available information for EFLM website users”, says Ralph Lichtinghagen, chair of Education and Training Committee. “I do hope that the easy accessibility of the recordings with table of contents (see No. 1 on the figure below) could be appreciated by EFLM website visitors. The recordings allow to easily reviewing just parts of the presentation one is interested in”, he adds.

Figure 1. Description of the main EFLM e-learning page sections. **1** – link to recordings with interactive table of contents; **2** – link to YouTube videos; **3** – each webinar is listed in the overview table of webinars and has its own (permanent) page with details about the webinar and recording availability.

Incoming webinars:

- Critical Values (October 2016)
- Heart failure (November 2016)
- Case reports in Hematology (December 2016)
- Biological variation (May 2017)

Figure 1.

The screenshot shows the EFLM e-learning website. Callout 1 points to a video player for 'THE ESTIMATE OF MEASUREMENT UNCERTAINTY' by Ilenia Infusino, which includes an interactive 'Table of contents' sidebar. Callout 2 points to a 'YouTube video' player for 'Comprehensive dyslipidemia testing beyond the "good" and "bad" cholesterol'. Callout 3 points to a detailed webinar page for 'Non-fasting lipid profiles: implications for lipoprotein measurement and reporting' by Michel Langlois (BE), moderated by Jerzy-Roch Hofer (DE), dated 2016-06-07.

Date	Status	Webinar	Speaker
2016-06-07	Register now (more info)	Non-fasting lipid profiles: implications for lipoprotein measurement and reporting	
2016-05-10	Recorded (more info)	The estimate of measurement uncertainty	
2016-04-26	Recorded	Rational use of laboratory tests	



EFLM Strategic Plan 2016-2017

by *Maria Stella Graziani*

Chair, EFLM Communication Committee

The EFLM Executive Board is delighted to announce the issuing of the EFLM Strategic Plan for 2016-2017.

(See www.eflm.eu, section Downloads)

The Plan has been approved by the EFLM National Societies and includes seven areas of action and eighteen strategic goals.

All the EFLM functional units and the EFLM office are actively involved in the achievement of the goals that will be regularly monitored.

The two year plan is particularly addressed to the amelioration of the relationships between EFLM and IFCC and its Regional Federations (goals no. 4 and 16), UEMS (goal no. 13), and its National Societies as well (goals no. 12 and 15). Another pivotal goal is the organisation of the 2nd Strategic Conference.

The EFLM Executive Board thanks all National Societies and EFLM Committee Chairs who contributed with ideas and expectations to the editing of the plan.



Re-arrangement of EFLM-WG webpages

by *Merve Sibel Gungoren*

Member, EFLM Working Group Promotion & Publications



EFLM is pleased to announce the recent reorganization of the EFLM Working Groups (WGs) pages on its website.

As EFLM Secretary, Ana-Maria Simundic has suggested, the contents and formats of WG webpages have been recently re-arranged. The main aim was to organise WG webpages in order to supply resources for people interested in topics related within the scope of

the WG. The new format would transform WG webpages into “resource centres” offering information, news, announcements, published papers, assistance and knowledge. The new format would also assist in dissemination of WG recommendations, guidelines and opinions.

Chairs and Young Scientist Members of each WG were kindly asked to supply documents within the scope and work of their WG. The related material transmitted by the various WGs has been screened for eligibility by the Communication Committee prior to upload.

All WGs are grouped under their respective Committees. On each WG Homepage, along with images, the list of members and the terms of reference, there are additional links as follows:

➔ **News about WG activities:** news about the ongoing WG activities, current projects and future plans. Announcements of the upcoming surveys and links to surveys or invitations to participate in the survey can also be found here.

Article continued on next page

➤ **Upcoming events:** information about upcoming scientific events (conferences, workshops, symposia, e-seminars, etc.) related to topics within the scope of the WG activity

➤ **Resources:**

- **Articles:** papers published by the WGs
- **PPT presentations:** a list of (and access to) presentations given by the WG members
- **Posters:** a list of (and access to) posters presented by the WG member
- **Useful tools:** uploaded here are various tools created by the WG members such as checklists, charts, interactive Excel sheets for various calculations, risk assessment tables, questionnaires,

knowledge tests, etc. These tools could be downloaded for free and used by individual colleagues, laboratories or even institutions
o **Useful Links to external sites:** links to some useful external websites related to the topic within the scope of the WG .

The figure presents the web pages of the WG on Pre-analytical phase as an example.

The renovation is almost complete and the WG web-pages can be visited to learn about the EFLM WGs activities at www.eflm.eu

Stay updated with the activities of the EFLM WGs: they cover an important number of topics of interest in the field of Laboratory Medicine!

IFCC PROFESSIONAL EXCHANGE PROGRAMMES REPORTS

Professional Scientific Exchange Programme (PSEP)



My experience at the Cardiovascular Genetics Institute, University College London, United Kingdom

by Dr. Wafa Omer

Chemical Pathology / Clinical Chemistry

[Read Report](#)

The IFCC Professional Scientific Exchange Programme (PSEP), Modena, Italy Experience

by Aysegul Hanikoglu

Akdeniz University Faculty of Medicine, Department of Clinical Biochemistry, Dumlupinar, Antalya-Turkey

[Read Report](#)

My Professional Scientific Exchange Programme (PSEP) in South Korea

by Nguyen Huu Hieu

Biochemistry Department of HaDong General Hospital, Hanoi, Vietnam

[Read Report](#)

I had the chance to spend three months at the Hennepin County Medical Center (HCMC), Minnesota

by Jorge Díaz-Garzón Marco

Hospital Universitario La Paz, Madrid, Spain

[Read Report](#)

Article continued on next page



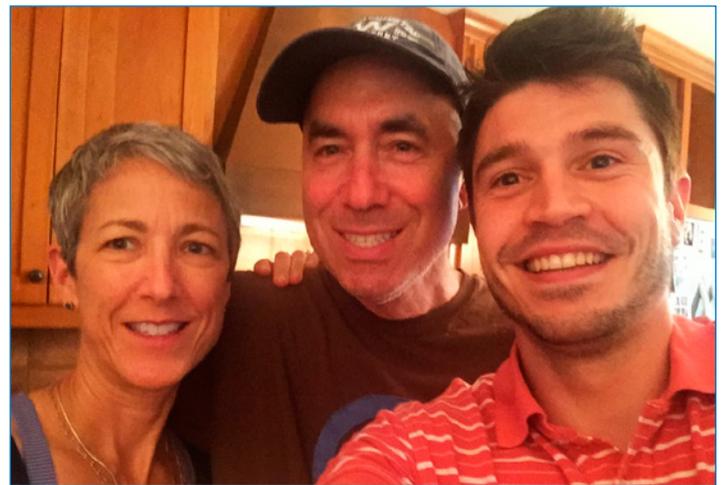
Wafa Omer and Professor Steve E. Humphries



Nguyen Hieu
in front of Seoul National University Hospital



Aysegul Hanikoglu



Fred Apple, Jan Apple and Jorge Díaz-Garzón Marco

Professional Management Exchange Programme (PMEP)

My report is written on the basis of the IFCC PMEP training programme I had at Sahlgrenska Gothenburg University Hospital, from 9 May 2016 to 5 June 2016. Data in the report depend on data gained during the training.

*by Mr. Ayoub Rezeq
Palestine*



[Read Report](#)



Ayoub Rezeq
in front of Sahlgrenska Gothenburg University Hospital

IFCC'S CALENDAR OF CONGRESSES, CONFERENCES & EVENTS

Calendar of IFCC Congresses/Conferences and Regional Federations' Congresses

Nov 26 - 29, 2016		<p><i>14th Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine Congress</i></p>	Taipei, TW
Jun 11 - 15, 2017		<p><i>IFCC-EFLM EuroMedLab 2017</i></p>	Athens, GR
Sep 17 - 20, 2017		<p><i>XXIII COLABIOCLI Congress 2017</i></p>	Punta del Este, UY
Oct 20 - 22, 2017		<p><i>XIV International Congress of Pediatric Laboratory Medicine</i></p>	Durban, ZA
Oct 22 - 25, 2017		<p><i>XXIII IFCC WorldLab 2017</i></p>	Durban, ZA
May 19 - 23, 2019		<p><i>IFCC-EFLM EuroMedLab 2019</i></p>	Barcelona, ES
May 24 - 28, 2020		<p><i>XXIV IFCC WorldLab 2020 Seoul</i></p>	Seoul, KR

Calendar continued on next page

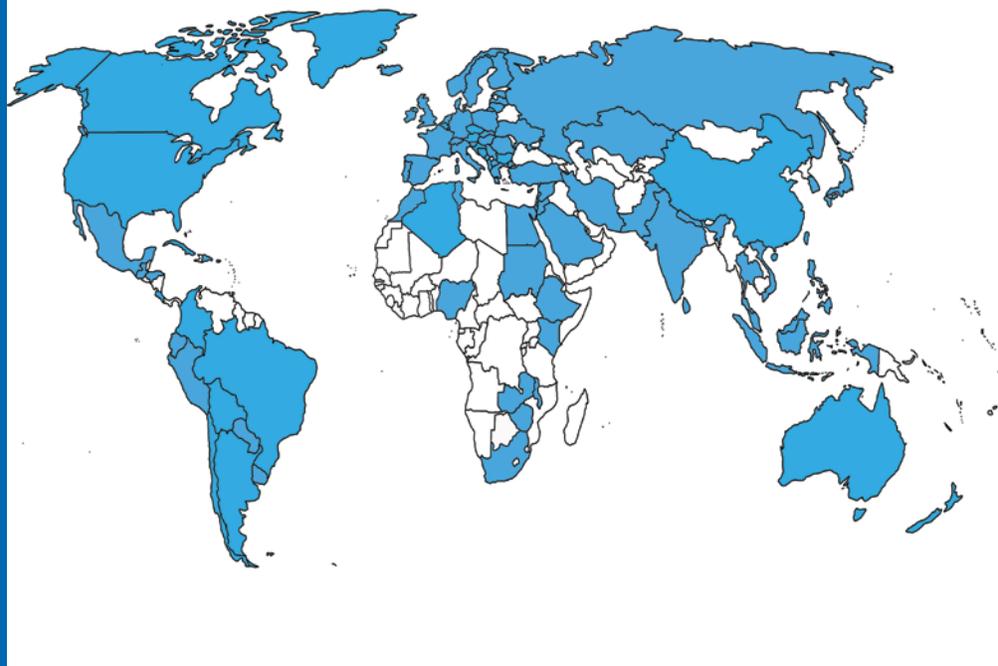
Calendar of events with IFCC auspices

May 9 - Dec 9, 2016	<i>Course Quality Management and Good Laboratory Practice, Third Edition, 2015 PAHO/WHO</i>	online course
Oct 12 - 14, 2016	<i>2016 Conference of the Association of Clinical Chemists of Nigeria</i>	Ikeja, Lagos, NG
Oct 13 - 15, 2016	<i>16th Moroccan Congress of Clinical Biology</i>	Rabat, MA
Oct 18 - 20, 2016	<i>48th National SIBioC Congress - Laboratory Medicine. The Patient 's Central Role between Laboratory and Clinical Practice</i>	Torino, IT
Oct 19 - 21, 2016	<i>X National Congress of Clinical Laboratory</i>	Zaragoza, ES
Oct 20 - 22, 2016	<i>Joint Meeting of the "3rd Congress on Controversies in Thrombosis & Hemostasis" and the "8th Russian Conference on Clinical Hemostasiology and Heremorheology"</i>	Moscow, RU
Oct 26 - 28, 2016	<i>IFCC Flow Cytometry Workshop "From Science to Clinic"</i>	St. Petersburg, RU
Oct 26 - 28, 2016	<i>LMCE 2016 & KSLM 57th Annual Meeting</i>	Seoul, KR
Oct 27, 2016	<i>International Conference on Laboratory Medicine "Towards performance specifications for the extra-analytical phases of laboratory testing"</i>	Padova, IT
Nov 2-5, 2016	<i>TBS Biochemistry Days</i>	Sivas, TR
Nov 4 - 7, 2016	<i>XVI Congreso Internacional del Colegio Nacional de Bacteriologia</i>	Bogotá, CO
Nov 9 - 11, 2016	<i>EFLM Course "Developing medical tests that improve patient outcomes"</i>	Leiden, NL
Nov 17 - 18, 2016	<i>10th International Scientific Meeting of the Centre of Metrological Traceability in Laboratory Medicine (CIRME) "Ten years after"</i>	Milan, IT
Dec 1, 2016	<i>Colloque Biologie Médicale</i>	Paris, FR
Dec 2 - 3, 2016	<i>Journée de Biologie Praticienne 50</i>	Paris, FR
Feb 9 - 10, 2017	<i>International Congress on Quality in Laboratory Medicine</i>	Helsinki, FI
Mar 24 - 25, 2017	<i>4th EFLM-BD European Conference on Preanalytical Phase "Improving quality in the preanalytical phase through innovation"</i>	Amsterdam, NL
May 11 - 13, 2017	<i>The VIII Baltic Transfusion Medicine Congress and the I Latvian Congress in Laboratory Medicine</i>	Riga, LV
Jun 10 - 11, 2017	<i>EuroMedLab Athens 2017 Satellite Meeting "Management of Inborn Errors of Metabolism: from Diagnosis to Treatment"</i>	Athens, GR
Jun 10, 2017	<i>EuroMedLab Athens 2017 Satellite Meeting "Metabolic Bone Disease: The Role of the Clinical Laboratory"</i>	Athens, GR
Jun 15 - 16, 2017	<i>EuroMedLab Athens 2017 Satellite Meeting "Diabetes"</i>	Athens, GR

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Philippines: Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL)
Russia: Regional Association for Clinical Laboratory Diagnosis, St. Petersburg
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Turkey: Society of Clinical Biochemistry Specialists (KBUD)
Ukraine: Association of Clinical Chemistry & Laboratory Medicine of Ukraine (ACCLMU)

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European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)
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