In this issue

☐ EDITORIAL
  - Message from the eNews Editor 4

☐ THE VOICE OF IFCC
  - Never Forgotten – in memory of Professor Howard Morris 5
  - Tribute for all Covid-19 fighters in healthcare 6
  - Winter School of Cell Analysis in Immunology 8

☐ IFCC: THE PEOPLE
  - IFCC Distinguished Awards 2020 9
  - In memory of Dr. Josep Maria Queraltó 14

☐ IFCC: THE YOUNG SCIENTISTS
  - Residency training worldwide: a survey on similarities and differences 15

☐ CONTRIBUTE TO THE IFCC eNEWS
  - Engaging communities of stakeholders for measurably better patient care 17
  - Join us in celebrating Healthcare Excellence on LinkedIn 19
  - Diagnostic, trust, solidarity and humanism 21
NEWS FROM REGIONAL FEDERATIONS AND MEMBER SOCIETIES

- News from the Malawi Association of Medical Laboratory Scientists (MAMLS) 26
- News from the Saudi Society for Clinical Chemistry (SSCC) 28
- CLAQ series, Belgrade:
  Deep dive in AI, innovation and quality management 30

IFCC WELCOMES TWO NEW MEMBERS

- New affiliate member:
  The Andalusian Society for Clinical Analysis and Laboratory Medicine (SANAC) 34
- New full member:
  Myanmar Medical Technologist Association (MMTA) 36

IFCC’S CALENDAR OF CONGRESSES, CONFERENCES & EVENTS

- Calendar of IFCC Congresses/Conferences and Regional Federations’ Congresses 38
- Calendar of events with IFCC auspices 39
Dear colleagues,

First of all, let us all remember Prof. Howard Morris, IFCC past president, a visionary leader and a great man.

It seems that better times are coming as the summer approaches. People will have the chance to meet each other again, shops may resume activity, some tones of normalcy may return, even the chance to travel to the countryside seems not unthinkable. Concern and anxiety are still there, however.

Laboratorians play an important role all over the world in the management of this new disease. A lot of knowledge is built up, a lot of it is already published but many questions remain unanswered. IFCC has launched a survey about changes in the labs regarding handling of the COVID+ samples. Your answers will offer information and will certainly help other colleagues to work in a safer way while this virus seems to pose new challenges.

A poem, a tribute dedicated to the health workers fighting the disease and especially laboratory people, often unseen or ignored is presented by Dr J. Lopez, in this issue. Dr Gouget gives us again an insight in the epidemic and its consequences and the after-days to come.

There is not much information about congresses and seminars to share with us nowadays. Perhaps some information about webinars? Zoom meetings? It would be great if you could send your thoughts or your practice or your solutions about the new conditions in routine or research labs.

Last night we watched the opera Nabucco from Herodion theatre in Athens, a performance of the Greek Festival in 2018. We all thought how much we would like to return to our “Patria”, our everyday old routine and we sang “Va pensiero sull’ali dorate” / Fly, thought, on golden wings. We will all be back soon!

Katherina Psarra
Coronavirus disease 2019, abbreviated to COVID-19, is an emerging global pandemic caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). As the number of individuals infected with COVID-19 continues to rise globally and healthcare systems become increasingly stressed, it is clear that the clinical laboratory will play an essential role in this crisis, contributing to patient screening, diagnosis, monitoring/treatment, as well as epidemiologic recovery/surveillance. This guide aims to organize relevant available information on laboratory screening, testing protocols, diagnosis, and other general information on COVID-19 for laboratory professionals, including links to helpful resources and interim guidelines. It will be continually updated as new guidelines and literature become available.

Summaries of the Guide in Spanish (click aquí) and in Czech (kliknutím zde) are also available.

THE VOICE OF IFCC

Never Forgotten – in memory of Professor Howard Morris

by Professor Khosrow Adeli
IFCC President-Elect

David Kinniburgh
IFCC Secretary

Never Forgotten – in memory of Professor Howard Morris, Past President of IFCC (2018-2019) Professor of Medical Science at the University of South Australia and Clinical Scientist in Chemical Pathology at SA Pathology, Adelaide Australia.

The IFCC community takes this opportunity to remember Professor Howard Morris, who passed away on April 18, 2019, while still in office as IFCC President. Howard was a visionary leader, an accomplished clinical biochemist, and researcher, an educator and a mentor to many young professionals. He was a gentleman with a hearty, contagious laugh, and displayed abundant enthusiasm in all that he did.

His contributions to laboratory medicine and to the IFCC community were many and his passing was deeply felt by his friends and colleagues around the world. The medical community lost a talented professional, the IFCC lost a dedicated leader, and we all lost a great man. Please join us in remembering Professor Howard Morris.

Click here to read the IFCC eNews dedicated to Prof. Morris.
“As flies to wanton boys are we to th’ gods,  
They kill us for their sport.”  
Shakespeare – from King Lear, Act 4 Scene 1

For all Covid-19 fighters in healthcare and especially those who work in the lab,  
people often unseen and unheard from.

TRIBUTE

The enemy, lethal, unforgiving and merciless,  
Savaging a ravaged planet,  
Soldiers, in flimsy fatigues of blue and green,  
Charging fearlessly like warriors of yore.

Ministering silently, valiantly, among the sick,  
Shielded with amour of little more than apron, glove and mask,  
Facing not planes, bullets, bombs, take your pick,  
To engage in mortal combat is their noble task.

Haunted looks, hooded eyes, the creased visage,  
Exhausted beyond measure, yet never surrendering,  
Tears freely flowing, sometimes for fallen comrades,  
Stoic looks, care beyond the ken dispensing.

She emptying the bins, he mopping the floor,  
Those, whose toil we oft take for granted,  
The pharmacist, the medtech, the guard at the door.  
Those, whose praises have seldom been chanted.

And within the forest, the oft forgotten kin,  
But now remembered, indeed, earnestly sought,  
Miners of gold dust, the results desperately needed to win,  
Responding to plaintive cries of Test! Test! Test! is their lot.

I see kindness in all corners,  
Compassion given without rest,  
“Unsung heroes” they’ve been called,  
I’ve seen humankind at its very best.

(The author is a past President of the APFCB and past IFCC EB member)
The World's First SARS-CoV-2 CLIA Kits Received CE Mark

Advantages of MAGLUMI® 2019-nCoV IgG and 2019-nCoV IgM

- Inactivated Serum/Plasma samples (56°C, 30mins) applicable to ensure operator's safety
- World's Fastest Fully automated CLIA solution (High throughput and sensitivity method)
- Antibody detection with numerical result using ONLY 10μL sample volume
- Assist early detection of COVID-19 suspicious cases with nucleic acid false negative
- Joint Detection Solution (IgG+IgM) for COVID-19 to ensure high clinical sensitivity
- Rapid detection within 30 mins (Analyzer model dependent)
- The First SARS-CoV-2 Antibody Reagents Supplier with Major Lab Automation connectability
- High production capacity with advanced automatic production line

MAGLUMI® Multi-Size Automated Analyzers

MAGLUMI 2000 Inpeco Track Connectable
MAGLUMI 4000 Plus Inpeco Track Connectable
MAGLUMI X8 TLA Track Connectable

MAGLUMI® TEST PANEL—Total solution for SARS-CoV-2 infection-related disease

<table>
<thead>
<tr>
<th>Application</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflammatory Cytokine Storm</td>
<td>hs-CRP, PCT (Procalcitonin), IL-6 (Interleukin 6), *SAA (Serum Amyloid A)</td>
</tr>
<tr>
<td>Acute Cardiac Injury</td>
<td>CK-MB, Troponin I, Myoglobin, hs-cTnI, H-FABP, NT-proBNP, BNP</td>
</tr>
<tr>
<td>Acute Kidney Injury</td>
<td>β2-MG, Albumin, *NGAL</td>
</tr>
<tr>
<td>Coagulation Disorder</td>
<td>D-Dimer</td>
</tr>
</tbody>
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*Available soon

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The Winter School of Cell Analysis in Immunology was held in Geneva, Switzerland, from 9 to 13 March 2020. The workshop was organized by Thomas Matthes, Aleksandra Dufour and Claude Lambert under IFCC and Geneva University auspices.

The course hosted fifteen participants coming from Poland, Germany, Portugal, Montenegro, Brazil, France, and Switzerland. All of them were experienced biologists in diagnostics or research immunology, except one medical student and one professional in veterinary medicine.

Different topics were addressed, including T cells, B cells, monocytes, basophils, innate lymphoid cells. The applications of flow cytometry, not only in cell development and maturation, but also in immunodeficiency, tumor immunity, sepsis or hypersensitivity were shown. New technologies like image cytometry or mass cytometry were presented.

The speakers of the Winter School came from six countries: Luxemburg, Germany, Morocco, Algeria, France, and Switzerland.

Morning sessions included lectures that raised lots of interesting questions from the audience and the participants who took advantage of the opportunity to discuss with the experts.

During the afternoons wet labs or data analysis supervised by the experts on individual computers with several cytometry analysis software (Kaluza, FlowJo, Cytobank) took place.

The practical laboratory classes included basophil degranulation assay, phagocytosis, multicolor panel design, antigen density determination, T cell activation as well as cytokine production and T cell polarization. The participants profited from case studies on T cells, B cells and ILCs that were performed on the data files of healthy subjects and patients with immune diseases. All attendees except one passed the final exam.

The winter was mild, rainy but not snowy. We had the chance to taste food from different countries as well as Swiss chocolate at coffee breaks.

Despite the impending Covid-19 pandemic, the course was maintained, keeping some inter-individual distances, and fortunately could be realized totally, in safe conditions, before confinement measures were decided worldwide.

The course was a great success. Looking at the evaluation survey done anonymously at the end of the workshop, the participants judged the course as excellent. Because of the approaching epidemic, we left each other without shaking hands or hugs...

The next Winter School edition is planned between March 15-19, 2021.
The IFCC announces the names of the winners of the ten 2020 IFCC Distinguished Awards.

Milan, 16 April 2020 - The IFCC is pleased to announce the names of the winners of the ten IFCC Distinguished Awards. The IFCC Distinguished Awards are bestowed to laboratory medicine professionals to recognize their outstanding achievements, publicize their exceptional research and contributions to medicine and healthcare, and encourage the overall advancement of clinical chemistry and laboratory medicine.

***

Prof. Nader RIFAI (United States) is the winner of the 2020 IFCC Distinguished Clinical Chemist Award, sponsored by Yashraj Biotechnology Ltd. This award recognizes specifically an individual who has made outstanding contributions to the science of Clinical Chemistry and Laboratory Medicine or the application of Clinical Chemistry to the understanding or the solution of medical problems.

Click here to read the press release about Prof. Rifai.

***
Dr. Ghassan SHANNAN (Syria) is the winner of the 2020 IFCC Henry Wishinsky Award for Distinguished International Services, sponsored by Siemens. This award recognizes specifically an individual, who has made unique contributions to the promotion and understanding of Clinical Chemistry and Laboratory Medicine throughout the world.

Click here to read the press release about Dr. Shannan.

***

Dr. Thomas ANNESLEY (United States) is the winner of the 2020 IFCC Award for Distinguished Contributions in Education, sponsored by Abbott Diagnostics. This award recognizes specifically an individual, who has made extraordinary contributions in establishing and developing educational materials for the Clinical Chemistry discipline, in order to improve training and educational programs worldwide or in a region.

Click here to read the press release about Dr. Annesley.

***

Dr. Andrea FERREIRA-GONZALEZ (United States), is the winner of the 2020 IFCC Award for Significant Contributions in Molecular Diagnostics, sponsored by Abbott Molecular. This award recognizes specifically an individual, who has made unique contributions to the promotion and understanding of molecular biology and its applications in Clinical Chemistry and Laboratory Medicine worldwide.

Click here to read the press release about Dr. Ferreira-Gonzalez.

***
Dr. David B. SACKS (United States) is the winner of the 2020 IFCC Distinguished Award for Laboratory Medicine and Patient Care, sponsored by Sekisui Diagnostics. This award recognizes specifically an individual, who has made unique contributions in Laboratory Medicine, its application in improving patient care, and having a worldwide impact in clinical medicine.

Click here to read the press release about Dr. Sacks.

***

Dr. Gary L. MYERS (United States) is the winner of the 2020 IFCC-Robert Schaffer Award for Outstanding Achievements in the Development of Standards for Use in Laboratory Medicine, co-sponsored by NIST and CLSI.

This award recognizes specifically an individual, who has made outstanding and unique contributions to the advancement of reference methods and/or reference materials for laboratory medicine to facilitate improved quality of clinical diagnostics and therapies, which would in turn lead to reduced costs and improved patient care.

Click here to read the press release about Dr. Myers.

***

Prof. Fred S. APPLE (United States) is the winner of the 2020 IFCC Distinguished Award for Contributions to Cardiovascular Diagnostics, sponsored by HyTest. This award honours an individual, who has undertaken remarkable scientific work with cardiac markers or immunodiagnostic applications to improve cardiac disease diagnosis.

Click here to read the press release about Prof. Apple.

***

Dr. Jean Baptiste WOILLARD (France) is the winner of the 2020 IFCC-Gérard Siest Young Scientist Award for Distinguished Contributions in Pharmacogenetics, sponsored by Biologie Prospective. This award recognizes an
outstanding young investigator or young leader (under 40 years of age) for his/her contribution to advancing the scientific discipline of pharmacogenomics and Personalized/Precision Medicine and/or its impact on research, development, standardization, quality management, regulatory evaluation or utilization in therapy.

The award will be presented for the first time on the occasion of the WorldLab Congress, to be held in Seoul, in January 2021.

Click here to read the press release about Dr. Woillard.

***

Dr. Sandra QUIJANO (Colombia) is the winner of the 2020 IFCC Distinguished Women Scientist Award For Contribution To In Vitro Diagnostics, sponsored by Yashraj Biotechnology Ltd. This award recognizes a woman, who has made significant contributions to the development or utilization of In Vitro Diagnostics with emphasis on applications in primary healthcare. The award will be presented for the first time on occasion of the WorldLab Congress to be held in Seoul in 2021.

Click here to read the press release about Dr. Quijano.

***

Dr. Livia S. EBERLIN (United States) is the winner of the 2020 IFCC Young Investigator Award, sponsored by IFCC. This award recognizes and encourages the academic and professional development of a young investigator (under 40 years of age), who has demonstrated exceptional scientific achievements in Clinical Chemistry and Laboratory Medicine in his/her career.

Click here to read the press release about Dr. Eberlin.

***
Prof. Maurizio FERRARI, IFCC President and Chair IFCC Awards Committee, said: “We are delighted in electing these colleagues for the 2020 IFCC Awards. The Awardees are a witness of the contribution that IFCC gives to the advancement of excellence in laboratory medicine for better healthcare worldwide.

I am happy that so many National Societies submitted excellent candidates: we had a very hard task selecting the Awardees among them. It has been a privilege considering them and we are sure that the Awardees will inspire a new generation of clinician-scientists worldwide”.

ABOUT IFCC

IFCC is the leading organization in the field of Clinical Chemistry and Laboratory Medicine worldwide. Through leadership and innovation in science and education, IFCC strives to enhance the scientific level and the quality of diagnosis and therapy for patients throughout the world. IFCC builds on the professionalism of its members to provide quality services to patients. IFCC is a Federation of 93 Full Member and 17 Affiliate member Societies of Clinical Chemistry and Laboratory Medicine representing more than 45,000 individual clinical chemists, laboratory scientists, and laboratory physicians and 48 Corporate Members covering the major areas of clinical laboratory developments. For further details please contact: ifcc@ifcc.org.
In memory of Dr. Josep Maria Queraltó

Barcelona, March 31, 2020 - The Spanish Society for Laboratory Medicine (SEQCML) regrets having to report the death of one of its most illustrious members, Dr. Josep Maria Queraltó, 67 years old, who left us suddenly, on Friday, March 27, at his home in Sant Andreu de Llavaneres (Barcelona). The SEQCML wishes to convey its heartfelt condolences to the relatives and close friends of Dr. Queraltó and especially to his wife.

Dr. Queraltó had been a very involved member of the Spanish Society of Laboratory Medicine for 35 years. His activities at the national level included his position as secretary of the Board of Directors of the Society from 1990 to 1996, the presidency of the former Reference Values Commission and the Education Committee during the 80s and 90s, and the presidency of the Drugs Monitoring and Clinical Toxicology Commission during two periods (2004-2005 and 2013-2018).

In addition, he was a member of the Commission on the Diagnostic Value of Biochemical magnitudes (1985-1989) and of the Scientific Committee of the Society (1985-1992), as well as of the Editorial Committee of the Química Clínica Journal and the Board of Directors; he was still holding the last position at the time of his death.

Likewise, his work representing SEQCML in international organizations has been of great importance, as he held highly significant positions, such as the presidency of the board of the European Federation of European Societies of Clinical Chemistry (FESCC). He was also a member of the EC4 European Registry Committee from 2000 to the present.

His perseverance in the many international tasks in which he participated and his international contacts, which he cultivated and maintained exquisitely, helped the SEQCML to be present at numerous international events. Among these it is worth noting, due to its great impact, the organization of the congresses EuroMedLab Barcelona 2003, of which he was president of the Scientific Committee, and EuroMedLab Barcelona 2019, of the Organizing Committee of which he was a member. The success of both European Congresses gave the SEQCML an enormous boost and visibility at an international level.

In the days since his death, the Society has received dozens of emails and written statements from various countries around the world, expressing sorrow and dismay at the loss of such a beloved and valued person. Within his great human and professional value, all those who had the opportunity to interact with him highlighted his patience and his great vision for the future in the field of Laboratory Medicine training.

Esteemed member of the SEQCML for 35 years

Dr. Josep Maria Queraltó
Residency training worldwide: a survey on similarities and differences

by Claudia Imperiali
IFCC TF-YS member
Clinical Laboratory, Viladecans Hospital, Barcelona, Spain

Santiago Fares-Taie
TF-YS Chair
Laboratorio Bioquímico Mar del Plata, Argentina

Josep Miquel Bauçà-Rosselló
Expert Member, Qualifications Committee on Residency Exam for Chemists and Biochemists
Clinical Biochemistry, Hospital Universitari Son Espases, Palma de Mallorca, Spain

INTRODUCTION
Residency training is a crucial step for the new laboratory professionals of the 21st century. Clinical laboratories are becoming more complex, and the knowledge needed to master the different subdisciplines needs to be well structured.

Some efforts from the IFCC have tried to reach a consensus program on the skills needed for a professional to reach expertise in laboratory medicine, such as the IFCC Curriculum published in 2018 (available at: https://www.ifcc.org/media/477173/2017-ifcc-curriculum.pdf).

Training areas need to include not only laboratory organization and management, but also analytical techniques (instrumentation and methodology) and clinical outcomes (pathophysiology, test usefulness and appropriateness and result interpretation). However, great disparities are known to exist among countries in terms of the requisites to access the training programs (academic background), the length and content of such programs and also the perspectives after graduating. And these are also under continuous evolution.

A first approach to bring to light the differences and similarities among training programs in the European Union (EU) was published in 2002 by members of the European Communities Confederation of Clinical Chemistry (EC4), with some very interesting observations. Such points could be considered as the starting point for future harmonization of programs and also to potentiate the mobility of professionals within EU countries.

AIMS
Based on these findings, a group of young scientists from different countries met during the EuroMedLab Barcelona 2019 and suggested going further with a more ambitious goal: to assess how residency training programs in clinical chemistry and laboratory medicine are organized worldwide.

The project was presented and approved by the executive boards of the Spanish Society of Laboratory Medicine (SEQC-ML) and the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), and will be carried out by young scientists from Argentina, France, India, Italy, South Africa, Spain and the United States.

PLAN
To the best of our knowledge, no publication about the organization of training programs is available for many countries, so the most convenient way to get
that information is through an online survey to laboratory professionals in each country.

Questions will address key aspects of the training program, namely:

- Academic background
- Candidate election
- Disciplines included in the training program
- Type of laboratory
- Research
- Teaching
- Length of training
- Requirements for certification
- Work possibilities after training

By gathering data from many countries, a clearer picture will be possible for the future of clinical chemistry or laboratory medicine as medical specialties. The main limitation of the project is the low-confidence in the answers of the participants of each country. Thus, a minimum of three equal answers per country are required to be considered as correct.

For more information about the project, or if willing to help by responding to the survey or finding participants, please contact us by email (claudia.imperiali.rosario@gmail.com).

IFCC Task Force for Young Scientists Members and Corresponding Members, portrayed at the EuroMedLab Congress held in Barcelona (Spain) in 2019
CONTRIBUTE TO THE IFCC eNEWS

Engaging communities of stakeholders for measurably better patient care

“TELL ME AND I FORGET.
TEACH ME AND I REMEMBER.
INVOLVE ME AND I LEARN.”

~Benjamin Franklin

Pictured Left to Right: Jens Ringel, Michael Haase, Saban Elitok, Elisabeth Engelmann, Annemarie Albert from an integrated clinical care team in Potsdam, Germany

Pictured Left to Right: Shirley Cleary, Jenny Nobes, Emma Robinson, John Dillon, Ellie Dow, Ian Kennedy, Elizabeth Furrie from an integrated clinical care team in Dundee, United Kingdom
Critical to optimal health for patients is access to high-quality healthcare services that are effectively coordinated across health systems. Healthcare system communities are comprised of diverse stakeholders including but not limited to the clinical laboratory, clinicians, health system administration, and payors. Each stakeholder has unique responsibilities, but all share a common goal of high-quality services and timely delivery of healthcare services. Traditionally, stakeholders tend to work in silos. Segregated, the brilliant minds, innovators and doers have limited potential, resulting in the delivery of inefficient and fragmented healthcare.

Recently, stakeholder engagement has evolved with an “all-hands-on-deck” approach, thus gaining credibility and traction to deliver the highest quality patient care. By breaking down the walls between healthcare teams, novel ideas emerge and can be implemented with success. By working together, collaborative teams push harder, think bigger and develop solid plans of action with wide-reaching impact.

The clinical laboratory is known for the massive quantity of objective clinical data it generates and is a central player for patient care. The objective laboratory data (i.e. test results), are used in conjunction with clinical data to aid in the formulation of clinical diagnosis, management or treatment of patients. Beyond accuracy, the true value of a diagnostic test lies in whether it enhances patient care in measurable ways (i.e., improved and quicker diagnostic decisions, increased overall effectiveness of treatment, increased patient wellness). Quantifying the expanded value of laboratory insights has been a key challenge however for the clinical laboratory.

A large factor contributing to that gap is the absence of integration. Many stakeholders are passive recipients of laboratory data with different backgrounds and perspectives. In a collaborative system, the clinical laboratory is actively and often, proactively engaged across stakeholder functions including physicians, nurses and other clinical staff, with influence on the overall performance for delivering the best patient outcomes. Maximizing collaborations ensures a voice for all partners, leading to new ideas and better healthcare.

Many examples of stakeholder communities now exist, driving measurable benefits for patients, payors, clinicians and health systems. These include but are not limited to best practices recently recognized by the UNIVANTS of Healthcare Excellence Awards (www.UnivantsHCE.com). In all 12 examples, integrated clinical care teams unified across traditional silos to integrate laboratory data and insights into avant-garde processes to improve outcomes.

Many of the examples included Laboratory IT (Information Technology) as a valued new trend to synthesize complex data into more actionable pathways. Whether it was complex algorithms for the implementation of an intelligent liver function (iLFT) algorithm or simple ones for earlier detection of acute kidney injury, IT, in partnership with lab medicine and clinical pathways can trigger new care delivery models and healthcare transformation.

As shared by one of the 2019 UNIVANTS of Healthcare Excellence winners, Dr. John Dillon, (Professor of Hepatology and Gastroenterology from Dundee, United Kingdom): “The benefit of predictive algorithms with real-time management plans enables rapid treatment for patients that may have been lost to care gaps without follow-up. It brings me great pleasure to know that we are giving our patients the best possible care.”

Engaging and involving the stakeholders during all stages of a care initiative leads to buy-in, successful implementation of the care initiative, and long-term support. Once a care initiative is implemented, early and regularly on-going communication regarding the outcomes often help manage expectations and build further support. Stakeholder support may also be gained by sharing successful programs and outcomes other healthcare teams have experienced. Thus, education about successful care projects helps to inspire more success and new stakeholder communities for measurably better care.

Not unlike what is evoked in a famous quote from Benjamin Franklin, involvement does matter. “Tell me and I forget. Teach me and I remember. Involve me and I learn.”
Healthcare is evolving rapidly, and transforming the delivery of healthcare requires agility, novel thinking, innovation and teamwork. Opportunities exist to network and stay up-to-date on key events and best practices associated with the UNIVANTS of Healthcare Excellence Award Program (www.UnivantsHCE.com). Explore and learn about best practices in integrated care projects that have achieved measurably better healthcare performance for patients, clinicians, payors and health administrations. Be inspired to emulate similar care projects, improve upon your own teams and programs, or find ways to inspire healthcare professionals on the frontlines of enhancing care.

Follow these easy steps to join other like-minded individuals who are passionate about healthcare excellence and the UNIVANTS of Healthcare Excellence Award Program on LinkedIn:

1. Go to the LinkedIn.com
2. On the welcome page, find the search feature on the top left corner search bar.
3. Type in #UNIVANTS and select “see all results for #UNIVANTS”
4. You will be prompted on the next screen to “Follow” the hashtag. Select the “Follow” button.
5. You are now following the #UNIVANTS hashtag.

Upon following #UNIVANTS, you will join a global community that is passionate about healthcare transformation. Explore articles and integrated best practice initiatives that have revolutionized patient care. Share relevant articles of healthcare excellence with this community by tagging #UNIVANTS to inspire team engagement. These success stories can inspire new teams and projects for well-rounded healthcare solutions with measurably better healthcare. Please like and share with those who might benefit from this network.
UNIFY FOR SOMETHING GREATER

The UNIVANTS of Healthcare Excellence Award program celebrates teams who have achieved measurably better outcomes in healthcare.

If you are a team of UNIFIERS who have applied AVANT-GARDE approaches to achieve better healthcare outcomes, learn more and apply at UnivantsHCE.com.
Diagnostic, trust, solidarity and humanism

by Bernard Gouget
Chair-IFCC Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM)
co-Chair IFCC -TF on History SFBC-International Committee
President-Human Health Care Committee-Cofrac
President-Committee for selection of the French reference Laboratories, Ministry of Health

The global spectacle is very strange: in a few days, more than 3.9 billion people, or half of humanity, have now been asked or ordered to stay confined in their homes: a global shutdown to overshadow any stats. As the virus spread from nation to nation, the economies of nearly every country have been brought to their knees, if not suffering from a severe embolism. The pandemic seems to have arrived by surprise, like a plague that fell from the sky. In the face of this major event of unforeseen force, policies are necessarily based on more or less rational reactions and more or less validated methods, but in all cases, a feeling of improvisation in the sense of the Geneva Convention, but equally we know that this war-talk is not simply idle talk. The dangers are clear. The pandemic may well lead to a serious decline in democracy around the world. Crucially, emergency measures need to have a clearly defined time frame to avoid leading into a permanent state of emergency. Part of the success of countries in confronting the coronavirus is due to their clear and open communication. It is crucial to show self-restraint and vigilance in ensuring that a critical, vibrant, and constant debate remains alive. We need international solidarity to fight such a health scourge and to call out war talk for what it really is.

The COVID-19 pandemic is also forcing our society to make choices of a magnitude and intensity, whose consequences we cannot yet measure. While decisions should certainly be backed up by scientific expertise, crucial decisions are a matter of political responsibility. In the matter of public health, they are an indelible marker of the hierarchy of our social values and priorities. Triage, prioritization, and therapeutic arbitrations usually stay behind closed doors, within the medical panel, in consultation with families. But today, this question has become visible, sensitive, even and trial and error prevails, while the death toll is relentlessly rising. The countries that have acted quickly to stop the spread of the coronavirus have drawn on their finest technological capabilities to track the movement of their citizens. The West underestimated the necessary industrial mobilization, in particular in advanced sectors while China, Hong Kong, Taiwan and South Korea tested everything from AI to robots, including drones, apps, blockchains, CCTV cameras, GPS digital tracking and facial recognition to prevent the virus from causing a massacre.

Confronting the coronavirus crisis forces governments to take extreme measures on massive scale, but any infringement on civil liberties must be temporary and proportional. The virus is not an army, and evoking war can transform a health crisis into a security one, justifying repressive measures. We are once more experiencing mass recruitment for battle. Some political leaders are using war-talk: «Our war against the Chinese virus»; «We are at war», «War against an invisible enemy», to recruit volunteers for the “front line” and urging everybody to “do their part”. The “front line” is the hospital. Healthcare professionals are the “heroes” defending our lives and the nation. We thank them very much! Intuitively there is no armed conflict by Bernard Gouget
Chair-IFCC Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM)
co-Chair IFCC -TF on History SFBC-International Committee
President-Human Health Care Committee-Cofrac
President-Committee for selection of the French reference Laboratories, Ministry of Health

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The COVID-19 pandemic is also forcing our society to make choices of a magnitude and intensity, whose consequences we cannot yet measure. While decisions should certainly be backed up by scientific expertise, crucial decisions are a matter of political responsibility. In the matter of public health, they are an indelible marker of the hierarchy of our social values and priorities. Triage, prioritization, and therapeutic arbitrations usually stay behind closed doors, within the medical panel, in consultation with families. But today, this question has become visible, sensitive, even
disturbing. It challenges the pact that binds us to our hospitals, the trust that ties us to physicians.

To measure a pandemic, it is necessary to know how to detect it. The genetic sequence of coronavirus SARS-CoV-2 was quickly shared by Chinese researchers, which enabled teams around the world to develop specific diagnostic tests to establish with certainty whether or not a patient was affected by this novel virus. In Asia, China, Hong Kong, Thailand and Japan,... researchers developed their own methods. The Institute of Virology of the Charité Berlin Hospital (Germany), which had already prepared tests for other coronavirus-family viruses, led the way in Europe in mid-January. Other countries around the world worked tirelessly on the genetic sequence of coronavirus SARS-CoV-2 isolated by China to develop a molecular technology.

Today, we realize how essential laboratory diagnosis is. Lab tests are becoming a major health, industrial and economic issue. The subject is debated in the field as well as in the public. In the current context of a public health emergency, laboratories and research institutes are developing diagnostic solutions. The value of a test comes from its so-called specificity and sensitivity. Large IVD companies rapidly deploy production of coronavirus tests. The PCR Test: the devices currently used for the diagnosis of SARS-CoV-2 are reagents for detecting the virus genome by RT-PCR. In France, the French National Authority for Health (HAS) recommends that these reagents have at least two targets for detecting the genome of coronavirus SARS-CoV-2 by the technique of reverse transcription followed by amplification.

While WHO encourages to massively test the populations, the screening strategies are evolving rapidly. The countries are increasing their capacities for screening tests as much as possible, not only with the nasal tests and detection of the virus by PCR in case of symptoms but also with blood tests, for qualitative detection of IgM and IgG antibodies, from venous blood or from a drop of blood fingertip, to find out who is immune or not. For the latter serologic tests, the government authorities are not giving details on their dissemination: who will be tested and how? We just know that the goal is to be able to measure the collective immunity of the population in order to be ready for the period of release from confinement. There is still room for innovation. Groups led by two of the biggest names in CRISPR (Univ. of Washington School of Medicine and Univ. of California, Berkeley) are each working on tests that take advantage of the popular gene-editing technique to improve testing. The techniques use the CRISPR machinery’s ability to recognize specific genetic sequences and cut them. In the process, it also cuts a ‘reporter’ molecule added to the reaction, which reveals the presence of viral genetic material relatively quickly.

Routine testing has shown that a large proportion of invisibly contaminated asymptomatic subjects or subjects with mild symptoms massively contribute to the spread of the virus. Many minor infections remain unchecked. Lacking the means, large-scale screening is impossible, countries are only able to test people considered to be a priority. Private and public laboratories have opened their doors widely. It is becoming urgent to find quick, simple and widely disseminated screening solutions as locally as possible to the target populations, and to be attentive to the institutionalized elderly and to low-to-middle income countries (LMIC) where barrier efforts and social distancing are more difficult to be enforced. The economy is operating minimally and will not turn around for a long time if employees do not regain a minimum of trust; other sectors will not start up again if staff do not have minimal security with masks, gowns and tests to show who is sick, who has been sick and who can infect others.

On March 16, Tedros A. Ghebreyesus, WHO Director General, said «once again, our key message is: test, test, test» and recommended performing a test for every suspected case. This is a worldwide pursuit. Stocks of materials were captured or diverted. Under fire from critics, Governments are racing to buy medical equipment including protective gear as a debate intensifies over providing adequate testing, when it is advisable to wear masks, and whether stricter lockdowns should be imposed.
Therefore, countries have gradually increased the number of daily screenings. There are enormous tensions due to shortages of swabs and reagents. Supply lines are complex. The IVD and health industries work by just-in-time production. Some companies are contractually constrained to manage priorities, others must serve the countries in which the factories are located first. We are witnessing a struggle in hospitals to acquire inventory test materials and reagents. Shortage of masks and protective clothing has had a delaying effect. Likewise, lab closed systems have limited testing capacity in comparison to open platforms. Human resources are as important as reagents. The situation has been exacerbated by technical and medical staff becoming infected themselves. There are also logistical and transport issues, with priority being given to the most impacted areas. For the clinical diagnosis, CT scanning is widely used as a triage tool and the diagnosis is confirmed by a coronavirus test. We can hope that testing will be ramped up. But it is necessary to determine the strategy: what proportion of the population to test in which countries and for how many weeks until the economy should be started again?

Before a disaster happens, nobody believes it will, even though there is every reason to know that it will happen. When it happens, it brazenly invades our reality. This is exactly what is happening with this pandemic. It was announced. Many voices warned the world of the imminence of a pandemic. All the details were there. They were not heard. A lot of progress remains to be made internationally to quickly identify the health threat, to coordinate a response and to develop the tools and technologies that can combat an emerging lethal disease. Today, everything is amplified by social media, with too much false information creating anxiety. Communication should be better coordinated globally to be as reliable as possible. The solidarity that is already present among researchers and caregivers should be reinforced and what they do under these conditions should be admired.

The urgent need is to stop the epidemic and enforce strict compliance with confinement and hygiene measures. There may be shortages of medicines and respirators for intensive care units. Assessing new drug molecules takes time and multicentre international trials, like Solidarity and Discovery, have been initiated. Research is also urgent, and procedures are accelerated for clinical trials and basic research. Understanding the mechanisms for the entry and replication of SARS CoV-2 in cells will enable future therapeutic strategies to be developed. If physicians and researchers are not always in agreement, they debate publicly via studies published in journals.

Politicians must be inspired by this and avoid hiding behind science when it is lacking and stop believing that research is a narcissistic exercise for health professionals outside of health crises. In these dramatic circumstances of both medical and socio-economic importance, let us try to value what can bring us together. Science and trust go hand in hand. Many governments acknowledged that the real number of infections could be much higher due to limited testing. Testing the most people possible allows to understand the characteristics of the disease, grasp the gravity of the epidemic, and contain its spread by immediately isolating the infected and exposed. Nothing could do more to establish trust in countries than massive routine laboratory diagnostic testing.

Humanity has survived many pandemics throughout history. In many cases, we learned lessons that helped to spur subsequent progress. Some pointed to culture as a driver of the dichotomy of successful responses in East Asia compared to failed responses in some countries of the Americas and elsewhere in the West. All countries must take a comprehensive approach. Covid 19 is a ticking time bomb. We must all be worried about coronavirus spread in African countries with weak health systems. It is also the biggest concern in India. The current crisis is equally a crisis of globalization, which has also undermined the foundations of sustainability. A better globalization will require nothing less than extending the ethic of human solidarity beyond the contours of our immediate response to the COVID-19 outbreak. Real success will lie not in taming a pathogen, but in rediscovering and institutionalizing the true value of compassion, respect, and generosity in the weeks and months ahead.
The accuracy of LC-MS/MS technology for patient testing and the simplicity to load whole blood primary sample tubes with no manual sample pre-treatment is here. Thermo Scientific™ Cascadion™ SM Immunosuppressants Panel for use with Cascadion SM Clinical Analyzer comes in a ready to use kit with pre-defined parameters.

A new beginning with the CE IVD marked kit including Cyclosporin A, Everolimus, Sirolimus, and Tacrolimus

Find out more at thermofisher.com/cascadion or contact us at cascadion.info@thermofisher.com

Cascadion SM Immunosuppressants Panel allows cost-efficient simultaneous testing of one or more of the drugs Cyclosporin A, Everolimus, Sirolimus, and Tacrolimus from one sample aspiration.
The Role of Blood Gas in Overall Management of COVID-19 Patients

21st May 2020, 2 - 3 PM (GMT +8)

Point of Care diagnostics enables rapid actionable results when performed at or near the patient site, hence allowing right treatment at the right time for the right patient. The usage of blood gas parameters in the COVID-19 global pandemic has surged immensely across the globe and this has garnered high levels of interest revolving around the role of blood gas clinical indicators in overall management of COVID-19 patients.

Join us in a live webinar broadcast, where we invite an expert from the state of Wuhan, Dr Fan Xue Peng, Chief Doctor of the ICU Department, Wuhan No.1 Hospital to share his expertise on the importance of blood gas parameters in COVID-19 patient management.

Speaker
Prof. Xue Peng Fan
Director of ICU Department
Wuhan No.1 Hospital
China

Chairperson
Dr. Adil Khan
Director of Point-of-Care Testing & Clinical Chemistry
Temple University
United States

Register Now
News from the Malawi Association of Medical Laboratory Scientists (MAMLS)

First Conference of the MAMLS – Lilongwe, February 2020

by Elias Chipofya
IFCC National Representative for MAMLS
Medical Laboratory Technologist
Thyolo District Hospital, Malawi
(eliaschipofya@gmail.com)

Sitting (L to R): Mr. James Kandulu (Deputy Director, HTSS-Ministry of Health), Dr. Tony Badrick, Dr. Annette Thomas, Dr. Benson Chilima (Director, HTSS-Ministry of Health), Prof. Rajiv Erasmus, Mr. Joseph Bitilinyu-Bangoh (Assistant Director-Ministry of Health), Dr. Frans Marx (Abbott), Mr. Humphries Malata (Lecturer College of Medicine, University of Malawi), Mr. Elias Chipofya (IFCC National Represenative), Mr. Ronald Khunga, Mr. Victor Makwinja (MAMLS Interim President).
Standing: some of the conference participants.

Article continued on next page
The Malawi Association of Medical Laboratory Scientists (MAMLS) hosted its first scientific conference which attracted laboratory professionals from across the country from Central Hospital Laboratories, District Hospital Laboratories, Private Laboratories, CHAM institutions and research institutions. The conference took place from 19th to 20th February 2020 at Golden Peacock Hotel, Lilongwe, capital city of Malawi.

This conference was held under the theme “Quality Laboratory Medicine: a driver for better healthcare in Malawi”. This theme reflects the growing importance of laboratory medicine in Malawi where the population and economy are expanding.

The aim of this conference was to sensitize laboratory professionals on the impact of medical laboratory services in health care so as to ensure that the medical laboratory adopts its rightful role.

The conference was officially opened by Dr. Benson Chilima, The Director of Health Technical Support Services at the Ministry of Health Headquarters. He emphasized the role of MAMLS in laboratory quality and the efforts to make the association succeed.

The event was supported by the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), the African Federation of Clinical Chemistry (AFCC), the Department of Medical Laboratory Science (MLS) of College of Medicine, University of Malawi, Malawi Ministry of Health (MOH) and other corporate institutions.

We had the honour to invite the following prestigious guest key speakers with financial support from the IFCC-Abbott Visiting Lecture Programme:

Prof. Rajiv Erasmus from Stellenbosch University South Africa who delivered a talk on the role of AFCC in enhancing quality in Africa on day one and then he proceeded with a lecture on “Chronic Kidney disease-a growing problem for Africa” on day two.

Dr. Tony Badrick of the Royal College of Pathologist of Australasia Quality Assurance Programs presented a lecture on what is quality in laboratory medicine and how is it measured. On day one and on day two he presented a talk on experience gained from international projects to introduce EQA.

Dr. Annette Thomas presented lectures on how EQA can improve the quality of laboratory medicine, on day one; and on day two she presented a lecture on the role of the laboratory in diabetes diagnosis and monitoring.

In our continuous effort to emphasize the importance of developing the ability to establish collaborations between laboratory professionals and other stakeholders involved in patient management to improve healthcare in Malawi, we included representatives from CDC-Malawi and Nurses and Midwives Council of Malawi.

Dr. Elizabeth Kampira from CDC-Malawi presented a talk on the status of laboratory EQA in Malawi on day one of the conference.
Saudi Society for Clinical Chemistry (SSCC) held the second seminar for the year 2020 on: Pediatric Laboratory Medicine on the 20th of February 2020, in Riyadh, Saudi Arabia. The seminar was accredited by the Saudi Council for Health Specialties (SCFHS) for 8 CME Hours.

The seminar was held in collaboration with International Federation of Clinical Chemistry with two speakers: Prof. Khosrow Adeli, IFCC President Elect and Prof. Sergio Bernardini, Former President of the Italian Society of Clinical Biochemistry and Clinical Molecular Biology, Chair of the Emerging Technologies Division of International Federation for Clinical Chemistry (IFCC).

The seminar had four sessions: first session was a keynote lecture by IFCC President-elect Prof. Khosrow Adeli (University of Toronto – Canada), second session was on Laboratory Management with contribution from both Prof. Adeli and Prof. Bernardini, third session was on local experience on Newborn Screening.
with an overview of NBS in Saudi Arabia, the use of cord blood versus DBS and Cystic Fibrosis Screening, fourth session was on Endocrine Disorders with final presentation from Prof. Adeli on Pediatric Obesity.

The meeting was well attended by more than 120 delegates including, Pediatricians, Pathologists, Laboratory Scientists and Medical Technologists from around Saudi Arabia.

The whole seminar was sponsored by Snibe.
As in each year since 2017, the Conference on medical Laboratory Accreditation and Quality System (CLAQ) gathers in Belgrade (SRB) some of the international brightest brains from lab medicine world: specialists in laboratory medicine from Serbia and abroad, researchers, clinicians, scientists from biotech and starts ups, bioengineers and IVD companies. CLAQ is a scientific event organized by the Center for Medical Biochemistry of Clinical Center of Serbia and the Serbian Society for Clinical Laboratory Medicine and Science (SCLM) working in line with the IFCC/EFLM received auspices. Its mission is to progress discussions about how quality management, ongoing technological developments and emerging technologies have considerably improved the productivity and efficiency of medical laboratories.

Year after year, the conference is growing. The 2nd CLAQ 2018, held on 26-27 November 2018, focused on the overall theme “POCT innovation, Connected Health and Beyond: How digital technology is transforming lab medicine health and social care?” and provided an overview of the Point-of-Care Testing (POCT) landscape as well as trends laboratory challenges and clinical applications. The 2018 conference brought together 689 participants, and 30 speakers from 12 countries (19 speakers from BE, FR, GE, GR, IT, NL, NO, SI, ES, TR, UK, and 11 speakers from RS). Each year, CLAQ receives auspices from Ministries of the Serbian Government (Ministry of Health, Ministry of Education, Science and Technological Development, Ministry of Economy), Chamber of Commerce and Industry of Serbia and Honorary patronage of TRH Crown Prince Alexander and Princess Katherine Karadjordjevic.

The last decades have witnessed tremendous advances in emerging technologies for POCT diagnostics, which are a result of continuous developments in biosensors, microfluidic, bioanalytical platforms, assay formats, lab-on-a-chip technologies, and complementary technologies. When properly utilized, POCT has been shown to yield measurable improvements in patient care, workflow efficiency, and even provide significant financial benefits. However, important organizational and quality assurance challenges must be addressed with the implementation of POCT in any healthcare environment.

The 2018 international conference was designed to meet the educational and professional needs of POCT Coordinators/Managers/Supervisors, POC Medical Directors, Lab directors/Managers/Supervisors, Nurse Managers and Supervisors, others who perform and/or manage POCT in GPs offices, pharmacies, nursing homes, hospitals, clinics, other patient care settings, and stakeholders involved in the POCT quality management and accreditation. International and local renowned experts presented ground-breaking and cutting edge news on highly topical areas including, availability of POCT in a range of common conditions: cardiovascular diseases, diabetes, acute and chronic kidney diseases, infectious diseases, transmissible diseases, critical care. EU countries’ challenges and
experience with POCT quality control program and accreditation according ISO22870 were discussed with the EA representatives.

The 3rd CLAQ 2019 was organized on December 9-10 at the Hilton Conference center in Belgrade (RS) in collaboration with the members of the IFCC-Committee on Mobile Health and Bioengineering in Lab Medicine and S. Bernardini, Chair, IFCC-Emerging Technologies Division. This energizing and educational CLAQ 2019 was dedicated to “Lab medicine in the transformative decade: digital technologies, artificial intelligence and quality management”. The event brought 894 participants and 30 speakers (16 international speakers and 14 speakers from Serbia). The opening session was an opportunity to present the new European EA survey conducted by H. Mehay (FR) in 2019 in collaboration with 32 European accreditation bodies (see figure). The round table on risk management innovation and accreditation chaired by M. Vaubourdolle (FR) was an opportunity to get some feedback from Albania (A. Bulo), Cyprus (R. Koniotou), France (J.P. Bouiloux), Greece (A. Stathopoulou), Romania (C. Grigore) and Serbia (LJ. Gligic). Laboratory networks are consolidating across the globe as they seek to deliver a more efficient and cost effective service, T. Zima (CZ) and S. Stankovic (RS) described the benefits of Lab automation as a multi-disciplinary strategy to research, develop, optimize and capitalize on technologies in the laboratory that enable new and improved processes. H. Ribeiro (PT) described the lab procurement models that produce innovation and cost savings whereas J. Nichols (US), IFCC-CMHBLM, listed the opportunities and practical challenges for POCT in modern healthcare system and dangers of Direct-to-Consumer testing. Biobank in the age of Big data were discussed by A. Ljubic (RS) and J. Vondrasek (CZ).

Digital innovations in healthcare and diagnostic environment are accelerating quickly in the recent years and hold great promise with social and economic values. With the adoption of these new technologies, new business models and new workflows are transforming lab medicine and healthcare. M.Vukicevic, N.Veljkovic and V. Perovic from Serbia explained what’s next for Data Science in Health. In fact, the best way to transform healthcare is to recognize risks and recommend prevention plans before health risks

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**Survey regarding accreditation of medical laboratories within EA**

*Mid 2019*

Survey sent to 34 ABs / Answers from 32 ABs (94%)

**Figures in accreditation**

<table>
<thead>
<tr>
<th>Percentage of accredited medical laboratories considering the total number of medical laboratories of the country</th>
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<tbody>
<tr>
<td>&lt; 10% (12)</td>
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<tr>
<td>10% - 49% (2)</td>
</tr>
<tr>
<td>50% - 79% (3)</td>
</tr>
<tr>
<td>80% - 99% (6)</td>
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<tr>
<td>100% (0)</td>
</tr>
<tr>
<td>I do not know (9)</td>
</tr>
<tr>
<td>No answer</td>
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</table>

Remarks:

BELGIUM (BELAC): 39.4% of the pathology labs, 55.9% of the clinical biology labs and 100% of the genetic centers

DENMARK (DANAK): almost 100% for Biochemistry

FRANCE (COFRAC): 100% of the medical laboratories having a medical biology activity

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*Article continued on next page*
become a major issue. Through wearables and other tracking devices that take into account historical patterns and genetic information, it becomes possible to recognize a problem before it gets out of hand. A. Haliassos (GR) emphasized that an extremely important part of every laboratory work is involvement in external quality assessment/proficiency testing schemes and showed how artificial intelligence (AI) revolutionizes it. B. Gouget (FR) described how AI will transform education. With AI grading students, developing a personalized curriculum, identifying gaps, creating smart content and making education more accessible, the teachers will become coaches.

V. Devedzic (RS) and S. Bernardini (IT) featured a deep dive into the opportunity to understand the concepts of AI, machine learning and deep learning as a strategic asset for the future evolution in medicine and not just as a means to improve a process. The Serbians scientists and clinicians N. Filipovic, A. Ristic, D. Galun (RS) described the effectiveness of AI and machine learning based solutions to detect the early warning signals and health risks associated with major diseases and to predict future risk trajectories of those suffering from cardiovascular diseases, diabetes and cancers. With a precise clinical sense, D. Sobic-Saranovic and D. Trifinovic Zamalkar (RS) discussed on intelligent imaging. AI in nuclear medicine and radiology represents a significant disruptive technology. Although there has been much debate about the impact of AI on the careers of radiologists, the opportunities in nuclear medicine enhance the capability of the physician and at the same time have an impact on the responsibilities of physicists and technologists. D. Drakulic (RS) provided valuable insights on genetic data sharing, privacy and ethics and a debate between M. and R. Drakulic and M. Milenkovic (RS) on ransomware, malware and cyberthreats ended the conference.

The CLAQ annual conferences are organized to get a clear vision of how disruptive technologies are going to reshape healthcare landscape, to debate around, to push boundaries of the added value of lab medicine as well as to understand how AI and intelligent technologies can impact and improve the health of all people, whatever diverse geographies, diseases and resources. We would like to express our sincere appreciation to all participants and particularly to invited speakers and national and international experts and delegates whose contributions, participation and interest make this conference a successful forum for sharing and exchanging knowledge. It is essential that, even in times of great pandemic crisis, we remain conscientious of the duality of AI and strive to advance AI for good, so we can continue to work towards a healthier and safer future for all!
NEW DATE

IFCC WorldLab
SEOUl 2021
24th INTERNATIONAL CONGRESS OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE

Jan 6-10, 2021
Coex, Seoul, Korea

www.seoul2020.org
The Andalusian Society for Clinical Analysis and Laboratory Medicine (SANAC) is a professional non-profit scientific association, under the legal regime of the current Associations Law. All professionals in the field of Clinical Laboratory may become members.

Its area of operations is the Andalusian Autonomous Community, in southern Spain (https://es.wikipedia.org/wiki/Andaluc%C3%ADa), with its eight provinces, Almeria, Granada, Malaga, Cadiz, Huelva, Seville, Cordoba and Jaen. The Andalusian community is the most populated in Spain with 8,410,000 inhabitants and an area of 87,300 km², to which the Autonomous Cities of Ceuta, with 85,300 inhabitants (https://es.wikipedia.org/wiki/Ceuta), and Melilla, with 84,700 inhabitants (https://es.wikipedia.org/wiki/Melilla), both on the North African coast, are assigned because of their proximity.

Our Scientific Society brings together most professionals who currently work in the laboratories of the Andalusian Public Health System (SSPA), with its 42 Hospitals. Currently, 38 of the SSPA Laboratory Service Heads are members of SANAC, with representation in all Andalusian public laboratories.
For this, we have a Scientific Committee of recognized national prestige. This year, more than 60% of the speakers at the National Congress of the Clinical Laboratory were members of SANAC.

Our society, with its different commissions and working groups in specific areas, participates with its experts in different forums, issuing scientific reports that may be useful to the Andalusian Autonomous Administration on health issues; as well as to whoever requests them, be it companies, private entities, etc.

One of our objectives is the representation and defence of the scientific and professional interest of the specialties integrated within the term of Clinical Laboratory and its members before the competent bodies of the Andalusian Government.

For more than a year, it has been a constituent part of the SOCILAB group, created together with the Spanish Society for Medical Biopathology (AEBM) and the Spanish Laboratory Society (AEFA), both of which are national in scope and which also include six more Regional Societies, among which SANAC has the most members.

Our Society has signed several collaboration agreements with the Health Department of the Andalusian Government (Official letter from government authorities) in which it recognizes us as an official collaborating body in its activities, including certain Management activities, like the participation in all the selection processes of laboratory professionals in their public positions as well as in the development of indicators and control panels for public laboratories.
Myanmar Medical Technologist Association is a non-governmental association, founded in 2014 and it is the registered Medical Technologist Association of medical technology professions in the country.

Our objective is to assist and support the Educational, social and health affairs of laboratory technologists and to serve the community and nation by skillful medical technologists. MMTA was formed by eighteen executive committee members and MMTA membership at present stands at 1324 members. The President of MMTA is Mr. Maung Maung and the General Secretary is Ms. Kalayar Htun.

For medical technology education, MMTA is holding a conference every year in Yangon and Mandalay alternately since 2012. This year in February 2020, MMTA did perform the 6th Conference of Myanmar Medical Technologist Association at the University of Medical Technology in Mandalay. The theme of the conference was “Promoting the Impact of Medical Laboratory Technology on Healthcare System”.

Moreover, since January 2018 MMTA has been organizing the program of “Medical Laboratory Science Knowledge Sharing Talk” every 2 months. The aim of this program is to support and provide advanced medical laboratory science to Myanmar technologists especially for the new generation and to create the habit of sharing the knowledge among them.
Furthermore, MMTA had prepared the Myanmar Medical Technologist Council Law (Draft) and submitted it to the Ministry of Health and Sports since November 2019.

In Myanmar, MMTA collaborates with other organizations; as a member of License committee in Myanmar Medical Council, MMTA participates in preparation of the rules and regulations for all medical technologists who are going to hold the license.

MMTA also works together with Myanmar Academy of Medical Sciences (MAMS) for the Accreditation of medical laboratories and with other associations such as Myanmar Red Cross Society and Myanmar Liver Foundation. MMTA is actively participating in the public health care according to the health policy and guidance laid down by the Ministry of Health and Sports, Myanmar.

MMTA is a member of the Asian Association for Clinical Laboratory Sciences (AACLS) since 2016 and the President of MMTA is also the 2nd Vice President of AACLS. Two MMTA executive committee members are also council members of AACLS (2018-2020). As a member of AACLS, MMTA, Myanmar will host the 19th ACCLS Conference and 18thAACLS Biennial General Meeting in 2022.

In addition, MMTA is a member of Asia Association of Medical Laboratory Scientists (AAMLS) as well as one of the board of directors of AAMLS. MMTA became the member of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) in March 2020.
We advise readers to keep up-to-date about the evolving situation and possible rescheduled dates. Contact organizing secretariats for updates on upcoming events.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Location</th>
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<tbody>
<tr>
<td>Jan 5 - 6, 2021</td>
<td>IFCC Young Scientists Forum</td>
<td>Seoul, KR</td>
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<tr>
<td>Jan 6 - 10, 2021</td>
<td>XXIV IFCC WorldLab Seoul 2020</td>
<td>Seoul, KR</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>Mar 28 - Apr 2, 2022</td>
<td>XXV COLABIOCLI Congress</td>
<td>Leon, MX</td>
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<tr>
<td>Oct 15 - 18, 2022</td>
<td>16th APFCB Congress 2022</td>
<td>Sydney, AU</td>
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Calendar continued on next page
May 21 - 25, 2023 | XXV IFCC - EFLM WorldLab EuroMedLab - Rome 2023 | Rome, IT

New date TBA | International Congress of Pediatric Laboratory Medicine - WorldLab Seoul 2020 | venue TBA

New date TBA | IFCC - ICHCLR Workshop | venue TBA

New date TBA | IFCC C-POCT Satellite Meeting | venue TBA

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Calendar of events with IFCC auspices

We advise readers to keep up-to-date about the evolving situation and possible rescheduled dates. Contact organizing secretariats for updates on upcoming events.

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<tr>
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<th>Venue</th>
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<tbody>
<tr>
<td>Feb 20 - Nov 15, 2020</td>
<td>Virtual Diploma in Control of Analytical Quality in the Clinical Laboratory</td>
<td>Internet series of lectures, MX</td>
</tr>
<tr>
<td>May 21, 2020</td>
<td>The role of Blood Gas in overall management of COVID-19 patients</td>
<td>Online Zoom webinar from Wuhan, CN</td>
</tr>
<tr>
<td>Jun 3, 2020 - Jan 3, 2021</td>
<td>Virtual Postgraduate Course of Clinical Biochemistry</td>
<td>Tultepec, MX - virtual page</td>
</tr>
<tr>
<td>Sep 6 - 8, 2020</td>
<td>16th National and 7th International Congress of Biochemistry and Molecular Biology</td>
<td>Tehran, IR</td>
</tr>
<tr>
<td>Sep 9 - 11, 2020</td>
<td>4th Conference of the Romanian Association of Laboratory Medicine</td>
<td>Târgu Mureş, RO</td>
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Calendar continued on next page
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<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>Sep 23 - 25, 2020</td>
<td>The innovations and trends that are shaping the future of laboratory medicine and Neighbouring Countries: the Same Professional Aim in Laboratory Medicine</td>
<td>Belgrade, SRB</td>
</tr>
<tr>
<td>Sep 23 - 25, 2020</td>
<td>LMCE 2020 (Laboratory Medicine Congress and Exhibition) KSLM 61st Annual Meeting</td>
<td>Incheon, KR</td>
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<tr>
<td>Sep 28 - Oct 1, 2020</td>
<td>10th Santorini Conference “Systems medicine and personalized health and therapy” – “The odyssey from hope to practice: Patient first – Keeps Ithaca always in your mind”</td>
<td>Santorini, GR</td>
</tr>
<tr>
<td>Sep 30 - Oct 2, 2020</td>
<td>28th International Critical and Point-of-Care Testing (CPOCT) Symposium</td>
<td>Montreal, CA</td>
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<tr>
<td>Oct 8 - 11, 2020</td>
<td>46th ISOBM Congress</td>
<td>Bled, SI</td>
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<tr>
<td>Nov 27 - 28, 2020</td>
<td>3rd EFLM Strategic Conference on Demand Management</td>
<td>Zagreb, HR</td>
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<tr>
<td>Nov 30, 2020</td>
<td>&quot;Implementation of metrological traceability in laboratory medicine: where we are and what is missing&quot;</td>
<td>Milan, IT</td>
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<tr>
<td>Dec 4 - 5, 2020</td>
<td>54 èmes Journées de Biologie Praticienne - JBP</td>
<td>Paris, FR</td>
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<tr>
<td>Dec 7 - 8, 2020</td>
<td>6th Serbian Biomarker Symposium (SERBIS): Lipid Metabolism in Health and Disease</td>
<td>Belgrade, SRB</td>
</tr>
<tr>
<td>Dec 9 - 10, 2020</td>
<td>7th Serbian Biomarker Symposium (SERBIS): Biomarkers of gastrointestinal diseases</td>
<td>Belgrade, SRB</td>
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<tr>
<td>Mar 4 -5, 2021</td>
<td>XVIII Meeting of the SEQCML Scientific Committee</td>
<td>Madrid, ES</td>
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<td>Mar 15 - 16, 2021</td>
<td>POCT: Making the Point</td>
<td>Rome, IT</td>
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<td>Mar 27 - 29, 2021</td>
<td>II National Meeting Conquila and Technological</td>
<td>Mazatlan, MX</td>
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<tr>
<td>Jun 10 - 11, 2021</td>
<td>8th International Symposium on Critical Care Testing and Blood Gases</td>
<td>Biarritz, FR</td>
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<td><strong>New date TBA</strong></td>
<td>The 13th International &amp; 18th National Congress on Quality Improvement in Clinical Laboratories</td>
<td>Tehran, IR</td>
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<td>VI Jornadas Bioquímicas de Cuyo 2020</td>
<td>San Luis, AR</td>
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<td><strong>New date TBA</strong></td>
<td>LabMed Next</td>
<td>Rome, IT</td>
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<td>XXXVII Nordic Congress in Medical Biochemistry</td>
<td>Trondheim, NO</td>
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<tr>
<td><strong>New date TBA</strong></td>
<td>24th International Conference on Laboratory Medicine and Pathobiology: An Expert Forum on Innovation in Clinical and Laboratory Medical Sciences</td>
<td>Samos, GR</td>
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</tbody>
</table>
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<table>
<thead>
<tr>
<th>Country</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
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<td>Kosovo (XK)</td>
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<tr>
<td>Algeria (DZ)</td>
<td>Latvia (LV)</td>
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<td>Argentina (AR)</td>
<td>Lebanon (LB)</td>
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<tr>
<td>Australia and New Zealand (AU/NZ)</td>
<td>Lithuania (LT)</td>
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<td>Austria (AT)</td>
<td>Luxembourg (LU)</td>
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<td>Belgium (BE)</td>
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<td>Bolivia (BO)</td>
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<td>Brazil (BR)</td>
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<td>Croatia (HR)</td>
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<td>Nepal (NP)</td>
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<td>China (Beijing) (CN)</td>
<td>Netherlands (NL)</td>
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<td>China (Taipei) (TW)</td>
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<td>Colombia (CO)</td>
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Publisher
Communications and Publications Division (CPD) of the IFCC

The Communications and Publications Division publishes ten editions of the e-News per year, including two double issues.

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Design & Production:
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Circulation
The eNews is distributed to all IFCC members registered on-line to receive it and to all IFCC sponsors.

Deadlines for submissions to the eNews
N° 1/2 – January/February: by mid January
N° 3 – March: by mid February
N° 4 – April: by mid March
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