

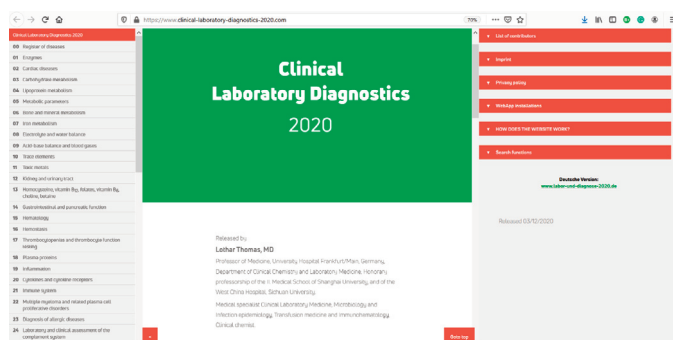
EuroLabNews

THE EFLM BI-MONTHLY NEWSLETTER

EFLM Connects National Societies of Clinical Chemistry and Laboratory Medicine and Creates a Platform for all European "Specialists in Laboratory Medicine"

EFLM OFFICE INFORMS

Web App Clinical Laboratory Diagnostics: Free of charge and ads



Since its first publication in 1968, Clinical Laboratory Diagnostics (German title: Labor und Diagnose) has become the best-selling and most renowned reference book for Clinical Chemistry and Laboratory medicine in Europe, the Middle East, and China. So far, it has been published in German, English and Chinese. To respond to requests of our readers and to be in conformity with the spirit of the time we have created a Web App of Clinical Laboratory Diagnostics. Summarized, it represents the most current clinical reference tool for physicians and clinical chemists available in an electronic version. It has been co-authored by more than 60 specialists to encompass the whole spectrum of different disease patterns and laboratory tests. It is our intention to add another excellent resource to laboratory tests and medical decisions. The Web-App is available for all electronic devices and free of ads or charge.

To be continued on page 2

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- ▶ News from EFLM National Societies
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Foreword

Reported by Harjit Pal Bhattoa, Editor EuroLabNews



Well time flies and here we are with the first issue of the bimonthly EuroLabNews for the year 2021. This issue is kicked off by the announcement of the Web App Clinical Laboratory Diagnostics. Keeping at par with the times, this web app could serve as a handy resource of Clinical Chemistry in your palm with information on a wide range of topics. The President of the EFLM, Ana-Maria Simundic has initiated a new column „Coffee with the EFLM President“. Our readership will find it interesting to read about various personal and professional aspects of prominent officers of the EFLM. This issue presents interviews with 4 such personalities, with quite a few to follow in the upcoming issues. The EFLM Office announce two vacancies in the EFLM Working Group „Patients Focused Laboratory Medicine“. Applicants are encouraged to apply within the deadline of 14 February, 2021. By now a genuine trademark of the EuroLabNews, dedicated members of the EFLM WG Promotions and Publications present recent state of the art EFLM publications with their ingenious infographics. A recent webinar is mentioned under the past EFLM events, don't forget that these webinars are available on the EFLM elearning platform for replay as required. Change of Guard is reported by the Hungarian, Bulgarian, Norwegian, Portuguese and Ukrainian Societies. Under news from EFLM National Societies, The VI Russian Congress of Laboratory Medicine is summarized. The Conference was constituted by 6 thematic online forums with a whopping 18500 participants. Under its regular column, the IFCC corner presents global perspectives in Laboratory Medicine. The Calendar of Events lists all major happenings with its usual and unfortunate COVID-19 alert. The EuroLabNews team wishes you all COVID-19 free 2021!





Web App Clinical Laboratory Diagnostics: Free of charge and ads

The 1999 IFCC award for distinguished education was bestowed to Prof. Thomas for having established with the textbook Clinical Laboratory Diagnostics a new direction for Clinical chemistry and Laboratory medicine in teaching the concept of interpretation of laboratory reports taking physiological and clinical aspects into consideration.

Clinical laboratory tests are a fundamental approach in the diagnostics and monitoring of diseases and provide the opportunity to estimate outcome prediction of the individual patient. With this Web App it is our intention to add another excellent resource to physicians and clinical chemists.

Clinical Laboratory Diagnostics 2020 offers a quick and competent support for allocation of pathological test results which are linked to specific diseases.

It is structured as follows:

- The specific clinical laboratory test in the main menu of the 53 chapters on laboratory tests. The chapters present text, tables and graphs with information, about laboratory findings of the selected diseases or disorders. The test results are properly interpreted in the context with the diseases:
- The presumptive diagnosis. The 53 chapters of clinical laboratory tests are preceded by a chapter containing a broad spectrum of medical decision-making approaches (main menu/chapter 00: Register of diseases). It is possible for every disease to download tables with information about clinical symptoms, laboratory findings, differential diagnosis and course assessment of the selected disease.

The contributions of Clinical Laboratory Diagnostics 2020 are structured according to indication, method of determination, specimen, reference interval, clinical assessment, comments and problems, biochemistry and physiology, and references. In more than 800 tables and graphs of different diseases, the expedient laboratory tests and findings are presented. References provide an evidence-based presentation.

The use of the electronic edition is convenient for the reader because it enables:

- The reading of the chapters and of the different sections, comparable to the text in the print form.
- The selection of tables, graphs and references while reading the text.
- The subject related disease overview of 20 sections of diseases (main menu/chapter 00: Register of diseases) that provides information on clinics and laboratory findings
- A quite simple index search.

Clinical Laboratory Diagnostics 2020 contains most current scientific, clinical and laboratory diagnostic insights. Latest information from current publications, guidelines and recommendations are included. Especially the selection of the presumptive diagnosis facilitates the assessment and follow-up of disease-specific laboratory findings.

Clinical Laboratory Diagnostics 2020 can be accessed using all electronic media when selecting the Internet address <http://www.Clinical-Laboratory-Diagnostics-2020.com>



COFFEE WITH THE EFLM PRESIDENT



Dear colleagues, dear friends, I wish to welcome you to the first inaugural edition of the "Coffee with the President", a new section of the EuroLabNews. Starting with this issue, Coffee with the President will be delivering to you a series of short interviews with EFLM officers. Why Coffee with the President? Well, because I like to think of these interviews as if they are nothing else but a pleasant chat over the cup of coffee, while sitting in a comfortable chair in a nice, cozy coffee bar.

These short interviews will be a wonderful opportunity for us to show who are the quiet, humble, modest people behind the scenes, who work for EFLM and make EFLM what it is today. Through these interviews, you will get the opportunity to learn not only who they are and what they do in their professional life, but also what are they like, as individuals, on a more personal level.

To get a more complete picture and to complement the interviews, I have also asked some of our EFLM colleagues, who had the opportunity to work with our interviewees more closely, to try to describe them, to say something about their personality, their qualities and strengths. It was amazing for me to learn how appreciated and respected they are among their EFLM colleagues.

I wish to thank my guests for giving us the opportunity to get to know them and I hope you will enjoy reading these interviews as much as I did.

Ana-Maria Simundic
EFLM President





1. What is your role in EFLM? What are the activities of the functional unit in which you work?

I am responsible of the EFLM Office's management and deal with all EFLM recordkeeping. I am the contact person

for all representatives of our National Societies and for all EFLM Officers. I assist the EFLM President and the Executive Board in their functions and take part at their meetings. I handle official correspondence and keep records regarding membership. Every EFLM officers can count on me to address any enquiries on practical matters regarding the EFLM activities.

2. What do you like most about EFLM?

Its role of European collector of ideas and experience, acting as a platform for Specialists in LM in Europe, which enable EFLM to provide cross-national and cross-institutional comparative studies at European level.

3. Could you name something great about your current job?

I like working in this inspiring international atmosphere and meeting people from other countries. I have been working for EFLM since 2010, so almost from its establishment in 2007, and really enjoy to have contributed to build a more consolidated structure in the office management during these years.

4. Who is your role model? What makes this person so special?

More than a role model, I prefer to speak of a model of job's approach which of course was inspired and molded by many individuals I had the opportunity to work with during the years. My personal job's mantra is: to be pragmatic, promptly respondent, short but clear in communications and to adhere to procedures. To me these are the key points which I take as a model for my job and greatly appreciate in people whom I work with.

5. What are the things outside of your work that you are passionate about? How do you like to spend your free time?

I am passionate about everything is related to nature. Something which makes me happy and relaxed is walking or cycling in the nature. Forests are my favorite environment and it is curious to note that the origin of my first name reflects this too (deriving from the Latin word for forest). My husband and I have a cozy mountain cottage where we like to spend our weekends to recharge the battery, sometimes with some close friends sharing our passion for hiking.

6. How would your spouse (wife, husband) describe you?

Well, quite a difficult question because I would tend to describe how I would like to have been seen. However, trying not to be influenced by my personal expectations, I think that he appreciates my general positive attitude to life, my self-mockery and my curiosity towards the world.

7. What are your greatest challenges?

Professionally speaking: to continue the improvement to build a more consolidated structure in the EFLM office management (sometimes really a challenge with the increase of EFLM activities). On the personal side, to maintain my positive approach to life.

8. Are you good in time management?

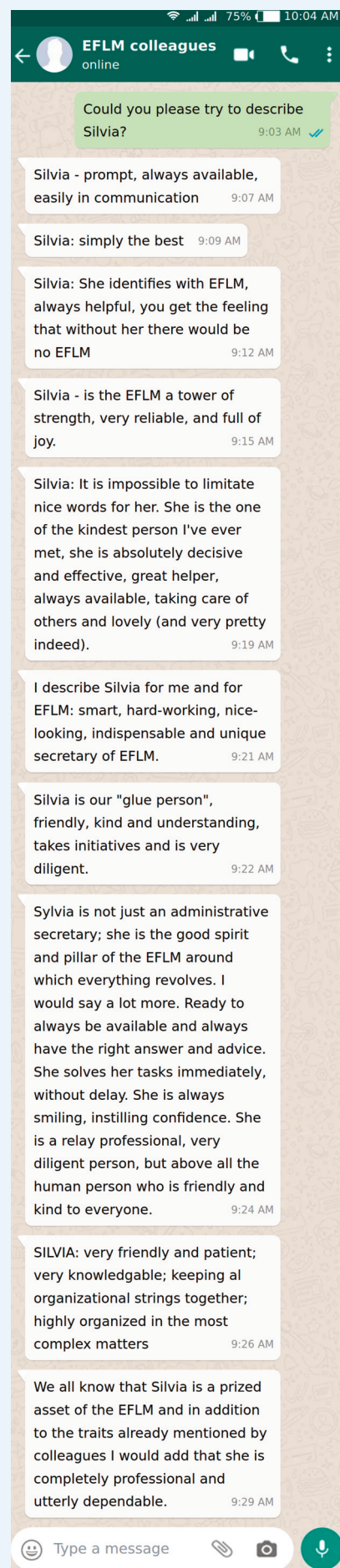
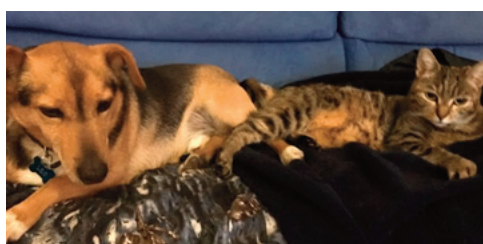
Thanks to the many years working as a meetings' planner in my previous job experience, I mandatory learnt to manage time, to plan things in advance and to anticipate which problems could arise in a specific working activity. Of course, sometimes it's difficult but I try to do my best to adhere to this model.

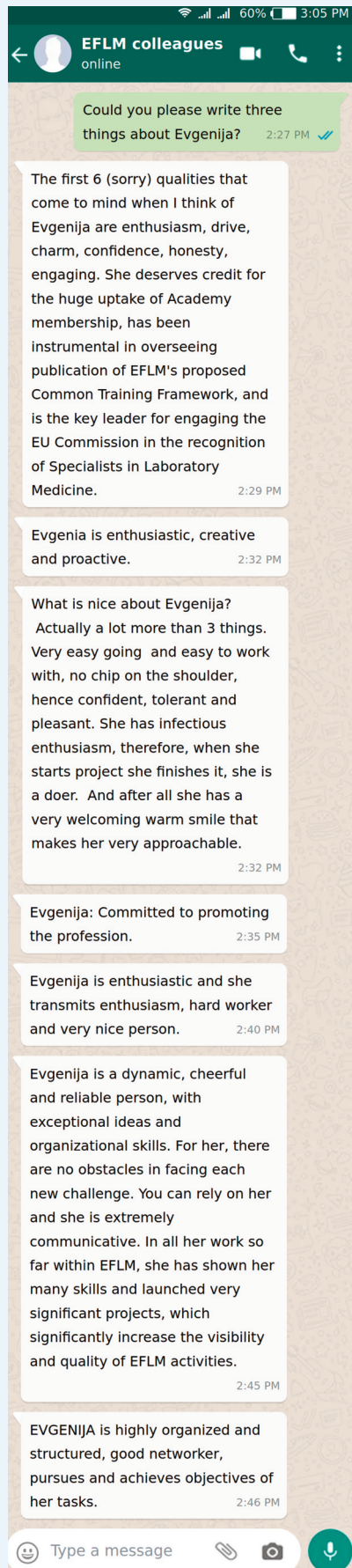
9. What do you value most about your country and its culture?

This is an easy question because Italy is an outdoor museum and I do remain always breathless in front of such magnificent artworks and nature we have: cities such as Venice (my favourite one), Florence, Rome, Milan are amazing and I feel very lucky to have the opportunity the visit them easily even during a weekend.

10. Do you have a pet? (feel free to share its photo with us, if you like)

Oh yes, a cat "Stellina" and a dog "Leo": so funny and lovely; pure joy to have them with us!





1. What is your role in EFLM? What are the activities of the functional unit in which you work?

Currently, I am the chair of Profession Committee and Expert/Consultant of the WG-Congresses and Postgraduate Education, where I was a chair of this

WG in the past few years. The most visible achievements that I was actively involved in and contributed in this WG were the establishment of EFLMLabX – a project of exchanging practice on LM and PGCs (Biostatistics in LM and How to write a good article). In C-P, our important activity is fighting for the (automatic) recognition and rising the power of our profession on the European level according to the new EU Directive. We struggle to establish high-quality Equivalent of Standards (EoS) of specialisation training and Common training framework according to prepared and presented Syllabus in all EU/EFLM Countries and enable our specialists' free movement (to be employed) through EU Countries. In this regard, we have established EuSpLM (previous EC4) register. Another crucial point is the established EFLM Academy, which presents an umbrella inside EFLM that offers its members several important benefits (free education possibilities). Both EuSpLM and Academy register, are continually growing and showed a remarkable increase in the past year with the possibility of "block" NSs members' enrollment.

2. What do you like most about EFLM?

Possibility of linking people with the same profession from different parts of Europe, with different experiences and knowledge to communicate, combine and share both through the common organization. There is always the place for anyone willing to work and contribute to common goals with his/her ideas.

3. Could you name something great about your current job?

I am happy to be the head of Laboratory for hormone and autoimmune diagnostics in Department for Laboratory Diagnostics in University Clinical Centre Maribor. I have good co-workers, many possibilities to apply new diagnostics, markers and research, and be a leader or part of several different teams on different research fields. I am also pleased to be at the challenging position of the Head of Clinical Biochemistry Department at Medical Faculty in University Maribor, where I do my best to introduce, share the knowledge and importance of LM to medical students, potential our co-health workers.

4. Who is your role model? What makes this person so special?

There is not particularly one person. Many different persons from the past and present have inspired me with their great personality, open-minded, honest, curious, high scientific and

professional skills, but with simplicity and kindness when is the question of how to approach them and how they address /treat the people.

5. What are the things outside of your work that you are passionate about? How do you like to spend you free time?

My Family with two great kids, Music, Sports (jogging, cycling, skiing...) and travelling/searching for new natural beautiful places or interesting cities/culture are essential to my personality and fill me with energy and make me happy and complete.

6. How would your spouse (wife, husband) describe you?

It would be best if you asked him. But I am sure that he will describe me as a perfect wife (ha-ha). You just have to catch the right moment/time ;-). But he would probably describe me as a person who like to smile, never gives up and always tries to find the positive way out and bright side of life.

7. What are your greatest challenges?

To manage all essential things in my life, from professional to personal, within one common time and stay healthy and keep a positive approach. Professionally, to continue with curiosity and transfer it to the younger generation. How say NO to proposed task, despite it presents a challenge that I like.

8. Are you good in time management?

I am trying to manage, and so-far it goes through. Sometimes it is not always possible to predict all things, that suddenly appear, and you should find the free place in your already busy schedule. And these "sometimes" becoming more and more the daily reality-so the challenge. But I always find the time for "off" of duties, because it is necessary for "managing" yourself on a long time for well-being.

9. What do you value most about your country and its culture?

I find my country still like a pearl on the earth, with its pure natural beauty, safety, wellbeing. We have a cute architectural fascinating small cities, great food and wine culture, that put us on the top of the exciting world destinations. Our talented sportsmen, musicians and artists result from an excellent systematic (music) school system, which is more the exception than the typical case in many world countries. It sounds poetic, but whenever I come back from travelling abroad I feel the same, I am proud and love my country and I am happy to live in Slovenia.

10. Do you have a pet? (feel free to share its photo with us, if you like)

Yes, we have a cat Pika, and in the next few days, we will get a new member to our family, Australian Sheppard, by name Indie 9. We are looking forward to having her, which will bring us a lot of joy and a different way to spend our free time!





1. What is your role in EFLM? What are the activities of the functional unit in which you work?

I started in EFLM five years ago in Workgroup for Distance Education. My major focus was e-learning and I was

the leader of team that started the EFLM E-learning platform (<https://elearning.eflm.eu>). Then I moved to Communication Committee where I currently serve as the chair. In spring 2020 we completely renewed members of our committee and from this time on I fly on an enthusiastic wave of teamwork that I haven't experienced yet. We secure regular presence of EFLM activities in social media, we produce a bimonthly Newsletter and we take care about EFLM webpages. We are trying our best not to be only dull replicators of what other EFLM functional units send us and to introduce more creativity in our outputs. For example, we have introduced "Infographics" to shortly summarize key points from each EFLM publication.

2. What do you like most about EFLM?

I love combining team enthusiasm and capabilities with tools that are available. EFLM offers great flexibility and openness to new (even very unconventional) ideas. I like the feeling that our work makes sense and is (sometimes 😊) appreciated. I love the flow of teamwork from one member to another that makes outputs with much smaller effort than if you do the job yourselves.

3. Could you name something great about your current job?

I work in clinical biochemistry laboratory at University Hospital and Medical Faculty in Pilsen, Czech Republic. What I like most is the diversity of tasks that I can solve: from teaching of medical students, scientific challenges, leadership in our local e-learning team to work in a clinical laboratory and communication with our clinical partners. I don't remember time when I was bored last time.

4. Who is your role model? What makes this person so special?

Somebody in between Rocket from Guardians of Galaxy and Yoda from Star Wars. Both take the life and themselves easy and with humor but feel the full depth of our being 😊.

5. What are the things outside of your work that you are passionate about? How do you like to spend your free time?

Generally, I like going out (of the buildings), feeling the presence, traveling without specific goals – just waiting what comes. The most important factor in these activities is to have someone to share it with. And the best companion is my family.

6. How would your spouse (wife, husband) describe you?

He is a messy person with bad hygiene that never brings flowers to me. But I still love him.

7. What are your greatest challenges?

Currently, the work-life balance is my biggest challenge. Too much time in work, too little with my family and friends.

8. Are you good in time management?

No, time management is not my strong part. I am always late; I have never kept a deadline and things are getting worse with getting older. The optimistic part is that my coworkers and bosses are extremely tolerant.

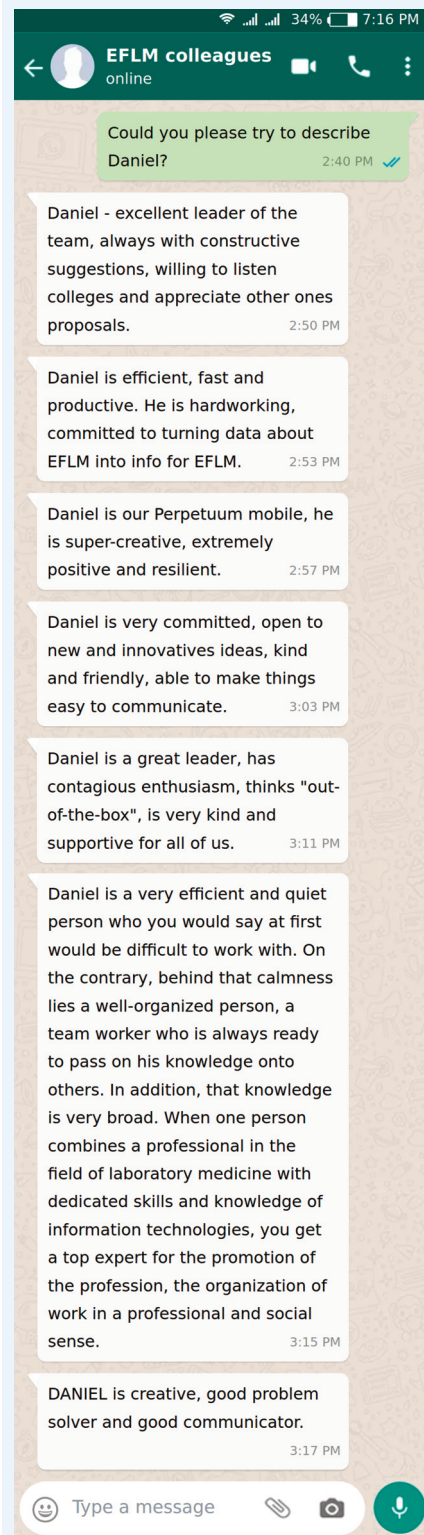


9. What do you value most about your country and its culture?

Regarding the covid19 pandemic, we are at the same time the best (spring 2020) and the worst (currently) in the world 😊. However, Czech Republic is a marvelous country with the best system or tourist signs, natural and historic treasures. Sometimes, our culture is reduced to beer, but we have famous sportsmen, musicians, scientists ... You must come.

10. Do you have a pet? (feel free to share its photo with us, if you like)

We have a guinea pig. A furry monster that eats throughout the whole night and sleeps during the day without getting obese. A dream life for many of us.





1. When did you join EFLM and what is your current role in EFLM? What are the activities of the functional unit in which you work?

I joined the EFLM in March 2016 and presently am the Chair of the Promotions and Publications Working Group of the EFLM Communications Committee, the Editor of the bimonthly EFLM newsletter the EuroLabNews and a Moderator in the EFLM European Regulatory Affairs (ERA) Task Force

2. What do you like most about EFLM?

The EFLM is an umbrella organization encompassing all longitudes and latitudes of Laboratory Medicine, it is an ultimate resource for laboratory personnel in Europe and elsewhere. All its educational activities, including the EFLM Academy, have strived to provide the ultimate in knowledge and training.

3. Could you name something great about your current job?

I am an Associate Professor at my Department at the Faculty of Medicine, University of Debrecen, Hungary. The challenges pertaining to a dynamically evolving Department like ours, that covers perhaps the whole spectrum of routine laboratory tests, offer constant stimulus to keep abreast with the latest in Laboratory Medicine, Research and Education.

4. Who is your role model? What makes this person so special?

I don't have a role model as such, but influencers rather, in different phases of my life who have helped understand life and transform my

thinking for the better. This is true both for my private and professional life.

5. What are the things outside of your work that you are passionate about? How do you like to spend your free time?

As a matter of fact, I am the most passionate about my family. They are my source of joy and happiness, and motivation when times are difficult. All my moments spent in their company are rejuvenating and ecstatic.

6. What are your greatest challenges?

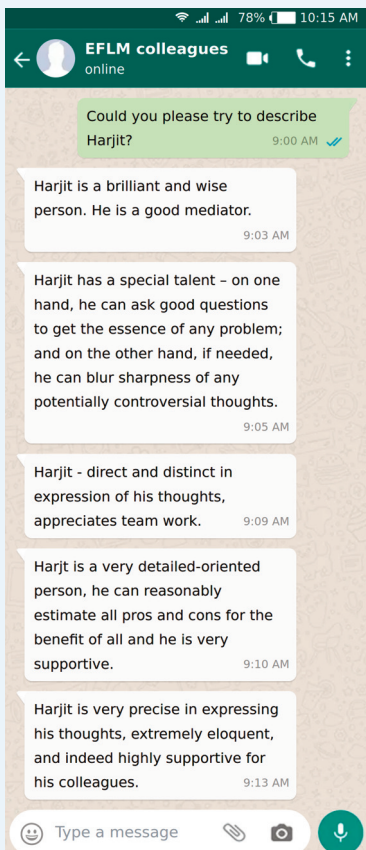
My main challenges are to facilitate the intake of the continually evolving science and grasp, and perhaps select, that is the most useful from a sea of ever-growing information and be able to transform it into knowledge and ultimately enhance professional development. I enjoy tackling challenges and I am not deprived of these.

7. Are you good in time management?

I consider myself as not being bad in time management!

8. What do you value most about your country and its culture?

I live in Hungary since the last 31 years having arrived here from India to do my medical studies at the age of 17 years. Debrecen is my home city, and it's comforting and friendly residents make it a cozy surrounding. Hungary is blessed with natural beauty, where all the four seasons are equally joyful, and has a rich cultural heritage.



VACANCIES IN THE EFLM FUNCTIONAL UNITS

Vacancy in the EFLM Working Group "Patients Focused Laboratory Medicine"

Reported by Silvia Cattaneo, EFLM Office

Starting from January 1, 2020 there are two vacancies in the EFLM WG "Patients Focused Laboratory Medicine" (WG-PFLM) and EFLM invites its National Societies to send nominations for two positions as Full Member.

The deadline to send nominations is 14 February 2021.

There is increasing interest in direct patient engagement including receiving their laboratory medicine results. We at EFLM believe that patients and their carers should have ready access to information about healthcare issues that affect them and particularly laboratory medicine so that patients can better understand what happens when laboratory tests are done, how this is managed and what it means for them. This is the aim of the WG-PFLM, currently under the new chairmanship of Dr. Snezana Jovicic (Serbia).

Here below the Terms of Reference of the WG-PFLM:

- To explore and promote the engagement of patients and professionals in enabling patients to receive individualised support in understanding what their results mean for them;
- To develop surveys and projects that support the above.

The term of office will be for 2 years (1 Jan 2021 - 31 Dec 2022). The position could be renewable for other two more terms if the work for the Group is deemed essential at that time. The work is mainly conducted by e-mail and teleconferencing, the WG usually meets once per year (COVID-19 permitting).

Procedure for applications: each EFLM National Society Member in good standing with the membership fee can submit one nomination using the form circulated to the National Society's representatives to be sent back to silvia.cattaneo@eflm.eu. A brief plan of the applicant's contribution to the aims and objectives of the relevant Working Group must be included in the form. Together with the application, a short CV should also be submitted underlining the qualifications and prior experience and publications in the relevant area. Candidates must be officially recommended by their National Society through a formal letter of support. Applicants who are not selected as full members may be eligible for corresponding membership.

Hemolysis free blood sampling.

Point of care detection of hemolyzed blood samples can increase patient safety and create major time and cost savings for healthcare

Hemolysis – the most common pre-analytical error

Hemolysis is well documented as the globally most common pre-analytical error in laboratory medicine. The incidence of hemolyzed blood samples varies and is normally most common in emergency departments often having a hemolysis rate of 5-12%.

Hemolyzed blood samples in vacuum tubes are usually detected in central laboratories, often resulting in a delay of 60-120 minutes in acute situations for correct test results, as the blood samples must be recollected. This can lead to increased waiting times and costs and a patient's condition not being treated in time, which might have severely negative consequences for patient safety in individual cases.

Although it is proven that hemolysis is common in blood gas samples and that several analyzes performed are significantly affected by hemolysis, there is no built-in hemolysis control in any blood gas instruments on the market. Healthcare staff will therefore regularly risk basing clinical decisions on incorrect test results or repeating analyzes or sending supplementary samples to the laboratory, which increases lead times and costs and reduces the value of the blood gas analysis.

Unique POC-concept for hemolysis detection

Hemcheck has developed a CE-marked solution for fast detection of hemolysis in whole blood samples in vacuum tubes (v-Test) and blood gas syringes (s-Test).

Learn more about the concept

The user-friendly system is small, robust and portable and can be used anywhere, but is especially valuable



for units having a high rate of hemolyzed blood samples and where the clinical impact and cost of each hemolyzed sample is high.

The v-Test enables hemolysis detection and direct sample retake in connection with blood collection and aims to improve the flows of samples and patients, reduce waiting times and patient length of stay, decrease staff workload, increase patient safety and save costs. The s-Test enables hemolysis detection either in connection with bloodsampling or blood gas analysis, and aims to contribute to more informed, reliable and timely clinical decisions and thereby improved patient safety.

Cost/benefit analysis shows substantial time and cost savings

Clinical studies show that the tests can effectively identify hemolyzed blood samples and, in case of vacuum tubes, greatly reduce the number of hemolyzed blood samples that reach the laboratory. The total cost for a rejected blood sample has been estimated in scientific articles to be above EUR 100 per sample and implies that Hemcheck's products are cost-effective even at lower levels of hemolysis. The positive effects of the concept in terms of reduced patient length of stay and cost savings, can be evaluated using the customized cost/benefit model.

Perform your own cost/benefit analysis

High user satisfaction and several new and ongoing customers

A clinical study on electrolyte status at Capio S:t Göran Hospital, one of the largest emergency units in Sweden, showed a reduction of the hemolysis rate by 54% and a 100% user satisfaction. The concept is today used in clinical practice at the ED at Capio S:t Göran Hospital and also implemented at e.g. Tartu University Hospital in Estonia for usage at the oncology and hematology clinic, SYNLAB Sweden in primary care and FIND for various international healthcare projects. Hemcheck is looking for new interesting collaborations and offers healthcare providers the possibility to test the concept free of charge.

For further details, please send your inquiry to:
peter.andersson@hemcheck.com

Facts about Hemcheck

- Hemcheck produces and commercializes a unique concept for point of care detection of hemolysis in venous and arterial blood samples, contributing to more efficient and patient-safe care.
- The products are CE-marked and developed in Sweden together with healthcare staff.
- The technology has patent protection in Europe and the USA.
- The company is listed on Nasdaq First North Growth Market since 2017.



Critical appraisal and meta-analysis of biological variation estimates for kidney related analytes

UPDATES ON EFLM PUBLICATIONS

Biological Variation of Cardiac Troponins in Health and Disease: A Systematic Review and Meta-analysis

Diaz-Garzon J, Fernandez-Calle P, Sandberg S, Özcürümez M, Bartlett WA, Coskun A, Carobene A, Perich C, Simon M, Marques F, Boned B, Gonzalez-Lao E, Braga F, Aarsand AK, on behalf of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) Working Group on Biological Variation and Task Group for the Biological Variation Database

Clin Chem 2020; Available from: <https://doi.org/10.1093/clinchem/hvaa261>

Reported by Lejla Alić, member of the EFLM WG-Promotion & Publications

In this study, authors evaluated available biological variation (BV) studies on cardiac-specific troponin I and T (cTnI, cTnT) in regards to The Biological Variation Data Critical Appraisal Checklist (BIVAC) compliance. Additionally, authors perform a meta-analysis of essential BV estimates from BIVAC-compliant studies in different states of health (healthy vs non-healthy), sampling intervals (short-term vs long term) and assays used (contemporary vs high-sensitivity assays). Data for BV estimates from 14 and 15 BIVAC-compliant studies for cTnI and cTnT, respectively, were included in the first stage meta-analysis, while in the second stage meta-analysis included 10 and 12 studies for cTnI and cTnT BV estimates. The latter included only studies that reported results above the limit of detection (LoD). Interestingly, the study shows that the biological variation estimates in non-healthy individuals were similar to estimates in healthy individuals for all settings. The study offers important cTnI and cTnT estimates such as reference change value (RCV) which should be included in standard clinical protocols for diagnosing, treating and monitoring patients with cardiac diseases and a range of different chronic diseases.

BIOLOGICAL VARIATION OF CARDIAC TROPONINS IN HEALTH AND DISEASE: A SYSTEMATIC REVIEW AND META-ANALYSIS

Diaz-Garzon, et al. *Clin Chem.* 2020
<https://doi.org/10.1093/clinchem/hvaa261>



AIM OF THE STUDY

- to identify published studies on cTn that are BIVAC compliant
- to perform a meta-analysis of BV estimates for cTnI and cTnT in different states of health and sampling intervals

RESULTS

PubMed, studies performed until April 15, 2020

BV estimates for:

healthy vs. non-healthy

cTnI vs. cTnT

short-term (24hr) vs. long-term sampling.

	CV (%)	CV _{int} (%)	CV _{ext} (%)	RCV (%)	B _{95%} (%)
cTnI	5.3	11.3	3.1	8.4	
	34.9	26.8	60.7	68.3	
	-26.2 - 35.6	-37.8 - 60.6	-23.6 - 30.8	-29.1 - 41.1	
	2.7	5.7	1.6	4.2	
	8.8	7.3	15.2	17.2	
cTnT	4.3	15.1	5.0	14.1	
	36.7	34.6	156.0	63.8	
	-25.6 - 34.4	-38.0 - 61.4	-25.5 - 34.1	-33.2 - 49.6	
	2.1	7.6	2.5	7.1	
	9.2	9.4	39.0	16.3	

Abbreviations: cTn (T, I) - cardiac-specific troponins T and I; BIVAC - Biological Variation Data Critical Appraisal Checklist; BV - biological variation; CV_i - within-subject BV; CV_e - between-subject BV; RCV - reference change value; CV_{95%} - analytical performance specification for imprecision; B_{95%} - analytical performance specification for bias

INFOGRAPHIC BY LEJLA ALIĆ (EFLM-CC)

Jonker N, Aslan B, Boned B, Marqués-García F, Ricós C, Alvarez V, Bartlett W, Braga F, Coskun A, Diaz-Garzon J, Fernández-Calle P, Gonzalez-Lao E, Minchinela J, Perich C, Simón M, Sandberg S, Aarsand AK

Clin Chem Lab Med 2020; Available from: <https://doi.org/10.1515/cclm-2020-1168>

Reported by Aleksei Tikhonov, member young scientist of the EFLM WG-Promotion & Publications

In this meta-analysis authors reviewed available biological variation (BV) data and provided updated BV estimates for the following kidney markers in serum and plasma: albumin, creatinine, cystatin C, chloride, potassium, sodium and urea. Retrieved publications for the meta-analysis were appraised by the Biological Variation Data Critical Appraisal Checklist (BIVAC). Meta-analyses of BIVAC compliant studies with similar design were performed to deliver global estimates of within-subject (CVI) and between-subject (CVG) BV estimates. Out of the 61 identified papers, three received a BIVAC grade A, four grade B, 48 grade C, five grade D and one paper was not appraised as it did not report numerical BV estimates. Most of the studies were identified for creatinine (n=48). BV estimates derived from the meta-analysis were in general lower than previously reported estimates for all analytes except urea. For some measurands, BV estimates may be influenced by age or states of health, but further data are required.

CRITICAL APPRAISAL AND META-ANALYSIS OF BIOLOGICAL VARIATION ESTIMATES FOR KIDNEY RELATED ANALYTES

Niels Jonker et al. on behalf of the EFLM Working Group on Biological Variation and Task Group for the Biological Variation Database
DOI: <https://doi.org/10.1515/cclm-2020-1168>



1 SUMMARY

The review provides updated global BV estimates for kidney-related measurands. For all measurands except for urea, these estimates were lower than previously reported.

2 METHODS

Meta-analyses of BIVAC compliant studies with a similar design were performed to deliver global estimates of within-subject (CVI) and between-subject (CVG) biological variation (BV) estimates. Out of the 61 identified papers grade A, B, C and D received 3, 4, 48, and 5 papers, respectively. One paper was not appraised.

3 RESULTS

ANALYTE	No. OF STUDIES	CVI (95% CI)	CVG (95% CI)
ALBUMIN	10	2.6 (2.2-3.9)	5.1 (2.2-6.3)
CHLORIDE	7	1.1 (0.9-2.1)	1.3 (0.8-1.4)
CREATININE	11	4.5 (4.4-5.7)	14.2 (7.0-17.4)
CYSTATIN C	3	4.0 (3.9-8.6)	12.1 (12.0-15.1)
POTASSIUM	7	4.1 (3.1-5.4)	4.1 (4.1-7.7)
SODIUM	7	0.5 (0.2-1.4)	1.2 (0.5-1.4)
UREA	9	13.9 (9.5-14.4)	19.0 (1.1-22.5)

INFOGRAPHIC BY ALEKSEI TIKHONOV (EFLM-CC)

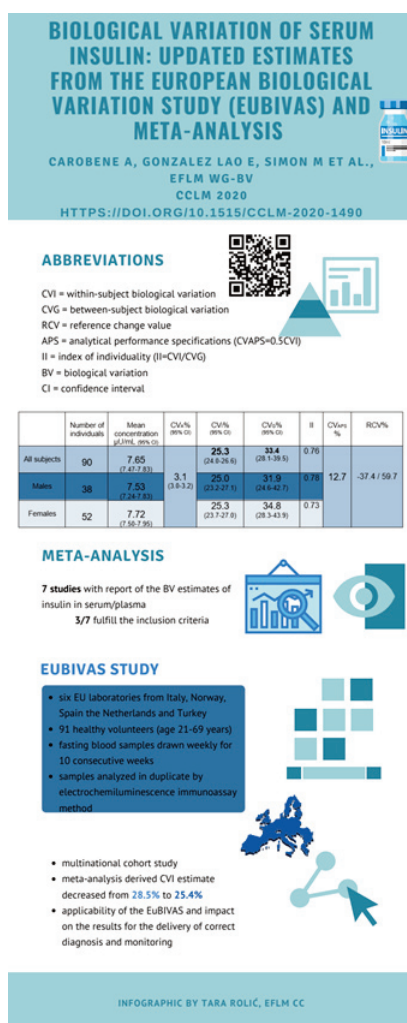
Biological variation of serum insulin: updated estimates from the European Biological Variation Study (EuBIVAS) and meta-analysis

Carobene A, Gonzalez Lao E, Simon M, Locatelli M, Coşkun A, Díaz-Garzón J, Fernandez-Calle P, Sandberg S, Aarsand AK, on behalf of the European Federation of Clinical Chemistry and Laboratory Medicine Working Group on Biological Variation

Clin Chem Lab Med 2020; Available from: <https://doi.org/10.1515/cclm-2020-1490>

Reported by Tara Rolić, member of the EFLM WG-Promotion & Publications

The within-subject (CVI) and the between-subject (CVG) biological variation (BV) components have several clinical implications. On behalf of the Working Group on Biological Variation of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM), BV of serum insulin and meta-analysis were performed. Meta-analysis included seven studies with reported BV estimates for insulin in serum/plasma samples from the EFLM BV Database (EFLM BVD). Three of them have fulfilled the inclusion criteria to deliver global BV estimates. Additionally, the European Biological Variation Study (EuBIVAS) involved six European laboratories from Italy, Norway, Spain, the Netherlands, and Turkey. Fasting blood samples from 91 healthy volunteers were drawn weekly in morning hours, for ten consecutive weeks. All samples were analyzed in duplicate by the electrochemiluminescence immunoassay (ECLIA, Roche Diagnostics). The CVI estimate derived from all subjects was 25.3% (95% CI; 24.0–26.6). No significant differences in insulin concentrations and CVG between subgroups were observed. Finally, the meta-analysis derived CVI estimate decreased from 28.5% (95% CI; 21.1–37.1) to 25.4% (95% CI; 21.1–37.1) after inclusion of the EuBIVAS data. Result of the multinational cohort study is that obtained CVI estimates were homogeneously distributed and lower than previously published. Authors emphasized how obtained results highlight the applicability of the EuBIVAS BV estimates and impact the meta-analysis results with implications for the delivery of correct diagnosis and monitoring.



A proposed common training framework for specialists in laboratory medicine under EU directive 2013/55/EC (The recognition of professional qualifications)

Wieringa G, Queraltó J, Homšak* E, Jassam N, Cavalier E, Svinarov D, Krleža JL, Christou S, Pikner R, Renneboe Larsen T, Tomberg K, Linko-Parvinen A, Sapin V, Baum H, Kroupis C, Bagoly Z, Costelloe S, Sciacovelli L, Stasulans J, Vitkus D, Meunier D, Solnica B, Reguengo H, Mambet C, Kovac G, Krhin B, Ohlson M, Buhagiar G and Simundic AM

Clin Chem Lab Med 2020; Available from: <https://doi.org/10.1515/cclm-2020-1504>

Reported by Serkan Bolat, corresponding member of the EFLM WG-Promotion & Publications

Representatives of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) and national laboratory science societies have proposed Common Training Framework for non-medical Specialists in Laboratory Medicine. The qualifications of specialists trained in accordance with this syllabus will be automatically recognised in the European Union (EU). The common training framework is essential for the recognition of the competences of scientific and pharmacy-trained staff, who make up to 60% of the total laboratory specialists in the EU.

It is built on three core components which including an equivalence of practice standards, expected base of knowledge, skills, competences, and professional conduct. The framework includes common goals similar to the Directive 2013/55/EC (The Recognition of Professional qualifications) which aims to increase professional mobility, enhance patient safety by harmonising the education and training, ensure equitable distribution of skills/expertise across the EU. Finally, it should be noted that the template syllabus proposed by the EFLM was accepted by 19 EU member states and it could replace the national program only by EU member state decision.

A proposed common training framework for specialists in laboratory medicine under EU directive 2013/55/EC (The recognition of professional qualifications)
Wieringa et al. Clin Chem Lab Med 2020
doi.org/10.1515/cclm-2020-1504



PAST EFLM EVENTS

Verification of quantitative methods

EFLM Academy webinar

On **January 26th, 2020 at 18:00 CET Dora Vuljanić (HR)** held a webinar on the verification of quantitative methods. In this presentation, the basic concepts of a method comparison study were addressed. The main focus of the webinar were the experimental protocols for comparison of quantitative methods, including statistical methods and results interpretation. These approaches were conveniently explained on the examples of a method comparison experiments. The webinar has attracted high interest of professionals in laboratory medicine and had notable number of registered participants.

More information can be found in [EFLM eLearning platform](#) (accessible for EFLM Academy members only).



CHANGING OF THE GUARD IN EFLM NATIONAL SOCIETIES

Reported by Silvia Cattaneo, EFLM Office

A warm welcome to the new incoming National Society officers and a great thank you to the outgoing EFLM National Representatives and National Society Presidents for the support to EFLM activities during their terms of office.

Bulgarian Society Clinical Laboratory

Prof. Milena Velizarova (Dept of Clinical Laboratory and Clinical Immunology, Medical University of Sofia) is the new EFLM National Representative for the Bulgarian Society Clinical Laboratory (role previously covered by the National Society's President Prof. Dobrin A. Svinarov).

Hungarian Society of Laboratory Medicine

Prof. Attila Miseta (Clinical Center, Dept of Laboratory Medicine, University of Pécs) is the new President of the Hungarian Society of Laboratory Medicine replacing Prof. Janos Kappelmayer. While Dr. Agnes Péterfalvi (Medical School, University of Pécs) is the new EFLM National Representative replacing Dr. Zsuzsa Bagoly.

Norwegian Society of Medical Biochemistry

Dr. Bess Margrethe Frøyskov (Sykehuset Telemark) is the new President of the Norwegian Society of Medical Biochemistry replacing Dr. Maria Averina.

Portuguese Society of Clinical Chemistry, Genetics and Laboratory Medicine

Dr. João Faro Viana (Immunology Lab, Clinical Pathology Service, Centro Hospitalar de Lisboa Ocidental) is the new President of the Portuguese Society of Clinical Chemistry, Genetics and Laboratory Medicine replacing Dr. Henrique Reguengo who will continue to act as EFLM National Society's Representative.

Association of Clinical Chemistry & Laboratory Medicine of Ukraine

Prof. Sergiy Klymenko (Dept of Clin. Lab. Diagnostics, "Shupyk National Med. Academy of Postgraduate Education" and Dept. of Medical Genetics, State Institution "National Research Center for Radiation Medicine of Nat. Academy of Med. Sciences of Ukraine", Kyiv) is the new President of the Association of Clinical Chemistry & Laboratory Medicine of Ukraine replacing Dr. Oleksandr Kheilomskyi. Prof. Sergiy Klymenko will cover also the role as EFLM National Society's Representative.

NEWS FROM EFLM NATIONAL SOCIETIES

News from the Association of Laboratory Specialists and Organizations «Federation of Laboratory Medicine» (FLM)

VI Russian Congress of laboratory medicine

By Svetlana Evgina, Secretary, Scientific Committee, Federation of Laboratory Medicine, Moscow, Russia

Every year the [Federation of Laboratory Medicine](#) holds the Russian Congress of Laboratory Medicine, which has become the largest specialized event in Russia and the CIS countries. In 2020, because of the pandemic COVID-19, the Congress was transformed into 6 thematic [online forums](#):

28 July, Cytology Forum
27 August, Laboratory Diagnostic in Critical and Urgent Conditions
23-24 September, Preanalytical Forum
14-15 October, Organization of efficient work of laboratory
18-19 November, Fundamental and clinical investigations of biomarkers
17-18 December, Infection diseases and complications

Online format of the Congress attracted a huge audience - including specialists who previously had no opportunity to participate in offline event. During 9 days, about 18500 people from 222 cities in Russia and 27 countries were connected to the broadcasting of 86 sections. Teleconferences connected the different continents and allowed both Russian and foreign speakers from 16 countries to take the floor: Argentina, Belarus, Canada, Croatia, France, Germany, Israel, Italy, Japan, Netherlands, Portugal, Spain, Turkey, UAE, UK and USA. Many presentations were devoted to problems associated with a new coronavirus infection. At the October forum, IFCC President Khosrow Adeli presented the IFCC international guidelines for COVID-19 testing. In November and December, Russian academics in plenary lectures highlighted the pathogenetic mechanisms of COVID-19. Evgeniy Nasonov also gave a comparison of the pathogenetic mechanisms of immune inflammation in rheumatic diseases and COVID-19. Totolyan Areg shared analysis of the state of the interferon system during infection, theoretical aspects of the validity of the hypothesis on the protective role of BCG vaccination, as well as data on population immunity in Russian regions. Nikolay Mayansky presented results of studies on the dynamics and specificity of the antibody response to SARS-CoV-2 in immunocompromised children and in the cohort of adults who have recovered from the disease.

FLM President Michael Godkov and Mark Sluiter prepared sections devoted to healthcare management in COVID-19 pandemic. Natalia Sapozhnikova from Moscow and Igor Ushakov from Irkutsk presented their experience of organizing large-scale COVID-19 testing in their region. Conny Helder and Luc Kenter shared peculiarities of work of medical institutions in the Netherlands during COVID-19, where the coordination platform RONIZ was urgently created.

Mark Sluiter reported on the implementation in the Republic of Tatarstan of the Dutch experience on remote monitoring of anticoagulation therapy using POC and "Portavita Health" software, which allowed self-isolated patients to continue monitoring INR and adjust the dosages of drugs through a personal account. Ozren Tošić spoke about the British experience, discussed the rationality of creating and using new hospitals.

Poster section was held in electronic format with 104 posters in 18 sections. Number of views of the posters exceeded 6300, about 600 listeners watched presentations of finalists of the Poster Section.

To support young people, Aleksei Tikhonov prepared the Young Scientists Club. Colleagues from 5 countries shared their career experience and opportunities in professional societies.

35 IVD manufacturers and suppliers participated in the virtual exhibition. About 10000 visitors downloaded almost 8000 advertising materials. Visitors left "business card", could ask a question and get an answer in the interactive chat.

There was an extensive Cultural program. The ceremony of annual professional award named after Vadim Menshikov was held. Exciting award ceremony of the winners of the photo competition "Laboratory City and its inhabitants-2020" impressed audience. In honour of the famous scientists of the Mayansky brothers a page "Our heritage" with photos and memories as virtual museum was opened.

The next 7th Congress will be held in Moscow on September 15-17, 2021 and promises to be an informative and rich discussion of current issues in laboratory medicine, allowing thousands of participants to plunge into the atmosphere of science and practical discussions.

Photos:



FLM President Michael Godkov and IFCC President Khosrow Adeli



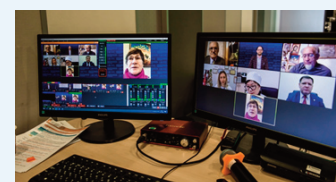
Young scientists' session: Pathways in laboratory medicine: International experience and professional societies



Nikolay Mayansky: moderator and the speaker of the session "Serology research of COVID-19 and experience of the SARS-CoV-2 antigen"



Behind the scenes at the Forum



Congress screen

IFCC NEWS Reported by Katharina Psara, IFCC eNews editor



IFCC President's Message Jan-Feb 2021

Happy New Year to you all in the IFCC family 😊. Moving into 2021, the IFCC is eager to continue its mission of "advancing excellence in laboratory medicine for better healthcare worldwide". In 2020, we made significant progress towards impacting healthcare delivery and patient outcomes, initiating a number of new programs in the areas of newborn screening, global lab quality, putting together the infrastructure to become the largest provider of free distance learning in the field of laboratory medicine, and aiding clinical laboratories in the fight against the COVID-19 pandemic through development and publication of laboratory practice guidelines. Despite unique challenges presented by the COVID-19 pandemic over the past year, the IFCC has had an immensely successful year, laying the foundation for the 2020-2023 strategic plan. We look forward to continuing this momentum into 2021! In my previous president messages, I had detailed the terms of reference and strategic plans for the new taskforces on Global Newborn Screening, Global Laboratory Quality (iQC and EQA), and Global eLearning/eAcademy. I am happy to inform you that the membership for all these new taskforces is now complete and the taskforces have begun their work. They will be meeting on a monthly basis and have already initiated detailed plans to implement the new strategic plans around these key areas of priority for IFCC. We will keep you updated over the coming months. Click [here](#) to read the full message:

Register to the IFCC Virtual Conference on Critical Role of Clinical Laboratories in the Covid-19 Pandemic

This virtual conference will bring leading experts around the world together to present the latest advances in COVID-19 diagnostics and therapeutics. The theme of this conference will be the Critical Role of Clinical Laboratories in the COVID-19 Pandemic. It will be a truly international event with presentations from all regions across the globe. IFCC Scientific Symposia will be presented in the morning. The afternoon will be mostly dedicated to industry educational workshops. All sessions will be recorded and fully available for registrants. Click [here](#) to access the programme and register to the event

Miki Kawano Ph.D., received the 2020 JSCC Article Award

The Japan Society of Clinical Chemistry (JSCC) Article Award is given to the person who has made outstanding academic research in clinical chemistry. In 2020, Miki Kawano, Ph.D. is a winner of the Article Award. The award presentation was held at the 60th Annual Meeting of JSCC in Tokyo, Japan (Oct 30- Nov 1, 2020 - livestreaming). At the award presentation, award winner Dr. Kawano was congratulated by Dr. Masato Maekawa, president of JSCC for her outstanding work in clinical chemistry.

Spain takes center stage as top performing country in the 2020 UNIVANTS of Healthcare Excellence Awards

World renown healthcare organizations recently announced the 2020 winners with 4 of 24 recognized teams originating from Spain, including one of the top global winners. The outstanding achievements vary in scope but converge favourably with measurable impact to patient care. Each team optimized different diagnostic pathways to improve patient experience, while also reducing healthcare costs.

Learn more about these extraordinary teams: <https://www.univantshce.com>

Calendar of EFLM events and events under EFLM auspices

Do not miss the opportunity to have your event listed here.

Apply for EFLM auspices! For more information [visit here](#) or email eflm@eflm.eu

Due to COVID-19 alert throughout the world, some upcoming events could have been cancelled or postponed, please direct check with the organizers if the date is confirmed.

4-5 March 2021

XVIII Meeting of the SEQC-ML Scientific Committee

Madrid (SP)

[Click here for information](#)

7-10 October 2021

46th ISOBM Congress

Bled (SL)

[Click here for information](#)

15-16 March 2021

POCT: making the point

Rome (IT)

[Click here for information](#)

10-12 October 2021

XIV Congress of Slovak Society of Clinical Biochemistry

High Tatras (SK)

[Click here for information](#)

Accessible till 20 May 2021

2020 Annual Meeting of the Royal Belgian Society of Laboratory Medicine (RSBLM)

on-line

[Click here for information](#)

EuroMedLab 2021 **NEW DATE!!!!**

28 November - 2 December 2021

24th IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine

Munich (DE)

[Click here for information](#)



24-27 May 2021

The 10th Santorini Conference "Systems medicine and personalised health & therapy" - The odyssey from hope to practice: Patient first - Keeps Ithaca always in your mind

Santorini (GR)

[Click here for information](#)

November 2021

14th CIRME International Scientific Meeting "Implementation of metrological traceability in laboratory medicine: where we are and what is missing"

Milan (IT)

[Click here for information](#)

10-11 June 2021

8th International Symposium on Critical Care Testing and Blood Gases

Biarritz (FR)

[Click here for information](#)

10-11 February 2022

International Congress on Quality in Laboratory Medicine 2021

Helsinki (F)

[Click here for information](#)

Date to be announced

XXII Serbian Congress of Medical Biochemistry and Laboratory Medicine and 16th Belgrade Symposium for Balkan Region

Belgrade (SRB)

[Click here for information](#)

Boost your brand and increase your company's visibility through the EFLM Newsletter!

EuroLabNews is the digital bi-monthly newsletter of EFLM targeting more than 7,500 laboratory medicine professionals and is also published on the EFLM website. The Newsletter features information on EFLM initiatives and activities of its functional units, news from EFLM National Society members and includes a calendar of the major events in the Clinical Chemistry and Laboratory Medicine field.

The EFLM IVD partners are offered the possibility to advertise on EuroLabNews as follows:

	1 issue	6 issues
1 quarter of page	500 €	2000 €
Half a page	1000 €	4000 €
Full page	1500 €	6000 €

Those companies interested in this opportunity can contact the EFLM Office at silvia.cattaneo@eflm.eu