

**International Federation of
Clinical Chemistry
and Laboratory Medicine**




Annual Report 2018



**Advancing excellence in laboratory medicine
for better healthcare worldwide**

ifcc@ifcc.org

Highlights of the Year

- **1st IFCC, EFLM, AFCEB, FIFBCML Conference “Laboratory Medicine: Meeting the needs of the Mediterranean Nations”** – Rome (IT), July 2018
- **IFCC General Conference** – Budapest (HU) November 2018 (<http://www.ifcc.org/ifcc-congresses-and-conferences/ifcc-general-conference-budapest-hungary/>)
- **IFCC VLP programme supported by Abbott** (<http://www.ifcc.org/ifcc-education-division/emd-special-projects/>)
- **IFCC Speakers’ Bureau** (<http://www.ifcc.org/ifcc-education-division/speaker-s-bureau/>)
- **Roche/IFCC Travel Scholarships**
- **IFCC Professional Scientific Programmes (PSEP/PMEP)**
- **IFCC FEN** - Foundation for Emerging Nations (<http://www.ifccfoundation.org/>)
- New **Division on Emerging Technologies (ETD)** established (<http://www.ifcc.org/ifcc-emerging-technologies-division/>)
- **Webinars and Distance Learning Modules** (<http://www.ifcc.org/ifcc-education-division/webinars/ifcc-webinars/>)
- **Task Force Young Scientists (TF-YS) webinars** (<http://www.ifcc.org/task-force-young-scientists-web-pages/tf-ys-webinars/>)
- **IFCC Expert Database** (<http://www.ifcc.org/ifcc-education-division/experts/>)
- The **IFCC Curriculum, Phase 1** released (<http://www.ifcc.org/media/477266/ejifcc2018vol29no1pp055-093.pdf>)
- **e-Academy**, open educational resources (<http://eacademy.ifcc.org/>)
- Increased frequency of **eNews** letter to monthly (<http://www.ifcc.org/ifcc-communications-publications-division-cpd/ifcc-publications/enewsletter/enews-volumes/>)
- IFCC **ejIFCC** fully indexed in PMC (<http://www.ifcc.org/ifcc-communications-publications-division-cpd/ifcc-publications/ejifcc-journal/> - <https://www.ncbi.nlm.nih.gov/pmc/journals/2920/>)
- **IFCC Handbook 2018-2020** (<http://www.ifcc.org/executive-board-and-council/ifcc-handbook-2018-2020/>)
- **IFCC app** – release on both Android and iOS platforms
- IFCC on **Instagram**  (<https://www.instagram.com/ifclinchem/>)
- **IFCC Flow cytometry courses** (http://www.ifcc.org/ifcc-education-division/working-groups-special-projects/httpifccorghostinginsoftdkmedia46789217_phd_course_program_bp.pdf)
- 9th Beginners’ Course in **Molecular Diagnostics** (<http://www.ifcc.org/media/477209/2018-c-cmbc-slovakia-course.pdf>)
- **DQCML Projects in Malawi and Nepal** (<http://www.ifcc.org/ifcc-education-division/working-groups-special-projects/developing-quality-competence-in-medical-laboratories-dqcml/>)
- Implement cooperation and agreements with **IFCC Regional Federations**

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The following President's report was prepared by Professor Morris prior to his untimely passing. We present it here as a tribute to Professor Morris and the leadership that he provided to the Executive Board and the IFCC.



The IFCC mission '*Advancing excellence in laboratory medicine for better healthcare worldwide*' has been the guiding principle for our work in 2018, my first year as President. It is a great privilege and honour to serve in this role with the opportunity to meet and learn from so many of our learned, skilled and experienced clinical laboratory specialists internationally. Their devotion of time and energy to voluntarily undertake our numerous projects is most inspiring. Significant developments have been undertaken including the new Executive

Board with representation of each of the Regional Federations, the development of our 2018-2020 Strategic Plan and the General Conference in Budapest in November 2018.

It is a great pleasure to report on the success of the new Executive Board. All members have experienced the benefits of this significant change to IFCC leadership whether it be the availability of specific issues or conditions within the regions or information or resources available through the international standing of IFCC to national societies and regional federations. The IFCC has indeed benefited greatly from this constitutional change to our governance.

The 2018-2020 strategic plan supports the principle of maintaining the IFCC as the as the most respected international resource of expertise for the improvement of patient care through laboratory medicine. In preparation for and following the General Conference we conducted surveys of our national representatives. The Executive Board is most grateful to all who have responded. They provided vital information on the major issues facing our national societies. These include funding for laboratory medicine, involving the recognition of the value of laboratory medicine and reimbursement; maintaining membership, involving continuing professional development and ongoing career development; and finally quality clinical laboratory performance and specifications.

Our strategic plan aims to address these issues. The establishment of the EMD Committee for the Value Proposition in Laboratory Medicine (C-VPLM) is undertaking research to assess methods for estimating the value of medical tests within the healthcare system in terms of financial impact and patient outcomes. This committee is also charged with assembling a compendium of tools such that all clinical laboratory specialists will be capable of undertaking such projects within their own environments and to use their data to negotiate with clinical, financial and administrative officers in their institutions or health jurisdictions.

The CPD eAcademy continues to be developed to provide a quality, comprehensive curriculum in laboratory medicine via 20 to 40 minute webinars, with learning points and a certifiable assessment. Coordinators have been enlisted to assist presenters easily and uniformly record and deposit their presentations on the website. Currently these are largely available in English although collaborations are underway to increase the Spanish language presentations. These are available for all interested individuals to access and expand their skill set. Perhaps more importantly is utilization of the eAcademy by national societies or perhaps local area branches of national societies. These webinars are an excellent tool to bring together younger or trainee clinical laboratory specialists with one or two more experienced practitioners to listen to the presentation, discuss the learning points and then individually undertake the assessment. Learning together is always a more enjoyable experience.

The excellent work of the Scientific Division in collaboration with the Joint Committee for Traceability in Laboratory Medicine (JCTLM) and the International Consortium for Harmonization of Clinical Laboratory Results (ICHCLR) and other metrology and reference material manufacturers continues to expand the standardization and harmonization of clinical laboratory assays. This is a key strategy to ensure accuracy or at least harmonization of results of medical tests for



optimal medical practice. During the next period the IFCC will be working with metrology institutes, both regional and national, to enhance collaboration and avoid duplication of the preparation of certified reference materials. This has been identified as the current requirement for the profession to take the next steps in this long-term strategy.

The 2-day General Conference was attended by some 210 delegates who reported overwhelmingly on the usefulness and benefits of this time of intense activity. We are very appreciative of the strong contingent from our Corporate Members. There was strong support for the scientific program and I am very appreciative of the extensive work contributed by all members of the program committee. Importantly, on the question of the most appreciated presentation, there was strong support across the whole program indicating that it met the needs across the broad spectrum of delegates. As well we are very grateful to our colleagues of the Hungarian Society of Laboratory Medicine who assisted the organization of this important event for the IFCC.

I thank all IFCC officers for their invaluable service throughout 2018 as described in their specific reports below. I am extremely thankful for the excellent work of the EB in 2018 especially my predecessor Professor Maurizio Ferrari for all his support and advice and to Professor Dave Kinniburgh for the production of this Annual Report and his work throughout 2018. My sincere thanks also to the member organizations: full, associate and corporate members, for their continued support of the IFCC and for the individuals that they nominate to the IFCC functional groups. I wish to thank the IFCC Office Staff, Paola Bramati, Silvia Cardinale and Silvia Colli-Lanzi for their dedicated efforts in managing the day to day business of the IFCC, and for their personal assistance to me as President.

Howard Morris, President

EXECUTIVE BOARD (EB)

The IFCC Executive Board held three meetings during 2018. The first meeting was held in Milan on February 17-19; the second EB meeting was held in Frascati, Rome, in conjunction with Laboratory Medicine: Meeting the Needs of Mediterranean Nations on July 5-6; and the third EB meeting was held in Budapest in conjunction with the IFCC General Conference on November 8-9.

The IFCC General Conference was held in Budapest on November 10-11, with the theme, Laboratory Medicine: Preparing for the 2020's. The meeting was well attended, with 266 delegates from 71 countries. The format for this year's General Conference was reduced to 2 days and presentations focused on issues in Clinical Chemistry and Laboratory Medicine that were of major importance to members. The post conference survey of delegates indicated major satisfaction for the GC, overall, and supported the revised format. A pre-conference survey identified issues of major importance to delegates, many of which are currently part of the EB Strategic Plan and others that are being considered.

The IFCC membership, as of December 31, 2018, included 91 Full Members, 16 Affiliate Members and 44 Corporate Members. During 2018, three new Affiliate Members joined: Kazakhstan Public Association – Federation of Laboratory Medicine, French National Network of Accredited Laboratories of Medical Biology, and the Serbian Society for Clinical Laboratory Medicine and Science.

A letter was sent to National Societies Full and Affiliate members, and to the Divisions requesting their annual reports. All reports will be included in the IFCC Annual report for 2018 which will be available on the IFCC Website (www.ifcc.org).

The new EB format includes representation from each of the Federations and I urge members, and individuals, to contact their EB representatives, or the EB directly, with any issues so that the EB may better understand the issues and concerns that are important to members.

Finally, 2018 was the first year of my term as Secretary of the IFCC and I would like to thank all the IFCC officers and colleagues who I have worked with for their cooperation and assistance. It has been my pleasure to meet many of the IFCC “family” this past year and I look forward to meeting more over the next 2 years. Special thanks to President Howard Morris, and the other EB members for their support and diligent efforts, and thanks to the staff of Emmezeta-MZ Congressi in Milan (Paola Bramati, Silvia Cardinale and Silvia Colli-Lanzi).

David Kinniburgh, Executive Board Secretary

TREASURER REPORT

During the first year of my second term as the IFCC treasurer, with the valuable help and assistance of the IFCC office, the annual dues of Full, Affiliate and Corporate Members were received, the adherence of IFCC operating units to their allocated budgeted were monitored and detailed records of all transactions were kept, reimbursements were processed within two days after the receipt of the claims from the IFCC office. Close collaboration was achieved with the IFCC investment bank (Credit Swiss) to optimise the financial return on IFCC investments. The annual accounts and financial actions were reviewed by an external independent auditor in order to finalize the actual income and expenses at 31st December 2018.

1. COMPARISON OF 2018 PROPOSED BUDGET WITH ACTUALS AT 31st DECEMBER 2018

The 2018 budget was expected to be closed with a deficit of CHF -1.100 107. Instead, it was closed with a deficit of CHF -315.861 (Fig. 1). The main reason for this difference was the high amount of new sponsorship funds and less expenditure.

IFCC Summary budget 2018			
Summary	Proposal 2018	Actual 2018	Proposal 2019
	CHF	CHF	CHF
Total Operational revenues & finances income	612.000	953.007	1.709.600
Total Operational costs & financial charges	1.712.107	1.268.868	1.917.148
Profit (-loss) for the year	-1.100.107	-315.861	-207.548

Figure 1. 2018 proposed budget versus actual as of 31st December 2018.

2. TOTAL OPERATIONAL REVENUES AND FINANCIAL INCOME

The actual total operational revenues and financial income were CHF 953.007 (Fig. 2).

REVENUES & INCOME	Budget 2017	Actual 2017	Proposal 2018
	CHF	CHF	CHF
Full members (National Societies)	175.000	187.584	175.000
Corporate members	270.000	265.600	250.000
Affiliate members	4.000	5.554	4.500
Income from CLSI royalties	2.000	2.211	2.000
Revenue for ICHCLR secretarial support	25.000	9.000	9.000
Revenue for ICHCLR sub-account	0	221.473	40.000
EuroMedLab Congress Barcelona 2019	0	0	1.000.000,00
COLABIOCLI congress at Punta del Este	0	2.624	0
Abbott TSIC 2018	0	3.003	0,00
Income for Scientific Division (SD) JRC(ex IRMM)	40.000	70.431	40.000
Income for SD -Thyroid Project sponsorship - phase IV	0	17.250	0
Share C-CLM Symposium Durban	0	3.345	0
Abbott VLP sponsorship (EMD)	40.000	45.425	55.000
Income for C-CB support	0	37.972	0
Income for TF-CB support (scorecard study)	0	25.761	80.000,00
Elsevier Support - AACC stand & royalties	3.000	3.420	3.000
Income from Com. Publ. div. (CPD) Elsevier endorsement	22.000	23.106	30.000
e-Academy support	0	0	0
Income for Roche travel scholarships	21.000	23.952	21.000
Income from marketable securities	10.000	5.030	0
FEN expenses re-imbursed	0	265	100
Profits on exchange	0	0	0
TOTAL REVENUES & INCOME	612.000	953.007	1.709.600

Figure 2. INCOME as of 31st December 2018: CHF 953.007.

3. IFCC MEMBERSHIP DUES

Below is a diagram showing the percentage of the major income of IFCC from the annual dues of Full, Affiliate and Corporate Members collected during 2018 (Fig. 3). Thanks to all the member Societies and Corporate members that supported IFCC throughout the years. Their continuous contributions have made possible the accomplishment of numerous IFCC tasks and projects. IFCC is grateful to the IVD industry for their support and active participation in the IFCC scientific events. We also thank the members for their loyalty and attention in paying dues at the start of the year, which helps the cash flow.

Dues	CHF
Full members	187.584
Corporate members	265.600
Affiliate members	5.554
Total	458.738

Figure 3. IFCC membership dues collected in 2018.



4. IFCC MEETINGS INCOME PARTITION

IFCC meetings' revenues are not a regular yearly income. The average yearly income of IFCC arising from the meetings can be calculated by dividing the total revenue by the frequency of the event. The yearly income of IFCC from the recent meetings (EuroMedLab2017 Athens and WorldLab 2017 Durban and shares from the regional federations' meetings) subdivided per year is indicated below (Fig. 4).

INCOME	PARTITION	YEAR AVAILABILITY
WordLab 2017(Durban): CHF 189 429	3 years	CHF 63,143
EuroMedLab2017 (Athens): CHF 774 318 – 155 737 (EFLM share)= CHF 618 581	2 years	CHF 309,290
APFCB share: CHF 25 664	2 years	CHF 12 832
COLABIOCLI Congress Punta del Este – 2017: CHF 2 624	2 years	CHF 1 312
CHF 836.298		CHF 386.577

Figure 4. IFCC annual meetings income.

The income of IFCC from the membership dues and annual meetings income (excluding sponsorships and other revenues) in 2018:

CHF 458.738 (dues) + CHF 386.577 (annual meeting income) = CHF 845.315

5. SPONSORSHIP

Divisions and some Functional Units raise some sponsorships funds which give them a certain flexibility in conducting projects. These sponsorships are used for the specific projects in due time. The unspent sponsorship funds are carried over to the next years. The total amount of sponsorships available for specific projects at 31 December 2018 to be carried to 2019 is **CHF 689 326**.

6. TOTAL OPERATIONAL COSTS AND FINANCIAL CHARGES

The actual total operational costs and financial charges in 2018 were **CHF 1.268.868** (Fig.5).

	Total With Sponsorship expenses
5. Organisations Affiliated w/ IFCC	66.958
6. IFCC Int/Reg Organisations	89.705
7. IFCC Congresses and Conferences Committee (C-CC)	12.125
8. IFCC Scientific Division (SD)	77.077
9. IFCC Education and Management Division (EMD)	132.666



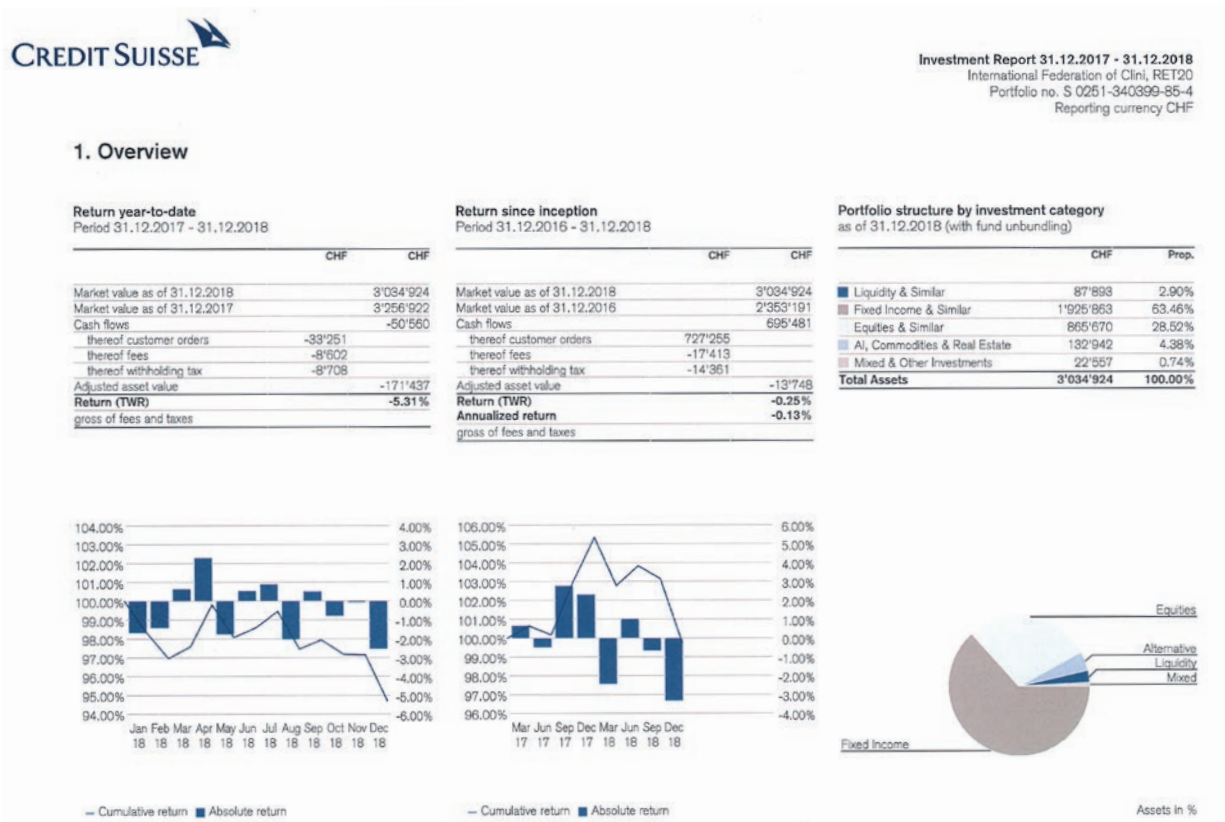
10. IFCC Communication Publication Division (CPD)	103.878
11. IFCC Emerging Technologies Division (ETD)	15.802
13. IFCC Special Projects	49.528
14. IFCC Statutes & Rules	13.937
15. IFCC Financial Report	215.742
16. IFCC Organisational Matters	293.966
19. IFCC Executive Board (EB)	197.484
GENERAL TOTAL	1.268.868

Figure 5: IFCC GENERAL EXPENSES-2018

7. IFCC INVESTMENT AT CREDIT SUISSE IN 2017

The important issues of the agreement with Credit Swiss are outlined as below:

- **Investment strategy: Income oriented**
- **Risk Profile: Moderate**
- **Risk Budget: Moderate**
- **Reporting currency: CHF (with investments in three currencies: CHF, EUR, USD)**
- **Ticket fee model: 0.20% for the safekeeping fee (no investment fee).**



Tomris Ozben, Treasurer

CORPORATE MEMBERS

Rolf Hinzmann, MD, PhD, Clinical Pathologist (*Roche*)

Corporate Representative at IFCC Executive Board (2nd term 2018-2020)

In 2018 IFCC was pleased to welcome *Timedico* and *ET Healthcare* as new Corporate Members. Regrettably, 2 companies left IFCC in 2018: *Guangzhou Wondfo Biotech*, and *Analisis*. By the end of 2018, the total number of IFCC's Corporate Members was 42, providing the IFCC with annual fees of CHF ~280.000 which was approximately 60% of IFCC's total direct annual income from its members (which comprise National Societies and Affiliate Member Societies as well). On top of this, IFCC received sponsorship for scientific or educational projects, awards, travel of students and lecturers, and congresses.

Over the past years, IFCC has been seeing an erosion in corporate membership: Between 2014 and 2018 6 companies joined IFCC while 24 left (and 2 were lost due to mergers). The reasons are only partly understood; however, important contributors seem to be: Companies that had joined primarily to receive the lucrative discount on the exhibition fee at conferences dropped out again once they did no longer exhibit. Other companies see limited value in return for their annual fee.

Although progress has been made to better address the needs of the Corporate Members, it is still necessary to further enhance the value of IFCC for its Corporate Members, e.g. by

- better serving the **needs of the Corporate Members** instead of regarding Corporate Members mainly as a source of income,
- making it easier for employees of Corporate Members to **actively participate in IFCC working groups and committees** (and not only as corresponding members),
- **collaborating better with clinical societies** to harmonise guidelines and support medical claims leading to reimbursement for lab tests,
- **aligning more strongly with others** (CLSI, FDA, clinical societies, etc.) to avoid inconsistency and duplication of regulatory guidelines and recommendations,
- pursuing the **opportunities of data analytics** in laboratory diagnostics.

One important step in this direction is a better representation of the Corporate Members within IFCC. For this reason, a **New Task Force Corporate Members** is currently being established to facilitate discussions among Corporate Members, identify common topics, and directly interact with / report to the Executive Board. The Task Force will define its own scope and goals. Selection of members is currently ongoing, and the task force will kick off during EuroMedLab in Barcelona in May 2019. The following suggestions for topics have already been received:

- Suggestions on frequency and locations of IFCC conferences
- Alternative funding structure for IFCC by Corporate Members
- Collaboration of IFCC with Clinical Societies and Regulators on guidelines
- Promotion of the value provided by lab testing

The recently established **Emerging Technologies Division** provides multiple opportunities for Corporate Members. It has been agreed that each working group or committee will accept at least one full member from a Corporate Member company.

The Corporate Members make several important contributions to IFCC activities: Numerous delegates from Corporate Members are actively engaged in most of the working groups and committees in all IFCC divisions and in their Executive Committees, either as full members or





as corresponding members, as well as in the Congresses & Conferences Committee.

Here is the contact information for Corporate Representatives who were / are members of the Executive Committees of IFCC's 4 divisions and the Congresses & Conferences Committee. Please feel free to reach out to them in case you have questions:

- **Scientific Division: James Pierson-Perry** (*Siemens*) (2nd term 2018-2020),
- **Emerging Technologies Division:** This newly established division has two Corporate Representatives: Peng Yin (*Abbott*) (1st term 2018-2020) and Markus Roessler (*Roche*) (1st term 2018-2020),
- **Education & Management Division:** André Ziegler (*Roche*) (1st term 2017-2019),
- **Communications & Publications Division:** Peter Bialk (*Roche*) (1st term 2017-2019),
- **Congresses & Conferences Committee:** Cheryl Jackson (*Beckman Coulter*) (1st term 2018-2020).

The following persons are Corporate Members of the respective Congress Organizing Committees (COCs):

- **IFCC / EuroMedLab 2019, Barcelona, Spain:** Jaime Vives (*Roche*)
- **IFCC / WorldLab 2020, Seoul, South Korea:** Douglas Chung (*Abbott*)
- **IFCC / EuroMedLab 2011, Munich, Germany:** Katja Schwarzer (*Abbott*)
-

Since January 1, 2018 the transition period of certain MedTech Europe Code regulations has expired, and new rules have become effective:

- For third-party organised conferences (main programme): Companies may not directly support a healthcare professional, neither as a delegate, nor as a speaker.
- For company-organised events in the framework of third-party organised conferences (e.g. satellite symposia): Companies may directly support speakers (i.e. their consultants) but not delegates.
- Educational grants are still possible. They can only be provided to legal entities but never to individuals.
- Companies will be able to define the type of recipients who should be eligible for the grant but will not be able to identify individual recipients.
- Companies must have an internal and independent process based on objective criteria to assess grant requests.

For more information please check out the MedTech Europe website. Similar codes are expected to come into place in various other regions of the world.

EuroMedLab in Barcelona will be the first major event for IFCC that is falling under the new rules. In spite of these strict regulations, interest of the IVD companies to sponsor the event is very high. As of March 2019, the following sponsorship arrangements have been made: 5 platinum, 4 gold, 5 silver, 5 bronze, 50 additional exhibitors. Several companies have confirmed that they have made arrangements regarding educational grants according to the new rules so that we can hopefully expect a large number of delegates at this event.

The next Corporate Members Meetings will be held during EuroMedLab in Barcelona on May 20, 2019 and during AACC in Anaheim on August 6, 2019. I would like to encourage all members to take part in the meeting. The respective meeting details will be communicated soon.

Rolf Hinzmann, Corporate Members Representative

COMMITTEE ON CONGRESSES AND CONFERENCES (C-CC)

The thirty-fifth (35th) meeting of the IFCC Executive Board Committee on Congresses and Conferences (C-CC) was held on November 9, 2018 in Budapest, Hungary.

There were several C-CC membership changes as of January 1, 2018. Full Member J. Lopez was replaced by M. Blanes González who transitioned from Corresponding Member. Corresponding Member changes included the departure of A. Hedhili and the addition of W. Fang, E. Frank and H. Martin. C. Jackson (Beckman Coulter) replaced P. Yin (Abbott) as the Corporate Member.

International Congresses of Clinical Chemistry & Laboratory Medicine (ICCLM)

IFCC ICCLM (WorldLab) Seoul, Korea 2020 (May 24-28)

Congress President: Prof. Won-Ki Min; Congress Chair: Prof. Junghan Song

Planning for this Congress is on schedule. H. Martin joined the COC this year as the C-CC representative. Prof. Min reported on the Congress at the IFCC General Conference in Budapest.

IFCC ICCLM (WorldLab) Rome, Italy 2023 (May 21-25)

Congress Chair: Prof. Sergio Bernardini

Committee is being assembled and the first meeting is expected to take place in 2019. IFCC President Morris will serve as the IFCC EB representative and will be replaced by the incoming IFCC President Elect in 2020. James Wesenberg will serve as the C-CC representative. MZ Congressi will serve as the PCO.

Regional Congresses of Clinical Chemistry & Laboratory Medicine

APFCB, Jaipur, India, 2019 (November 17-20)

Congress Chair: Prof. Praveen Sharma

Prof. Sharma presented a detailed report at the C-CC meeting in Budapest. Planning for the Congress is on target.

EuroMedLab, Barcelona, Spain, 2019 (May 18 - 23)

Congress President: Dra. Imma Caballé; COC Chair: Prof. Maurizio Ferrari

The latest meeting of the COC was held on November 19, 2018. Planning for this Congress is on schedule.

EuroMedLab, Munich, Germany, 2021 (May 16 – 20)

Congress President: Dr. Karl Lackner

Dr. Lackner was recently selected as the Congress Chair by the DGKL. Preliminary planning has gone well. The membership of the COC is being finalized and the first meeting will take place in 2019.

COLABIOCLI, Panama City, Panama, 2019 (September 10-13)

Congress Chair: Lizbeth Campillo, Jovanna Borace

Planning for this Congress is well underway.

AFCB, Ramallah, Palestine, 2018

Congress Chairs: Dr. M H Kamil and Dr. Osama Najjar

Osama Najjar presented a detailed report at the C-CC meeting in Budapest. Overall, this was a highly successful Congress

AFCB, Beirut, Lebanon, 2021

Congress Chair: Dr. Christian Haddad

Osama Najjar reported only the above details in announcing the next AFCB Congress.

AFCC, Marrakech, Morocco, 2019

Prof. Erasmus reported during the C-CC meeting in Budapest that the sixth (6th) AFCC Congress is to be held from 26 – 28 September, 2019 in Marrakech, Morocco.

IFCC Specialised Conferences

16th Roche Diagnostics Bergmeyer Conference 2018

This conference has not been held since 2016 because of concerns related to the MedTech Europe Code of Ethical Business Practice. President Morris indicates that there are ongoing





discussions within Roche and between the IFCC and Roche in terms of reactivating this conference.

Congress Guidelines and Other Documents

Review of the C-CC documents was not required in 2018. Many of the C-CC documents will be due for review and updating as required in 2019.

IFCC General Conference

A successful two-day IFCC GC was held in Budapest, Hungary on November 10 – 11, 2018.

Congresses / Conferences with IFCC Auspices in 2018: 76 events

Other Business

As determined at the C-CC meeting in Durban in 2017, the C-CC has worked with MZ Congressi in the development of a post-Congress survey for WorldLab and EuroMedLab delegates. The hope is that the survey will be approved by the IFCC and EFLM Executive Boards in time for EuroMedLab 2019 Barcelona.

James Wesenberg, C-CC Chair

SCIENTIFIC DIVISION (SD)

During 2018, the following members served on the SD Executive Committee: Philippe Gillery (FR) (Chair), Christa Cobbaert (NL) (Vice-Chair), Joseph Passarelli (US) (Secretary), Barnali Das (IN) – second half, Konstantinos Makris (GR), Tsutomu Nobori (JP) – first half, Mario Plebani (IT) (members) and James Pierson-Perry (US) (corporate representative). Five representatives of International Organizations are invited to attend the SD meetings as consultants or observers: Gary Myers (JCTLM), Heinz Schimmel (JRC), Karen Phinney (NIST), Chris Burns (NIBSC) and Youchun Wang (NIFDC). Two meetings were held during 2018: May 25 - 26 (Milano, Italy at the IFCC office) and November 8 - 9 (Budapest, Hungary in conjunction with the IFCC General Conference).

Relationship with International Organizations

The SD continues to pursue the expansion of its activities to partner with international organizations to promote the implementation of the concept of traceability in laboratory medicine and the implementation of reference measurement systems.

- Joint Committee on Traceability in Laboratory Medicine (JCTLM)

The JCTLM continues its work which is available for review on its database at www.bipm.org/jctlm.

The following annual report summarizes 2018 activities of the JCTLM.

Governance:

1. Dr. Gary Myers completed his second and final term as Chair, JCTLM Executive Committee. Dr. Ian Young was nominated by IFCC and approved by the Executive Committee to serve a 2 year (2019-2020) as the new Chair of the JCTLM Executive Committee. Dr. Myers was appointed by IFCC to replace Dr. Graham Beall as a representative from IFCC to the JCTLM Executive Committee. Dr. Myers joins Dr. Anja Kessler (Referenzinstitut für Bioanalytik) as the two appointed representatives from the IFCC to the JCTLM Executive Committee.
2. JCTLM Executive Committee Meetings were held as follows:
 - A conference call of the Executive Committee was held 26 April, 2018.
 - 6-7 December 2018 at BIPM

JCTLM Membership:

1. JCTLM Executive Committee Organizations.

The JCTLM Executive Committee continued its efforts to engage the International Council for Standardization in Hematology (ICSH) in collaborative programming activities in traceability. A joint leadership meeting with the ICSH and JCTLM was held 14-15 May, 2018 at BIPM, France.

Participants:

G. Myers (JCTLM Chair)
R. Wielgosz (BIPM)
G. Beastall (IFCC)
S. Maniguet (BIPM)
B. Davis (ICSH)
G. Cembrowski (ICSH)
A. Kummrow (PTB, for Blood cell Counting discussions)

Webex Participants:

M. Panteghini (JCTLM DB WG Vice Chair)
L. Wang (JCTLM Blood Cell counting and typing Review Team Chair)
C. Swart (PTB, for total haemoglobin discussions)
G. Jones (ILAC)
S. Machin (ICSH)

Members of the JCTLM Executive Committee and leaders from ICSH met to better understand the current status of standardization in the field of hematology and to facilitate further interaction between the ICSH and the JCTLM. The meeting discussion focused on the technical aspects and current developments for reference measurement systems for Blood Cell Counting and total Hemoglobin in blood samples. In this regard, representatives of ICSH gave an overview of their recommended candidate reference measurement method for platelet counting and reference material for haemoglobin cyanide for blood Hb measurement. Representatives from the PTB also gave a presentation on the reference measurement methods that have been developed during the last decade for blood cell counting that are listed in the JCTLM database. PTB also presented information on their recent developments for Total Hemoglobin reference measurement method using Isotope dilution measurement principle. This meeting also provided the opportunity to look at the possibility to strengthen the working relationship between the ICSH and JCTLM and investigate possible options for further involvement of ICSH in JCTLM activities. A list of action items was developed.

Dr. Myers was invited to attend the ICSH General Assembly 23-24 October, 2018 Miami, Florida to present an update on JCTLM. Dr. Bruce Davis, ICSH, reviewed the proceedings from the 14-15 May joint meeting and provided information on the different JCTLM membership options available to ICSH. Dr. Davis recommended to the General Assembly that ICSH should move to become a member of the JCTLM Executive Committee.

December 2018 ICSH made application to JCTLM to become a member organization of the JCTLM Executive Committee. Having met all the requirements for membership, ICSH was approved as the newest organizational member of the JCTLM Executive Committee.

1. JCTLM National and Regional Membership Applications

The Executive Committee approved the following applications in 2018 for JCTLM National and Regional Membership:

- Greek Society of Clinical Chemistry - Clinical Biochemistry (GSCC-CB)
- D.I. Mendeleev Institute for Metrology, Rosstandart (VNIIM), Russian Federation
- Canadian Society of Clinical Chemists (CSCC) / Société Canadienne de Clinico-Chimistes (SCCC)

2. JCTLM Stakeholder Membership Application

The Executive Committee approved the following applications in 2017 for JCTLM Stakeholder Membership:

- National External Quality Assessment Scheme for Clinical Chemistry in Greece (ESEAP)
- International Consortium for Harmonization of Clinical Laboratory Tests (ICHCLR)
- Institute for Quality Management in Healthcare (IQMH), Canada



- UK National External Quality Assessment Scheme for Immunology, Immunochemistry & Allergy (UK NEQAS IIA)

3. JCTLM Database:

1. Database Content as of March 2018:
 - 296 available certified reference materials;
 - 194 reference measurement methods or procedures
 - 176 reference measurement services delivered by 17 reference laboratories.
2. The following nominations for JCTLM review team membership were approved:
 - Dr. Giancarlo D'Agostino (INRIM) as new member of the Review Team for Non-Electrolyte Metals
 - Dr. Jorge Lamboy (Beckman Coulter, Inc) as new member of the Review Team for Drugs.
 - Dr. Denis Grote-Koska (RfB) as new member of the Review Team for Electrolytes and Blood Gases and the Review Team for Enzymes.
 - Dr. Jeannine Holden (Beckman Coulter, Inc) as a new member of the Review Team for Blood Cell Counting and Typing.
 - Dr. Virginia Litwin (Caprion Biosciences, Inc) as a new member of the Review Team for Blood Cell Counting and Typing.
 - Dr. Yutaka Nagai (Nihon Kohden Corp) as a new member of the Review Team for Blood Cell Counting and Typing.
 - Mr. Joffrey Ferial (Diagnostica Stago) as a new member of the Review Team for Blood Cell Counting and Typing.
3. The JCTLM 2018 nomination cycle for certified reference materials, reference measurement procedures and calibration laboratories that provide reference measurement services for laboratory medicine and clinical chemistry closed May 30, 2018. The various Review Teams completed their respective reviews of the nominations in their areas of responsibility and the results were reviewed for approved at a meeting of the JCTLM Database WG on 4 December, 2018 at BIPM. Several Review Team leaders who could not attend joined the WG meeting via Web Ex. Table 1 lists the results of the WG reviews and deliberations.



Table 1. Recommendation from Review Teams for 2018 Cycle 15 (Materials and Methods) and Cycle 13 (Services)

Analyte category	Materials # submissions in 2018	Recommended for listing ? Yes/No		Methods # submissions in 2018	Recommended for listing ? Yes/No		Services # submissions in 2018	Recommended for listing ? Yes/No		All # submissions in 2018	Recommended for listing ? Yes/No		
		Yes	No		Yes	No		Yes	No		Yes	No	
Blood cell counting				1						1			
Drugs	13		13							13		13	
Electrolytes	23	18	5	5	5		6	6		34	29	5	
Enzymes							14	7	7	14	7	7	
Metabolites & Substrates	15		15	3	1	2	2	1	1	20	2	18	
Non-Peptide Hormones	30		30							30		30	
Nucleic acid				2	1	1				2	1	1	
Proteins	17	3	14	2		2	1	1		20	4	16	
Vitamins							1			1			
Total:	9	98	21	77	13	7	5	24	15	8	135	43	90

Blood cell counting Recommendation from review team not yet finalized

Vitamins Recommendation from review team not yet finalized

JCTLM WG on Traceability Education and Promotion:

1. JCTLM Newsletter:

This fifth issue of the Newsletter was released in April 2018 and can be downloaded from the following link: <http://www.bipm.org/utis/common/pdf/JCTLM/JCTLM-Newsletter-2018.pdf>

Meetings/presentations under the auspices of the JCTLM

- JCTLM co-sponsored the 2018: Protein and Peptide Therapeutics and Diagnostics: Research and Quality Assurance International Workshop (PPTD-2018) in Chengdu, China. The theme of this workshop was "Measurement and Standards, Quality and Safety". The workshop covered the latest developments in measurement methods and standards for therapeutic protein and peptide characterization, and advances in in vitro diagnostic measurements and their standardization. The workshop was organized by the Bureau International des Poids et Mesures (BIPM), the National Institute of Metrology (NIM-China), and the National Institutes for Food and Drug Control (NIFDC-China). The workshop attracted over 500 participants, including participation and sponsorship from 3 Chinese IVD manufactures. The IFCC SD Chair, Professor Philippe Gillery, was invited to give a presentation on IFCC SD activities in standardization, which was well received. The meeting also provided an opportunity for Prof Gillery to meet with representatives of the BIPM and some NMIs with metrology programs in Laboratory Medicine to discuss how the IFCC SD and the International Metrology Community could work most effectively and efficiently together. The output of this first meeting will be a discussion paper, which interested parties will be asked to comment on.
- Dr. Graham Beastall delivered a JCTLM lecture entitled 'Traceability in laboratory medicine: what is it and why is it important for patients?' to three audiences:
 - 2-4 July in Rome, Italy at the 1st IFCC EFLM, AFCEB, FIFBCML Conference on 'Laboratory Medicine: Meeting the Needs of Mediterranean Nations'
 - 14-21 October in Awka, Nigeria at the biennial meeting of the Association of Clinical Chemists of Nigeria. (a pre-recorded lecture using the software package Knovio)
 - 18-19 October in Zagreb, Croatia at the annual symposium of the European Organization for External Quality Assurance Providers in Laboratory Medicine (EQALM)



2. 14 November, 2018: Dr. Graham Beastall delivered a JCTLM lecture entitled ‘Traceability in laboratory medicine: a driver for accurate patient results’ to the *Conférence Générale des Poids et Mesures (CGPM)* in Versailles, France. This meeting, held once every four years, is important in determining priorities and funding for BIPM.
3. 29 November, 2018: 12th International Scientific Meeting of the Centre of Metrological Traceability in Laboratory Medicine (CIRME) “Every day is patient safety day”. Milano, ITALY.

Future JCTLM Meetings

- 2-3 December, 2019: JCTLM Members and Stakeholders Meeting, BIPM, Sévres.
- 4 December, 2019: JCTLM Database WG Meeting and JCTLM WG TEP, BIPM, Sévres
- 5-6 December, 2019 JCTLM Executive Committee Meeting, BIPM, Sévres.

Working Group 1 (GUM): The circulation for review of the first Committee Draft of the document JCGM 103, Guide to the expression of uncertainty in measurement — Developing and using measurement models has been initiated. This document has been prepared by the Joint Committee for Guides in Metrology, of which the IFCC is a member, specifically by Working Group 1. This document is now being circulated for review amongst the eight member organizations (BIPM, IEC, IFCC, ILAC, ISO, IUPAC, IUPAP and OIML), and to the Directors of National Metrology Institutes. The chair proposed to use the review process that the JCGM has used previously.

Working Group 2 (VIM): The number of members of JCGM-WG2 has expanded since the last JCGM meeting by 3, from 12 to 15, with new representatives from IUPAP (1), OIML (1), and IUPAC (2), and one representative leaving (ILAC).

The main technical activity of JCGM-WG2 in the period May 2017 – November 2018 has been to develop a ‘minimum change’ version of a first “committee draft” (CD) of the fourth edition of the VIM that more fully incorporates entries on nominal properties and, to a much lesser extent, ordinal properties. The definitions of ‘measurement’ and ‘measurement unit’ have been given careful consideration in this regard. A longer-term ‘evolutionary’ version of the VIM4 CD has also been under development. Status of these two versions of these VIM4 CDs were presented at the 3 December 2018 JCGM meeting.

Also to be discussed are publishing options of the VIM4 (e.g., electronic, hard copy, structure, languages).

Joint Research Center (JRC – formerly the Institute for Reference Materials and Measurements (IRMM))

Close collaboration with JRC continues through a number of joint ventures involving SD Committees and Working Groups. Within the JRC there are five Directorates. Directorate F is focused on Reference Materials. Reference materials are still a key area of focus of the JRC. The status of specific JRC reference materials activity is mostly covered under the respective Cs and WGs.

• Clinical and Laboratory Standards Institute (CLSI) (formerly NCCLS)

An updated list of joint CLSI/IFCC documents is available on the IFCC web site at: [http://www.ifcc.org/index.asp?cat=Publications&scat=CLSI_\(Clin_Lab_Stand_Inst\)_-_IFCC_Joint_Projects&rif=6&dove=1](http://www.ifcc.org/index.asp?cat=Publications&scat=CLSI_(Clin_Lab_Stand_Inst)_-_IFCC_Joint_Projects&rif=6&dove=1).

A project proposal was accepted by the CLSI Consensus Council for the update to EP28 (guidance document on Reference Ranges). This has direct implications to the Committee on Reference Intervals and Decision Limits (C-RIDL). As such, it is highly likely that Prof. Yeşim Özarda (chair of C-RIDL) will co-chair the CLSI Document Development Committee (DDC) for the revision to EP28.

- **National Institute of Standards and Technology (NIST)**

NIST continues to undertake a large number of projects, many of which are of considerable interest to IFCC. The NIST website (www.nist.gov) can provide information on materials and services available today.

The most relevant projects to the IFCC and SD are:

- Renewal of Troponin
- Vitamin D
- Albumin in urine

- **National Institute of Biological Standards and Controls (NIBSC)**

C. Burns serves as a Consultant to the SD. NIBSC successfully established 11 new WHO International Standards potentially of interest to the SD, including the first cell counting standard for CD4 enumeration. In addition, proposed 5 new standards projects to be endorsed by WHO.

- **European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)**

The EFLM Science Committee and SD leadership once again agreed there should be close liaison and communication between the two groups. Professor Eric Kilpatrick is the EFLM SC chair. The Science Committee is responsible for scientific matters within EFLM and projects which further the scientific development of EFLM. Activities of the Committee particularly focus on promotion of research that translates the scientific results of clinical chemistry and laboratory medicine to clinical applications and improves patient outcomes through the appropriate use and interpretation of laboratory data in clinical practice. Within the EFLM SC there are working groups on cardiac biomarkers, biological variation, test evaluation, personalized laboratory medicine and a number of others but the general consensus of the SD is that these activities do not overlap with the IFCC SD. Professor Philippe Gillery (SD chair) has been in contact with the chair of the EFLM SC. Approaches to avoid overlap and work collaboratively continue to be discussed and explored.

- **World Health Organization (WHO)**

The WHO meeting occurs each autumn. Professor Philippe Gillery attends and participates as the liaison from the SD. Dr. Chris Burns is also a full member of the WHO Expert Committee on Biological Standardization (ECBS) and attended the 2018 meeting. Much of the focus was on public health and emerging pathogens (Zika, Ebola, polio containment). The WHO changed the rules of who can come to the ECBS meeting with some restrictions. This should not have an effect on the IFCC. Much of the activities of ECBS are not relevant to the IFCC. The WHO has a different perspective with respect to metrology and as a result, commutability of some of the reference materials needs to be carefully considered.

- **Congresses (WorldLab, Regional and other congresses):**

There were no congresses during 2018. The SD will next present at EuroMedLab 2019 in Barcelona, Spain.

Activities of Committees and Working Groups

The Committees (Cs), which are theme-oriented, carry out much of the scientific and professional activities of the SD. Their work is often in close collaboration with other international organizations. For more specific tasks, the activities are usually accomplished through Working Groups (WGs).

COMMITTEES

- **C-Nomenclature, Properties and Units (C-NPU), Chair: Karin Toska (NO)**

As a reminder, in 2014 a formal agreement between IFCC and IUPAC was put in place. Wikipedia presence for the NPU was created 2015 (edited by the chair with input from many NPU members). The Wikipedia entry is a useful introduction: (<https://en.wikipedia.org/wiki/>



NPU_terminology) and the NPU Website is performing well.

The C has written a manuscript entitled: “Recommendation on measurement units - why and how” intended for submission in the electronic Journal of the International Federation of Clinical Chemistry and Laboratory Medicine.

In a current C-NPU activity, an online manual of NPU terminology is under development. The goal is to have a sort of encyclopedia for medical laboratory terminology that is accessible for any medical laboratorians. The project is funded by IUPAC (https://iupac.org/projects/project-details/?project_nr=2016-044-2-700). The project is in an iterative stage of establishing, reviewing and revising homepages.

The C plans to meet in Barcelona in conjunction with EuroMedLab 2019 and at the IUPAC meeting in Paris in July.

- **C-Molecular Diagnostics (C-MD), Chair: Deborah Payne (US)**

During 2018 ongoing progress towards C-MD’s terms of reference included:

Term of Reference 1. *To Foster dynamic exchanges between IFCC and molecular diagnostic laboratories and industry.*

Accomplishments Include:

1. Attendance at meetings/email
2. Updated website to include Nomenclature page
3. Proposed symposium to COLABIOCLI entitled “Quality Considerations for Molecular Diagnostics” was approved
4. Contacted two companies: Promega (<https://www.promega.com/>) and Oxford Gene Technology (<https://www.ogt.com/>) regarding harmonization and standardization projects for lower income countries
5. Communicated with chair of Nomenclature committee regarding C-MD efforts
6. Added additional webpage for Nomenclature to IFCC C-MD

List planned activities in 2019 for this Term of Reference

Develop surveys relevant to various areas of quality in molecular diagnostics and translate into more languages.

Present plenary session at COLABIOCLI entitled “Quality Considerations for Molecular Diagnostics”

Term of Reference 2. *To produce guidelines on clinical validation of tests, conduct and report on molecular diagnostic tests.*

Accomplishments Include:

1. Completed survey on reporting aspects of Molecular Diagnostics
2. Submitted paper and paper was accepted on harmonization of reports
3. Models for pre-emptive Pharmacogenetics in process
4. Opinion or research paper on Alternate Assessment and EQA in consideration

List planned activities in 2019 for this Term of Reference

Complete survey and prepare paper on results for survey on EQA, critical risk values, etc.

Develop checklist to assist with Alternate Assessment and sample AA summary report.

Term of Reference 3. *Creation of a network of locus-specific IFCC Molecular Diagnostics Centres*

Accomplishments Include:

1. Changed acceptance criteria for Expert laboratories
2. Engaged C-MD members to review articles in CCLM
3. Implement better monitoring and follow-up method for assessing participation of expert and network laboratories
4. Approved laboratories in Argentina, Austria, Canada, Germany, Iran, Japan, Mexico, Uruguay and USA as IFCC Expert Centers
5. Added additional expert laboratories to separate page of website

List planned activities in 2019 for this Term of Reference

Send out official certificates to expert centers.

Leverage knowledge of Network laboratories.

- **C-Traceability in Laboratory Medicine (C-TLM), Chair: Anja Kessler (DE)**

- During 2018 ongoing progress towards C-TLM terms of reference included:

Term of Reference 1. *To Support activities regarding Traceability in Laboratory Medicine, permitting IFCC to continue its international role in this area and providing an operating link between the SD and the WGs of the Joint Committee on Traceability in Laboratory Medicine (JCTLM), concerning identification of reference measurement procedures, reference materials and reference laboratories.*

Accomplishments include:

The members of the committee and the participants of the annual meeting have discussed their active contribution to the work of JCTLM (e.g. as review team members, author of web presentations) to establish and promote the concept of traceability.

The “Protein and Peptide Therapeutics and Diagnostics Workshop” (PPTD-2018) that was held at October 10-12, 2018 in Chengdu China under the auspices of the JCTLM. A series of lectures presented the elements of traceable reference systems. The chair of the C-TLM participated with a lecture on reference methods according to ISO 15193. It was also noteworthy that the results of RELA were cited in various lectures and act as support for the arguments of the speakers in terms of traceability.

As representative of the SD IFCC the chair of C-TLM participated at the annual meeting of the JCTLM Working Group “Database” and at the JCTLM Executive Board.

List planned activities in 2019 for this Term of Reference:

The committee will continue its activities in 2019.

Term of Reference 2. *RELA - External Quality Assessment Scheme for Reference Laboratories*
The C-TLM supports reference laboratories in the context of complete reference systems (accepted reference measurement procedures of higher order, reference materials, and reference laboratories) by establishing an External Quality Assessment Scheme (EQAS) for reference laboratories in order to monitor their competence.

Accomplishments include:

The results of RELA2017 have been evaluated and published (<http://www.dgklrfb.de:81>). The number of published results increased from 343 (RELA2016) to 412 (RELA2017). Especially laboratories from Europe and China are active in the project. The results were discussed in detail at the annual meeting.

The survey RELA2018 has been announced. The shipment of samples has been arranged at the beginning of November. About 515 orders from 53 laboratories are registered.

For listing at JCTLM database, laboratories look for an international scheme which provides survey for total hemoglobin regularly. Six (6) laboratories using different procedures have ordered the new RELA measurand total hemoglobin for participation. For this investigation, the material is not lyophilized and therefore, the stability is limited. As a result, the samples have to be sent out separately in January.

The committee discussed how to extend the RELA portfolio. The chair of C-TLM is in contact with the chair of WG-ID and offers the support to establish comparison studies with the newly developed methods in the future.

RELA is an important forum and the results of the surveys are a widely used data source for laboratories which intend to be listed at JCTLM, but also for laboratories developing new reference methods.

Planned activities in 2019 for this Term of Reference

The results of RELA2018 will be published in mid of 2019. The activities of RELA will be continued and extend.

Term of Reference 3. *To promote establishment and maintenance of IFCC reference laboratory*



networks for clinically relevant measurands.

Accomplishments include:

HbA1c Network

It is standard for the IFCC Network to organize two intercomparison studies a year. This was also done in 2018 with participation of all approved network laboratories and the designated comparison method networks in the US (NGSP/DCCT), Japan (JDS) and Sweden (MonoS). This year there were no candidate reference laboratories. One of the reference laboratories lost its approval status because no results were submitted. The Master Equations between the IFCC Reference Measurement Procedure and the designated comparison methods were confirmed again.

In July there was a network meeting during the AACC in Chicago. Only half of the laboratories attended and it was decided to investigate if network meetings should continue. Meanwhile this has been investigated and the majority expressed preference to continue. Therefore, the next meetings will be in Barcelona (EuroMedLab May 2019) and Seoul (WorldLab May 2020). Another topic was the criterion for approval of the network laboratories. A few had preference to remain at the 1.9 mmol/mol level and a few preferred the 1.2 mmol/mol criterion. The majority was in favor of tightening to 1.5 mmol/mol and that will be the criterion starting from 2019.

For educational activities the network is part of the IFCC C-EUBD. In 2019, lectures will be given during symposia at EuroMedLab (Barcelona) and Colabiocli (Panama). EurA1c, the multinational project in which national EQA organizers share two samples, was first organized in 2016 (results are published in Clin Chem 2018;64:1183-92 with an editorial in Clin Chem 2018;64:1131-2). The study was repeated in 2017 and 2018. The number of participating laboratories increased from 2000 in 2016 to 4000 in 2018. Due to the scale, the trial has a high impact; especially poor performing manufacturers feel pressure to improve their test (and thus better serve the diabetic patient).

Planned activities in 2019 for this Term of Reference

The HbA1c network will continue its activities in 2019.

Additional Information:

The participants of the annual meeting were asked to report about the present status of implementation of the concept of traceability in their countries. The different experiences and approaches initiate fruitful discussions and help to structure and improve the work of the committee.

It is planned to prepare a publication about the work of the C-TLM. Up till now the focus is still open. One proposal is to evaluate the results of accredited calibration laboratories against candidate laboratories towards their measurement uncertainties reported in RELA surveys.

• **C-Reference Intervals and Decision Limits (C-RIDL), Chair: Yeşim Özarda (TR)**

During 2018 ongoing progress towards C-RIDL terms of reference included:

Term of Reference 1. *Review current concepts of establishing reference intervals (RIs) and decision limits and to prepare state-of-the-art position statements regarding new avenues.*

Accomplishments include:

The review on behalf of the IFCC Committee on Reference Intervals and Decision Limits; **Indirect methods for reference interval determination – review and recommendations** was published in Clinical Chemistry and Laboratory Medicine (Clin Chem Lab Med 2018 Dec 19;57(1):20-29. doi: 10.1515/cclm-2018-0073.) to review the current concepts of establishing reference intervals. The indirect reference interval study in Turkey was completed to compare alternative approaches (comparing conventional and big data) for the determination of reference intervals with data obtained from the global study. The data from 7 geographical regions of Turkey were included to compare with the direct reference intervals.

The review on behalf of the IFCC Committee on Reference Intervals and Decision Limits; **Distinguishing reference intervals and clinical decision limits**, in 2018 Critical Reviews in Clinical Laboratory Sciences (CR in CLS, 2018, Vol 55 (6), 420-31) was published to review the



current concepts of clinical decision limits.

The attempts for updating the CLSI document EP28-28-A3 guideline was initiated as a CLSI-IFCC joint project to reflect these recent published works of C-RIDL. The chair of C-RIDL, Dr. Yesim Ozarda, has been appointed as the vice chairholder for the EP28 revision to ensure alignment and continuity. The main topics discussed in Budapest were the indirect reference intervals and clinical decision limits for the revision.

List planned activities in 2019 for this Term of Reference

The C-RIDL will focus on working on the revision to CLSI document EP28 in 2019. During the C-RIDL meeting in Barcelona, the group will discuss and work on the revision.

Term of Reference 2. *To make available reference intervals and decision limits that respects the requirements of international directives such as the European IVD Directive 98/79, and relevant ISO standards.*

Accomplishments include:

The results of Global Reference Intervals Study performed by C-RIDL were previously downloaded on the web-page: **“A global multicenter study on reference values” Part 1: Assessment of methods for derivation and comparison of reference intervals, Part 2: Exploration of sources of variation across the countries.** The country-specific reference intervals were derived for China, Japan, Turkey, Russia, UK, USA, Saudi Arabia, Argentina, India, Philippines, South Africa, and Pakistan and related analyses on reference values were carried out and the comparison of the reference values across 12 countries after alignment based on the panel test results was fully described in these papers.

List planned activities in 2019 for this Term of Reference

The findings of the indirect reference interval study of biochemical parameters will be compared with the results of Global Reference Interval Study and the comparative data will be given in a publication and also on the web-page.

Term of Reference 3. *To determine priority list of measurands (analytes) for which reference intervals and/or decision limits have to be developed, considering various factors, such as age, gender, ethnicity, and for which the greatest improvements in medical decision making are anticipated*

Accomplishments include:

The previous studies performed by C-RIDL were on the most commonly used tests in the clinical laboratories for the adult age group in females and males. The main age was 18-65 years, although older healthy individuals were also included. The list of analytes were published by CCA and age-related changes in the reference values were nearly consistent across the participating 12 countries. As Turkey was an important part of the Global Reference Intervals study including more than 3000 healthy individuals, the indirect reference intervals study was performed in Turkey to compare the direct data obtained from the global study with the indirect data conducted in Turkey.

List planned activities in 2019 for this Term of Reference

The comparison with the direct data obtained from the global study and indirect data will be published in 2019.

Term of Reference 4. *To monitor and evaluate currently proposed reference intervals for selected measurands (analytes) in the light of the concept of traceability and of the identification of the uncertainty.*

Accomplishments include:

No action was taken on this Term of Reference.

List planned activities in 2019 for this Term of Reference

Not planned.

Term of Reference 5. *Establish transferability protocols of reference intervals and decision limits, which take into consideration inter-routine laboratory method variations and achieve better applicability in clinical practice.*

Accomplishments include:





The chair, Yesim Ozarda published an opinion paper with Khosrow Adeli titled **Verification of reference intervals in routine clinical laboratories: practical challenges and recommendations**, which the transference and verification protocols of reference intervals were discussed and taken into consideration with respect to inter-routine laboratory method variations to achieve better applicability in clinical practice.

List planned activities in 2019 for this Term of Reference

Not planned.

Term of Reference 6. *To collaborate with other organizations and/or to undertake establishment of reference intervals or decision limits for measurands (analytes) identified as a priority.*

Accomplishments include:

A member of C-RIDL, Thomas Streichert from Germany, is also a member of the German Association of Clinical Chemistry and Laboratory Medicine (DKLG), and he introduced their current projects namely, 'Integration of indirect reference intervals into laboratory information systems and pediatric reference intervals using Reference Limit Estimator' at the Budapest meeting.

List planned activities in 2019 for this Term of Reference

The indirect reference intervals data obtained by C-RIDL will also be evaluated by the method introduced by DKLG known as the 'Reference Limit Estimator'. In this way, the indirect reference intervals methods (Bhattacharya, Hoffman, Reference Limit Estimator, etc.) will be compared.

Term of Reference 7. *Work in close collaboration with other Cs and WGs of SD and other IFCC Divisions for the development and appropriate clinical utilization of reference intervals and decision limits.*

Accomplishments include:

In the indirect reference intervals study, also the data for the pediatric age group was evaluated.

List planned activities in 2019 for this Term of Reference

An attempt will be made to collaborate with the Task Force for Paediatric Laboratory Medicine for the comparison of reference intervals between adult and pediatric populations.

Additional Information

Chair of C-RIDL, Yesim Ozarda spoke on Personalized Reference Intervals at the 5th joint EFLM-UEMS Congress on Oct 10-13, 2018 in Antalya, Turkey.

• **C-Standardization of Thyroid Function Tests (C-STFT), Chair: Hubert Vesper (US)**

During 2018 ongoing progress towards C-STFT terms of reference included:

Term of Reference 1. *Establish a system to maintain traceability of free thyroid hormone and TSH measurements.*

Accomplishments include:

1. The new chair of the committee was informed on the repository samples available and the strategy on the use of these samples. Samples locations were consolidated by moving those at Solomon Research Park to NIBSC. At NIBSC different sets for the follow-up panels were consolidated.
2. The UGent assessed the ruggedness of the free T4 RMP by validating modifications to the design of the equilibrium dialysis cells and the membranes.
3. A network of FT4 reference laboratories is being established that includes four labs in Japan, The Netherlands, Belgium and the USA. The first method comparison was completed. The results can be summarized as followed: The correlation of the 4 lab results to the overall mean is very good, the RMP SOP can be reproduced in different labs. The mean bias of labs is within $\pm 2.5\%$ bias, but there is room for improvement. Labs show consistent bias across the concentration range, and this indicates calibration differences rather than sample related issues.

List planned activities in 2019 for this Term of Reference

1. The second phase of the stability study of the free T4 standardization and TSH harmonization panels is on-going and will be followed-up.



2. The reference laboratory network members will:
 - Improve the calibration status of network laboratories. The CDC will prepare calibrators for common use. The calibrators will be aliquoted in ampules. The concentration will be verified using Q NMR in order to have an independent assessment of the concentration. The goal at the end of 2018 is to ship the ampules to the different laboratories. The purpose is to get the systematic bias between the candidate reference laboratories to less than 2%.
 - Refine RMP SOP based on feedback from network members to facilitate setup and implementation of the RMP in other labs.
 - After these tasks are completed, a new method comparison will be performed. This new study will include samples in the hypo- and hyperthyroid concentration range. This new study is planned to be completed by 3rd or 4th quarter of 2019.
 - Define protocol for maintaining the network and for enrolling new candidate members. A first draft of the protocol is planned to be developed for review first half of 2019. The network will serve as a point of reference; each network laboratory will serve as reference laboratory for his/her region.
3. Serum materials for the Network and a third TSH-panel will be collected to ensure continuity of TSH harmonization and of the Network accuracy basis.
 - The C will send out a questionnaire in the first quarter of 2019 seeking for (a) (more) collection sites and (b) support from industry
 - The C will collect more samples in order to have panels for calibration and for verifying calibration for those doing reference interval studies.
 - The targets will be set by the same 4 laboratories as for the previous panels.

Term of Reference 2. *Coordinate programs to evaluate free thyroid and TSH assays with regards to their analytical performance.*

Accomplishments include:

C-STFT worked with the CDC Clinical Standardization Programs to ensure that reference measurements performed at CDC are in line with those at IFCC.

List planned activities in 2019 for this Term of Reference

1. An inventory of reference systems and standardization activities for FT4 and TSH will be created.
2. Relevant stakeholders will be contacted to align local or regional standardization activities with those of the IFCC.

Term of Reference 3. *Develop reference intervals for free thyroid hormones and TSH.*

Accomplishments include:

1. A project to develop Japanese reference intervals was discussed and a decision on the design of the study was made.
2. Possible collaborations with other groups or organizations to develop regional reference ranges (i.e., EUThyroid, US NHANES) was explored.

List planned activities in 2019 for this Term of Reference

1. C-STFT will continue to support the project to develop Japanese reference intervals. Samples will likely be distributed before summer next year. There is interest from other regions (Croatia and India) to set-up similar projects.
2. C-STFT will continue to work with stakeholders in the US, Europe and other regions to define reference populations to better describe the challenges and to support work to establish reference intervals that are linked to the reference system established at IFCC.
3. The C will work on a guidance document to help with linking reference range studies to the IFCC reference system. This should include information on what kind of population to test and how to calibrate the assays. A draft of the guidance document is planned to be completed by end of 2019.
4. The committee will reach out to NHANES and the EUthyroid-project to assess if these studies and data sources can be used for developing reference ranges.
5. The committee agreed that it will be important to have separate reference ranges in

children and pregnant women. These challenges can be addressed once the network is established and operational.

Term of Reference 4. Liaise with key stakeholders to promote the use of the standardized assays in routine clinical practice and public health, to ensure analytical performance requirements meet clinical needs, and to help with developing and establishing reference intervals.

Accomplishments include:

1. Presentations were given at the AACC Annual Scientific Meeting & Clinical Lab Expo in Chicago, IL July 29 – August 2, 2018 – the work of the C-STFT was presented in the scientific session on Accurate Measurement of Thyroid Hormones in Disease and Pregnancy held on August 1 2018.
2. A workshop was given at the same AACC meeting to manufacturers and stakeholders
3. Information about the IFCC C-STFT was shared and coordinated with the educational activities conducted by the CDC.

List planned activities in 2019 for this Term of Reference

1. The activities of the previous committee will be continued and be expanded to stakeholders not yet reached. Educational activities will be coordinated with those of other organizations to ensure consistent messaging and to make efficient use of resources. Committee members were encouraged to identify meetings in their region.
2. The committee will revise slides for members to be used at meetings and conferences.
3. To update the C website, members will seek input from all stakeholders. A call for suggested edits will be sent out first quarter of 2019. Especially the tabs “patients” and “clinicians” can be more educative. The C will also look into the translation of the existing information into other languages in order to more easily disseminate information about our work. Once the websites are revised, the C will approach individuals from certain regions to help with translation.
4. The C will compile Professor Thienpont’s survey on the impact of standardization/harmonization for laboratories and assay manufacturers. The compilation will be made available to relevant stakeholders.

Additional Information:

The new committee chair (Dr. Hubert Vesper) is in place since 30/03/2018; hence the report above summarizes the revised terms of reference and current plans for the future. Work in progress from the previous committee is also listed.

• **C-Harmonization of Autoantibody Test (C-HAT), Chair: Joanna Sheldon (UK)**

During 2018 ongoing progress towards C-HAT terms of reference included:

Term of Reference 1. *To evaluate what are the main causes of variability for a number of diagnostically critical autoantibodies.*

Accomplishments include:

The C-HAT working with the JRC have sent samples to Dr. Ulrich Specks from the Mayo Clinic for epitope mapping studies of the reactivity of ERM DA 476/IFCC and ERM DA 483/IFCC. The preliminary report suggests that both reference preparations have reactivity against the major epitopes of the relevant antigens. Further details of the epitope mapping studies are expected and we hope to report them at the C-HAT meeting in Barcelona in May 2019.

Term of Reference 2. *To identify autoantibodies where a common calibrator could reduce the inter-assay variability.*

Accomplishments include:

IgG anti glomerular basement membrane is the next antibody where the C is planning to prepare a certified reference preparation. The committee is currently trying to source additional raw material for the reference material; a letter was sent from the C chair and Prof. Philippe Gillery to Dr Mauro Moreno, Direttore Sanitario, ASST Santi Paolo e Carlo Sede Legale, Milan Italy and are awaiting a reply.

IgG and IgA anti TTG antibodies are generally considered to be the next important antigens



where a common reference material would be beneficial. This will be discussed at a phone conference in January 2019 to plan next steps.

Term of Reference 3. *To identify or produce commutable materials that could be used as interim calibration material for autoantibody assays*

Accomplishments include:

A further commutability study for B2GP1 candidate reference material has given some challenging results and a suitable way forward is unclear. It may not be possible to assign values in mg/L of IgG against B2 glycoprotein 1 and may need an alternative approach. Currently, C-HAT is exploring the possibility of working with the WHO (or their agents e.g. NIBSC) to assign values in arbitrary or international units.

List planned activities in 2019 for this Term of Reference

FDA and CE

The widespread adoption of these reference materials depends on them having FDA approval and without this, companies have little incentive to use them. The chair had useful discussions with the FDA at AACC in Chicago. The comparability of each INDIVIDUAL method with the FDA predicate method seems to be the most important component of FDA approval rather than comparability between methods. Further discussions with companies to encourage FDA submission to incorporate the new IRPs must take place in 2019.

Education

Information to guide companies on how to transfer values from ERM-DA476/IFCC to their local or kit calibrators is in preparation.

The C is preparing information packs and presentations. These may be used by companies and providers of the service to show the value of a certified reference preparation and to ensure there is a consistent message about ERM-DA476/IFCC and ERM DA 483/IFCC. Information will also be included about how best to implement these changes. It has been suggested that companies continue to advise reporting in their current units but give the users the option of recording data in mg/L – this will be important to gather the data towards any FDA 510k submissions.

EQA

The transition towards adoption of the CRMs will have an impact on EQA providers and generally these organisations are very supportive of adopting the CRMs. UKNEQAS and the Royal College of Pathologists of Australia Quality Assurance Programme have both expressed an interest in encouraging use of the new CRMs.

Communication

The interaction with the FDA are central to being able to promote the use of the new CRMs and this must be the focus of our activities. Until the use of ERM-DA476/IFCC and ERM DA 483/IFCC are embedded into the kit documentation, further communication with other bodies will be difficult.

Time scale

ERM-DA476/IFCC and ERM DA 483/IFCC are both available. Companies may use it to assign values to their kit standards in mg/L in addition to their usual units.

The incorporation of ERM-DA476/IFCC and ERM DA 483/IFCC into pack information will be a major task for companies - it is likely that this will take some years.

Further projects:

Anti GBM antibodies – the C is currently sourcing material

Anti TTG antibodies – there have been strong requests to make a reference material for IgG and IgA anti tissue transglutaminase antibodies. This is likely to be the next autoantibody target for which a reference material is prepared.

Term of Reference 4. *To produce well-characterized pure antibody preparations with known concentration and identity and use these to transfer values to a matrix preparation*

Accomplishments include:

The preparation of pure antibody preparations with known concentration is embedded in the





value assignment process.

Term of Reference 5. To evaluate the impact of new reference material on the variability of autoantibody tests and identify areas where further harmonization would improve diagnostic accuracy.

Accomplishments include:

The C is in discussion with UKNEQAS and the Royal College of Pathologists of Australasia Quality Assurance Programs.

Additional Information:

Companies generously supported these studies were:

AESKU Diagnostics, Bio-Rad Laboratories, DAKO, EUROIMMUN, EuroDiagnostics, IMMCO Diagnostics, INOVA Diagnostics, Phadia / Thermo Fisher Scientific, Roche Diagnostics, Siemens Healthcare Diagnostics Products and Staten Serum Institute.

The C specifically encourages all companies not currently members of the IFCC to become corporate members both in letter and in presentations.

WORKING GROUPS

- **WG-Standardization of Hemoglobin A₂ (WG-SHbA₂), Chair: Andrea Mosca (IT)**

During 2018 ongoing progress towards WG-HbA₂ terms of reference included:

Term of Reference 1. *Definition of a reference measurement procedure for haemoglobin A₂.*

Accomplishments include:

A paper describing the principle of the RMP based on isotopic dilution and mass spectrometry and its preliminary validation has been published in Clin Chim Acta. (see Publications section)

List planned activities in 2019 for this Term of Reference

The RMP will be implemented in the third MS lab of the WG (Dr. Quinde Liu, Singapore). A final validation will be performed, in order to publish the RMP as an official IFCC reference method, after approval by the Scientific Division and further ballot among the Corporate National Societies.

Term of Reference 2. *Development of a secondary certified reference material (CRM) for hemoglobin A₂ (in cooperation with the JRC).*

Accomplishments include:

The JRC approved the start of this project and has recently nominated a project responsible person (Dr. Guy Auclair). A first conference call has been held in December.

List planned activities in 2019 for this Term of Reference

Preparing a preliminary batch of lyophilized material directly in Geel, testing different containers (ampoules, vials). Homogeneity and stability studies will be planned. A couple of suppliers for whole blood will be tested in order to validate their reliability in collecting and shipping fresh whole blood to be processed for the preparation of the CRM.

- **WG-Standardization of Carbohydrate-Deficient Transferrin (WG-CDT), Chair: Jean Deenmamode (UK)**

During 2018 ongoing progress towards WG-CDT terms of reference included:

Term of Reference 1. *Promoting the use of the HPLC reference measurement procedure (RMP) as the accuracy base for CDT test standardization*

Accomplishments include:

Some members of the WG have been in contact with other groups in Europe, with a focus on CDT, in Europe to participate as network laboratories by using the HPLC RMP.

List planned activities in 2019 for this Term of Reference:

Further participants will be sought globally. Maintenance of further progress in the setup of the RMP at interested sites to cover the Asian and African continents will be pursued. Raising further awareness in using the RMP to other groups involved with CDT will also be done.

Term of Reference 2. *Maintaining sustainability of an international network of laboratories*

Accomplishments include:

Sustainability and performance of network laboratories and participating commercial manufacturers are assessed by the yearly distribution of IFCC calibrators, controls and blind samples from Dr. Weycamp's laboratory.

Laboratory performance is assessed on a pass/fail criterion and HPLC RMP performance is assessed in further detail by Dr. Schellenberg.

List planned activities in 2019 for this Term of Reference

All relevant parties were notified to register for participation by 1st Dec 2018.

IFCC CDT blind samples will be distributed at the end of Jan 2019. Results of participation will follow and discussed in detail at the WG-CDT meeting on 19th May 2019 in Barcelona in conjunction with EuroMedLab.

Term of Reference 3. *Supporting the worldwide standardization of commercial methods against the RMP*

Accomplishments include:

Most participating commercial CDT manufacturers have achieved positive results towards CDT_{IFCC} and have launched respective assays.

List planned activities in 2019 for this Term of Reference

Continue to assist the remaining commercial participants in successfully achieving the CDT_{IFCC} goal.

The WG will endeavour to support the transition from classical CDT to CDT_{IFCC}.

Term of Reference 4. *Offering consultation concerning use of biomarkers of alcoholism towards national and international agencies.*

Accomplishments include:

Generally, a local or extended activity initiated primarily by a member of the WG. The process has been in place with better success in Sweden and the Netherlands. Similar efforts are progress in the UK with certain agencies, in Asia with commercial airline carriers and aviation medicine and in Mauritius with Government advisors in road safety.

List planned activities in 2019 for this Term of Reference

To maintain the above activities ongoing in other countries. Furthermore, to communicate directly with full and affiliate member societies listed on the IFCC WG-CDT web page for assistance and suggestions in their respected countries.

Additional Information:

- Two further terms:
 - Providing scientific support for the production and delivery of authorized CRM:
 - Actively supporting other sites interested towards introducing the RMP as part of the network laboratories
 - Supporting the development of guidelines for clinical use of CDT assays:
 - Work in progress
- Current Projects:
 - Promoting the use of the HPLC reference measurement procedure (RMP) as the accuracy base for CDT test standardization
 - Maintaining an international network of reference laboratories
 - Supporting the worldwide standardization of commercial methods against the RMP
 - JCTLM nomination in progress with decision expected during 2019.
-
- **WG-Standardization of Albumin Assay in Urine (WG-SAU) (a joint committee with the Laboratory Working Group (LWG) of the National Kidney Disease Education Program (NKDEP) - USA), Chair: Lorin Bachmann (US)** During 2018 ongoing progress towards WG-SAU terms of reference included:

Terms of Reference 1. *Status of harmonization among commercial immunoassays for UA (funded by NKDEP).*

Accomplishments include:



The objectives of this project are to: 1.) Assess current status of harmonization of routine measurement procedures versus ID-LCMS candidate reference measurement procedure using native patient samples; 2.) Evaluate analytical performance characteristics of urine albumin measurement procedures; 3.) Evaluate commutability characteristics of the Japan Society for Clinical Chemistry (JSCC) and diluted IRMM ERM-DA470k/IFCC reference materials; and 4.) Assess utility of candidate reference materials for use in standardization of routine measurement procedures. Findings were published in Bachmann LM, Nilsson G, Bruns DE, McQueen MJ, Lieske JC, Zakowski JJ, Miller WG. State of the Art for Measurement of Urine Albumin: Comparison of Routine Measurement Procedures to Isotope Dilution Tandem Mass Spectrometry. Clin Chem 2014; 60:471-480.

A freeze-thaw study was performed using 66 pairs of unfrozen and frozen freshly collected, native urine samples to determine the effects of a single freeze-thaw cycle urine on albumin results. Samples spanning the concentration range of 15 – 1,000 mg/L were included in the study. Samples were centrifuged and one aliquot was stored at 2-8C and the other was frozen at -70C for a minimum of 66hrs. The non-frozen and frozen aliquots were shipped to 10 manufacturers for albumin measurement. Median bias for frozen vs. non-frozen samples was < 1.2% for all methods tested suggesting that frozen samples may be used for the commutability studies. However, outlier samples were observed with biases that exceeded 10%. Formal statistical analysis is in process.

List planned activities in 2019 for this Term of Reference

A manuscript for the UA freeze/thaw study is under preparation that will be submitted to CCLM or JALM.

Terms of Reference 2. *Reference measurement procedure for UA (funded by NKDEP and NIST)*

Accomplishments include:

Candidate isotope dilution liquid chromatography tandem mass spectrometry (ID-LC-MS/MS) reference measurement procedures for UA are under development by the Mayo Clinic Renal Testing Laboratory (John Lieske), University of Minnesota Advanced Research Diagnostic Laboratory (Jesse Seegmiller) and NIST (Ashley Beasley). NIST and Mayo have performed multiple comparison studies between the two candidate reference measurement procedures. There were some unexplained discrepancies that are under investigation.

Jesse Seegmiller (Univ of Minnesota) and John Lieske (Mayo) are developing a publically available reference measurement procedure for UA. To pursue this goal, Univ of Minn has received NKDEP funding to prepare 15N human albumin for use as an internal standard for method development. Additional funding from NKDEP has been provided to enable development and method validation of the Univ of Minnesota and Mayo reference measurement procedures, with the goal of submitting the reference measurement procedure to JCTLM and making reference measurement procedure services available to IVD manufacturers for metrological traceability of clinical laboratory measurement procedures.

NIST and Mayo continued to perform development of their candidate reference measurement procedures and conducted planning sessions for validation and JCTLM submission. Monthly conference calls were conducted beginning in September between NIST, Mayo, Univ of Minnesota and LWG and WG-SAU chairs. The plan for further development and validation of the reference measurement procedures according to ISO standards was discussed, including a discussion of appropriate experiments for interference assessment.

List planned activities in 2019 for this Term of Reference

NIST obtained IRB approval for use of human samples; therefore comparison studies with Mayo has recommenced. NIST and Mayo will continue to develop and validate their reference measurement procedures and will work identifying sources of disagreement among the methods. The Univ of Minnesota is collaborating with Mayo to actively pursue development of a LC-MS/MS candidate reference measurement procedure in accordance with ISO 15193 and other relevant standards for the purpose of JCTLM listing.

Term of Reference 3. *Reference materials for UA and urine creatinine*

Accomplishments include:

SRM 2925 Human Serum Albumin from NIST is a primary certified reference material for use with higher order reference measurement procedures for albumin. It is a solution of recombinant human serum albumin (~1 g/L). Value assignment is by amino acid analysis using ID-LC-MS/MS. The material is not yet available on the NIST website but is available for use in the development of the reference measurement procedures.

To facilitate standardization of routine methods, NIST SRM 3666 is currently being developed based on the specifications recommended by the WG-SAU and the LWG of the NKDEP. The NIST Albumin in Human Frozen Urine standard reference material (SRM 3666) will be pooled urine collected from human subjects with four urinary albumin levels: 5-10 mg/L, 20-50 mg/L, 60-180 mg/L, 275-375 mg/L. All four levels of pooled urine will be available frozen, in 1 mL aliquot volumes. Once developed, a commutability assessment of the materials will be conducted.

List planned activities in 2019 for this Term of Reference

The acquisition of frozen pooled urine samples for preparation of NIST SRM 3666 has been completed as of December 2018. The individual urine samples that comprise each level of NIST SRM 3666 are in the process of being shipped to Solomon and Park for vialing and pooling. The materials will then be value assigned by NIST. The WG-SAU will continue to facilitate development of NIST SRM 3666.

- WG-Standardization of Pregnancy-associated Plasma Protein A (WG-PAPP A), Chair: Saara Wittfooth (UK)

During 2018 ongoing progress towards WG-PAPPA terms of reference included:

Term of Reference 1: *To develop a reference system for standardization of PAPP-A measurement employed as marker for prenatal screening*

Accomplishments include:

- Pregnancy serum-based materials diluted in different diluent matrices were tested by various assay systems of the participating companies.
- Both 2nd trimester and 3rd trimester serum pools were found suitable as reference materials to provide better agreement among the commercial assays.
- Calf serum, human serum and company-specific diluent were shown preliminarily suitable as the diluent.
- The commercial assays were confirmed to detect similarly endogenous PAPP-A in different forms.

List planned activities in 2019 for this Term of Reference

- Preparing detailed plans for the continuation of the work described above.
- Identification or preparation of pregnancy-serum based material to be made available as the certified reference material for PAPP-A.
- Testing the selected material/materials with assays from manufacturers and assignment of PAPP-A value for this material.

- **WG-Growth Hormone (WG-GH), Chair Eef Lentjes (NL)**

The overall goal of the WG-GH is to achieve standardization of growth hormone through secondary reference materials and a reference measurement procedure. To achieve this goal a harmonization study was done, in which several pooled serum samples were tested for commutability. In this study different calibrators were made by pooling samples from apparently healthy persons, or patients (adults or children) to assess for commutability. In addition, IS 98/574 was diluted in GH deficient serum. All calibrators were prepared in two different concentrations: about 10 and 40 mU/L or 3.3 and 13.3 ng/mL respectively. Measurements by LCMSMS are still unavailable. However, results from all immunoassay methods were processed and have been sent to the members of the working group together with a proposal for the future direction of investigation.





Future directions: The most important change of approach will be the use of more fresh samples, in order to keep the native forms of GH preserved in the samples.

A commutability study will be repeated with 30 patient samples and two IS 98/574 and five healthy donor calibrators. All available methods that are in use for routine GH measurements will be included in the study - at a minimum: Immulite 1000 (Siemens Healthcare), Cobas E411 (Roche), DXi (Beckman), Liaison (DiaSorin), and iSYS (IDL).

- **WG-Standardization of Insulin Assays (WG-SIA)**

During 2018 ongoing progress towards WG-SIA terms of reference included:

Term of Reference 1. *To improve the standardization of assays for insulin by the development of a candidate reference method and materials.*

Accomplishments include:

1. Ongoing development and validation of MS/MS method for intact insulin at University of Minnesota. A method has been established and undergoing minor modifications to ensure appropriate analytical sensitivity.
2. Continued discussions and collaborations with other laboratories developing insulin methods by mass spectrometry (Quest Diagnostics, Mayo Clinic). The WG plans to sustain these efforts to evolve potential additional reference method procedures in these laboratories.
3. In collaboration with the College of American Pathologists (CAP), established criteria for ongoing accuracy based evaluation of serum pools for testing of insulin, C-peptide, and glucose. This accuracy based survey can be sent globally and utilized to demonstrate ongoing state of harmonization and standardization of insulin assays (as well as C-peptide assays).

List planned activities in 2019 for this Term of Reference:

Continued validation of an appropriate intact insulin assay via LC-MS/MS that meets all analytical and clinical specifications for insulin testing. Specific focus on improving the low end analytical sensitivity and ensuring the method has high analytical specificity. The chairs meets monthly with the development group at the University of Minnesota to review validation progress.

Term of Reference 2. *Establish availability of pure recombinant human insulin as a Reference Material (RM) for insulin assays and have the RM listed by JCTLM.*

Accomplishments include:

A new reference material is available from the NIBSC. Continue collaboration with Dr. Chris Burns, Dr. Gwen Wark, and colleagues at NIBSC to evaluate and assist with validation of new recombinant insulin candidate reference material.

List planned activities in 2019 for this Term of Reference:

This reference material will be used to calibrate the insulin LC-MS/MS method at the University of Minnesota, which can then be utilized as the reference method and listed by JCTLM.

Term of Reference 3. *Continue a program to collect serum samples (and serum pools) as needed for assignment of IDMS values and a biobank which could be utilized collaboratively by the WG-SIA and C-peptide Standardization Group. These materials will sustain the program to harmonize results from manufacturers of insulin assays.*

Accomplishments include:

Serum samples are bio-banked in -80C freezers at the University of Minnesota. Specimens were used to compare between a few existing insulin and C-peptide LC-MS/MS methods.

List planned activities in 2019 for this Term of Reference:

Continued involvement with evaluation of methods and comparability between platforms. Existing serum pools will be used to compare results between the new LC-MS/MS RM and original results which have concentrations assigned from Dr. Linda Thienpont's laboratory.

Additional Information:

The C appreciates the sustained support from the IFCC, as the WG intends to make significant strides towards achieving a candidate reference method in the upcoming year and calibrating it against the NIBSC reference material.

Upcoming plans still in discussion:

Peer-reviewed publications regarding either insulin/c-peptide serum pool data across hundreds of laboratories/assays and/or lack of harmonized conversion factor across insulin assays.

- **WG-Standardization of Troponin I (WG-TNI), Chair: Robert Christenson (US)**

During 2018 ongoing progress towards WG-TNI terms of reference included:

Term of Reference 1: *Development of a candidate secondary reference measurement procedure for cardiac troponin I.*

Accomplishments include:

- The commutable set of Reference Materials (RM) for cardiac troponin I (TnI) has been coined RM 2922. At this stage of technology development, the material will be a RM rather than a Standardized RM (SRM) because the mass spectrometry methodology/technology for appropriate assignment of values to RM 2922 does not yet have the sensitivity and characteristics required.
- The Workgroup has finalized the protocol for collecting the ‘raw materials’ for RM 2922 samples from patients with myocardial infarction having appropriate TnI concentrations.
- To minimize the health risks associated with use of the RM 2922, subjects from whom the raw materials come from will be tested for Infectious disease (ID) markers. To do this, one 0.5mL aliquot from each subject will be tested for IDs using US FDA cleared tests for HIV, HepA, HepB, HepC. Samples from any subject that has evidence of infection in their serum will not be used to constitute RM 2922.
- Subject samples will be pooled and used to develop four (4) levels: 1. Level A >LOQ but < female 99%; 2. Level B ~99% male + 20%; 3. Level C ~ (5 X 99% of males); 4. Level D will challenge the assay range, e.g. ~12,000 ng/L.
- The WG-TNI will continue to work with NIST and worldwide metrology groups, academic experts and industry partners toward development of the commutable secondary standard material.

List planned activities in 2019 for this Term of Reference

- Complete recruitment of subjects and collection of the appropriate samples.
- Transfer the samples to NIST
- Oversee blending and aliquoting by vendor

Term of Reference 2: *Development of a candidate secondary reference material for cardiac troponin I* **Accomplishments include:**

- Initiated collection of patient samples for use in developing a commutable secondary standard using the WG-TnI developed protocol.
- Currently have 25 mL of serum stored at -80°C from 12 subjects with elevated cTnI concentrations. Anticipate that ~35 more are needed.
- Working closely with Dr. Lowenthal and knowledgeable academic and industry scientists with experience with cTnI assays, a source for the ‘normal’ serum to be blended with the cTnI-containing subject samples has been identified.
- WG-TNI is working together to finalize arrangements with the contractor for blending the material and aliquoting the four (4) RM concentrations into 0.5 mL vials each
- RM 2922 will be distributed by NIST.

List planned activities in 2019 for this Term of Reference

- Select and contract with the groups for blending and aliquoting the materials.
- Transfer the subject materials to the contractors.
- Transfer the aliquots of RM 2922 to NIST.

Term of Reference 3: *Conduct a round robin study to assess cTnI standardization and initiate validation among commercial cTnI assays*

Accomplishments include:

- The WG is in the process of designing a Round Robin Study for high sensitivity (hs)cTnI methods using common pools of commutable samples.
- Dr. Robert Payne, an extremely well respected scientist from Siemens with vast experience





in developing hsTnI assays, has agreed to spearhead this activity.

- The material for the round robin will be made with de-identified human samples from Dr. Christenson's laboratory.
- All manufacturers with hsTnI assays will be invited to participate. The group will also invite Roche (5th GEN TnT) to participate.
- A primary objective will be to reflect the relationships between the hsTnI methods.

List planned activities in 2019 for this Term of Reference

- Collect the round robin samples from Dr. Christenson's laboratory with appropriate IRB (Ethics Board) approval.
- Assure that the human samples to be used are negative for ID hazards.
- Transfer samples to Dr. Payne's laboratory for production of the commutable round robin samples.
- Recruit manufacturers of hsTnI assays to participate.
- Ship the samples to the manufacturers
- Collate round robin data.
- Present data at scientific venues.
- Prepare a manuscript to promulgate the round robin results.

Additional Information:

There are four activities that are being planned:

- The production of an app' will be explored. This app would make available evidence of the general relationship of the various hsTnI assays from the round robin activity.
- With many thanks to Prof. Cobbeart, contact has been made with the Maastricht cardiac biomarker group that has investigated early release of various cTnI subforms. The purpose of this possible collaboration is to discuss a project in which the subforms of TnI in acute myocardial infarction versus chronic disease are investigated. Characteristics of the various hsTnI with acute injury versus chronic forms of heart disease would be defined.
- Progress on developing a commutable reference material will be presented at scientific meetings.
- Currently the technology does not exist for developing and properly defining a TnI SRM. The workgroup will continue to discuss what material should be focused on for use in development of an SRM in the future.

• WG-Parathyroid Hormone (WG-PTH), Chair: Cathie Sturgeon (UK)

During 2018 the ongoing progress towards WG-PTH terms of reference included: The WG continues to work on developing a reference system for PTH. Currently, activities are focused in three areas:

Term of Reference 1. *Collaborative educational effort to encourage worldwide implementation of PTH IS 95/646 and to assess the effect of this on between-method agreement.*

Accomplishments include:

The importance of establishing whether PTH IS 95/646 is commutable (see also Term of Reference 2) and improving between-method agreement has been highlighted to audiences at several national and international conferences. [Please see Additional Information section.]

A protocol for the planned commutability study has been circulated to supporters of the Working Group. The helpful and positive comments from those who have responded are being collated and reminders are being sent to those who have not yet replied.

Arrangements for specimen collection and processing are being made with the intention of having results available for review during the EuroMedLab meeting in Barcelona.

List planned activities in 2019 for this Term of Reference:

Activities in 2019 for this Term of Reference will be the responsibility of the new IFCC Bone Markers Committee.

Term of Reference 2. *Definition of inclusion/exclusion requirements for an appropriate panel of sera and plasma with which to establish reference intervals and establishment of such a panel*

with support from the clinical community and diagnostics manufacturers.

Accomplishments include:

Requirements for the reference panel are expected to be similar to those for the commutability study.

List planned activities in 2019 for this Term of Reference

Activities in 2019 for this Term of Reference will be the responsibility of the new IFCC Bone Markers Committee.

Term of Reference 3. *Development of a reference measurement procedure for PTH(1-84) to a standard that would enable its adoption by the IFCC reference laboratory network.*

Accomplishments include:

Considerable progress was made in 2018 to increase the analytical sensitivity of the candidate reference measurement procedure for PTH(1-84) that is being developed at the CDC laboratory in Atlanta under the direction of Dr Hubert Vesper. Analytical sensitivity of the candidate RMP now approaches that of immunoassay methods. Preliminary results with the method show promise for the accurate and reliable quantification of intact PTH and related fragments without enzymatic digestion. The latter represents a major step toward improving understanding of what is being measured as “PTH”.

List planned activities in 2019 for this Term of Reference

Activities in 2019 for this Term of Reference will be the responsibility of the new IFCC Bone Markers Committee.

Additional Information:

Presentations made during 2018 by the Chair that have described the work of the IFCC PTH WG in some detail include the following:

Endocrine immunoassay EQA and standardisation. [Wales ACB Meeting, Cardiff, November 2018.]

Parathyroid hormone (PTH) measurement standardization. [JCTLM/BIPM Meeting, Chengdu, October 2018.]

Impact of pre-analytical conditions on PTH testing and an update from the IFCC Working Group for PTH. [AACC Annual Conference, Chicago, August 2018]

• **WG-CSF Proteins (WG-CSF), Chair: Johan Gobom (SE)**

During 2018 ongoing progress towards WG-CSF terms of reference included:

Term of Reference 1.

- Collaborative effort to develop RMPs and CRMs of CSF biomarkers to enable harmonization across analytical platforms
- Development of new CSF biomarkers

Accomplishments include:

- Planning of Round Robin study of candidate RMPs for CSF amyloid beta 1-40
- Planning of Round Robin study of candidate RMPs for CSF tau
- Planning of Round Robin study of candidate RMPs for CSF tau

List planned activities in 2019 for this Term of Reference

- Concluding Round Robin study of candidate RMs for CSF amyloid beta 1-40
- Concluding Round Robin study of candidate RMPs for CSF tau

Term of Reference 2: CSF NFL Method/RMP collaborative project

Accomplishments include:

Still to be done.

• **WG – Standardization of Bone Marker Assays (WG-SBMA), Chair: Etienne Cavalier (BE)**

This is a joint activity with the International Osteoporosis Foundation.

During 2018 ongoing progress towards WG-SBMA terms of reference include:

Term of Reference 1: *Standardize or harmonize (as technically feasible or appropriate at this time) clinical assays available for routine and research use for the serum assay for C-telopeptide*



fragments of collagen type I $\alpha 1$ chains containing the epitope Glu-Lys-Ala-His-Asp-s-Gly-Gly-Arg in an isomerised form (also known as serum Crosslaps (CTx)).

Accomplishments include:

A manuscript has been written and submitted to IFCC, IOF and IVD partners.

Results of the multicenter study have been presented during IOF workshop in Krakow on April 18th 2018.

List planned activities in 2019 for this Term of Reference

- Submit the manuscript for publication.
- Work with manufacturers to improve the assay(s)
- Merge into the Committee on Bone Markers (new to start in 2019)

Term of Reference 2: *Standardize or harmonize (as technically feasible or appropriate at this time) clinical assays available for routine and research and the serum assay for N-terminal Propeptide of Type I Procollagen (P1NP).*

Accomplishments include:

The comparability study of the two major clinical assays for PINP has been completed at four European centres including data on the effects of serum or plasma specimen, fasting or non-fasting subjects and males and females presenting to osteoporosis clinics on the comparability of the results of assays from two manufacturers used by clinical laboratories. Quality assurance and study data have been submitted for analyses at one centre. A preliminary report has been presented at the annual meeting of the WG held in conjunction with the World Congress of Osteoporosis in Florence, 24 March 2017. A draft manuscript is to be prepared.

List planned activities in 2019 for this Term of Reference:

- A manuscript has been written and submitted to IFCC, IOF and IVD partners
- Results of the multicenter study have been presented at the ABSMR in Montreal on October 1st 2018

Additional Information:

The activities of this WG will be taken in charge by the formation of a new Committee “Bone Markers” (C-BM) that will be initiated in 2019. This will also include the WGs –PTH and Vit D.

• **WG – Commutability (WG-C), Chair: Greg Miler (US)**

During 2018 ongoing progress towards WG-C terms of reference included:

Term of Reference 1: Establish operating procedures for the formal assessment of the commutability of a reference material intended for use as a calibrator, trueness control or EQA sample, taking into account different measurement procedure properties and categories of traceability described in ISO 17511.

Accomplishments include:

Three papers were published in Clinical Chemistry (see publications section).

A proposed revision to the VIM definition of commutability was submitted to the JCGM WG2 via Gunnar Nordin who represents IFCC on JCGM WG2.

List planned activities in 2019 for this Term of Reference

Continue preparation of a manuscript on IFCC recommendations for assessing commutability part 5: validation of commutability for a replacement batch of a reference material. This manuscript is started and will be pursued following submission of the manuscript part 4 in the next term of reference.

Term of Reference 2: Establish procedures to correct for bias in a metrological traceability hierarchy caused by non-commutability, or by bias that meets a commutability criterion, of a reference material.

Accomplishments include:

Described in term of reference #1 and will be addresses in publication #4.

List planned activities in 2019 for this Term of Reference

Publish IFCC Recommendations for assessing commutability part 4: correction of bias caused by non-commutability of a certified reference material used in the calibration hierarchy of an



end-user measurement procedure. This manuscript is nearing completion and is expected to be submitted in the first part of 2019.

Addressing how residual bias present in a reference material that meets a criterion for commutability influences uncertainty may be included in the above manuscript or may be a separate publication.

Term of Reference 3: Establish how to define the criterion for acceptable commutability that is required for a given reference material, taking into account its intended use and the intended use of the measurand.

Accomplishments include:

Included in the part 1, 2 and 3 papers published in Clin Chem and in part 4 to be published in 2019.

List planned activities in 2019 for this Term of Reference

Begin drafting a manuscript IFCC Recommendations for assessing commutability part 6: criteria for making an assessment of commutability of a reference material.

Term of Reference 4: Advise IFCC Committees and Working Groups on how to assess the commutability of materials on which they are working.

Accomplishments include:

No requests for advice were received in 2018.

List planned activities in 2019 for this Term of Reference

WG-C is prepared to offer advice.

• **Immunosuppressive Drugs (WG-ID), Chair: Christoph Seger (CH)**

During 2018 ongoing progress towards WG-FIT terms of reference included:

Term of Reference 1. *Regulatory framework for submission of methods and materials to JCTLM.*

Accomplishments include:

During the first meeting the design outline for possible JCTLM submission were discussed.

List planned activities in 2019 for this Term of Reference:

Due to the small number of participants this discussion will be broadened in the 2nd WG meeting.

Term of Reference 2. *Measurement comparison initiative.*

Accomplishments include:

During the first meeting the design outline for comparative measurements were discussed. The RfB of the DGKL may serve as distributor (frozen blood only).

List planned activities in 2019 for this Term of Reference

Due to the small number of participants this discussion will be broadened in the 2nd WG meeting.

Term of Reference 3. *Production of reference materials*

Accomplishments include:

Not started yet.

List planned activities in 2019 for this Term of Reference

Principal discussion with possible stakeholders (producers) is planned.

Term of Reference 4. *Establishment of reference methods.*

Accomplishments include:

Not started yet.

List planned activities in 2019 for this Term of Reference

Principal discussion with possible stakeholders (producers) is planned.

Term of Reference 5. *Establishment of reference procedures*

Accomplishments include:

Not started yet. Can only start when #3 and #4 is fulfilled.

List planned activities in 2019 for this Term of Reference

To be determined.





• **Apolipoproteins by Mass Spectrometry (WG-APO MS), Chair: Christa Cobbaert (NL)**

During 2018 ongoing progress towards WG-APO MS terms of reference included:

Term of Reference 1: *To achieve standardization of a panel of clinically relevant serum apolipoproteins (apo) A-I, B, C-I, C-II, C-III, E and apo (a) (including qualitative phenotyping where needed). Standardization is done in such a way that measurement results are traceable to SI as outlined in ISO 17511. Other traceability chains will be used in cases where traceability to SI cannot be achieved.*

Accomplishments include:

Reference measurement procedure. In 2018, the WG determined common LC-MS transitions for the apolipoprotein-derived peptides. Using these common transitions and synthetic peptides, an instrument comparison study was performed to see whether all three mass spectrometers (each from different vendors) perform similarly. The WG is currently finalizing the data evaluation towards the end of 2018; so far, only marginal differences in performance were observed between the three instruments and locations. It is currently investigated whether a common data evaluation strategy using open-source software is needed.

Moreover, the WG has evaluated the optimal digestion conditions for serum apolipoproteins to ensure maximum recovery. For 5 out of the 7 apolipoproteins, this was achieved. For the other two, further optimization is needed. An SOP for the harmonized MS-based method is under development and will be finalized early 2019.

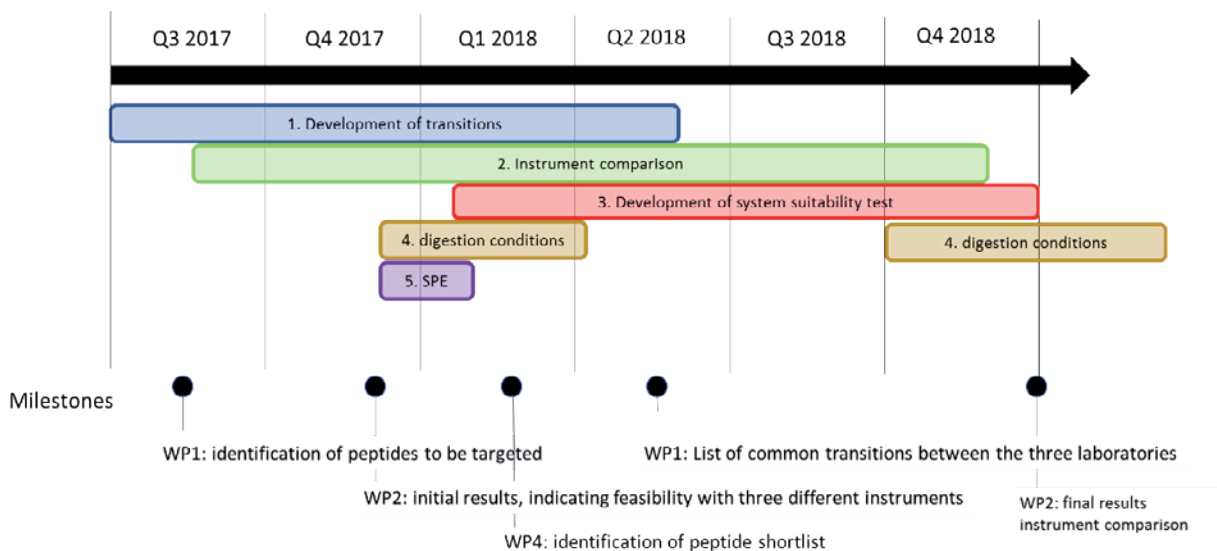


Fig. 1. Timeline of work for the RMP development with achievements for 2018.

Reference materials. It was decided to use a step-up approach in the development of reference materials. First, reference materials for apo(a) will be developed, followed by apoA-I and apoB. Reference materials for apoC-I, C-II, C-III and E will follow last. The WG aims to start each of the projects in approximately ½ year intervals. During 2018, the WG obtained pig EDTA plasma with human apo(a) with a specified number of kringles. A first evaluation of the suitability of this material was performed. Furthermore, a stability study, assessing the stability of apo(a) at different storage conditions is ongoing and will be finalized by Q4 2018.

List planned activities in 2019 for this Term of Reference

Reference measurement procedure. The WG plans to perform further experiments to achieve optimal, and hopefully equimolar digestion for apoC-I and C-III, which is not yet achieved with the current protocol. Furthermore, the WG aims to perform a ring trial to do an initial assessment of the feasibility of harmonization of the MS-based methods by the three laboratories, even though peptide-based calibration is not yet feasible. Native, serum based calibration materials

for this ring trial have been secured, while the EQA materials will be obtained from JRC. The WG plans to assess the equimolarity of the digestion, which is necessary to achieve calibration based on synthetic peptides, as is proposed in the terms of reference.

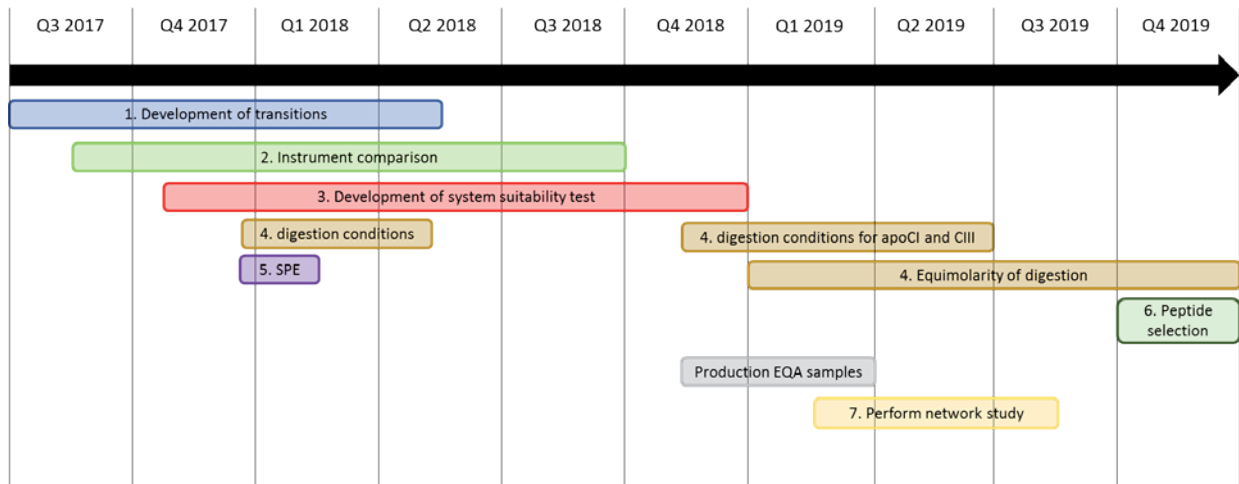


Fig. 2. Timeline of the planned activities for 2019 for RMP development

Reference materials. In collaboration with the JRC, EQA materials will be developed that can be used for the ring trial to evaluate the feasibility of the RMP. Moreover, well-characterized peptide materials will be developed for apo(a) to assess equimolarity of digestion and subsequently serve as primary calibrators. An initial commutability study to assess feasibility of standardization of apo(a) has been planned.

Term of Reference 2: *To evaluate clinical performance and clinical utility of serum apolipoprotein panel(s) for CVD risk stratification and treatment, in comparison to or together with contemporary blood lipids.*

Accomplishments include:

Several studies were initiated at the LUMC, which have resulted in two publications and a submitted manuscript. Specifically, an apoCII deficient phenotype of young females with high risk of CAD has been described (Hermans et al. J Clin Lipidol., 2017 11(6):1407-1414. doi: 10.1016/j.jacl.2017.08.002). In a second study, apoA1, apoB, and apoB/apoA1 could strongly be associated with risk of STEMI, but could not predict major adverse cardiac events (MACE) in statin-treated patients during 10 year follow-up after a first STEMI. (Bodde et al., Clin Res Cardiol. 2018, doi: 10.1007/s00392-018-1381-5). A third study indicated that higher levels of apoC-II, apoC-III and apoE are associated with an increased risk of VTE. (Orsi et al., manuscript submitted)

List planned activities in 2019 for this Term of Reference

A literature study will be performed to evaluate the current evidence at the genetic and proteomics level for the quantitation of apolipoproteins in CVD risk assessment. Based on these outcomes, an alternative clinical care pathway will be proposed.

Additional Information:

For the development of primary and secondary CRMs a lot of resources are needed. The WG worked at different levels:

1. JRC has prioritized this topic and has appointed a full time PhD to manufacture secondary CRMs.
2. LNE has worked on a grant proposal together with other NMIs and also LUMC; the aim is to obtain finances for the preparation of primary peptide - based standards.
3. Prof. Kostner has made crucial effort in communicating with Dr. Ozawa through Dr. Meguro from Denka-Seiken to negotiate the purchase of transgenic pig plasma with high levels of human apo(a).



Exposure to the work of this WG was given at AACC in Chicago (2018) during a CDC symposium on standardization of CVD biomarkers (Christa Cobbaert) and at the PPTD 2018 workshop in Chengdu, China (Renee Ruhaak).

- **WG – Pancreatic Enzymes (WG-PE), Chair: Denis Grote-KOSKA (DE)**

During 2018 ongoing progress towards WG-PE terms of reference included:

Term of Reference 1: *To develop a primary reference method for pancreatic Amylase in Serum.*

Accomplishments include:

In the calibration laboratory in Hannover different experiments were performed giving the proof of principle of the measurement procedure. Namely: Determination of inhibition coefficients; recovery of experimental vs. calculated results; linearity of absorbance kinetics; glucosidase inhibition; correlation to lipase and total amylase;

The measurement procedure is based on the IFCC-PRMP of total amylase. At certain steps, two mAb's are to be added as inhibitors for salivary amylase.

List planned activities in 2019 for this Term of Reference

Reproduction of the investigation protocol at other sites: Francesca Canalias (Spain); Friederike Weber (Roche, Germany); Shyamali Pal (India). Roche supports by supplying certain reagents. Furthermore, a rough estimation of the expected measurement uncertainty will be performed (Ferruccio Ceriotti, Italy). This should lead to a discussion about the justification as a reference system at the meeting in Barcelona 2019.

Term of Reference 2: *To develop a primary reference method for pancreatic Lipase in Serum.*

Accomplishments include:

Further investigation and development have been performed by Shigeru Ueda (Japan).

List planned activities in 2019 for this Term of Reference

No activities are planned by the WG before finishing of term of reference 1.

Term of Reference 3: *To support EC-JRC (Joint Research Centre, Directorate F – Health, Consumers and Reference Materials, formerly IRMM) in case of studies and certification of reference materials for enzymes*

Accomplishments include:

A commutability study of an ERM for amylase was published. This was not positioned in WG-PE, however, F. Ceriotti, J. Gella and D. Grote-Koska from WG-PE were involved.

List planned activities in 2019 for this Term of Reference

Depending on inquiries by JRC.

- **Fecal Immunochemical Testing (WG-FIT), Chair: Sally Benton (UK)**

During 2018 ongoing progress towards WG-FIT terms of reference included:

Term of Reference 1. *To harmonize and/or standardize analysis of haemoglobin in faecal samples by immunochemistry (FIT).*

Accomplishments include:

4 candidate reference materials have been identified. These reference materials are being tested on 4 different quantitative FIT laboratory analysers at the Cancer Screening Lab in Guildford with collaboration from the JRC reference laboratory in Geel. Preliminary analysis has been carried out which was presented at the FIT-WG meeting in October in Vienna

List planned activities in 2019 for this Term of Reference:

Work will conclude on analysis of the reference materials with the aim to make a decision as to whether any of the tested materials can be identified as a reference material for FIT

Term of Reference 2. *To standardize the pre-analytical phase.*

Accomplishments include:

A review was completed by Natasha Djedovic of the pre-analytical variables of FIT. This was discussed at the FIT-WG.

Two presentations were given by members of the FIT-WG on work they had published which addressed a pre-analytical variable which is the sample pickers. It has been concluded that

because this is manufacturer specific detail this variable cannot be changed.

List planned activities in 2019 for this Term of Reference

There are no plans for 2019 to progress this TOR.

Term of Reference 3. *To establish EQA and 3rd party IQC programmes.*

Accomplishments include:

A review of available EQA schemes available globally was completed.

There are currently no 3rd party IQC materials available

List planned activities in 2019 for this Term of Reference

To publish a summary of the challenges of EQA for FIT and summarise the schemes available.

Term of Reference 4. *To determine impact of assay interference of Hb variants and other factors*

Accomplishments include:

A paper investigating impact of Hb variants on FIT detection has been published by one of the group members team and this was discussed at a FIT-WG.

List planned activities in 2019 for this Term of Reference

No specific plans for progression.

• Cell free DNA and related circulating biomarkers (WG-cfDNA), Chair: Ron van Schaik (NL)

The activities of the WG have only recently started. The WG has reached out for corporate member sponsorships to enable face-to-face meetings.

Terms of Reference:

- To identify and provide guidance on preanalytical and analytical aspects for obtaining good and reproducible results for cfDNA and related circulating biomarkers for clinical use, and to guide the correct clinical implementation of these biomarkers.

Current projects:

- Defining pre-analytical aspects / drafting guideline
- Defining minimal analytical performance
- Setting up proficiency testing for cfDNA
- Organizing international workshops
- Defining grant proposals to address unmet needs

The chair and WG have prepared a paper about the pre-analytical aspects and the paper is currently being reviewed by the WG. The chair believes the WG members will provide expertise in lung cancer, organ rejection, and other broad areas (such as exosomes). The WG also plans to be involved early on with NMIs.

• Standardization of Procalcitonin assays (WG-PCT), Chair Vincent Delatour (FR)

During 2018 ongoing progress towards WG-PCT terms of reference included:

Term of Reference 1. *Develop and validate a reference measurement procedure for PCT absolute quantification by Stable Isotope Dilution Mass Spectrometry*

Accomplishments include:

- Different primary calibrators have been produced. Their purity is being characterized by high resolution mass spectrometry and PCT concentration in calibration solutions is being determined by Amino Acid Analysis (AAA)
- Different separation methods to purify PCT in biological samples are under development with the objective to validate a candidate reference measurement procedure for absolute quantification of PCT by IDMS

List planned activities in 2019 for this Term of Reference:

- Suitability of recombinant PCT and/or synthetic peptides as possible primary calibrators will be investigated based on stability and measurement uncertainties needed to meet the medical need
- the development of a candidate reference measurement procedure for absolute



quantification of PCT by IDMS will be pursued to obtain sufficiently low limits of quantification

Term of Reference 2. *Document and understand the variability of results provided by the different commercially available PCT assays*

Accomplishments include:

- Agreement and correlation between the different PCT assays will be evaluated through an interlaboratory comparison coupled with a commutability study involving the most popular PCT assays. Discussions on the design of the study have started and the following prerequisites have been identified:
- Investigation of the freeze thaw effect to confirm that frozen samples can be used instead of fresh clinical specimens
- Determination of the volume needed by each routine assay to conduct measurements
- Determination of assays precision to determine the number of replicates needed to minimize uncertainties and the rate of inconclusive results
- Assay manufacturers agreed to conduct measurements in their facilities.
- Leftovers from patients with different PCT concentrations (frozen serum) have been collected with the objective to prepare pools

List planned activities in 2019 for this Term of Reference

- Finalize preparation of study materials
- Arrange logistics and planning
- Conduct the study
- Perform statistical analysis of results according to latest recommendations established by IFCC WG-C
- In cooperation with IVD manufacturers, investigate what are the causes for the variability of results provided by the different commercially available PCT assays

Term of Reference 3. *Evaluate the need for standardization of PCT assays.*

Accomplishments include:

- The ICHCLR identified PCT standardization as high priority with high clinical impact
- Consultation of IVD manufacturers was initiated and reveals that the need and demand for standardization of PCT assays differs in the 2 following situations:
 - BRAHMS licensed assays are all calibrated with the Kryptor method. Assay manufacturers feel that recalibration of BRAHMS PCT assays is not a priority and possibly appears undesirable because introducing a new reference system based on IDMS could potentially result in the need to revise clinical decision limits, which could create confusion in the clinical community. However, using an IDMS RMP as stable anchor reference method would be helpful to monitor the stability of the Kryptor method
 - For PCT assays other than BRAHMS PCT assays, there is currently no internationally agreed reference system and there is a need for assay standardization.
- All WG members agree that commutable EQA materials are needed to accurately estimate between-method agreement

List planned activities in 2019 for this Term of Reference

- Pursue stakeholder consultation and maintain manufacturers involvement

Term of Reference 4. *Evaluate the feasibility for standardization of PCT assays*

Accomplishments include:

- Feasibility for standardization of PCT assays will be evaluated after activities planned within ToR 1 and 2 have been completed

List planned activities in 2019 for this Term of Reference

To be decided.

Term of Reference 5: *Perform standardization of PCT assays, if needed and feasible.*

Accomplishments include:

The need and feasibility for standardization of PCT assays first need to be evaluated.



List planned activities in 2019 for this Term of Reference

PCT assays will be standardized:

- if the IDMS method meets the necessary performance specifications,
- if the variability of results provided by the different commercially available PCT assays is considered unacceptable and can be improved through common calibration with commutable secondary calibrators
- if correlation between the IDMS method and routine assays is sufficient

• Vitamin D Standardization Program (WG-Vit D), Chair: Christopher Sempos (US)

During 2018 ongoing progress towards WG-Vit D terms of reference included:

Term of Reference 1. *Re-evaluate current Vitamin D Standardization Program (VDSP) performance guidelines for serum total 25-hydroxyvitamin D measurement, i.e. CV≤10% and Mean Bias ±5% (Clin Chem Acta 2009;408:8-13)*

Accomplishments include:

The first meeting of WG-Vit D was on 30 July 2018 at the AACC meeting in Chicago. WG-Vit D members from universities, IVD manufacturers, Clinical and Commercial Laboratories, and PT/EQA attended the meeting.

The meeting included a detailed presentation and discussion of the:

- (1) Overview of the Vitamin D Standardization Program (VDSP), its goals and objectives;
- (2) VDSP Performance Criteria – for routine laboratories, i.e. CV≤10% and Mean Bias ±5%;
- (3) The Problems with the current VDSP performance criteria – especially Mean Bias; and
- (4) Terms of Reference for WG-Vit D.

Following that, there was a frank and open discussion among those present. IVD manufacturers' representatives were concerned that tightening the VDSP Performance Criteria could lead to lack of participation in efforts to standardize the measurement of serum total 25-hydroxyvitamin D. It was suggested that WG-Vit D consider developing three sets of criteria for meeting or passing VDSP performance guidelines. Furthermore, it was suggested that current VDSP performance criteria be retained as the 1st Level Performance Criteria in the revised criteria. The 2nd Level and 3rd Levels would be increasingly more stringent guidelines based on attainable performance as seen in interlaboratory comparison studies.

There was some concern raised by Members about developing performance criteria for 3-epi-25(OH)D₃ and 24,25(OH)₂D₃. It was explained that the objective of the WG-Vit D was to standardize research data for those metabolites so that if a clinical use was defined then a standardized research database would be available for developing external clinical cut-points. Moreover, the ratio of 25(OH)D to 24,25(OH)₂D₃ is beginning to be used clinically and hence the need to develop performance criteria in order to promote a standardized research database. Finally, Drs. Johanna Camara and Karen Phinney of NIST provided updates on development of RMPs for 1,25(OH)₂D₃, and Vitamin D Binding Protein and PTH, respectively.

Data analyses for the VDSP 2 Interlaboratory Comparison Study are nearly complete. In this study the performance characteristics of 10 immunoassays were measured vs. NIST RMP target values on 50 single donor serum samples. These data will be central to the re-evaluation of the VDSP performance criteria. A manuscript is in preparation.

Data analyses for the VDSP 2 Commutability Study of NIST SRMs 972a and 2973 and CAP and DEQAS serum materials are nearly complete. Duplicate analyses of 50 single donor serum samples will be used to estimate CV% and Mean Bias for the nearly 40 laboratories from around the world participating in this study.

Data analyses of replicate measures of serum total 25(OH)D in nearly 2,000 participants in the US National Health and Nutrition Examination Study are being re-analysed to estimate biological variation (within-person variation). Those analyses will be central to the re-evaluation of the VDSP performance criteria.

List planned activities in 2019 for this Term of Reference:

There are plans to develop a study protocol and solicit IVD manufacturer/industry support for an





international study of serum total 25(OH)D biological variation associated with immunoassays.
Term of Reference 2. *Establish VDSP performance guidelines for 3-epi-25-hydroxyvitamin D3 and 24,25-di-hydroxyvitamin D3.*

Accomplishments include:

In the last VDSP budget prior to leaving the Office of Dietary Supplements/NIH, the Chair included monies to support the measurement of 3-epi-25(OH)D3 and 24,25(OH)2D3 in the 50 single donor serum samples used in the VDSP Interlaboratory Comparison Study 2. It is hoped that NIST can make progress on those measurements as they are essential to the re-evaluation of the VDSP performance criteria.

List planned activities in 2019 for this Term of Reference

A search of the literature to locate data on biological variation in those metabolites will be conducted.

Additional Information:

The working group on Vitamin D standardization will be merged within the IFCC Committee for standardization of PTH, vitamin D and bone markers. This proposal has been approved by the members of the WG and the new Committee will also be endorsed by the IOF.

PUBLICATIONS BY COMMITTEES AND WORKING GROUPS:

C-NPU:

Wikipedia page for the NPU Terminology: https://en.wikipedia.org/wiki/NPU_terminology

C-TLM:

The results of RELA2017 has been evaluated and published (<http://www.dgklrfb.de:81>).

C-RIDL:

- 1) Yesim Ozarda, Ken Sikaris, Thomas Streichert, Joseph Macri & on behalf of IFCC Committee on Reference intervals and Decision Limits (C-RIDL) *Distinguishing reference intervals and clinical decision limits – A review by the IFCC Committee on Reference Intervals and Decision Limits.* Critical Reviews in Clinical Laboratory Sciences 2018, Vol 55 (6), 420-31.
- 2) Graham R.D. Jones, Rainer Haeckel, Tze Ping Loh, Ken Sikaris, Thomas Streichert, Alex Katayev, Julian H. Barth, Yesim Ozarda & on behalf of the IFCC Committee on Reference Intervals and Decision Limits. *Indirect methods for reference interval determination – review and recommendations.* Clin Chem Lab Med. 2018 Dec 19;57(1):20-29. doi: 10.1515/cclm-2018-0073.

Other articles directly related to the C-RIDL projects

- 1) Yesim Ozarda, Victoria Higgins and Khosrow Adeli. *Verification of reference intervals in routine clinical laboratories: practical challenges and recommendations.* Opinion Paper, Clin Chem Lab Med 2018, 57(1),doi: 10.1515/cclm-2018-0059.

C-STFT:

1. Yoshihara A, Noh JY, Watanabe N, Iwaku K, Kunii Y, Ohye H, Suzuki M, Matsumoto M, Suzuki N, Sugino K, Thienpont LM, Hishinuma A, Ito K. *Seasonal Changes in Serum Thyrotropin Concentrations Observed from Big Data Obtained During Six Consecutive Years from 2010 to 2015 at a Single Hospital in Japan.* Thyroid. 2018 Apr;28(4):429-436. doi: 10.1089/thy.2017.0600. Epub 2018 Apr 2.

C- HAT:

Journal: CCLM - Authors: Evanthia Monogioudi; Ingrid Zegers; Dana P Hutu; Joanna Sheldon; Heinz Schimmel; Pier Luigi Meroni; Title: *Certified Reference Material against PR3 ANCA IgG autoantibodies. From development to certification* Accepted for publication.

Abstract submitted to Euromedlab Barcelona. Monogioudi Evi, Sheldon Joanna, Meroni Pier Luigi, Zegers Ingrid. *On the lookout for the best candidate material to develop a Certified Reference Material for PR3 ANCA IgG antibodies: A commutability story*

WG-SHbA2:

Paleari R, Ceriotti F, Harteveld CL, Stollo M, Bakker-Verweij G, ter Huurne J, Bisoen S, Mosca A. *Calibration by commutable control materials is able to reduce inter-method differences of current high-performance methods for HbA2*. Clin Chim Acta 2018; 477:60-5.

Arsene CG, Kaiser P, Paleari R, Henrion A, Spannagl M, Mosca A, on behalf of the IFCC Working Group on Standardisation of Hemoglobin A2 (WG-HbA2). *Determination of HbA2 by quantitative bottom-up proteomics and isotope dilution mass spectrometry*. Clinica Chimica Acta 2018;487:318-24.

WG-SCDT:

International standardization of CDT measurement and interpretation improves its use as biomarker for chronic excessive alcohol consumption

Jos Wielders eNews IFCC November-december 2017

WG-SAU:

Seegmiller JC, Miller WG, Bachmann LM. *Moving towards standardization of urine albumin measurements*. eJIFCC 2017;28:258-67.

Miller WG, Bachmann LM, Fleming JK, Delanghe JR, Parsa A, Narva AS; Laboratory Working Group of the National Kidney Disease Education Program and the IFCC Working Group for Standardization of Albumin in Urine. *Recommendations for Reporting Low and High Values for Urine Albumin and Total Protein*. Clin Chem. 2018 Nov 20. pii: clinchem.2018.297861. doi 10.1373/clinchem.2018.297861. [Epub ahead of print]

WG-TNI:

The following recommendation was made in the clinical practice guidelines promulgated by the AACC academy and IFCC TFCACB in 2018.

Recommendation 8: Commutable materials should be developed for use in harmonizing and standardizing cTn.

This recommendation resulted was discussed in a section of the Clinical Practice Guidelines titled 'Harmonizing and Standardizing', and serves to highlight the importance of our work in developing RM 2922.

Wu AHB, Christenson RH, Greene DN, Jaffe AS, Kavsak PA, Ordonez-Llanos J, Apple FS. *Clinical laboratory practice recommendations for the use of cardiac troponin in acute coronary syndrome: expert opinion from the academy of the American Association for Clinical Chemistry and the Task Force on Clinical Applications of Cardiac Bio-Markers of the International Federation of Clinical Chemistry and Laboratory Medicine*. Clin Chem 2018;64:645-655.

WG-cMSP:

Clinical Mass spectrometry proteomics (cMSP) for medical laboratory: what could be the future? By Sylvain Lehmann, Cato Brede, Pierre Lescuyer, José A Cocho, Jérôme Vialaret, Pauline Bros, Vincent Delatour, Christophe Hirtz and the IFFCC WG-cMSP is currently submitted for publication in CCA (Editor P Gillery).

WG-PTH:

Members and supporters of the IFCC PTH Working Group were asked to provide the Chair with details of any publications and/or presentations highlighting activities of the Working Group during 2018 for inclusion in this Annual Report but no information has as yet been received.





WG-C:

W. Greg Miller, Heinz Schimmel, Robert Rej, Neil Greenberg, Ferruccio Ceriotti, Chris Burns, Jeffrey R. Budd, Cas Weykamp, Vincent Delatour, Goran Nilsson, Finlay MacKenzie, Mauro Panteghini, Thomas Keller, Johanna E. Camara, Ingrid Zegers, Hubert W. Vesper, for the IFCC Working Group on Commutability. *IFCC working group recommendations for assessing commutability part 1: general experimental design*. Clin Chem 2018;64: 447-54.

Goran Nilsson, Jeffrey R. Budd, Neil Greenberg, Vincent Delatour, Robert Rej, Mauro Panteghini, Ferruccio Ceriotti, Heinz Schimmel, Cas Weykamp, Thomas Keller, Johanna E. Camara, Chris Burns, Hubert W. Vesper, Finlay MacKenzie, W. Greg Miller, for the IFCC Working Group on Commutability. *IFCC working group recommendations for assessing commutability part 2: using the difference in bias between a reference material and clinical samples*. Clin Chem 2018;64:455-64. This paper includes a worked example as supplemental information.

Jeffrey R. Budd, Cas Weykamp, Robert Rej, Finlay MacKenzie, Ferruccio Ceriotti, Neil Greenberg, Johanna E. Camara, Heinz Schimmel, Hubert W. Vesper, Thomas Keller, Vincent Delatour, Mauro Panteghini, Chris Burns, W. Greg Miller, for the IFCC Working Group on Commutability. *IFCC working group recommendations for assessing commutability part 3: based on the calibration effectiveness of a reference material*. Clin Chem 2018;64:465-74. This paper includes additional example data and statistical tools as supplemental information.

WG-APO MS:

The WG is working on the outline of its independent publication strategy.

Several publications were prepared with contributions of WG members:

1. Bodde MC, Hermans MPJ, Jukema JW, et al. *Apolipoproteins A1, B, and apoB/apoA1 ratio are associated with first ST-segment elevation myocardial infarction but not with recurrent events during long-term follow-up*. Clin Res Cardiol 2018 2018/10/10. DOI: 10.1007/s00392-018-1381-5.
2. Delatour V, Clouet-Foraison N, Gaie-Levrel F, et al. *Comparability of Lipoprotein Particle Number Concentrations Across ES-DMA, NMR, LC-MS/MS, Immunonephelometry, and VAP: In Search of a Candidate Reference Measurement Procedure for apoB and non-HDL-P Standardization*. Clin Chem 2018; 64: 1485-1495. 2018/08/09. DOI: 10.1373/clinchem.2018.288746.
3. Ruhaak LR, Smit NPM, Suchiman HED, et al. *MS-based proteomics: a metrological sound and robust alternative for apolipoprotein E phenotyping in a multiplexed test*. Clinical chemistry and laboratory medicine: CCLM / FESCC 2018 2018/09/22. DOI: 10.1515/cclm-2018-0782.
4. Ruhaak LR, Smit NPM, Romijn F, et al. *Robust and Accurate 2-Year Performance of a Quantitative Mass Spectrometry-Based Apolipoprotein Test in a Clinical Chemistry Laboratory*. Clin Chem 2018; 64: 747-749. 2018/01/31. DOI: 10.1373/clinchem.2017.285098.
5. Dittrich J, Adam M, Maas H, et al. *Targeted On-line SPE-LC-MS/MS Assay for the Quantitation of 12 Apolipoproteins from Human Blood*. Proteomics 2018; 18 2017/12/28. DOI: 10.1002/pmic.201700279.

WG-PE:

Deprez L, Toussaint B, Zegers I, Schimmel H, Grote-Koska D, Klauke R, Gella FJ, Orth M, Lessinger JM, Trenti T, Nilsson G, Ceriotti F. (2018). *Commutability Assessment of Candidate Reference Materials for Pancreatic α -Amylase*, Clin. Chem. 64: 1193-1202.

This was not positioned in IFCC-WG-PE, however, F. Ceriotti, J. Gella and D. Grote-Koska from WG-PE were involved in this EC-JRC publication.

Philippe Gillery, SD Chair and Joseph Passarelli, SD Secretary

EDUCATION AND MANAGEMENT DIVISION (EMD)

Prof Nader Rifai was appointed to the EMD EC vacancy for a first three year term in January 2018. Prof Nader was also appointed the Chair of the IFCC-Abbott VLP in 2018. Prof Vanessa Steenkamp was appointed to the EMD EC vacancy for a first term beginning in July 2018 until the end of December 2020.

The EMD EC met on 18 and 19 January 2018 in Milan to plan the strategic direction of the EMD for the three year period 2018 till 2020, and this has been accepted by all Chairs of EMD committees, working groups and special projects with discussion and amendments.

In January 2018, four Task Forces (Chronic Kidney Disease, Clinical Applications of Cardiac Biomarkers, Point of Care Testing and Proficiency Testing) previously under the IFCC EB became committees of the Education and Management Division. A new EMD committee, Value Proposition for Laboratory Medicine, was established on 1 January 2018. The Committee for Distance Learning under the EMD and the Committee for Internet and eLearning under the Communications and Publications Division were merged to form a new committee called Committee for Internet and Distance Learning (C-IDL) on 1 January 2018 with two Co-Chairs, one from the EMD and the other from CPD. The Mentoring Programme (a Special Project) became a Working Group for Personal Support on 1 January 2018.

Clinical Molecular Biology Curriculum (C-CMBC); Chair: Evi Lianidou (GR)

1. The 2018 C-CMBC course took place in Martin, Slovakia from 18 to 24 Feb 2018. Dr. Katarina Baluchova, Lecturer and Research Fellow, Division of Oncology, Biomedical Center Martin (BioMed), in Martin, Slovakia, was assigned as a trainee by the Slovakian Society of Laboratory Medicine and underwent training at Mannheim at the beginning of January 2018.
2. Responding to a request from the Chair of the EMD Committee on Proficiency Testing (C-PT) and with the technical support of ESEAP (the non-profit EQA scheme of the Greek Society of Clinical Chemistry-Clinical Biochemistry) an EQA programme for the detection of EGFR mutations in human plasma liquid biopsy was implemented.
3. Publication: Ntzifa A, Kroupis C, Haliassos A, Lianidou E. A pilot plasma-ctDNA ring trial, for the Cobas® EGFR Mutation Test in clinical diagnostic laboratories. Clin Chem Lab Med. 2018, Sep 29. pii:/j/cclm.ahead-of-print/cclm-2018-0676/cclm-2018-0676.xml. doi:10.1515/cclm-2018-0676. [Epub ahead of print] PubMed PMID: 30267626.

Analytical Quality (C-AQ), Chair: Annette Thomas (UK)

1. The Resource table for EQA database was updated in 2018. This database is now a live document.
2. Presentations on Principles of EQA, Principles of IQC and EQA Planning already exist on the C-AQ website. It is planned to improve the existing presentations on line with the IFCC eAcademy and develop additional presentations on IQC Planning and Risk Management. A large number of presentations have been reviewed by the Committee and approval has been obtained from the authors. The Committee is working with Dr Langman and Eduardo Feggiaro to finalise the three presentations already forwarded to them. Further topics are to be mapped to the quality ladder concept.
3. Annette Thomas conducted two workshops in Malawi between 26 Feb and 1 March 2018 in collaboration with the DQCML Committee. A one and a half day workshop was organised in Kathmandu, Nepal between 28 and 31 May 2018, again in collaboration with the DQCML Committee.
4. Development of a Quality Ladder:
 - a) Based on the feedback from the workshop held in South Africa in February 2017 on Quality and Markers for Diabetes for Developing Countries it was identified that existing resources on quality available on the IFCC website such as Quality of Management

and Quality of Analysis were not used by the attendees. It was identified that “bite size” educational material such as the EQA checklist and quality outline presented at the meeting would be more suitable.

- b) The plan for 2018 was to develop a series of monographs covering the basic concepts of quality that can be used by developing countries. A scoping document has been developed, topics agreed and content/authors have been identified. It was agreed to stratify the topic areas into Basic, Intermediate and Advanced.
5. The Committee agreed to support a Moving Averages project proposed by Tony Badrick. An initial meeting of this project group was held on 25th October 2018. The aim of the group is to support laboratories’ implementation of patient-based real time quality control (PBRTQC) with simple understandable help tools, engage with middleware suppliers to assist development of simple, harmonised software and to develop network/collaboration between users/societies/suppliers to investigate newer data approaches.



Evidence-Based Laboratory Medicine (C-EBLM), Chair: Annalise Zemlin (ZA)

1. Continuation of Guidelines reviews using AGREE II instrument. These and previous findings will be used for publication in eJIFCC in 2019.
2. A workshop on EBLM was conducted at the CSCC meeting in Ottawa in June 2018 by A. Don Wauchope and K. Rodriguez Capote.
3. Talks on EBLM and audits were presented under auspices of C-EBLM at quality workshops in Ethiopia, Kenya and Zambia by A Zemlin in 2018.
4. Talks by A Don Wauchope, K Rodriguez-Capote and A Zemlin are being finalised for submission to the IFCC e-Academy:
5. Publication: Nuria Gimenez was first author on a manuscript on PSA. published in Spanish. Gimenez N, Filella X, Gavagnach M, Allue JA, Pedrazas D, Ferrer F. Cribado del cancer de prostata mediante antigeno prostatico especifico: perspectiva del medico en atencion primaria y en el laboratorio clinic. *Medicina de Familia, Semergen* 2018; 44(6): 409-419. IFCC C-EBLM is stated in the affiliation.

Clinical Laboratory Management (C-CLM), Chair: Sedef Yenice (TR)

1. The first draft of a monograph entitled “Basic Problem Solving Tools” or “Basic Tools for Quality Improvement” was ready in August 2018. This will be completed by April 2019
2. Aye Aye Khine communicated with corresponding members requesting assistance with pilot questions regarding various learning tools. This task was conducted through the webpage of C-CLM on 1 March 2018 to 31 August 2018. <http://www.ifcc.org/ifcc-education-division/emd-committees/c-clm/6-c-clm-clinical-laboratory-management-toolbox/>
3. Development of a Laboratory Leadership Training Certificate Programme led by Ed Randell: C-CLM issued a survey questionnaire to all National Societies to circulate to their members regarding learning needs assessment to aid in developing the programme. Responses were analysed and submitted for publication in the IFCC eNews on 28 September 2018. The primary assignments for the Laboratory Leadership Programme were allocated on 11 February 2018. The work on content development will continue through 2018 and 2019. The final programme content will consist of reading materials, live/recorded workshop presentations, and a quiz covering session content. C-CLM plans to issue a certificate of accomplishment to programme participants who complete all of the learning objectives and course content.
4. An online survey (using SurveyMonkey) to determine interest and knowledge gaps on selected topics to be discussed in the Laboratory Leadership Training Certificate Programme was conducted by Ed Randell in early February 2018. The survey comprised 24 questions (mainly multiple choice questions) and was completed on 28 February 2018.
5. A Training Manual on Leadership Basics for Clinical Laboratory Professionals was

completed and sent to the IFCC office on 22 December 2018. This manual is now on the IFCC website. A Joint Monograph with C-AQ is being prepared and will be completed in 2019.

6. The C-CLM Clinical Laboratory Management Toolbox was created and the case scenarios were uploaded under the subsection of “Interactive Case Scenarios - Approach to Common Problems in the Medical Laboratory”.
<http://www.ifcc.org/ifcc-education-division/emd-committees/c-clm/6-c-clm-clinical-laboratory-management-toolbox/>
7. C-CLM conducted the following workshops in 2018:
 - a) Pre-Congress Satellite Educational Workshop on “Leadership Essentials for Laboratory Professionals”
Date: 16 August 2018
Venue: PATHCAPE 2018, Cape Town, South Africa
Duration: 180 min
Speakers: Sedef Yenice, Matthias Orth, Aye Aye Khine
 - b) Interactive workshop on “What is the Role of Innovation and Leadership for the Clinical Laboratory?” at the IFCC General Conference in Budapest on 11th November 2018 conducted by Sedef Yenice and Ed Randell.
 - c) Pre-Congress Satellite Educational Workshop
Duration: 25 – 26 October 2018
Venue: National Annual Congress of Turkish Biochemical Society, Bodrum, Turkey
Title or workshop: Westgard Rules, QC and Six Sigma
Speakers: Sten Westgard, Sedef Yenice
8. Sedef Yenice delivered a talk on “Policies for Standardization of Clinical Laboratory Management in Mediterranean countries: differences from EU Members” on July 3rd, 2’18 at the 1st IFCC-EFLM-AFCB Conference on Laboratory Medicine, Rome, Italy.
9. Symposia conducted by C-CLM:
 - a) Date: 17 August 2018
Venue: PATHCAPE 2018, Cape Town, South Africa
Title of symposium: Accreditation and Quality Management
Speakers: Sedef Yenice, Matthias Orth
 - b) Date: 27 October 2018
Venue: National Annual Congress of Turkish Biochemical Society, Bodrum, Turkey
Title of symposium: Verification of Laboratory Test Results in the Core Lab: Exploring effectiveness from the ground up?
Speakers: Sedef Yenice, Matthias Orth, Ed Randell
10. Publications:
 - a) Ed Randell and Sedef Yenice. Delta Checks in the Clinical Laboratory, Critical Reviews in Clinical Laboratory Sciences, published online on 11 Jan 2019.
<https://doi.org/10.1080/10408363.2018.1540536>
 - b) Two short articles were published in the October issue of the IFCC eNews The titles of these articles are as follows:
 - C-CLM Educational workshop on leadership and management in the PathCape 2018
 - C-CLM Survey Results on Laboratory Leadership

Internet and Distance Learning (C-IDL); Co-Chair: Loralie Langman (US)

1. Topics outlined in the curricula that do not have presentations already in the eAcademy have been identified.
2. Potential speakers or source content for these topics are being identified. A call has been sent to IFCC member societies asking for volunteers and a positive response has been obtained from many societies.
3. eAcademy Coordinators have been recruited: Paul Hamilton, David Armbruster, Frank Quinn,

and Rojeet Shrestha.

4. Knovio account to facilitate recordings for the eAcademy has been established.
5. The eAcademy has 70 webinars and 51 linked presentations. There are, in addition, 5 broken AACB links which need to be fixed. There are 5 Vietnamese presentations pending English versions and 15 ICPLM presentations uploaded but have not been finalised. Hence, there are a total of 20 webinars pending. On the occasion of the IFCC General Conference held in Madrid, IFCC obtained permission from Prof. Gronowski to insert links to three AACC webinars:
<http://eacademy.ifcc.org/events/aacc-pearls-of-laboratory-medicine/>

Education in the Use of Biomarkers in Diabetes (C-EUBD), Chair: Garry John (UK)

1. The committee is working with WHO to finalise the Diabetes Laboratory Handbook. Following recent discussions with collaborators at WHO, this document is undergoing a final write up. There will need to be a meeting with collaborators at WHO to finalise the wording and format.
2. Following the very successful HbA1c European EQA study the next phase is being planned which will include laboratories in Korea with the potential to include laboratories in Indonesia.
3. The committee is continuing to work with colleagues from the IDF on a project looking at the diagnostic cut points for T2DM. Data gathering has been completed and is in the process of being reviewed. The project has been expanded to include additional laboratory measurements.
4. The committee is working with the Chinese Diabetes Society (CDS) to develop a joint IFCC-CDS committee to look at diabetes services within China. Dr Emma English and Prof Garry John were invited to give presentations at the Annual Chinese Diabetes Society (CDS) meeting, 29 November till 2 December 2018.
5. The committee is continuing to provide a scientific/clinical steer to the IFCC HbA1c Reference Laboratory Network. The IFCC HbA1c Reference Laboratory Network report was presented to the C-EUBD during its annual meeting in Chicago during AACC 2018. The Network continues to perform to a high scientific and clinical standard.
6. A lecture was delivered by Prof Garry John on HbA1c standardisation at the 5th EFLM-UEMS European Joint Congress, 10-13 October 2018 in Antalya, Turkey.
7. Following a C-EUBD presentation at the NGSP-IFCC-Manufacturer Forum there has been a tremendous response from manufacturers offering support for educational events and invitations to help them develop their own educational agenda (e.g. webinars). Representatives from these companies will be contacted and initiatives followed up.
8. Rolf Hinzmann proposed during the C-EUBD meeting in Chicago during AACC 2018 that the committee investigates Traceability of Continuous Glucose Monitors (CGM). Garry John will write a proposal to go to EMD and SD for consideration.
9. During the AACC 2018 meeting in Chicago, the C-EUBD participated in:
NGSP Steering Committee, 29 July 2018
NGSP IFCC Manufacturer Forum, 30 July 2018
IFCC HbA1c Network Meeting, 31 July 2018
10. Publications:
 - a) English E, Weykamp C, Ji L, Siebelder C, Shan Z, Wang Y, Li H, John WG. The global impact of the International Federation of Clinical Chemistry and Laboratory Medicine, Education and Management Division: engaging stakeholders and assessing HbA1c quality in a multicentre study across China. *Clin Chem Lab Med.* 2018, Jul 25. pii: /j/cclm.ahead-of-print/cclm-2018-0434/cclm-2018-0434.xml. doi: 10.1515/cclm-2018-0434. [Epub ahead of print] PubMed PMID: 30044761.
 - b) EurA1c Trial Group. EurA1c: The European HbA1c Trial to Investigate the Performance of HbA1c Assays in 2166 Laboratories across 17 Countries and 24 Manufacturers by Use of the IFCC Model for Quality Targets. *Clin Chem.* 2018; 64(8): 1183-1192. doi: 10.1373/clinchem.2018.288795. Epub on 19 June 2018. PubMed PMID: 29921723.



- c) English E, Lenters-Westra E. HbA1c method performance: The great success story of global standardization. *Crit Rev Clin Lab Sci.* 2018; 55(6): 408-419. doi: 10.1080/10408363.2018.1480591. Epub 12 July 2018. PubMed PMID: 30001673.
- d) Lenters-Westra E, English E. Evaluation of Four HbA1c Point-of-Care Devices Using International Quality Targets: Are They Fit for the Purpose? *J Diabetes Sci Technol.* 2018;;12(4): 762-770. doi: 10.1177/1932296818785612. Epub 19 June 2018. PubMed PMID: 29921132; PubMed Central PMCID: PMC6134306.

Cardiac Biomarkers (C-CB), Chair: Fred Apple (US)

1. The committee has developed educational materials for a) high-sensitivity, contemporary and point of care cardiac troponin assays and b) natriuretic peptide assays used in clinical practice and will continue to distribute educational posters and mouse-pads, as well as pocket-cards, addressing high sensitivity cardiac troponin and natriuretic peptide assays at IFCC (laboratory medicine) and clinical society meetings.
 - a) Approximately 1300 educational posters based on high sensitivity cardiac troponin assays were distributed by the IFCC booth at the 2018 Chicago AACC meeting.
 - b) An educational poster and pocket card guide are in development for natriuretic peptide assays, with the goal for distribution at the May 2019 Barcelona EUROMEDLAB meeting. Educational topic videos are being discussed.
2. A joint educational workshop of the 'C-CB' and 'Academy of the AACC' was held at the 2018 AACC meeting in Chicago (1 August 2018) that was co-sponsored by numerous industries supporting of the C-CB: Title: Clinical Laboratory Practice Recommendations for the Use of Cardiac Troponin in Acute Coronary Syndrome: Expert Opinion from the Academy of the American Association for Clinical Chemistry and the Task Force on Clinical Applications of Cardiac Bio-Markers of the International Federation of Clinical Chemistry and Laboratory Medicine. It was a great success with over 400 participants.
3. The C-CB determined at their last committee meeting that the website for both cardiac troponin and natriuretic peptide assays will be updated quarterly, in partnership with manufacturers. The latest update occurred on 23 September 2018 and new updated tables are being submitted on 28 January 2019.
4. Development of a searchable App that will be the educational tool for cardiac biomarker assays used in clinical practice by clinicians and laboratorians is still in the developmental stage and will be the primary focus of the C-CB to finalise in 2019. This will require collaborative work with App developer, IFCC office, and industry/corporate members. This activity was brainstormed for 3 hours at the 1 December 2018 C-CB meeting in Boston; with two writing/content sessions addressing both hs-cTn and NP assays, focusing on educational laboratory medicine content and influence on clinical use. Apple and Ortisi, et. al., hope to meet with IFCC IT contact in Milan in February 2019.
5. Development of a study model to define a 'clinical scorecard' for high sensitivity cardiac troponin assays. After one year of careful planning, this activity [official title and acronym are: 'Clinical Scorecard Based on Comparison Of High-Sensitivity (hs) Cardiac Troponin (cTn) I and T Assays for Ruling Out Acute Myocardial Infarction' (SCORED)] is on track to start in February 2019. Contracts and invoices with 7 companies are in the final stages. Specimens are in place for analysis, with the goal to complete measurements of specimens by the end of April 2019, with statistical analysis completed in May 2019. The corporate funding awarded to IFCC to support this study is USD 184,800.
6. Corporate members have initiated a second round of education contributions to C-CB through the IFCC office to assist in workshop planning, App development, and full day committee meetings.
7. Publications:
 - a) Wu AHB, Christenson RH, Greene DN, Jaffe AS, Kavsak PA, Ordonez-Llanos J, Apple FS. Clinical Laboratory Practice Recommendations for the Use of Cardiac Troponin in Acute

Coronary Syndrome: Expert Opinion from the Academy of the American Association for Clinical Chemistry and the Task Force on Clinical Applications of Cardiac Bio-Markers of the International Federation of Clinical Chemistry and Laboratory Medicine. Clin Chem 2018; 64: 545-655.

- b) Amy K. Saenger, Allan S. Jaffe, Richard Body, Paul O. Collinson, Peter A. Kavsak, Carolyn S. P. Lam, Guillaume Lefèvre, Tobjørn Omland, Jordi Ordóñez-Llanos, Kari Pulkki, Fred S. Apple. Cardiac Troponin and Natriuretic Peptide Analytical Interferences from Hemolysis and Biotin: Educational Aids From the IFCC Committee on Cardiac Biomarkers (IFCC C-CB), Clin Chem Lab Med (In Press, posted online). <https://doi.org/10.1515/cclm-2018-0905>.
- c) Paul O. Collinson, Amy K. Saenger and Fred S. Apple, on behalf of the IFCC C-CB. High sensitivity contemporary and point-of-care cardiac troponin assays: educational aids developed by the IFCC Committee on Clinical Application of Cardiac Bio-Markers, Clin Chem Lab Med (In Press, posted online). <https://doi.org/10.1515/cclm-2018->
- d) An IFCC eNews article was published in 2018 describing C-CB activities.
- e) An educational document based on natriuretic peptide assays and their clinical implications in practice (primary authors: Drs Lam and Kavsak) was finalised at the 1 December 2018 C-CB full day meeting in Boston, and will be submitted to Clinical Biochemistry for publication.



Chronic Kidney Disease (C-CKD), Chair: Flavio Alcantara (BR)

1. The objectives of the C-CKD were discussed during the IFCC General Conference in Budapest and members agreed to the suggestion of the EMD Executive Committee to encompass “Acute Kidney Disease” along with chronic kidney disease.
2. Portuguese and Croatian members have undertaken surveys on CKD practices in their home countries. A survey on CKD assays in different countries using a standardised format is currently underway.
3. A review on uses of CKD assays for risk stratification of cardiovascular diseases in hypertensive patients is being prepared.

Point of Care Testing (C-POCT), Chair: Rosy Tirimacco (AU)

1. GMECC WG presented their blood gas document both at the AACC 2018 annual meeting and at CPOCT meeting in September 2018. The document is a high calibre education tool citing many useful references. This document is being reviewed by a third party before final formatting and release.
2. The committee plans to present blood gas education as a webcast in consultation with CPD. The completed document will be placed on the IFCC website.
3. Publications:
 - a) In preparation: Bowman C., Cunningham S., Slingerland IER, Mesotten D., Karon BS, Nichols J. on behalf of the IFCC Working Group. How should glucose meters be evaluated in critical care?
 - b) How should glucose meters be evaluated for critical care? (by WG-GMECC) Article published in IFCC eNews, April 2018

Proficiency Testing (C-PT), Chair: Alexander Haliassos

1. In order to develop and implement the Analytes section of the Proficiency Testing Database (PTDB) a document was produced describing all the fields required for the creation of an Analyte record and documenting the procedure for creating the analyte section of the database. The committee members started with biomarkers of neurodegenerative diseases. This document describing the neopterin was finalised during the IFCC General Conference (Budapest, November 2018).
2. The revision of all changes on the webpage of C-PT reflecting the change from TF-PT to

C-PT has been completed.

3. All the changes to the PTDB have been documented in order to comply with the change from TF-PT to C-PT, and these changes are implemented by InSoft, the IT provider of IFCC and developer of the PT DataBase.
4. In cooperation with C-AQ, the webpage of C-AQ has been updated to point to the PTDB.
5. The Chair of C-PT participated in the EQALM EB meeting (Zagreb, October 18th & 19th, 2018), where the next steps of the participation and the contribution of the EQALM members for the implementation, updating and maintenance of the C-PT database were discussed, as well as the planning of a symposium to be held at the EuroMedLab Congress in Barcelona 2019.
6. Responding to a request from the Chair of the EMD Committee on Clinical Molecular Biology Curriculum (C-CMBC) and with the technical support of ESEAP (the non-profit EQA-PT scheme of the Greek Society of Clinical Chemistry - Clinical Biochemistry) the committee members designed and implemented an EQA programme for the detection of EGFR mutations in human plasma liquid biopsy. This scheme validates the companion diagnostics test of detection of EGFR mutations. This test is a prerequisite for the administration of innovative, personalised, anti-cancer therapy. In February 2018, after a very successful pilot run ISO/IEC 17043 accreditation was applied for. The final inspection visit of the accreditation body was in early October 2018 and there were no non-conformances. The certificate for ISO 17043 is awaited.
7. Invited talks by the Chair of C-PT:
 - a) "Inter-laboratory comparisons and EQA in the Mediterranean area" at the first IFCC, EFLM, AFCB Conference, "Laboratory Medicine: Meeting the needs of Mediterranean Nations" on 2 - 4 July 2018, Rome, Italy. The Chair presented the work of the committee, including the PTDB online database and web app.
 - b) "Creation of an external quality assessment scheme for companion diagnostics" at the 2018 Moroccan Congress of Clinical Chemistry, Casablanca, 27 – 29 September 2018. The Chair delivered this lecture in French and presented the combined work of C-CMBC and C-PT.
8. Publications:
 - a) Ntzifa A, Kroupis C, Haliassos A, Lianidou E. A pilot plasma-ctDNA ring trial, for the Cobas® EGFR Mutation Test in clinical diagnostic laboratories. Clin Chem Lab Med. 2018, Sep 29. pii:/j/cclm.ahead-of-print/cclm-2018-0676/cclm-2018-0676.xml. doi:10.1515/cclm-2018-0676. [Epub ahead of print] PubMed PMID: 30267626.
 - b) Haliassos A. Inter-laboratory comparisons and EQA in the Mediterranean area. eJIFCC 2018; 29 (4): 253-258.
<http://www.ifcc.org/media/477614/ejifcc2018vol29no4pp253-258.pdf>

Value Proposition for Laboratory Medicine (C-VPLM), Chair: Andrew St. John (AU)

1. There are 4 separate planned papers in various stages of preparation. In their order of progress:
 - a) A description of the value proposition for the effective application of point-of-care testing. The authors are Chris Price and Andrew St John
 - b) A description of the value proposition for the application of advanced molecular diagnostics in cancer and transplantation. Michael Oellerich is leading this initiative.
 - c) A general review of the technique of economic modelling and its application to laboratory medicine. Paul Julicher is leading this initiative.
 - d) A comparison of how tests are evaluated and adopted in different countries, the barriers that exist which prevent effective adoption and whether these are addressed by the Value Proposition framework. Andrew St John is leading this initiative.
2. Two workshops are in the planning stages:
 - a) In the UK, the committee is working with two organisations - KTN (Knowledge Transfer Network) and Innovate UK - to organise a workshop involving a range of stakeholders that

would examine (i) process change and (ii) investment/disinvestment decisions in relation to the introduction of new tests. Chris Price is leading this initiative and it will involve Maurice O’Kane.

- b) A workshop is being planned by the committee that will review the clinical pathway for a specific test or tests. The participants will include all the stakeholders that contribute to the pathway including clinicians and other healthcare professionals. The workshop will highlight the key elements that contribute to and hinder the demonstration of value for that specific test. Likely tests to be considered include HbA1c and CRP by POCT. Discussions have commenced with funding agencies in the Federal Government. Andrew St John and Tony Badrick are leading this initiative.



Laboratory Errors and Patient Safety (WG-LEPS), Chair: Laura Sciacovelli (IT)

1. Laboratories’ quality indicator results are collected monthly through the dedicated website (www.ifcc-mqi.com) and their evaluation is in progress.
2. Identification of Performance Specifications for each Quality Indicator and publication of a scientific paper reporting the data. WG-LEPS is writing a scientific paper that reports the updating of Performance Specifications based on the results of Quality Indicators data collected in the last year.
3. Definition of specific plan by National Leaders of each country to promote the active use of Quality Indicators in the national laboratories. The planning foresees that the National Leader should (i) encourage the use of MQI; (ii) “personalise” the use of QIs in daily practice according to national practices, requirements and regulations; (iii) co-operate with the members of the WG-LEPS by providing valuable suggestions to improve the project

The WG-LEPS is collaborating with the:

- a) Beijing Center for Clinical Laboratory (Prof. Wang Qingtao, BCCL Director, and Dr. Zhou Rui, CCL manager). Their involvement in the management and dissemination of quality indicators for the monitoring of activities concerning some specific molecular diagnostics of the intra-analytical phase that will be proposed to laboratories all over the world has been finalised;
 - b) Quebec Society of Clinical Biology (Société Québécoise de Biologie Clinique) has already launched a programme for quality indicators comparison in Québec province with up to 60 laboratories participating. The Society will launch its programme for the rest of Canada at the annual meeting of the Canadian Society of Clinical Chemistry in order to promote quality in their laboratories and is completely free of charge. The collaboration is based on the sharing of the Model of Quality Indicators proposed by WG-LEPS and a common management of the quality indicator results. Moreover, joint initiatives will be realised in order to promote the use of quality indicators in all laboratories all over the world.
4. Involving national scientific societies, accreditation bodies and EQA/PT providers in different countries as a means of disseminating the MQI project and promoting participation of laboratories is continuing. The Chair participated in the Annual Meeting of the Quebec Society of Clinical Biology on 25th October 2018 by delivering a talk in order to promote the collaboration on the Quality Indicator project.

Harmonisation of Interpretive Comments External Quality Assurance (WG-ICQA), Chair: Samuel Vasikaran (AU)

1. The working group is supporting the development of locally led patient report comment EQA programme in Africa:
2. Submission for the inclusion of EQA for interpretative commenting in the revised ISO 15189 is concluded. The outcome is still awaited.
3. Collaboration with EFLM Working Group on Post-analytical Phase (WG-POST) is being discussed.

Personal Support (WG-PS), Chair: Graham Beastall (UK)

1. Positive publicity material for WG-PS explaining the roles of Expert and Mentor and how to reach them has been prepared.
2. The databases for Expert and Mentor have been rationalised so that they are accessible through a common portal.
3. All those listed on the Register of Experts have been contacted and asked if they wish to continue to be listed as an Expert and/or as a potential Mentor.
4. All IFCC Members have been contacted in order to increase awareness of WG-PS and to seek new nominations as Experts and Mentors.
5. An active campaign is being launched to promote the opportunities afforded by WG-PS. The campaign is being launched through IFCC Members, TF-YS and 'Lab-Surfing' and via social networking. The aim is to identify individuals who would benefit from being connected to Expert or Mentor.
6. Discussion with the IFCC Office regarding modifications to IFCC website to deliver Common Portal.
7. Publications:
Articles are being prepared for IFCC e-News and Diagnóstico In Vitro for publication in early 2019. An interview with El Microscopio was recorded and broadcasted in December 2018.

Visiting Lecturer Programme (IFCC-VLP), Chair: Nader Rifai (US)

In 2018, VLP applications from 12 member societies, involving 25 Visiting Lecturers, were approved. The Visiting Lecturer Programme is generously supported by Abbott Laboratories.

Working Group on Flow Cytometry (WG-FC), Chair: Ulrich Sack (DE)

1. A winter school was held in St-Etienne, France from 5 – 9 March 2018.
2. A course was conducted in Istanbul, Turkey from 20 – 22 June 2018, sponsored by Beckman.
3. A course was conducted in Sao Paulo, Brazil from 28 – 30 August 2018, sponsored by Beckman.
4. A course was conducted in Astana, Kazakhstan from 19 – 21 September 2018, sponsored by Beckman and supported by the local university and scientific community.
5. A course on Flow Cytometry was conducted in Munich, Germany from 24 – 28 September 2018.
6. For each course, 30 to 36 participants attended the practical exercises. Lectures were also open to interested scientists and technicians. Local support was always excellent. Beckman Coulter supported the organisation, financing, and provided technical equipment and consumables. Local specialists were essential for practical work.
7. Publication: A manuscript on validation in cytometry has been submitted to Clinical Chemistry and Laboratory Medicine and is under revision.

Developing Quality Competence in Medical Laboratories (DQCML), Chair: Egon Amann (DE)

1. An Open DQCML Session ("*Drop in session*") with National Representatives who may wish to seek support was offered during the IFCC General Conference on 9 November 2018.
2. Workshops conducted:
 - a) Two workshops on IQC and EQA were conducted in Malawi (in the cities of Blantyre and Lilongwe) on 26 February and 1 March 2018. Lecturers were Graham Beastall, Annette Thomas and Egon Amann. These workshops supported the ambitions of Malawi to develop a programme of Quality Competence.
 - b) A workshop on IQC and EQA was conducted in Nepal from 28 – 30 May 2018. The two national societies, NACC and NAMLS, jointly applied for this programme. Lecturers were Renze Bais, Annette Thomas and Egon Amann. The visit was also a way to initiate an RCPA-sponsored transfer of EQA materials to Nepal's clinical laboratories. 20 labs have enrolled initially.



3. Reports on the Malawi and Nepal workshops were published in the IFCC eNews. All presentation materials from these workshops are available from the Chair and could be shared under the eAcademy web site.
4. The experience gained in the EQA Zambia Project that was led by Dr. Renze Bais in the provision of control and standard materials, logistics and support is being utilised for the workshop and ongoing material supply in Nepal.

Leslie Lai, Chair EMD

COMMUNICATIONS AND PUBLICATIONS DIVISION (CPD)

In 2018, the following members served on the CPD Executive Committee: Khosrow Adeli (CA, Chair), Edgard Delvin (CA, Vice Chair/Public Relations Coordinator), Eduardo Freggiaro (AR, Publications/Distance Learning Coordinator), Tahir Pillay (ZA, News Editor), J. Kappelmayer (HU, Editor eJIFCC), and Tricia Ravalico (US, Corporate Representative). Janine Grant (AU, Website Editor), Maria del Carmen Pasquel (EQ, WG- IANT Chair), Anthony Newman (NL, Publications consultant) were invited to attend the CPD meeting in Budapest, on occasion of the IFCC General Conference 2018.

The following is a summary list of the key CPD activities in 2018:

- Three face-to-face committee meetings were held in 2018: Buenos Aires, (AR) in March, Mannheim (DE) in June, and Budapest (HU) in November, on occasion of the IFCC General Conference;
- Informal CPD meeting in Chicago (US) on occasion of AACC Lab Expo 2018;
- CPD Chair, Prof. Khosrow Adeli (CA), completed his second term;
- C-Pr Chair, Prof Edgard Delvin (CA) and WG eNews Chair, Prof Tahir Pillay (CA), completed their second term this year;
- WG eJIFCC Chair, and eJIFCC editor, Prof János Kappelmayer (HU), began his first term in January 2018;
- Calls for nominations were sent out for EC Corporate Representative for term 2018-2020, WG eNews Chair and C-PR Chair for term 2019-2021. Other calls for nominations were also sent for CPD functional unit member vacancies;
- CPD Corporate member, Mrs Tricia Ravalico (US), began her first term in June 2018;
- Actions to implement the IFCC Strategic plan in support of our IFCC Membership:
 - a) Maintaining support materials and web-based tools to demonstrate the benefits of IFCC membership to all countries with: - focus on improvement of internal communications within IFCC and its Member Societies; - major improvements for both the IFCC eNewsletter and the eJournal. Publication formats as well as news/scientific content have been enhanced considerably over the past year;
 - b) Use and evaluate effectiveness of new support materials:- successful increase in eNews frequency from bimonthly (6 issues/year) to monthly (ten issues/year) in 2018; - eJIFCC began exploration of professional submission tools;; -- DiV (RIA Spanish Magazine) continues to ensure communication with Spanish-speaking professionals; - IFCC social presence (FB, LinkedIn, Twitter) is lively and well managed; an IFCC Instagram account was open in 2018 and plans for YouTube presence are progressing; - - instant polling system selected and recommended for use at IFCC General Conference;
 - c) Delivering the e-academy as the platform to support IFCC educational materials: - increased communication with the Spanish speaking countries with AMARA collaboration initiative; -- Phase 2 preparation for release in 2019; - 4 eAcademy Coordinators nominated to coordinate the activities and further development;
 - d) Develop and present a series of webinars to meet the needs of Members: Promotion of Distance Learning Opportunities for Member Societies & their Membership via eAcademy;



- e) Survey the membership to better understand needs, requests and proposals.
- Enhancement of IFCC Public Relations/Visibility;
- IFCC App continues to be updated with IFCC initiatives and activities. There are plans to release an improved and more interactive version in 2019/2020;
- New initiatives to promote the image of the IFCC to its individual members, to the biomedical industry and to the worldwide health care community at large;
- Contribution to IFCC congresses with organization of CPD Sessions & Symposia in 2018;
- Completion of Electronic Journal of IFCC (eJIFCC) renumbering and ordering of all archived issues for indexing by MEDLINE/PUBMED;
- Completion of indexing of all eJIFCC archived issues in PMC;
- Acceptance by Scopus to select the eJIFCC for coverage by Elsevier in November 2018;
- Communications to list eJIFCC into Google Scholar, Thomson Reuters, and Web of Sciences, continue;

The following symposia were organised by the CPD in 2018:

- “SPECIAL CPD SYMPOSIUM IN CLINICAL CHEMISTRY”, held on 2 March 2018 at the Facultad de Farmacia y Bioquímica – UBA, Buenos Aires, Argentina:
 - Welcome and Introductory remarks - E. Freggiaro, AR; Global Initiatives in Pediatric Reference Intervals for Laboratory Biomarkers of Health and Disease - K. Adeli, CA; Developing New Diagnostic Probes for Immunoassays Based on Nanobodies and Next Generation Technology – T. Pillay, ZA; Management of bulk test results and special lab reports in a core laboratory – J. Kappelmayer, HU
 - Round table – All
 - Closing remarks: Khosrow Adeli, CA and Eduardo Freggiaro, AR
- CALILAB congress (24-27 October - Buenos Aires, Argentina)
 - IFCC eCommunication Tools and Strategy: Mobile App, eAcademy, eNews, and eJournal” - K. Adeli, CA
 - The IFCC ibero-american corner: strategies for the professional training and the laboratory quality (El rincón iberoamericano de la IFCC: estrategias para la capacitación profesional y la calidad del laboratorio)- María del Carmen Pasquel, EC
 - Real continuous biochemical education in a virtual environment (Educación bioquímica continua real en un entorno virtual) - E. Freggiaro, AR
- IFCC General Conference, 9-11 November 2019 Budapest, Hungary
 - Future Communication Strategy for IFCC - Khosrow Adeli, Chair; IFCC eApp and ePublications - Tahir Pillay; Communication Strategy in Education and Dissemination - János Kappelmayer; A new award programme to inspire Healthcare Excellence - Patricia Ravalico

Committee on Public Relations (C-PR), Chair: •Edgard Delvin (CA)

A Committee Meeting was held in Budapest which was attended by most members.

ACTIONS: The C-PR held a conference call on 26 April 2018 during which the development of promotional material targeting the lay public and means of promoting IFCC educational material (e-Academy and others) were discussed. These will further be discussed during the C-PR meeting in Budapest.

The Spring 2018 survey directed toward the individual members of the National Societies and Regional Federations resulted in a poor response rate. Hence it was proposed to have a second round and send the survey either through the IFCC mailing list or the National Representatives. However before proceeding some editing was suggested. Tricia Ravalico, Corporate representative, offered to review the questions and provide suggestions in terms of “marketing”; the questions concerning the IFCC website, e-Newsletter, the e-NewsFlash, the e-JIFCC, the IFCC e-Academy and the IFCC App remaining central. The revision has been completed and the survey was sent to the National Representatives on 15 October 2018.



We have started developing a presentation inspired by the brochure and PowerPoint presentation “*Understanding Laboratory Medicine*” in the form of a series of slides targeting the lay audience. Each is planned as a self-contained story that can be broken down into a series of steps with different clinical subjects. They will be adapted to the local needs/policies, printed by National Societies or displayed on TV screens as revolving stills/ video at strategic points (hospital hallways, administrators’ meetings, clinics) and used during different events such as the laboratory week.

An invitation has been sent to the IFCC SD & EMD Chairpersons to explore with the respective Chairs of their different Committees and working groups the possibility of writing timely articles on the value of laboratory medicine (promoting the role and value of laboratories in improving healthcare and patient safety targeting lay audiences) to be published in local newspapers, magazines & electronic media.

A new set of display posters were developed and shown during the GC in Budapest. They received excellent feedback and will be updated for future events.

The C-PR is developing new **BROCHURES**, in order to reflect the new IFCC pay-off.

The C-PR re-wrote its **TERMS OF REFERENCE** in order to broaden its reach.

Committee on Internet and e-Learning (C-leL), Co-Chair: Eduardo Freggiaro (AR)

A Committee Meeting was held in Athens, along with a C-leL and C-DL joint meeting.

This committee started to work effectively in February 2018 when the two members from EMD were appointed.

During the General Conference in Budapest the committee had its first face-to-face meeting and this meeting improved the team performance and cohesiveness.

These are the main activities done during the last 10 months:

- Corresponding members from the two previous committees were invited to continue their participation in the new C-IDL. IFCC office sent emails to confirm their membership under the new committee. Most of the members confirmed their participation. Our aim is to increase the linkage with corresponding members;
- C-IDL agreed to use as official communication platform the Project Management Software (PMS) provided by InSoft. However, during the past period this tool has become less useful and most of the communication were conducted by email;
- Both co-Chairs rewrote the terms of reference for the new committee and they are published on the website.
- The IFCC Curriculum final version was published in the eAcademy. The link point to the official document was published in the eJIFCC (April 2018). This document is one of the most downloaded files from the IFCC website;
- An invitation to prepare educational materials for eAcademy was sent to all the National Societies and was well received. Four NS replied and we are working on their proposals.

IFCC e-Academy

Number of new items published

In 2018 the eAcademy reached the number of 117 resources published, 67 webinars and 51 external links; 24 webinars are completed with LO and MCQs ready to be uploaded and comply with eAcademy phase 2 features.

21 further webinars taken during conferences were reviewed in 2018 to fix synchronization errors.

Funding: Siemens will continue providing funds for the project in general.

Content production tool: A new tool for video presentations recordings was selected: Knovio. We opened a Gold account and in 2018 this tool was successfully used by Speakers.

Platform update: the plan is to move the eAcademy website under the same installation as IFCC website.

Phase 2 deployment: C-IDL provided feedback to the questions asked by InSoft regarding some relevant issues. At the moment, all the features are ready to be deployed (user's profile, quizzes and certificates). The new features will be launched before the end of year 2019.

eAcademy Coordinators: after the position was advertised, 4 coordinators were selected: Rojeet Shrestha, Paul Hamilton, David Armbruster and Frank Quinn.

C-IDL wrote a standard operating procedure for module creation and encouraged coordinator to identify new potential Speakers scanning congresses programs and the IFCC database of experts.

IFCC Website

Key website development and maintenance activities over the past 12 months have been as follows:

Publication of News items:

Month	Number of items published
Jan 18	2
Feb 18	5
Mar 18	5
Apr 18	1
May 18	6
June 18	3
July 18	5
Aug 18	2
Sept 18	4
Nov 18	5
Dec 18	6

The following website developments completed in 2018:

- Currency of web platform. The IFCC website was migrated from the Umbraco v4 platform to the current v7. Future updates will occur automatically as part of the support and service agreement with InSoft, during the monthly service window;
- Update of interactive membership map.;
- Addition of a new IFCC Division requiring an update to Blue link banner and slight widening of pages. This required an update to the Website Policy and Procedures;
- On-going updates to various media files, links and pages as required;
- New method for tracking downloads introduced from Feb 2018;
- Updates relating to GDPR compliance: addition of cookies notification for first visit and homepage link to privacy and policies page;
- eAcademy: Ongoing publication of content as approved by C-DL. Total items published to date: Phase 2 developments pending.

Social Media

Facebook IFCC official page is the most influential compared to other social sites with 23,369 followers at October 2018. In terms of number of followers, IFCC Facebook page is at second position in the similar page with 1st being Clinical Chemistry. Amongst the professional societies of clinical chemistry, IFCC Facebook page can be considered as number 1. Up to October 2018, IFCC posts have been displayed in 197,387 screens.

IFCC Twitter has 1226 followers and 301 tweets as of October 2018.

LinkedIn group has 3556 members and is being used to discuss various issues. Our LinkedIn page contains approximately 5000 followers but it seems like the page has been auto generated with unknown admin status. In 2018 a new page has been created and plans are to use it as official page. All the post are also being regularly posted in this page.

Instagram: starting in Feb 2018, we have extended our social media presence to Instagram. It has 81 followers.



Databases. The NPU, Register of Experts, and Publications databases are the only active databases currently on the website. An eAcademy database will be developed with the eAcademy phase 2 implementation.

Working Group on Electronic Journal of the IFCC (WG-eJIFCC), Chair: János Kappelmayer (HU)

Major Accomplishments:

All archived issues of eJIFCC, published online by PubMed since October 2016, have been fully reorganized and converted in accepted format for indexing in PMC. Full eJIFCC archive is now published in PMC.

Scopus accepted eJIFCC for listing; next step will be application to WoS.

The eJIFCC collection is available at: <http://www.ifcc.org/ifcc-communications-publications-division-cpd/ifcc-publications/ejifcc-journal/e-journal-volumes/>:

eJIFCC Volume 29 no 1, the first edited by Prof. János Kappelmayer, director of a large clinical laboratory at the University of Debrecen, Hungary, was published in April 2018. The issue contains 5 manuscripts (+foreword), 1 letter, the IFCC curriculum and a book review

1. Foreword from the new editor-in-chief
János Kappelmayer
2. Next-generation sequencing approach for the diagnosis of human diseases: open challenges and new opportunities
Chiara Di Resta, Silvia Galbiati, Paola Carrera, Maurizio Ferrari
3. Integration of multigene panels for the diagnosis of hereditary retinal disorders using Next Generation Sequencing and bioinformatics approaches
Chiara Di Resta, Ivana Spiga, Silvia Presi, Stefania Merella, Giovanni Battista Pipitone, Maria Pia Manitto, Giuseppe Querques, Maurizio Battaglia Parodi, Maurizio Ferrari, Paola Carrera
4. Influence of serum leptin levels and Q223R leptin receptor polymorphism on clinical characteristic of patients with rheumatoid arthritis from Western Mexico
Luis I. Angel-Chávez, Elizabeth Ruelas-Cinco, Jorge Hernández-Bello, Elena Castro, Mirna Vázquez-Villamar, Isela Parra-Rojas, L. Michele Brennan-Bourdon, Salvador Muñoz-Barrios, Celia Guerrero-Velázquez, José Francisco, Muñoz-Valle
5. Anemia and thrombocytopenia in the cohort of HIV-infected adults in northwest Ethiopia: a facility-based cross-sectional study
Tekalign Deressa, Debasu Damtie, Meseret Workineh, Meaza Genetu, Mulugeta Melku
6. Reference intervals for a complete blood count on an automated haematology analyser Sysmex XN in healthy adults from the southern metropolitan area of Barcelona
Ariadna Arbiol-Roca, Claudia Elizabeth Imperiali, Magdalena Macià Montserrat, Ana Sancho Cerro, Anna Cortés Bosch
de Basea, Lourdes Sánchez Navarro, Dolors Dot-Bach, José Valero Politi
7. The IFCC Curriculum - phase 1
IFCC Committee for Distance Learning – Ronda F. Greaves, Janet M. Smith, Graham Beastall, Chris Florkowski,
Loralie Langman, Joanna Sheldon, Elvar Theodorsson
8. Letter: Serum ferritin as a biomarker of polycythemia vera?
Stephen E. Langabeer
9. Book review: “Neonatology and Laboratory Medicine”
Joseph B. Lopez

eJIFCC Volume 29 no 2 was published in July 2018

The issue contains 8 manuscripts, 5 of them guest-edited by Dr Harjit Pal Bhattoa (HU), on:

“Laboratory investigation of vitamin D and bone metabolism markers”.

1. Laboratory investigation of vitamin D metabolites and bone metabolism markers
Guest Editor: Harjit Pal Bhattoa
2. Vitamin D and its metabolites: from now and beyond
Etienne Cavalier, Jean-Claude Souberbielle
3. Vitamin D and endocrine disorders: routine laboratory diagnostic implications
Giovanna Muscogiuri, Harjit Pal Bhattoa
4. Laboratory aspects and clinical utility of bone turnover markers
Harjit Pal Bhattoa
5. Practical guide for identifying unmet clinical needs for biomarkers
Phillip J. Monaghan, Sarah Robinson, Daniel Rajdl, Patrick M.M. Bossuyt, Sverre Sandberg, Andrew St John,
Maurice O’Kane, Lieselotte Lennartz, Ralf Röddiger, Sarah J. Lord, Christa M. Cobbaert,
Andrea R. Horvath
6. Prevalence of anemia and its associated factors among children in Ethiopia: a protocol for systematic review and meta-analysis
Zegeye Abebe, Wubet Worku Takele, Degefaye Zelalem Anlay, Daniale Tekelia Ekubagewargies, Zegeye Getaneh, Molla Abebe, Mulugeta Melku
7. Acute myeloid leukemia with severe coagulation disorder and central nervous system bleeding - a clinical diagnostic case report
S. Hatzl, B. Uhl, M. Hinterramskogler, S. Leber, F. Eisner, M. Haring, P. Jud
8. Vitamin B12 immunoassay interference in a patient with Multiple Myeloma - troubleshooting in a two step reagent kit based on enhanced chemiluminescence testing
V. Pant, A. Tumbapo, B. Kumar Yadav

eJIFCC Volume 29 no 3 was published in November 2018

The issue contains 12 manuscripts (+ 1 foreword), guest-edited by Prof. Sergio Bernardini (IT), on “Laboratory medicine – meeting the needs of Mediterranean nations (Part 1)”, along with 3 letters

1. Foreword of the editor-in-chief
János Kappelmayer
2. Laboratory medicine: meeting the needs of Mediterranean nations
Guest Editors: Sergio Bernardini, Bernard Gouget
Transmissible diseases in the Mediterranean area
3. Communicable diseases in the Mediterranean region
Ghassan Shannan
4. Are medical laboratories ready for the diagnosis of parasitic diseases?
Ahmet Özbilgin
5. Travel, migration and emerging infectious diseases
Nicolas Vignier, Olivier Bouchaud
Training and education in laboratory medicine
6. Is the profession of laboratory medicine uniform across the North Mediterranean countries?
Konstantinos Makris
7. EFLM project “Exchange of practical knowledge and skills in Laboratory Medicine” – EFLMLabX
Evgenija Homšak

Improving health with emerging technologies

8. Economic evaluation as a tool in emerging technology assessment
Nataša Bogavac-Stanojević
9. Who or what is SHERLOCK?
Ann M. Gronowski





10. Advancement in POCT molecular testing: the multiplex PCR POCT devices for infectious diseases
Alpaslan Alp
11. New solutions for the sample transport and results delivery: a digital lab
Damien Gruson
12. Next generation sequencing: from research area to clinical practice
Chiara Di Resta, Maurizio Ferrari
13. miRNA and other non-coding RNAs as promising diagnostic markers
Dorota Trzybulska, Eleni Vergadi, Christos Tsatsanis

Letters

14. Letter: NGS for metabolic disease diagnosis
Dèlia Yubero, Rafael Artuch
15. Letter: Reflections on the mentor-mentee relationship as a symbiosis
Josep Miquel Bauça
16. Letter: Inter-laboratory exchange of knowledge and technology around our Sea
Guilaine Boursier

eJIFCC Volume 29 no 4 was published in December 2018

The issue contains 12 manuscripts (+ 1 foreword), guest-edited by Prof. Sergio Bernardini (IT), on “Laboratory medicine – meeting the needs of Mediterranean nations (Part 2)”

1. Foreword from the editor-in-chief
János Kappelmayer

Improving efficiency in laboratory medicine

2. Traceability in laboratory medicine: what is it and why is it important for patients?
Graham H. Beastall
3. Laboratory medicine in Palestine
Rania Abu Seir, Osama Najjar
4. Inter-laboratory comparisons and EQA in the Mediterranean area
Alexander Haliassos
5. An evidence-based laboratory medicine approach to evaluate new laboratory tests
Tommaso Trenti
6. Which skills are needed and how they should be gained by laboratory medicine professionals for successful ISO 15189 accreditation
Diler Aslan

Perinatal and pregnancy laboratory medicine

7. Prenatal screening for chromosomal abnormalities: where do we stand today in Mediterranean countries?
Demetrios Rizos
8. The role of laboratory medicine for health during pregnancy
Adnan Alkhatib

Mediterranean diet and the area’s specific diseases

9. Alcohol abuse
Tomáš Zima
10. Urinary proteomics in biomarker discovery of kidney-related disorders: diabetic nephropathy and drug-induced nephrotoxicity in chronic headache
Elisa Bellei, Emanuela Monari, Stefania Bergamini, Luigi Alberto Pini, Aldo Tomasi, Tomris Ozben
11. Standardization of the HbA2 assay
Renata Paleari, Andrea Mosca
12. Surrogate biomarkers for monitoring healthcare quality for chronic diseases such as diabetes care
Diler Aslan

13. The role of laboratory medicine in addressing migrant health problems
Adekunle Bashiru Okesina, Ademola Adelekan

In 2019 the plan is to distribute the eJIFCC volumes more equally throughout the year, i.e.: February, May, August and November.

Working Group on IFCC News (WG-eNews), Chair: Tahir Pillay (ZA)

The WG membership consists of representatives from Spain, Serbia, Morocco, Nigeria, South Africa, Greece, Brazil, Canada, Cyprus, Malaysia, Mexico, Morocco, Nepal, Poland, Slovenia, Tunisia, Uruguay & Vietnam. Additionally, there are National Society liaisons from Australasia, Chile, Serbia, UK, USA, Paraguay, Spain, Taiwan, Pakistan, Latvia & Vietnam.

In 2018 the rate of publication has reached the monthly frequency as the IFCC board has requested a shorter and more frequent newsletter. Therefore we now publish 10 issues of the newsletter annually and these appear every month, with the exception of January and August. The eNewsflash is used to highlight important IFCC news items especially time-sensitive and urgent items.

Requests for articles are sent to all eNewsletter WG members, National Societies liaisons and National Representatives (through the IFCC Office) with a reminder of the deadlines. The reports of the IFCC Young Scientists task force and the PSEP reports from awardees tend to feature prominently. This helps to highlight the contribution of the IFCC to international clinical chemistry across the world and also ensures that contributions from members continue to come to the newsletter. The eNews continue to coordinate with Social Media editor to post most popular articles on IFCC Social accounts.

The **eNews collection** is available at: <http://www.ifcc.org/ifcc-communications-publications-division-cpd/ifcc-publications/enewsletter/enews-volumes/>

The **eNews Flash collection** is available at: <http://www.ifcc.org/ifcc-communications-publications-division-cpd/ifcc-publications/enewsletter/enews-flash-archive/>

Relationship with LabMedica International

LMI prints a selection of the articles. The eNews editor is on the editorial board of LabMedica

Working Group – Spanish (Ibero-American) Nomenclature and Translations (WG-IANT), Chair: Maria del Carmen Pasquel (EC)

Membership: new members representing all Ibero American IFCC countries are participating in the WG activities. The RIA section of IFCC website is continuously updated.

There are new programs and initiatives planned and these are mainly focused on updating the RIA section of the website.

DiV, Diagnóstico in Vitro, continues to be a major product of the WG-IANT activity. Three issues have been published in 2018. DiV main sections are: Editorial, News and Updates, Scientific Articles, Letters to the Editor, Young Scientists corner, Radio Interview El Microscopio. The DiV collection is available at: <http://www.ifcc.org/div/>.

El Microscopio

Programmes are regularly broadcasted and some of them are in English, for a broader circulation. This successful initiative is in search of additional funding and tools for promotional purposes.

Corporate Member activities, Tricia Ravalico (US)

Tricia Ravalico (Abbott) was appointed in June 2018 in replacement of Peter Bialk (Roche Diagnostics) who resigned.

Tricia has provided great support for IFCC public relations. Her recent activities included supporting the C-PR for the IFCC brochures revision, supporting the IFCC, along with other partners, for the launch of the UNIVANTS of HCE (Healthcare Excellence Programme).

Khosrow Adeli, CPD Chair, Tahir Pillay Incoming Chair



EMERGING TECHNOLOGIES DIVISION (ETD)

The Emerging Technologies Division (ETD) has been approved by the Executive Board (EB), as new IFCC functional Unit, in Athens, June 9th 2017. The ETD Executive Committee has been approved by the EB in Durban, October 20th, 2017: Members: Ronda Graves, Damien Gruson, Paolo Fortina; Corporate Members: Peng Yin (Abbott), Markus Roessler (Roche); Consultants: Maurizio Ferrari, Larry Kricka, Jason Park.

The ETD is an IFCC functional unit responsible for identifying and assessing emerging technologies and for translating the emerging and disruptive diagnostic and data analysis procedures from academic laboratories to clinical laboratories and from clinical laboratories to market.

The ETD Responsibilities are: defining for each ET the clinical needs and criteria for education of specialists in Laboratory Medicine and caregivers; defining for ET the appropriate infrastructure and laboratory organization; defining for each ET pre-analytical, analytical and post-analytical processes necessary for clinical laboratory applications; defining for each ET quality programs and certifications required to meet criteria for accreditation up to ISO151811 standard; assess the clinical value of each test with regard to addressing unmet clinical need.

The ETD Executive Committee met three times during 2018: March 11th in Rome; August 1st in Chicago and November 9th in Budapest.

Three Committees have been approved to date by the EB in Budapest in November 2018:

Committee Emerging Technologies in Pediatrics, Chair Tim Lang (UK); **Committee Omics Translation**, Chair Gregory J Tsongalis (US); **Mobile Health and Bioengineering in Laboratory Medicine**, Chair Bernard Gouget (FR).

Five WGs are still under EB evaluation: WG-Volatilomics, Chair Larry Kricka (US); WG- Guidance for the implementation of custom-made genomic panels, Chair Jennifer Morrisette (US); WG on Open Innovation, Chair Damien Gruson (BE); WG Functional Genomics in Laboratory Medicine, Chair Ronda Graves (AU); Neonatal Laboratory Medicine, Chair Vijay L. Grey (CA).

The ETD Officers to date are 50 from 20 Countries.

During 2018, ETD organized Symposia at the following Congresses: AFCB Ramallah, Palestine-April;

STBC Tunis, Tunisia-May; ESC e-Cardiology Conference, Moscow-October; 15^o Symposium for Balkan Region, April-Belgrade.

Sergio Bernardini – ETD Chair

TASK FORCES

Task Force on Ethics (TF-E)

- A survey was e-mailed to all IFCC member societies regarding their current ethics documents and future needs regarding ethics documents on COI, code of ethics & relationship with industry.
- Development of Ethics Toolkit for Member Societies. At present under development
- Updated TF-Ethics website.
- TF-Ethics held a committee meeting in Budapest during the General Conference 2018.

Plans for 2019:

- Complete and update the Ethics “toolkit” for Member Societies.
- Create an E-learning course on professional ethics for IFCC volunteers.
- Update of TF-Ethics website and include a section on “Highlights of recent events in Bioethics”
- Create a table of documents collected so far stratified by organization. Committee members will approach organizations in their region to solicit more documents.
- Compare Code of ethics documents creating a document that outlines similar sections.

Nilda Fink (Chair)

Task Force for Young Scientists (TF-YS)

Education and Training:

TF-YS educational sessions conducted:

- YS session at the 1st IFCC, EFLM, AFCB Conference “Laboratory Medicine: Meeting the needs of Mediterranean Nations” 2-4 July, 2018 – session theme ‘Laboratory Medicine Sustainability around Mediterranean Sea’: YS speakers Guilaine, Miljan, Josep and Pradeep; supported by Organising Committee
- Functional Meeting and Talk TFYS at IFCC General Conference, 10-11 Nov 2018: participated by all core members
- IFCC-TFYS and SYCL Networking at AACCC 2018, July 29-Aug 2; participated by Santiago, Damien
- TFYS session and YS Quiz at ACBICON 2018, Goa, India; participated by Pradeep, Damien, Danni
- Round table of IFCC-TFYS and online Skype participation of Pradeep at “16th Panhellenic Congress of Clinical Chemistry”, 11-13 October, Alexandroupolis, Greece: another TFYS speaker Anna Velts supported by Congress Organizing Committee
- Online Skype participation of Pradeep at “Congress of the Italian Society Clinical Chemistry (SIBioC)”, Naples, Italy, 16-18 Oct 2018
- Online Skype participation of Pradeep, Santiago at “2nd Conference of the Italian Society of Clinical Chemistry and Laboratory Medicine (SIBioC)” - Young Scientists Working Group (YS-WG); “2^o Congresso Nazionale SIBioC GdS Young Scientists”, 3rd Dec 2018
- “CALILAB - X Congreso Argentino de Calidad en el Laboratorio Clínico y VIII Jornadas Latinoamericanas de la Calidad en el Laboratorio Clínico”. “IFCC YS-TF projects and activities” Santiago Fares Taie. Buenos Aires 24-27 de octubre 2018.

Planned 2019 TF-YS educational sessions and networking at:

1. Session and functional meet TFYS at APFCB 2019, Nov 17-20, Jaipur, India and ACBICON 2019: joint Leadership workshop with IFCC-CCLM is also being planned; Young Scientists volunteer programme, travel grants by IFCC-TFYS
2. Symposium at Euromedlab 2019, May 19-23, Barcelona, Madrid: networking with Spanish YS
3. Tunisian Society of Clinical Biology organizes its 33th National Days, 25-27 April 2019, Hammamet-Tunisia: proposed to schedule an IFCC TF-YS session on Thursday 27 April



- 2019: proposed by Chaabane Manel, TFYS corresponding member
4. Pakistan Society of Chemical Pathologists (PSCP) organising online YS session under theme of «Research Methodology», 13th March 2019
 5. TFYS session at NACCON (Nepalese Association for Clinical Chemistry) 2019 and Annual Meeting on March 2-3, 2019 at Pokhara, Nepal
 6. TFYS is planning to extend the network via regional programmes and social media further.
 7. Dr Phillippe suggested TFYS to propose symposium for IFCC-WorldLab2020.
 8. Prof Rajiv Erasmus assured of all help within African Federation AFCC and regions to spread TFYS activities.

Webinar Series

We have completed 6 webinars by now and finalising for next series to conduct with L3 Healthcare.

Suggested Topics: “structuring a paper, selecting the best journal, dealing with peer-review, publishing ethics problem” for next 3 webinars to continue in 2019.

Last webinar conducted at 13th Dec 2018: Title “Essential skills to structure a paper”

Speaker: Anthony Newman, Clinical Chemistry programme, Life Sciences Dept., Elsevier, Amsterdam, The Netherlands

Member YS Support

YS colleagues support to meet participation. Young Scientists volunteer programme, travel grants by IFCC-TFYS to join APFCB 2019. Seeking support from corporate members and APFCB committee. IFCC-EB announced travel support for EuromedLab2019, APFCB2019, ColaBioCli 2019.

Mentorship Programme

To continue interviews; latest support from Maria Eugenia Shroeder, Uruguay, Corresponding member TFYS to work with Danni; Danni has also proposed to support TFYS programme after 2018.

Lab-Surfing

To continue operations on Lab surfing, we need support to meet maintenance and additions.

1. Lab surfing visibility need to enhance and register more and more YS. Also needing to attach more YS before it go for such other tools.
2. Santiago may write short news and updates, that we can share through different social and official channels to join YS.
3. Personal presence of YS through discussion, need based activities can be enhanced.
4. Newsletter - even 1 page is enough to connect.
5. YS Experts directory- can be added to access for various field of experts as shown during Guilaine ppt.
6. Updation of Labsurfing
7. Funding can be proposed for same as discussed.

TFYS Survey

Now the members have been added approx. 2000 globally to all social media channels.

Guilaine has started new extended Survey: “YS training & career”.

By the IFCC Task Force Young Scientists, this survey aims to acquire preliminary information of young colleague’s education, training, career path, research interest, field of work and association with TFYS. This will enable us to share and focus our energies to find support for base programmes that are needed.

<https://docs.google.com/forms/d/e/1FAIpQLSdCZ6dmBfV-YzuL0fHRMc73r-JABkdoJsW2YuHnqOEeUWIM-g/viewform>

Guilaine has already shared details during programme and slides as well.

Social Media

We are continuing meeting needs and networking YS through all media Facebook, Google

group, Linked In, Twitter, Online meetings of members.

Outgoing Core-Members

Miljan, Danni, Lara are outgoing core members, completing 2nd term with TFYS. Committed and great team leaders.

Call for nomination of TFYS core members process is completed through IFCC office and new members will be joining as core office bearers as a part of practice, for TFYS office 2019-21. Further information will be shared and updated with all members soon.

Young Scientists Positions in IFCC task forces and sub-committees

Through years of efforts of TFYS team, we are able to convince IFCC-EB to bring YS positions into committees starting with scientific division. Formal announcements will be coming in time.

Leadership & Management

Dr Pradeep was invited for closed meet of IFCC-CCLM where Dr Sedef, Chair CCLM invited to collaborate and extend the leadership and management programme with TFYS. Details will be shared by CCLM further. IFCC-CCLM and TFYS will be holding joint Leadership workshop under the banner of APFCB2019 at India.

Pradeep Kumar Dabla (Chair)



FOUNDATION FOR EMERGING NATIONS – FEN

Introduction:

The FEN is established under Swiss law as a non-profit making charitable trust, which is devoted to fund raising and to supporting programmes that help to improve the quality and delivery of laboratory medicine services, particularly in emerging nations.

Board of Directors:

There are five members of the FEN Board of Directors

- Dr Graham H Beastall (UK) Chair
- Dr Michelle Rossier (CH)
- Prof Thomas Brinkmann (DE)
- Ms Lucia Monaco (IT)
- Prof Tomris Ozben (TR)

Biographies of the Board of Directors are available from www.ifccfoundation.org

Board Meetings:

During 2018 the Board met (by Skype) on four occasions (April, July, October and December). There was a high level of participation by Directors. Confirmed and signed Minutes of those meetings are available on request.

Achievements:

During 2018 the FEN achieved the following:

- Compliance with the Handelsregister des Kantons Schwyz and the Swiss Foundation Supervisory Authority
- Publication of the annual report for 2017
- Approval of audited accounts for 2017
- Operation of the FEN website www.ifccfoundation.org
- Publication of two newsletters
- Promotion of the FEN through various IFCC media outlets

- Fundraising initiatives
- Support for and monitoring of one funded project

Completed Projects:

'Africa LabMed Radio':

The FEN supported the purchase of specialist equipment to enable an internet radio station to be established for all countries in Africa. Young scientists have been recruited as reporters and the equipment has been used in several interviews, which were made available through YouTube and Facebook. Support from the African Federation of Clinical Chemistry and other partners is required to deliver the final component of the project – regular radio broadcasts across Africa.

Ongoing Projects:

Proficiency of malaria microscopists in Ethiopia:

The Ethiopian Public Health Institute has an ambitious programme to eliminate malaria from areas of the country. The proficiency of the microscopists who make the diagnosis requires improvement if this is to be achieved. The FEN provided an award for partnership working with EPHI to develop training support for microscopists. A survey of the competence, training status and further requirements of microscopists has been completed and is being prepared for publication

Fundraising and Finances:

The greatest challenge faced by the FEN during 2018 was raising funds to support the ongoing work of the Foundation. During the year it was thought that the FEN may have to close because of a lack of funds. The FEN Board agreed that it should focus on its 'Support a Professional' programme. Funds to support this programme were obtained from SNIBE Diagnostics and the scholarship has been advertised in Pakistan in collaboration with the Pakistan Society of Chemical Pathologists.

Audited accounts for the year to 31st December 2018 are in preparation and will be available on request. In summary:

Income:

Starting balance at 1 January 2018	10.488 CHF
Funds added during year	8.884 CHF
Total	19.372 CHF

Expenditure:

Operating costs	5.122 CHF
Project support	2.415 CHF
Total	7.537 CHF

Closing balance at 31 December 2018 11.835 CHF

Acknowledgement:

The FEN acknowledges expert administrative support from Ms Paola Bramati of IFCC.

Graham Beastall (Chair)



FEDERATIONS



AFCB *Arab Federation of Clinical Biology*

INTRODUCTION

The AFCB is a regional federation of associations, societies and syndicates of clinical biology and laboratory medicine (12) created in 1974 with the Principal Objective: **The Development of the clinical Biology and laboratory medicine in the Arabic countries.**

The AFCB organized 15 Arab congresses in 2018, the first held in Cairo (EG) in 1974 and the last held in Palestine.

SOCIETIES' ACTIVITIES

The main 2018 activities of the Arab Societies were the following:

ALGERIA - two associations ALAM and SABC

- **ALAM**

1. Training day on automated spermogramme.
2. The 2th Congress of practical Biology and the 7th French Speaking Day of Biology November 27-28, 2017.
3. Continuing the formation of Algerian private biologists 2018.

- **SABC**

1. Continuing formation.
2. 7th Congress of Medical Biology and Laboratory Medicine May-6-7, 2018.

EGYPT

1. ESCC November-1-2, 2018.
2. Workshop: Laboratory Quality Management and Accreditation.
3. Symposiums:
 - Newborn Screening
 - Markers of Autoimmune Disease
 - Serum Biomarkers Panel in the Early Diagnosis of Lung Cancer
 - Point-of- Care Testing in the Emergency Department
 - Metabolomics and its Use in Studying and Treating Diabetes
 - Liquid Biopsy as an Emergency Non-invasive Clinical Tool for Cancer Patient Management
 - Molecular and Cellular Mechanisms of Aging – Associated Diseases
 - Antiangiogenesis Therapy: A new Strategy for Cancer Treatment

LEBANON - SNBL

1. Partnership Agreement between SBL and Association FCBM (Toulouse France): e-Medicine Image (Haematology-Parasitology-Bacteriology).
2. Organization of EQC in Biochemistry, Haematology, Hormonology for all Lebanon laboratories .
3. Organization of continuous education session (2018).

LYBIA - LSCL

1. Celebrate world blood donor day.
2. Training was carried out in many hospitals related to all aspects of professional quality laboratory activities.
3. Antimicrobial Resistance.

4. Biosafety and bio-security: 3 workshops.

MOROCCO - SMCC

1. Workshop 2018.
2. 18th Moroccan Meeting of Clinical Biology, September 27-29, 2018.
3. EB/AFCB and FIFBCML meeting.

PALESTINE - PMTA

1. 10th International Palestinian Conference for Laboratory Medicine and the 15th Arab Conference of Clinical Biology (18-21 April 2018).
2. Implementation of the Project "What Physicians didn't know about the Lab".
3. Training Course in Lab. Accreditation for Labs in the Private Sector.
4. Training Course in Medical Lab. Institution, Supplies, Kits and Consumables Marketing.
5. Establishment of the Continuing Education Center.
6. Establishment of the Clinical Research Center.
7. Establishment of the Lab Medicine Club.
8. Host the 11th International Palestinian Conference of Laboratory Medicine in 2020.

SAUDI ARABIA

1. 4th Annual meeting for the SSCC Jeddah, December 5-6, 2018.
2. The Best of AACC in Middle East, Dubai.
3. Support of IFCC/SSCC Travel Scholarship (young scientists from Zambia).

SYRIA - SCLA

1. Continuing formation 2018

TUNISIA - STBC

1. Biological viral markers of hepatitis B and C and HIV, Tunis, February 9, 2018.
2. Thyroid exploration: the need for a clinical-biological dialogue, Sousse, February 23, 2018.
3. Ultra-sensitive Troponin, Tunis, March 16, 2018.
4. Automated spermogramme analysis, Tunis, April 6, 2018. K. Ben Abdallah.
5. Hemogram validation, Zaghouan, April 20, 2018.
6. XXXIIth National Meeting of Clinical Biology, Hammamet, May 7-12, 2018.
7. 10th course in molecular biology "Hemoglobinopathies : Molecular aspects. Tunis, May, 7th and 8th, 2018 with IFCC collaboration.
8. Anaemia in the new-born: A diagnostic approach, Sfax, September 7, 2018.
9. Biological risk management, Tunis, October 5, 2018.
10. Antifungigrams Tunis, October 26, /2018.
11. Kebili Clinical Biology Day, Kebili, November 17, 2018.
12. Irregular antibody screening: Clinical case studies, Sousse, November 30, 2018.
13. Djerba Clinical Biology Day, Djerba, December 14, 2018.

AFCB ACTIVITIES (2018)

The AFCB adopted a new approach and collaborations with the IFCC and Regional Federations. The AFCB has participated in three successful meeting in Athens, Durban, Roma, Palestine, Tunisia and Morocco (IFCC, EFLM, FIFBCML and AFCC).

I - Euro Mediterranean Meeting Rome IFCC/EFLM/AFCB/FIFBCML 2 - 4 July, 2018.

1. Round table: "The Role of Laboratory Medicine to Address Migrant Health Issues"
2. Session n. 1: Improving Efficiency in Laboratory Medicine
3. Session n. 2: Transmissible Diseases in the Mediterranean Area
4. Session n. 3: Perinatal and Pregnancy Laboratory Medicine
5. Round Table: "Benchmarking the organization of Medical Biology in Euro Mediterranean Countries"

II -Next EFLM /AFCB/IFCC Meeting 2020

AFCB Participated in Alexandroupolis, Greece and Budapest at the Steering committee meeting for elaboration of the draft guidelines for the organization of the IFCC /EFLM/ AFCB (2020).



- EFLM: Michael Neumanier, Sverre Sandberg and Alexander Haliassos
- AFCB: Osama Najjar , Abderrazek Hedhil and Christian Hadad
- IFCC: Adekunle Bashiru Okesina

III - 15th Arab Conference of Clinical Biology April-18-21, 2018

IFCC support :

- **IFCC Symposium I: Laboratory Innovations**

1. Prof. Bernard Gouget: E-Health tools for the Medical Lab for better outcomes
2. Dr. Alexander Haliassos: Digital tools for researchers in Laboratory Medicine
3. Prof. Sergio Bernardini: The clinical significance of circulating miRNAs as biological and prognostic markers

- **IFCC Symposium II: Health and Environment**

1. Dr. M. Nelson: Mycotoxins in food commodities
2. Pr. J.C. Alvarez: Intoxications and deaths involving pesticides
3. Pr. A. Hedhili: Drug abuse role of toxicological Laboratory and Arab situation
4. Dr. J. Langrand: Organization of poison control centers in France.

- **VLP (3)**

1. Prof. P. Fortina: Interpreting the genome through next generation sequencing
2. Prof. P. Fortina: Implementing cancer molecular profiling
3. Prof. P. Fortina: Technologies for personalized medicine (Workshop)
4. Prof. M. Ferrari: How to imagine the future of Laboratory Medicine
5. Prof. M. Ferrari: Non-Invasive prenatal diagnosis by circulating nucleic acid analysis
6. Prof. M. Ferrari: Molecular diagnostic methods and quality assurance (Workshop)
7. Prof. B. Gouget: Big data in Lab Medicine

- **Election of the EB/AFCB**

1. Honorary President: Pr. Mohamed Shaarawy, Egypt
2. Past President: Dr. Kamel Mohamed Hassen, Sudan
3. President: Osama Najjar, Palestine
4. Vice President: Hedhili Abderrazek, Tunisia
5. Secretary General: Christian Haddad, Lebanon
6. Treasurer: Mohamed Touimi Ben Jeloun, Morocco

Members:

7. Dr. Youssef Bilto, Jordan
8. Dr. Aboud Ayed, Libya
9. Dr. Charbeji Samir, Yemen
10. Dr Abdelhamid Chachou, Algeria
11. Dr Adnan el Khatib, Syria
12. Saudi Arabia
13. Prof. Hedhili A., Tunisia President of the Scientific Committee

- **EB AFCB Meeting: Recommendations**

1. Obligation of the AFCB and the all Arab societies to submit their annual Scientific activity reports to the IFCC EB.
2. All the Arab societies must pay their annual IFCC fees.
3. Support by the IFCC EB the candidate of One Arab Society to the organization of the next general conference and The 2st IFCC, EFLM, AFCB Conference on "Laboratory Medicine: Meeting the needs of Mediterranean Nations".
4. Encouragement of the participation of the majority of the Arab societies at the next general conference in Budapest.
5. Unaffordable high cost of Congress (registration fees, travel and hotel accommodation): Reduction of registration fees for Developing countries.
6. The AFCB encourages the support of the candidates of the Arab biologists to the IFCC committees.

IV - Casablanca Morocco September 27-29,2018 Meeting of AFCB EB Recommendations





1. Revision of the AFCB status.
2. Encouragement of the collaboration between the AFCB and the other federations (EFLM, AFCC ...) of the organization of a joint meeting and congress (Marrakech, September – 2019, Tunisia 2020).
3. Collaboration between IFCC/AFCB (Young Scientists, VLP, IFCC Annual Assistance to AFCB).
4. Encouragement of the organizing of the EFLM/IFCC/AFCB Meeting by the Tunisian Society of Clinical Biology (STBC) in 2020.
5. The AFCB have participated in Athens, October 10-14, 2018 meeting and Budapest (General conference) (discussion about the status of collaboration).
6. Creation of the AFCB Awards (Every 3 years during Arab Congress).
7. Contribution of AFCB in the organization of a young scientist meeting during all Arabic societies Congress by contribution of 2,000 - 2,500 dollars by meeting.

V- Next Arab Congresses and Societies' meeting

I- Arab Congresses

1. Organization of the African Congress by SMCC Morocco 2019
2. 16th Lebanon 2021
3. 17th Morocco 2024
4. AFCC/AFCB meeting Marrakech September, 2019
5. EFLM/AFCB/IFCC 2020

II- Societies' meetings

1. Algeria FIFBCML and Algerian Congress 2019
2. SNDBL Bayreuth March 2019
3. STBC Hammamet April 24-27, 2019
4. FIFBCML/ALAM Congress October, 2019

Abderrazek Hedhili, AFCB Representative



AFCC African Federation of Clinical Chemistry

Our members in AFCC have continued to participate actively in IFCC working group and task forces. We shall continue to encourage and educate our members to be more proactive in nominating members for these task forces whenever the positions are declared open. This will improve our participation in IFCC activities.

MANAGEMENT COURSES AND CONTINUOUS EDUCATION.

We have done well in this regard with details as follows although there is always need for improvement:

- (a) **MOU was signed between IFCC, AFCC and ASLM** on 17th March, 2018, in Addis Ababa, Ethiopia. Prof Morris, IFCC president, Prof R Erasmus, AFCC president were present. The meeting was facilitated and arranged by AFCC President, Prof R Erasmus. Past president, Prof Okesina was unable to attend due to logistical reasons. This meeting featured in the April issue of the IFCC News Bulletin
- (b) **AFCC Workshop on Quality and Laboratory Management** was given in collaboration with Ethiopian Medical Laboratory Association (EMLA) in Bahar Dar on 15th March, 2018. The workshop was organized by AFCC President, Prof Erasmus. IFCC EBLM Chair, Prof A Zemlin participated in the one day workshop. Response was excellent. About 60 young laboratory scientists and technologists from various universities and hospitals attended the workshop. An excellent oral feedback was received from participants

- (c) Prof Morris, Prof Zemlin and Prof Erasmus also gave talks in the **EMLA Congress** organized by EMLA on 16th March, 2018
- (d) In April 13th to 17th 2018 Professor Okesina was invited as a speaker at the **Egyptian Society of Laboratory Medicine (ESLM) Conference in Cairo, Egypt**. One of the papers delivered was on “impact of IFCC in Africa”. Similarly, In February 2018, Professor Erasmus on invitation attended a **Quality Control Workshop in Alexandria, Egypt** (Prof Egon participated in similar workshop previous year). These interactions had stimulated interest of these associations in IFCC and they have applied for affiliate membership of IFCC.
- (e) A **Quality and Leadership Workshop** was delivered on 30th June 2018 and took place **Nairobi, Kenya** to members of the Kenyan Association of Clinical Chemists and academic staff from the University of Nairobi, Maseno University and Aga Khan University. The meeting was organized and facilitated by AFCC President, Prof Erasmus. AFCC Secretary, Mr Hilary Lumano and Prof Zemlin, IFCC EBLM Chair also participated in this meeting. The meeting was restricted to 40 participants, including speakers and it was fully subscribed by 20th June.
- (f) A similar workshop to that of Kenya was also organized in **Lusaka, Zambia** on 28th of July 2018, although originally planned for about 50 junior and senior laboratory scientists more than 130 participants attended. The large turnout was because the Ministry of Health of Zambia, facilitated and supported participants across the country. Professors Erasmus, Zemlin and Okesina spoke at this workshop. Also, six local senior scientists served as speakers from Zambia at the workshop. The workshop was jointly organized between the AFCC and Biochemical Society of Zambia. As a result of the successful outcome of this conference, the BSZ has requested for a similar workshop to be hosted from 25th to 27th April, 2019 in Livingstone, Zambia
- (g) From July 2nd to 5th 2018, Prof Okesina and other AFCC members including young scientists participated in the **Mediterranean Conference** which took place in **Rome**.
- (h) **Radio Africa**: Prof Hilda Matarira, Director of this program gave 2 reports on the outputs of Radio Africa.
- (i) In October 15th to 20th 2018 **Association of Clinical Chemistry of Nigeria (ACCN)** successfully held their **biennial Conference** with full support and participation of AFCC at **Awka in Anambra State (South Eastern Nigeria)**. This meeting provided the opportunity for AFCC to hold face to face executive board meeting on the 18th of October 2018. Two workshop were mounted by AFCC and these were supported by Roche and BD. There was preconference workshop on Point Of Care Testing and post conference workshop on Leadership and Quality Management. AFCC was able to sponsor many international and local speakers to this conference which was attended by participants from various parts of Nigeria, Kenya, South Africa and Zambia. Also a good number of young scientists were also sponsored to the conference. On behalf of ACCN and AFCC I want to express our gratitude to Prof Graham Beastall (past President of IFCC) who sent a key note address through a Webinar. The participants benefited a lot from his thought provoking lecture on traceability in Laboratory Medicine. AFCC also sponsored 2 speakers from Kenya, Dr G Omuse and Dr D Maina. Roche sponsored the Point of Care Workshop as well as a speaker, Mrs Janette Wassung of Quality First Business Solutions from South Africa.
- (j) On 4th and 5th of December, Prof Okesina represented the IFCC president Prof Howard Morris at the **Saudian Society of Clinical Chemistry meeting** in Riyadh where he delivered the key note lecture on behalf of the President.
- (k) Specific policies on funding of scientists to attend workshops and conferences has been developed and adopted by the AFCC Board
- (l) Efforts were made by AFCC President to seek sponsorships by industry to fund speakers to the various AFCC Workshops. There has been some success with Roche, Alere, Abbott and BD



- (m) AFCC Website will be revamped shortly
- (n) AFCC is trying to recruit new country members. Currently we are focusing Tanzania, Uganda and Namibia. Our target is to increase membership by 10% in 2020

Rajiv Erasmus, President

Hilary Lumano, Secretary

Adekunle Bashiru Okesina, Representative at Executive Board



APFCB
Asia-Pacific Federation of Clinical Biochemistry
and Laboratory Medicine

Education and Laboratory Management Committee Report

The Education and Laboratory Management Committee (C-ELM) consists of the following: *Environmental* – Lia Gardenia Partakusuma (Indonesia); *Website development/Interpretative Comments* – Tze Ping Loh (Singapore); *Vietnam Course* – Ronda Greaves (Australia); *MACB Course* – Elina Raja (Malaysia); *Needs Survey of members* – July Kumalawati (Indonesia); *Phlebotomy audit* – Endang Hoyaranda (Indonesia); *Lean Vietnam* – Jozi Habijanac (Roche Corporate); *Quality Control/Sigma training* - Amit Manjure (Siemens Corporate).

A brief summary of the major outcomes of the C-ELM follows:

1. APFCB Travelling Lecturer

The APFCB Visiting Lecturer for 2018/19 is Dr. Raja Elina Raja Aziddin

The first engagement was at the College of Chemical Pathologists of Sri Lanka Annual Academic Meeting in Columbo in March The Travelling Lecturer has presented at the following meetings;

July – Indonesian Association of Clinical Chemistry - Bali

August – Vietnamese Association of Clinical Chemistry – Da Nang

September - Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL) – Manila.

March 2019 – Singapore Association (SACB) and Nepalese Association for Clinical Chemistry (NACC)

2. APFCB Chemical Pathology Course – Vietnam

This annual event took place in June with approximately 250 participants in Hanoi and 350 in HCMC. The program contains a mixture of invited and local speakers presenting on routine chemical pathology topics. The popularity of the program continues to grow.

3. APFCB VACB Lean Project

The Lean project continues with the support of Roche in Vietnam. At this time there have been 31 trainers trained in 11 Lean ‘train the trainer’ workshops. These trainers have in turn trained 230 laboratory staff from 101 laboratories in Vietnam. The project will continue with support for the trainers being provide by Roche. The emphasis of the training has been standardisation of techniques and a just in time approach to using a suite of Lean tools. Small laboratory improvement projects are favoured so that trainees learn from the application of the tools.

4. MACB Chemical Pathology Course

Planning is underway for the third component of the three-year Course designed to complement a local professional qualification process. It is expected that two external speakers will be involved with the three-day course but that 70% of the material will be delivered by local speakers. Part of the process is to have the course entirely run by the local Association. The MACB fully support this course and it also fits with Malaysian government policy of certifying medical scientists.



5. APFCB Becton Dickinson Pre-Analytical Improvement Project

The BD phlebotomy audit program has been successful at reducing pre-analytical error in a number of APAC countries. The aim of this project is to produce an APFCB training course for phlebotomy auditors that could be used throughout the Region. An MoU with BD was signed in January and the project is underway. To pilot the program two countries have been identified, the Philippines and Singapore. Key outcomes from the project will include the following:

1. A Self - Assessment Check list
2. Development of a Best Practice Guideline for Phlebotomy
3. A Pre-Analytical Workshop will be presented at the Philippine Association of Medical Technologists meeting in November.

6. APFCB-AACB Scholarships

Two scholarships were awarded for two young investigators (Sri Lanka and India) to attend and present their posters at the AACB Annual Scientific Meeting in Sydney September 2018.

7. APFCB-AACC Workshops

The APFCB has been collaborating with the AACC with their Global Lab Quality Initiative (GLQI) as part of the Asia Pacific Working Group (APWG). This year there have been three two-day workshops held in the Philippines, Sri Lanka and Nepal in conjunction with the local APFCB member Society. The APFCB and the AACC will continue to work on this project to assist in the development of educational programs. There will also be a workshop in Jaipur.

8. Symposia

The C-ELM will organise a Symposium on Pre-analytical error for the Jaipur meeting.

There will be an APFCB Symposium at the 2019 AACC meeting with a clinical endocrine diseases theme. The APFCB have been invited to present at the EFLM/CELME meeting in Prague, in October 2019, with a focus on innovation.

Scientific Committee Report

9. Mass Spectrometry Harmonisation WG

- Publication: Current state and recommendations for harmonization of serum/plasma 17-hydroxyprogesterone mass spectrometry methods. Greaves RF, Ho CS, Loh TP, Chai JH, Jolly L, Graham P, Hartmann MF, de Rijke YB, Wudy SA; Working Group 3 "Harmonisation of Laboratory Assessment" European Cooperation in Science and Technology (COST) Action BM1303 "DSDnet". *Clin Chem Lab Med* 2018;56(10):1685-97.
- A protocol for the study of the influence of internal standard on the analysis of 17OHP by LCMSMS is being developed in association with RCPAQAP – AACB and IFCC ETD Pediatric Hormonics Working Group.
- The Chair of the WG, Ronda Greaves, is involved with the AACB proposal to hold a Workshop on chromatography-mass spectrometry at the APFCB Congress 2019 in Jaipur, India.

10. APFCB-WASPaLM TF-CKD

Following on from the visit to Sri Lanka by Graham Jones, Chair of APFCB-WASPaLM TF-CKD and discussions with Chemical Pathologists earlier in the year, ACB-SL is currently considering the feasibility of standardising creatinine assays and reporting practices throughout the country. Assistance will be sought from APFCB-WASPaLM TF-CKD as and when required.

11. Diabetes Mellitus in APFCB region

A survey of current status of laboratory testing for diabetes in India is currently under way spearheaded by Dr Col Mithu Banerjee, with a view to assessing the potential role of APFCB in improving the quality of laboratory practice in the diagnosis and monitoring of diabetes mellitus.

12. 15th APFCB Congress

The 15th APFCB Congress will be held in Jaipur, India, 17-20 November 2019. Planning of

all aspects of the conference is well under way and looking towards a successful meeting at the end of the year.

Sunil Sethi, President



COLABIOCLI

COLABIOCLI
Latin-American Confederation of Clinical Biochemistry



FULL MEMBER SOCIETIES:

ARGENTINA	ECUADOR	PANAMÁ
BOLIVIA	EL SALVADOR	PARAGUAY
BRAZIL	SPAIN	URUGUAY
CHILE	GUATEMALA	(VENEZUELA)
COLOMBIA	HONDURAS	
DOMINICAN REPUBLIC	MEXICO	

The Uruguayan Association of Clinical Biochemistry (ABU) was reelected at the 2017 General Assembly for a two years term 2018-2019.

COLABIOCLI EXECUTIVE COMMITTEE 2018-2019

President: Dr. QF Stella Raymondo (Uruguay)

Vice-President: Dr. Álvaro Justiniano (Bolivia)

Secretary: Dra. QF BC Ana María Lena (Uruguay)

Treasurer: BC Natalia Amor (Uruguay)

Member I: Technician Méd. Lizbeth Campilla (Panama)

Member II: Dr. Bioq. Micr. Juana Ortellado (Paraguay)

Member III: Lic. Antonia Suriel* (Dominican Republic)

Past President Graciela Queiruga

COLABIOCLI Regional Representative in IFCC: Dra. Rosa Isabel Sierra-Amor.

** In December 2018, Lic. Antonia Suriel joined the Board of Directors of COLABIOCLI as President of the Dominican Republic society instead of Lourdes Cruz.*

EDUCATIONAL ACTIVITIES

a) Creatinine standardization course. (Accomplished)

A satisfaction survey was conducted at the end of the course, which was answered by 61 participants; 16 of them declared interest in standardization, they were from Mexico, Colombia, Bolivia, Dominican Republic, Argentina, Ecuador, Guatemala and Uruguay. We are trying to achieve this stage using a donation of sera from CAP through the IFCC CKD Committee.

b) Neonatal Research Course (Accomplished)

A survey was conducted in 2018 among the participants who did the course to find if a new course required to be improved.

c) Course on Quality Management and Good Practices of a TB Laboratory. Coordinated by Dr. Juan Pablo Grammatico within the framework of activities of OPS-COLABIOCLI (2018)

d) Course on “Advances in Diabetes. Clinical, Genetic and Biochemical aspects “ (Proposed) Coordinated by CECC (Uruguay). Sponsored by ABU. (Proposed and postponed due to low enrollment by March 2019)

e) Course of Biomarkers of Toxicological interest (Proposed for 2019)

It will be coordinated from Venezuela. Advertising pending given the situation of the country.

- f) Bioethics course. (Proposed) as COLABIOCLI course, coordinated by Dr. Nilda Fink. With experts from different countries in the region. Advertising starts on May 2019. Course date: 2nd semester 2019.
- g) Latin American Training Program. The content is under revision to offer it to the countries.

NATIONAL AND REGIONAL EDUCATIONAL ACTIVITIES ORGANIZED BY THE LATIN AMERICAN COUNTRIES MEMBERS OF COLABIOCLI.

		ARGENTINE	BOLIVIA*	CHILE	COLOMBIA	ECUADOR	EL SALVADOR	SPAIN	GUATEMALA	MEXICO	PANAMA	PARAGUAY*	URUGUAY
COURSES	COURSES		12				1	3		15	1		3
	COURSES ON-LINE		1		1			9					
	NATIONAL WORKSHOP	1	1	1	3	5			2	1	2	1	
	REGIONAL WORKSHOP									6			1
	CONTINUING EDUCATION					2							
	PRE-CONGRESS					1		4					
	INTRA-CONGRESS					2					2		
CONFERENCE						7			3				
CONTINUING EDUCATION PROGRAM			1		1							1	
CERTIFICATION PROGRAM										1			
DIPLOMAT PROGRAM									1	2			
EDUCATIONAL COMMITTEES		2											
NATIONAL TRAINING DAYS					7	3		2	2	1		2	
FORUM											1		
NATIONAL CONGRESS		2	1		1	1	1	1					
REGIONAL CONGRESS				2							1	1	
NATIONAL MEETINGS		10	2	1	11		1	1		1		2	3
REGIONAL TRAINING DAYS		2				1					1		
REGIONAL MEETINGS		7	2		1								1
SYMPOSIA				1	1			1	1	1	1		
SCHOLARSHIP RECEIVED													
SCHOLARSHIP GRANTED									1				1
INTERNATIONAL MEETINGS			4										
SEMINARS					1					7	1		
INTERNATIONAL AGREEMENTS			2										

In extend at the COLABIOCLI website.

* Bolivia: a) Agreement between Argentine Foundation of Biochemistry (2018-2020) and



Bolivarian Program of Continuous Training (PROBOECO 2018-2020). b) Agreement with the Argentine Foundation of Biochemistry to develop the Laboratory Accreditation Program in Bolivia. (PROBOACRELAB 2018 – 2020)

*Paraguay: It has a Continuing Education Program attended by numerous national and international professors

LEGAL ASPECTS

Legal Entity (COLABIOCLI)

Justification:

PAHO urgently requires legalizing the documental situation of COLABIOCLI granting deadlines. It has been legalized in Uruguay through the Ministry of Education and Culture (MEC) based on a foundation act signed for such purposes in the XXIII Latin American Congress of Clinical Biochemistry in Punta del Este, Uruguay. The national entities have collaborated presenting all the documentation that has been requested, legalized in their countries.

In October, the books of the institution were already stamped and signed by the MEC, but the *Personeria Juridica* (Legal Status) is still in process. The MEC has submitted observations that have been corrected without affecting the institutional structure but the process continues up to today at the MEC's offices. The countries that could not be present at the Punta del Este's Founding Act during the General Assembly, will be able to be reintegrated without problem presenting their Statutes apostilled or legalized in their country. PAHO is aware of all stages of the legalization process.

PARAGUAY

Law 5.986 / 2017 of Biochemists

It expresses the objective, scope, nature and professional identity of the biochemist, a team effort chaired by the President of ABP, Raquel Cáceres and Treasurer, Mercedes Álvarez, did continue with several activities. Although the date of the enactment of the Biochemist Law was December 14, 2017, it was decided in the Extraordinary Assembly of October 6, 2018 of the ABP, that the "Paraguayan Biochemist's Day" be commemorated on the date of the enactment of the law. On December 10 a Gala Party was held at the Gran Hotel Paraguay, to celebrate the enactment of the Biochemist Law, where homage was paid to the previous Presidents and founding partners who acquired the status of life partners.

URUGUAY

Guild Activities

As a result of an agreement signed last year, all Clinical Biochemists that perform activities in the State Health Services Administration (ASSE) received a salary adjustment and were classified in grade II. The activity in the sector was continued for the designation of grades III and V in order to achieve a functional career of the ASSE professional. The agreement also has a scope for those Pharmaceutical Chemists who work in the field of Clinical Analysis

COLABIOCLI EXECUTIVE COMMITTEE MEETINGS

1) In-person from April 5 to 8, 2018 in Montevideo

The mission, vision and objectives of COLABIOCLI were declared, and a SWOT study was also carried out, and the Strategic Plan for management was drafted. The projects proposed by Uruguay for its re-election were the central axis, notwithstanding the incorporation of others due to their relevance and / or urgent attention. It was attended by the IFCC Regional Representative.

2) COLABIOCLI Executive Committee meetings:

Approximately once a month, via Skype.

COLABIOCLI WORKING GROUPS COMMITTEE ON ACADEMIC AFFAIRS AND MANAGEMENT

Dr. Carlos Navarro: Chair
Dr. Iratxe López Pelayo- Spain
Dra. Magaly Magariños Egüez- Bolivia
Dr. Manuel Arca- Argentina
Dra. Graciela Borthagaray- Uruguay
Dra. Alba Marina Valdés de García- Guatemala
Dr. Daniel Razo Morales- Mexico
Lic. Eduardo Antonio Rodríguez Vega- Panamá
Lic. Rosanna Clotilde Elías Peña- Dominican Republic

PRE-ANALYTICAL WG (*)

Dr. Gabriel Oliveira Lima (Brasil) Chair
BC Beatriz Varela (Uruguay) Secretary.
Dr. Eduardo Aranda (Chile), Member.
Dr. Patricia Ochoa (Argentina) Member
Dr. Ma. Elena Arredondo (Chile) Member
Dr. Lorena Michele Brennan-Bourdon (Mexico) Member 2018-
It is a very active group. They presented abstracts in AACCC Chicago in July 2018 and published in CCLM in June 2018, they are doing a project in Chile.

COLABIOCLI CONGRESSES

PANAMA 2019

The maximum integration with the Organizing Committee of the Congress has been achieved through the MS Lizbeth Campillo Member of COLABIOCLI.

The IFCC Congresses and Conferences Committee (C-CC) has offered four courses proposals of which two were accepted by the COLABIOCLI Congress Organizing Committee:

- 1) Hemoglobin A1c to measure that continues to evolve
 - 2) Qualitative considerations in Molecular Diagnosis
- Additional, AEFA and SEQC will be organizing symposia and conferences.
Panama International awardee will give a plenary lecture.

XXIV LATIN AMERICAN CONGRESS OF CLINICAL BIOCHEMISTRY COLABIOCLI-PANAMÁ 2019

COLABIOCLI AUTHORITIES

President: Dr. QF Stella Raymondo (Uruguay)
Vice-President: Dr. Álvaro Justiniano (Bolivia)
Secretary: Dr. QF BC Ana María Lena (Uruguay)
Treasurer: BC Natalia Amor (Uruguay)
1st Member: MT. Lizbeth Campilla (Panama)
2nd Member: Dr. Bioq. Micr. Juana Ortellado (Paraguay)
3rd. Member: Lic. Antonia Suriel (Dominican Republic)
Regional Representative of COLABIOCLI to IFCC: Dr. Rosa Isabel Sierra Amor.

NATIONAL ORGANIZING COMMITTEE (CONALAC)

Lcda. Jovanna Borace President
Mgter. Inés Reyes General Secretary
Mgter. Lizbeth Campillo Representing COLABIOCLI Executive Committee, President of CONALAC



NATIONAL SCIENTIFIC COMMITTEE (CONALAC)

Lcda. Jovanna Borace, Mgter. Ariel Vásquez, Mgter. Evelyn Navarro, Licdo. Bertrand Palma, Mgter. José Moreno, Lcda. Michelle Facey, Mgter. Javier Torre. Licdo. Abdiel Bonilla, Mgter. Maura Ballesteros, Secretariat of Finances, Licdo. José Carreiro, Secretariat of Communication I; Licda. Roxana Lau, Secretariat of Comunicación II, Lcda. Ottma Iburgüen, Secretariat of Logistics I, Licdo. Mario Batista, Secretariat of Logistics II.

INTERNATIONAL SCIENTIFIC COMMITTEE COLABIOCLI 2019

Dr. Cristina Servetto (Uruguay) Chair

Dr. Ana Villagra de Trejo (Argentina)

Dr. Beatriz Mina Guerrero (Bolivia)

Dr. Marcos Kneip Fleury (Brazil)

Dr. Eduardo Aranda (Chile)

Dr. Sonia Rojas López (Colombia)

Lcda. Miguelina Rosario (Dominican)

Dr. María Álvarez Herrera (Ecuador)

Dr. Rafael Calafell (Spain)

Licdo. Rodolfo C. Aquino (El Salvador)

Dr. Karin Herrera (Guatemala)

Dr. Maritza Canales (Honduras)

ME QFB. Jezabel Vite (Mexico)

Lic. Ariel Vásquez. (Panamá)

Dr. María Azcurra (Paraguay)

Dr. QF Graciela Queiruga (Uruguay)

Representative of COLABIOCLI Executive Committee at the International Scientific Committee

Dr. Rosa Isabel Sierra Amor (Mexico, COLABIOCLI Regional Representative at the IFCC and Adviser to the International Scientific Committee

Dr. Graciela Borthagaray (Uruguay)

Economic Adviser. Congressional

Distinguished guest. Dr. Howard Morris, President IFCC, accepted the invitation to participate in the Panama Congress

Congress Skype meetings have been held by the President of the National Scientific Committee with the EC Representative of COLABIOCLI and the President of the International Scientific Committee to exchange ideas, be aware of the progress and clarify doubts.

COLABIOCLI Congress Mexico 2021: The Mexican Association of Clinical Laboratory Sciences proposed the city of Leon, Guanajuato (Mexico) to host the XXV Latin American Congress of Clinical Biochemistry.

PROJECTS

- a. Latin American Laboratory Census: For this, a survey was sent as a joint COLABIOCLI- OPS activity
- b. POCT survey: the 2017 survey was sent again to different countries seeking to increase the number of responses.
- c. Pilot project which objective was to know the state of the art of the countries, their degree of harmonization, methodologies and instruments. Another COLABIOCLI-OPS joint activity. This information would be gathered through two external control surveys.

SCHOLARSHIPS-

A new procedure to regulate scholarship applications was drafted and approved at the Assembly

that took place in Buenos Aires Argentina during the CALILAB 2018. Applications were received from 5 colleagues from Panama, 2 from Paraguay and 2 from Uruguay, with the following results:

COUNTRIES	NAME	DATE (2018)
ARGENTINE	“X Calilab Congress (FBA)”. BBAA	October 24 to 27
BRAZIL	“45° Brazilian Congress of Clinical Analysis SBAC” Río de Janeiro	June 17 to 20
BOLIVIA	“II International Journeys of the Bolivian Society of Clinical Biochemistry” La Paz	November 27 to December 01
COLOMBIA	18° Internacional Congress of the CNB- Colombia	November 9 to 12
ECUADOR	“XIII Ecuatorian Congress and IX International of Biochemistry” Riobamba	October 17 to 20
SPAIN	“XII National Congress of Clinical Laboratory Bilbao”	October 24 to 26
EL SALVADOR	“V Update Latin American Congress in Laboratory Medicine and Transnational and I Congreso Salvadoran congress of Clinical Laboratory.”	November 6 to 8
GUATEMALA	“Iberoamerican Symposium of Clinical Chemistry and Expolab, 2018-”	June 28 to-29
HONDURAS	“II International Congress of Microbiology.Actual tendencies and applications” Tegucigalpa	November 16 - 17
PANAMA	“National Congress of Students and Medical Technology. University of Panama”	March 14 th
	“National Congress of students of Medical Technology – Latin University-- Veraguas”	October 5 to 9
	“Congress of Pathology”	November 1 st to 2 nd

There are countries that have not reported Congresses because they usually do it every two years and they are organizing it by 2019

1. Lcda Melissa Delgado (Panama): an online and blended Master of Molecular Biology- University of La Coruña, Spain. 2018-2019 with 3000 USD
2. PhD in Biochemistry for Rosa Guillen (Paraguay): a practical theoretical course of Infrared Spectroscopy of Molecules. Fac. Sciences University of the Republic. Montevideo. Uruguay with 2000 USD.
3. Dr. In Biochemistry Mercedes Álvarez (Paraguay): Training on Serological and Bacteriological tests for the referential diagnosis of Brucellosis. Instituto Malbrán, Bs. As. Argentina with 1500 USD
4. BC Natalia Pereira (Uruguay) for the completion of an Internship by the Endocrinological Biochemistry Area of the Durand Hospital, Bs. As. Argentina with 2000 USD
5. QF Irene Benaderet (Uruguay) for an Internship at FUNDALEU Bs. As. Argentina with 1500 USD

REGIONAL CONGRESSES

AUSPICES

COLABIOCLI auspices were given to 9 activities carried out by the following countries:

- 1) Brazil (Rio de Janeiro)
- 2) Colombia (Barranquilla),
- 3) Argentina 3.1) CUBRA XIV Córdoba, 3.2) CALILAB 2018 BBAA -CALILAB,
- 4) Ecuador (Riobamba, Quito) 5), Bolivia (La Paz).



PAN AMERICAN HEALTH ORGANIZATION

1. PAHO Invitation to the President of COLABIOCLI to attend a meeting in Washington in June 19 to 21st.
2. Documentation was initiated to renew the COLABIOCLI PAHO contract that ended in September 28, 2018, which were strictly dependent on the efforts made to have recognition as a legal entity.

IFCC

General Conference in Budapest: On that occasion, the presentation of activities was presented, as well as the needs of the laboratories in the region to meet the daily demand. Knowing these shortcomings, IFCC could complement helping to meet those needs based on the survey recently sent by IFCC to the COLABIOCLI countries that integrate it the final results.

COLABIOCLI AFFILIATED MEMBER SOCIETIES.

All member countries of COLABIOCLI were asked to report their activities

DOCUMENTATION APPROVED BY THE ASSEMBLY IN OCTOBER 2018

1. Modification to the COLABIOCLI Scholarship Regulation, and the Latin American Training Program,
2. Regulation and Congress Guidelines.
3. Review of the current COLABIOCLI-IFCC Agreement.
4. Guide for the organization of the COLABIOCLI Congress.

OTHER MATTERS:

Italian Society proposal. The Italian Society SIBIOC expressed its wish to collaborate with COLABIOCLI. Their affiliation as collaborator was presented at the COLABIOCLI General Assembly in October 2018, with the unanimous resolution to accept SIBIOC as a collaborator of COLABIOCLI.

COLABIOCLI Symposium at the APFCB Congress in Jaipur India by an invitation of the APFCB 2019 Organizing Committee.

*Stella Raymondo, President
Ana María Lena Secretary*




EFLM
**European Federation of Clinical Chemistry
and Laboratory Medicine**

GENERAL MEETING

Michael Neumaier, EFLM President, greeted the audience and welcomed delegates to the General Meeting (GM) in Mannheim and presented the agenda. No matters emerged from the minutes of the last GM in Athens, June 2017 and minutes were otherwise approved. In the following part of the meeting the majority of the national societies voted in favour of LABAC to join the EFLM as Affiliate Member. The majority of the national societies also voted in favour of Kazakhstan Public Association «Federation of Laboratory Medicine» to join the EFLM as Affiliate Member.

The EFLM President then provided an overview on the current EFLM organization (Executive Board [EB], functional units), recent EFLM activities since the last GM in Athens (including recent official publications, meetings, bursary programs, EFLMLabX, participation of EFLM EB members to national societies' meetings, agreement with Clinical Chemistry and Laboratory



Medicine, EFLM EB meeting with IVD representatives, EuroLabNews), and also gave a brief overview on the ongoing and future projects within the EFLM. Past President Sverre Sandberg provided an overview on the new IFCC statute which encompasses the presence of one EFLM representative in the IFCC board and briefly explained how the representative is elected by the EFLM and gave an overview of the current composition of IFCC Regional Federation Representatives. EFLM Treasurer Huib Storm gave a report on 2017 financial audit and balance sheet, and 2018 internal budget. The GM approved all accounts unanimously.

The EFLM President, then emphasized that achieving better health and healthcare through Laboratory Medicine would only be possible with involvement of EFLM National Society Members. This is the reason why during September 2017 they were asked to participate in the survey concerning the level of satisfaction towards EFLM. The main aim of the survey was to assess collaboration, specifically by understanding the needs of our National Societies, checking how National Societies see the relationships with EFLM and receiving suggestions on how to improve the relationship with EFLM. Starting from these results and from the ongoing items of the previous plan, the EB based the preliminary study to prepare the draft for the EFLM Strategic Plan 2018-2019. Compared to previous editions, it was considered important to have a Strategic Plan made for a 5-10 year horizon while maintaining shorter term 2-year action plans. A SWOT analysis was used by the EB to identify the main goals (7) where to concentrate the strategic plan and the 2-year related actions (18).

Erik Kilpatrick, Science Committee Chair, reported about the past and ongoing activities within the EFLM functional units. Gilbert Wieringa, Profession Committee Chair, reported about the past and ongoing activities within the EFLM functional units. Wim Huisman, Quality & Regulations Committee Chair, reported about the past and ongoing activities within the EFLM functional units. Daria Pasalic, Education & Training Committee Chair, reported about the past and ongoing activities within the EFLM functional units. Finally, Maria Stella Graziani, Communication Committee Chair, reported about the past and ongoing activities within the EFLM functional units. All Power point presentations with the reports can be viewed and downloaded from EFLM website.

At the end of the meeting the EFLM President warmly thanked the audience and reminded that the next GM will take place in Barcelona, in concomitance with EuroMedLab 2019.

EXECUTIVE BOARD

Some of the leading activities planned and developed during 2018 are listed below:

- Initiative “invite an EB representative at your National Congress”
- Initiative “EFLM Postgraduate Courses on scientific writing and biostatistics”
- Involvement of EFLM in EC Medical Device Coordination Group (MDCG)
- Possible organization of an EFLM-APFCB Preanalytical Conference in Asia
- EFLM participation to the APFCB Congress in Jaipur
- APFCB participation to the CELME Symposium in Prague
- Establishment of an EFLM Task Force on Disruptive Technologies
- Approval of the new release of the EFLM Procedure Manual (PM)

COMMITTEES

Committee – Communication (C-C)

The C-C activity in 2018 focused mainly in consolidating the objectives of the Committee: to develop EFLM visibility, increase the collaboration with its member Societies (NSs) and to promote the profession increasing awareness of the importance of clinical laboratories in health care. We have been engaged in issuing the Federation Newsletter on a regular basis and have obtained an encouraging feedback from the member Societies: most of them read regularly the bulletin with a main interest in the Hot Topic section, where news and information about topics of recent interest and development in Laboratory medicine are exposed. Furthermore, the National Societies have been encouraged to send news about their own activities to be published in the Newsletter. In 2018 a regular section has been added to the bulletin, where to host news from IFCC.



The website update receives also great attention; the website statistics tell us that it is visited by around 2000 visitor per month. The most visited pages are the ones of the most active EFLM Working groups: the Biological Variation and the Pre-analytical phase WGs.

The promotion of the field of Clinical Chemistry and Laboratory Medicine to the lay public has received new impulse from the collaboration with the Patient Focused Lab Med WG that resulted in publishing a report from the President of the UK National Association for Patient Participation in the December issue of the NewsLetter.

The visibility of EFLM has also been promoted through the use of the social media: we are present in Twitter, LinkedIn, Facebook and YouTube (the last one to post the educational material produced by the C-ET). EFLM presence is slowly but continuously increasing in popularity and generates an important traffic back to our website. We consider the presence of the Federation in the social media rather relevant for its visibility.

Committee – Education and Training (C-ET)

EFLMLabX Project was launched by WG-CPE in January 2018 by an invitation sent to all EFLM NS representatives to join and to IVD for support. At the web page of the project more than hundred users and 15 laboratories are registered. WG-CPE also prepared a proposal for cooperation with IVD for supporting the bursaries for exchange program. For promoting the program, the WG published a paper on e-JIFCC and prepares the manuscript for CCLM.

WG-CPE also made the proposal of announcement for the new type of low-budget postgraduate courses PGC. In 2019, under the supervision of EFLM and WG-CPE, two types of courses will be organized: “Biostatistics in Laboratory Medicine” and “How to write a good scientific and professional article”. EFLM WG-CPE organized a two-member teams and according NS requirements and availability of the teams, in 2019 these courses will be organized in 6 different NS. Travel costs for lecturers for 2 NS will be economically supported by EFLM. WG-CPE also prepared the results of MedTech European Code survey initiated by WG-CPE, are which are being arranged for publishing.

In 2018, WG-DE launched and upgraded the e-learning platform Moodle 3.5 and release, processed and published 8 webinars and issued 219 certificates of attendance. This WG also recorded lectures from the 2nd Strategic Conference, hold in Mannheim in June 2018. WG-DE also updated and followed the materials on the social media Facebook and YouTube and noted an increase of followers.

In the middle of 2018, the WG on Laboratory Medicine Credit Points was (WG-LMCP) established. This group will be responsible to establish and run the EFLM system to allocate credit points for educational events. TG on EFLM Syllabus Course prepared a plan for courses in cooperation with WG-DE. Courses should be recorded in 2019 and 2020, to deliver and maintain the EFLM Syllabus Courses recorded by e-learning platform. Chair of the TG-Syl Ralf Lichtinghagen is a member of the Congress Organizing Committee for the 23rd EuroMedLab in Barcelona.

Committee – Profession (C-P)

The start of 2018 saw auto-registration to the EFLM Register of Specialists in Laboratory Medicine further extended and now includes the Netherlands, United Kingdom and Croatia. Registrant numbers have grown from 1036 in 2017 to 1199 at end 2018. As we go into 2019 a further increase is expected with Slovenia being welcomed to the auto-registration ranks. Following approval from the EFLM General Assembly in June eligibility to join the register was extended from the 28 European Union countries with a national society affiliated to EFLM to all 40 European countries with a national society affiliated to EFLM. Further auto- and individual registration is anticipated.

A survey of EU affiliated national societies highlighted that 14 countries can meet EFLM's Equivalence of Standards and would therefore be eligible to be amongst the minimum 10 countries required to present Laboratory Medicine's Common Training Framework under EU Directive 2013/55/EC (The recognition of professional qualifications). In this regard representatives from

France, Spain, Ireland and Croatia were congratulated on their engagement at government level to present the case for recognition of specialist practice.

With the cultivation of new links at EFLM Executive Board level to the EU Commission's office leading on implementation of the Directive the decision was taken to cease our reliance on an external agency to present Laboratory Medicine's case for recognition of specialists. The direct links that have been established are anticipated to prove valuable in aligning future strategy with EU Commission guidance.

Committee – Quality and Regulations (C-QR)

The WG published an article on traceability requirements according to ISO15189 and is working on different papers concerning retention time of documents, POCT and validation/verification of analytical methods. All members of the different countries contribute actively to make these widely acceptable. The Committee chair is active in ISOTC212 WG1, especially in relation with the new standard on risk management and the guideline for users of POCT equipment. Within ISO the work on the new edition of ISO15189 has started and the EFLM WG is focused on contributing to this most important standard for quality management in medical laboratories, as it did with the former editions. The paper by Thelen and Huisman on Harmonization of accreditation to ISO15189 can be considered as a specific view on this process. The chair of the WG QR is active in the EA Health Care Working Group to contribute to harmonization of accreditation according to ISO15189 in the European countries. The WG is focused on influencing the development and interpretation of ISO and CEN standards and in particular the implementation of the new EU IVD Regulation. This is reflected in the updated Terms of Reference for both Committee and Working Group.

Committee – Science (C-S)

The eight Working Groups (WGs) under this Committee (Biological Variation, Guidelines, Harmonisation of the Total Testing Process, Patient Focused Laboratory Medicine, Personalised Laboratory Medicine, Postanalytical Phase, Preanalytical Phase and Test Evaluation), two Task Groups (TGs) (Biological variation Database and Performance Specifications Based on Outcome Studies) and one Task and Finish Group (TFG) (Standardisation of the Colour Coding for Blood Collection Closures) have in the last year been joined by the introduction of three TG/TFGs, namely the TG-Cardiac Markers, TFG Urinalysis and TFG Autoimmunity Testing. All groups remain highly active in focusing on topics which are of direct relevance in improving the effectiveness of laboratory medicine to patients. Particular highlights from 2018 include publications such as the EFLM recommendations on venous blood sampling (in collaboration with our Latin American colleagues), practical recommendations for handling hemolysed samples and serum indices as well as papers bringing more certainty to the assessment of uncertainty. There has also been the continued development of the biological variation database to help support its use in deriving analytical performance specifications and a biomarker workshop in Sydney, Australia.

Special note should be made of the contributions members of the Science Committee WGs have made to meeting activities, including at the 5th Joint EFLM-UEMS Conference in Antalya, Turkey, and the 2nd EFLM Strategic Conference in Mannheim, Germany.

The Science Committee cannot function in isolation, and depends on the continued support of the constituent National Societies as well as the collaboration with companion organisations such as the IFCC Scientific and Emerging Technologies Divisions.

MEETINGS

EFLM has organized two meetings during 2018:

1. The end of laboratory medicine as we know it? [2nd EFLM Strategic Conference]. Mannheim, 18-19 June 2018.
2. 5th Joint EFLM-UEMS Congress. Antalya, 10-13 October 2018.





WEBINARS

EFLM has organized six Webinars during 2018:

- Pre-analytical mysteries
- Catheter Blood Collection Practices: Can A High Quality Sample for Laboratory Diagnostics Be Obtained?
- The order of draw
- The role of EQA in the verification of in vitro medical diagnostics
- How to perform tube validation?
- M-protein diagnostics of Multiple Myeloma patients treated with biologics

PUBLICATIONS

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*Michael Neumaier, EFLM President
Giuseppe Lippi, EFLM Executive Board Secretary*



NAFCC
**North American Federation of Clinical Chemistry
and Laboratory Medicine**

Canadian Society of Clinical Chemists (CSCC)

Société Canadienne de Clinico-Chimistes

- 2018 CSCC Annual meeting, was held in Ottawa, Ontario.
- Educational activities included the Travelling Lectureship Series, CSCC Webinar Lectureship on Critical Care Medicine, Webinar series entitled “Educational Roundtable”, special interest working groups, Leadership in Quality Management Certificate program, CACB Professional development program.
- CSCC paid the IFCC membership dues of the Cuban Society.
- CSCC had a number of interactions with other Canadian pathology and lab medicine groups including:
 - Canadian Leadership Council on Laboratory Medicine & Laboratory Utilization Sub-Committee
 - Participation in ‘Choosing Wisely Canada’ <http://www.choosingwiselycanada.org/>
 - Participation in ‘Lab Tests Online’ with AACC <https://labtestsonline.org/>
- CSCC supports LabCanDx (formerly MEDEC), the national association for the Canadian medical technology industry, in their efforts to promote the value of laboratory medicine.
- CSCC supports participation in ToxLRN which is an initiative by Health Canada to create a network of toxicology laboratories in Canada.
- CSCC provides support and professional encouragement for Trainees and Young

- Scientists, such as a special reception at the annual conference.
- CSCC holds an annual charity run at its annual conference and proceeds are donated to a local charity.
 - CSCC publishes a bi-monthly newsletter and periodic electronic newsletters.



American Association for Clinical Chemistry (AACC)

- 2018 AACC 70th Annual Meeting & Clinical Lab Expo in Chicago, IL, drew nearly 20,000 delegates and a record 817 exhibitors.
- Inaugural AACC Middle East drew 700 participants and 25 sponsors to Abu Dhabi in March.
- The Lab Tests Online new design and upgraded system (US platform) was honored with six 2018 design/content awards. Italy, Spain, and Hungary migrated to the US platform and saw a collective 28% increase in traffic. LTO has had more than 40 million users in 2018 and 367 million users across all sites from inception to date.
- There were 14 online continuing education certificate programs, 24 webinars, 3 additional national conferences and 2 international conferences.
- AACC launched its Point-of-Care Testing Professional Certification program in the US
- There was 1 Global Lab Quality Initiative workshop in Latin America and 3 in the Asia-Pacific region on method verification and quality control, as well as a newborn screening workshop in India that connected experts, policymakers, and other stakeholders to discuss the global position of newborn screening, clinical successes, and technical and practical aspects required for setting up a successful laboratory for newborn screening.
- *Clinical Chemistry* reached an all-time high impact factor of 6.636.
- The US Advocacy Program advanced AACC's advocacy priorities in Children's Health (newborn screening and pediatric reference intervals), Harmonization, Laboratory-Developed Tests, and Reimbursement and the Changing Healthcare Environment.

Ann M Gronowski, NAFCC Representative

Full Member Societies



ARGENTINA

CONFEDERACIÓN UNIFICADA BIOQUÍMICA DE LA REPÚBLICA ARGENTINA (CUBRA)

NATIONAL MEETINGS

- Meetings of the Permanent Technical Commission of the Unique Biochemical Nomenclator of C.U.B.R.A. (CTP-NBU -CUBRA) 24th April; 23th, May; 24th, May; 27th September; 25th October; 2018 in Buenos Aires – Argentina.
- Meeting of the Permanent Scientific Committee of C.U.B.R.A. (CCP-CUBRA), 06th Dec, 2018 in Buenos Aires – Argentina.
- Meetings of the Executive Committee of the Commission of National Biochemical Certification (COCERBIN); 09th May; 19th Nov, 2018 in Buenos Aires – Argentina.
- Meeting of the Quality Commission of C.U.B.R.A. (C3-CUBRA) 26th October, 2018 in Buenos Aires – Argentina.
- Meeting of the Ethic Commission of C.U.B.R.A. CODEICU 12th April, 2018 in Buenos Aires – Argentina.
- Meeting of the Coordinating Entity of Academic Units of Pharmacy and Biochemistry (ECUAFyB), 19th September, 2018 in Córdoba – Argentina.
- Meeting of the Board of Directors of the Argentine Biochemical Foundation (FBA) 26th October, 2018 in Buenos Aires – Argentina.
- Meetings of the Commission of Academic Affairs, 15th February; 06th December, 2018 in Buenos Aires – Argentina.
- Meeting of the IFCC Division of Communications and Publications, on the Pharmaceutical & Biochemical University of Buenos Aires, 02th March, 2018 in Buenos Aires – Argentina.

EDUCATION

- Member of the Executive Committee of the **Commission of National Biochemical Certification (COCERBIN)**.
- Member of the **“Advisory Commission for the Evaluation and Updating of the Unique Biochemical Nomenclature”**, within the Superintendence of Health Services.

REGIONAL MEETINGS

- **Assemblies of the Confederal Council of C.U.B.R.A.** 11th May; 10th August; 07th December, 2018 in Buenos Aires – Argentina.
- **Acto de Asunción de Autoridades; Facultad de Farmacia y Bioquímica de la Universidad de Buenos Aires** 06th March, 2018 in Buenos Aires – Argentina.
- **Junta de Gobierno CGP** 22th March, 2018 in Buenos Aires – Argentina.
- **“V Jornadas Bioquímicas de Cuyo”** 26th to 28th April, 2018 in Mendoza – Argentina.
- **Aporte Organización Congreso COREBIO; “IX Congreso Nacional de Residentes Bioquímicos”** 10th May, 2018 in Buenos Aires – Argentina.
- **Reunión CGP** 15th June, 2018 in Córdoba – Argentina.
- **Reunión Autoridades CUBRA – COFA** 04th July, 2018 in Buenos Aires – Argentina.
- **Reunión Comisión Especial del Consejo de Universidades (COSUN)** Ministerio de Educación 12th July, 02th August 2018 in Buenos Aires – Argentina.



- **Aniversario de la Creación del Centro de Bioquímicos del IX Distrito (FABA)** 18th August 2018 in Buenos Aires – Argentina.
- **“XXIII Jornadas Bioquímicas del NOA”** 04th to 06th October, 2018 in Termas de Río Hondo- Santiago del Estero – Argentina.
- **“X Congreso CALILAB (FBA)”** 24th to 27th October, 2018 in Buenos Aires – Argentina.
- **Asamblea Extraordinaria COLABIOCLI** 25th October, 2018 in Buenos Aires – Argentina.
- **Taller CUBRA en el marco de CALILAB: Rol de las Entidades – Perfil Profesional Bioquímico – Actividades Reservadas** 26th October, 2018 in Buenos Aires – Argentina.
- **Reunión de Consenso Multidisciplinario sobre Diagnóstico Precoz de la Enfermedad Renal Crónica** 12th December, 2018 in Buenos Aires – Argentina.

REGIONAL RELATIONS

Colegio Bioquímico de Catamarca
Colegio Bioquímico del Chaco
Colegio Bioquímico de La Pampa
Colegio Bioquímico de La Rioja
Colegio Bioquímico de San Juan
Colegio Bioquímico de Santiago del Estero
Colegio Bioquímico de Tucumán
Colegio de Bioquímicos de la Provincia de Río Negro
Colegio de Bioquímicos de Corrientes
Colegio de Bioquímicos de Neuquén
Colegio de Bioquímicos de Entre Ríos
Colegio de Bioquímicos de Formosa
Colegio de Bioquímicos de Jujuy
Sección 1^a de Bioquímica del Colegio Oficial de Farm. y Bioq. de Capital Federal
Colegio de Farm. y Bioquímicos de la Provincia de Santa Cruz
Bioquímicos del Interior A.C. Salta
Círculo Bioquímico de la Provincia de Misiones
Asociación Bioquímica de Salta
Asociación Bioquímica de Mendoza
Asociación Bioquímica del Este
Asociación Bioquímica de San Luis
Asociación Bioquímica de Villa Mercedes
Asociación Bioquímica de San Rafael
Federación de Bioquímicos de la Provincia de Córdoba
Federación Bioquímica de la Provincia de Buenos Aires
Federación Bioquímica de la Provincia de Chubut
Federación Bioquímica de la Provincia de Santa Fe.

ABA - Asociación Bioquímica Argentina

FBA - Fundación Bioquímica Argentina

COORDINADORA de Colegios de Bioquímicos de Ley de la República Argentina

CGP - Confederación General de Profesionales

IRAM - Instituto Argentino de Normalización y Certificación

ECUAFyB - Ente Coordinador de Unidades Académicas de Farmacia y Bioquímica

Agrupación Bioquímica de Cuyo

FEBIPA - Federación Bioquímica Patagónica.

FOBINEA - Foro de Bioquímicos del Noreste Argentino.

FEBINOA - Federación Bioquímica del Noroeste Argentino

INTERNATIONAL RELATIONS

IFCC International Federation of Clinical Chemistry and Laboratory Medicine.

COLABIOCLI Confederación Latinoamericana de Bioquímica Clínica.

CLAPU Confederación Latinoamericana y del Caribe de Asociaciones de Profesionales Universitarios.



AUSTRALASIA AUSTRALASIAN ASSOCIATION OF CLINICAL BIOCHEMISTS (AACB)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Harmonisation Workshop	10-11 May 2018	Various Harmonisation topics including lipid reporting (recommendations published).
AACB AIMS 2018 Combined Scientific Meeting	3-5 September 2018	Diagnosis to cure.
Satellite Meeting & Workshop post AACB Annual Conference	6-7 September 2018	Chromatography/Mass Spectrometry
Point of Care Testing Scientific Education Meeting	18-19 October 2018	Managing Chronic and Complex Conditions in Primary Care

EDUCATION

RCPA AACB Chemical Pathology Course – Adelaide 12-16 February 2018 – covered exam curriculum topics for both the AACB and RCPA.

EFLM-AACB Course - Assessing the Value of Biomarkers, Sydney 29 Feb- 1 March.

39 State Branch based monthly scientific meetings

Roman Lectures – Dr John Coakley- “Lipids in Children and links to adult vascular disease”

REGIONAL RELATIONS

Asia Pacific Federation of Clinical Biochemistry and Laboratory Medicine

Secretary Dr Helen Martin

AACB members on a number of APFCB committees both in chair and member roles:

Education and Laboratory Management Committee Tony Badrick – Chair, Graham Jones – Corresponding member

Scientific Committee Dr Samuel Vasikaran-Chair, Ronda Greaves – Member Graham Jones – Member

Communication Committee Sandra Klingberg– Corresponding member

Congress and Conferences Committee Peter Graham – Secretary

AACB has opened a new discounted membership for members of APFCB affiliate societies, including on-line subscription to Clinical Biochemist Reviews and access to all member only educational material.

INTERNATIONAL RELATIONS

AACB members contributing to IFCC in 2018:

Executive Board 2018-2020:

Prof Howard Morris - President



Committees and Working groups

Executive:

C-CC, Helen Martin- Corresponding member

Scientific division:

C-TLM, L Mackay - Member

C-RIDL, Ken Sikaris – Member, Graham Jones – Corresponding member

C-STFT, Paul Williams – Corresponding member

C-HAT, Louise Wienholt – Member

WG-CDT, Dorothy Kouzious- Corresponding member

WG-SAU, Graham Jones

WG-PAPP A, Greg Ward – Corresponding member

WG-SIA, Paul Glendenning – Corresponding member

WG-FIT, E Symonds

WG-Vit-D, Andy Liu

Education and management division:

C-CMBC, D Kunde – Corresponding member

C-EBLM, Chris Florkowski – Consultant

C-DL, Ronda Greaves – Member, Janine Grant – Web editor

C-POCT, Rosy Tirimacco – Chair, Samarina Mussad – Corresponding member

C-VPLM, Andrew St John – Chair, Tony Badrick – Corresponding member

WG-FC, E Spittler

WG-ICQA, Sam Vasikaran – Chair, Tony Badrick, Ken Sikaris,

DQCML, Ronda Greaves – Corresponding member

Communications and Publications division:

C-IDL, Janine Grant – Web editor, Ronda Greaves - Consultant

WG-eJIFCC, Ronda Greaves, Rita Horvath, Jill Tate, Peter Vervaart

Emerging Technologies Division

Executive

Ronda Graves – Secretary



AUSTRIA

AUSTRIAN SOCIETY OF LABORATORY MEDICINE AND
CLINICAL CHEMISTRY (ÖGLMKC)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Symposium Labormedizin Seggau bei Graz	Mi. 13.11.- Fr. 15.11.2019	Personalized medicine – facts versus vision



BELGIUM
ROYAL BELGIAN SOCIETY OF LABORATORY MEDICINE
(RBSLM)

NATIONAL MEETINGS

Joint Annual Congress of the Royal Belgian Society of Laboratory Medicine and the Belgian Thyroid Club	16 November 2018	- Joint Symposium with the Belgian Thyroid Club - Burning points in laboratory medicine
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EDUCATION

RBSLM is one of the owners of the journal "Acta Clinica Belgica"



BOLIVIA
SOCIEDAD BOLIVIANA DE BIOQUÍMICA CLÍNICA

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
II National Consultative of the Bolivian Society of Clinical Biochemistry	Tarija 19 January	Report of the National Executive Council of the Bolivian Society of Biochemistry Presentation plan of activities by filial management 2018 PROBOECO Report 2017 Development of the PROBOECO Activity schedule 2018
Meeting with the Ministry of Health and Sports - CONALAB – Presidency of the Senate National Health Commission	La Paz 31 August	Implementation of the External Quality Evaluation Program by the Bolivian Society of Clinical Biochemistry National Diagnostic Agency and Implementation of the Laboratory Accreditation program

EDUCATION

Agreement with the Bioquímica Argentina Foundation 2018 – 2020 to develop training activities of the biochemical professionals in common interpretation areas through the Bolivian continuous training program (PROBECO)

Agreement with the Bioquímica Argentina Foundation 2018 – 2020 to develop training activities of the biochemical laboratories in Bolivia through the program of accreditation of laboratories of the Bioquímica Argentina Foundation (PAL) and the Bolivian program of laboratory accreditation (PROBOACRELAB)

Immersion course in hematology "La Paz joint class organization - DIAMEDIC- CEN SOBOBIOCLI"- La PAZ 19-21 March 2018.

Course "XXXVIII Latin America Course of update in antimicrobials" Dr. Carlos Malbran

Courses at the distance from PROECO of the Bioquímica Argentina Foundation 2018 PROBOECO of the Bolivian Society of Clinical Biochemistry

Continuing education activities of the Bolivian Continuing Education Program (PROBOECO)

<i>Name of the meeting</i>		<i>Date</i>	<i>Topics</i>
SANTA CRUZ - BENI	PLANNING OF BIOSECURITY. COMPREHENSIVE WASTE MANAGEMENT IN HEALTH ESTABLISHMENTS	10 - 15 APRIL	DRA. ANA MARÍA AMBROSIO
COCHABAMBA - TARIJA	BASIC LABORATORY OF MYCOLOGICAL DIAGNOSIS	8 - 13 MAY	DRA. MARÍA VICTORIA ZULIANI
BENI - SANTA CRUZ	LIQUIDS FROM SPILLS OF SERIOUS CAVITIES.	19 - 24 JUNE	DR. LUIS ALBERTO PALAORO
LA PAZ- SUCRE	UPDATES IN THE HIV-AIDS LABORATORY.	24 - 29 JULY	DRA. ISABEL RIMOLDI
LA PAZ - ORURO	VALIDATION / VERIFICATION OF QUANTITATIVE ANALYTICAL PROCEDURES - ADVANCED COURSE	7 - 12 AUGUST	DR. RAUL GIRARDI
TARIJA - COCHABAMBA	WORKSHOP ON DOCUMENTATION OF THE QUALITY SYSTEM-MODULE 1.	7 - 12 AUGUST	DR. CARLOS PERUZZETTO
LA PAZ - ORURO	WORKSHOP ON DOCUMENTATION OF THE QUALITY SYSTEM-MODULE 1.	11 - 16 SEPTEMBER	DRA. SANDRA EVANGELINA FILIPPINI
SUCRE- POTOSI	HEMATOLOGIA ACTULIZACION STUDY OF ERYTHROCYTES AND PLATELETS	11 - 16 DE SEPTEMBER	DRA. MARIANA GONZALEZ
SANTA CRUZ - SUCRE	UPDATE ON ANTIMICROBIALS	9 - 14 OCTOBER	DRA. MARCELA NASTRO
TARIJA - COCHABAMBA	WORKSHOP ON DOCUMENTATION OF THE QUALITY SYSTEM- MODULE 2.	9 - 14 OCTOBER	DR. CARLOS PERUZZETTO
LA PAZ - ORURO	PARASITOLOGY. INTESTINAL PARASITOSIS PRODUCED BY HELMINTOS. LARVARY MIGRATION SYNDROME.	11 - 16 DICEMBER	DRA. LEONORA KOZUBSKY
SANTA CRUZ - BENI	ANTIMICROBIALS IN THE MOST FREQUENT INFECTIONS	11 - 16 DECEMBER	DRA. ANGELA MARÍA ROSA FAMIGLIETTI

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Extraordinary Assembly of the Latin American Confederation of Clinical Biochemistry (COLABIOCLI)	Buenos Aires – Argentina, 24-27 October 2018	Strategic plan COLABIOCLI Legal personnel Plans and Programs COLABIOCLI
Correspondence Radio “El Microscopio”	According to programming	Support for development in the plan of activities management 2018
Extraordinary National Congress II International Conferences of the Bolivian Society of Clinical Biochemistry	La Paz 27 November – 01 December 2018	Presentation of the Annual Report of the Bolivian Program of the continuing education (PROBOECO) – Approval of Scholarships regulations, regulations congresses regulation of recognitions

REGIONAL RELATIONS

Permanent realization with the Latin American Confederation of Clinical Biochemistry (COLABIOCLI) and the National Representations of Latin America



Permanent Sociedad Brasileira de Analisis Clinicos (SBAC) ad National Quality Control Program (PNCQ)

INTERNATIONAL RELATIONS

Participation in the extraordinary assembly of Latin American Confederation of Clinical Biochemistry (COLABIOCLI) held in Buenos Aires, Argentina – October 24-27, 2018- CALILAB 2018 Congress

Participaiton of the Bolivian Society of Clinical Biochemistry at the IFCC Budapest General Conference, 9-11 November 2018

Meeting with the Working Group on Molecular Biology (IFCC-Clinical Molecular Biology Curriculum C-CMBC) Course to confirm the conduct of the course of molecular biology in the city of La Paz, in the month of November 2019.

Meeting of Latin American Representatives at the IFCC General Conference, Budapest - Hungary 2018.

Permanent realization with the International Federation of Clinical Chemistry (IFCC), Spanish Society of Clinical Chemistry (SEQC), Latin American Confederation of Clinical Biochemistry (COLABIOCLI)

ADDITIONAL INFORMATION

Presentation of the Journal of the Bolivian Society of Clinical Biochemistry by the Sucre Subsidiary who will become the organ of diffusion of the Scientific activity of our entity in Bolivia.



BULGARIA BULGARIAN SOCIETY OF CLINICAL LABORATORY

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topics</i>
XII National Conference of BSCL	27-29/09/2018	Accreditation and lab management External Quality Assurance Molecular diagnosis of genetic diseases Cardiac markers Laboratory endocrinology Tumor and bone markers Immunology TDM Point of care testing
BSCL-Sofia branch professional meeting I	February 2018	Thrombosis and haemostasis
BSCL-Sofia branch professional meeting II	March 2018	Markers of acute renal failure

EDUCATION

Basic postgraduate course for physicians, specialising clinical laboratory- part I-April 2018
Basic postgraduate course for physicians, specialising clinical laboratory- part II-July 2018
Basic postgraduate course for physicians, specialising clinical laboratory- part III-October 2018



REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
XXVI BCLF Meeting, Skoplje, Macedonia	October 3-5, 2018	Macedonian society of biochemistry and laboratory medicine(MSMBLM)

REGIONAL RELATIONS

BCLF

INTERNATIONAL RELATIONS

IFCC

EFLM

BCLF



CANADA

CANADIAN SOCIETY OF CLINICAL CHEMISTS (CSCC)
SOCIÉTÉ CANADIENNE DES CLINICO-CHIMISTES

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Canadian Society of Clinical Chemists Annual Conference	June 3-6 2018	CSCC Annual Meeting Ottawa, Ontario
Upcoming meeting in 2019: CSCC Annual Conference	June 2-5 2019	CSCC Annual Meeting Saint John, New Brunswick

EDUCATION

2018 Travelling Lectureship Series

Speaker: Dr. Michael G. Surette, Professor and Canada Research Chair Interdisciplinary Microbiome Research in the Department of Medicine and Department of Biochemistry and Biomedical Sciences at McMaster University

Topic: The Human Microbiome in Health and Disease: Challenges and Opportunities

Dr. Surette gave presentations in Jasper, Quebec City, London, Vancouver, and Saskatoon in the period October 11 – November 19, 2017

The lectureship is sponsored by Bio-Rad Laboratories

CSCC Webinar Lectureship on Critical Care Medicine

Speaker: Dr. Mark Downing, Head of Infectious Diseases and Antimicrobial Stewardship Officer, Saint Joseph's Health Centre, Toronto

Topic: Procalcitonin: Should your hospital use it?

March 22, 2018

Lectureship sponsored by Roche

2017-18 Webinar Series

14 CSCC "Education Roundtable" in webinar format were held twice a month from September 2017 to June 2018. In addition to single participants, many members formed groups at their institution to attend the webinars. Sessions averaged about 50 phone lines and 200-250 participants.

Special Interest / Working Groups

CSCC has 8 special interest / working groups which are communities with an interest in advancing a specific area of knowledge, learning or technology where members cooperate to affect or to produce solutions within their particular field. The activities usually consist of communication between conferences and informal sessions within the CSCC conference. These groups also develop position statements and guidelines.

Leadership In Quality Management Certificate Program

The purpose of this Program is to bring Clinical Biochemists, as laboratory leaders, to a level required to provide competent leadership and oversight to the quality management systems (QMS) in their laboratory. The certificate Program is presented as an on-line course in quality management. CSCC trainee members are offered the option to register in the program at no charge. This event is an accredited group learning activity as defined by the CACB/CSCC Professional Development Program.

Participants have two years to complete the program.

CACB Professional Development Program

The Maintenance of Competence Committee oversees the continuing professional development (PD) program designed by the Canadian Academy of Clinical Biochemistry to encourage and support the lifelong learning needs of its Fellows and other healthcare professionals who are in the practice of clinical chemistry. The program uses accreditation of continuing professional development events, establishes an ongoing PD program for continuing education credits, and conducts audits of PD credit submissions as a means of achieving this goal.

REGIONAL RELATIONS

CSCC has 7 Provincial Sections – British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and Nova Scotia. Each Section holds its own meetings and small conferences. The Sections report annually to the Society Council. A Provincial Grant is available for each section to help fund their activities.

INTERNATIONAL RELATIONS

CSCC paid the IFCC membership dues of the Cuban Society.

CSCC, with AACC, is a member of the North American Federation of Clinical Chemistry and Laboratory Medicine (NAFCC) of IFCC. The NAFCC was represented at the IFCC Executive Board meetings in 2018.

Dr. David Kinniburgh, Past-President of CSCC, is the current Secretary of IFCC.

There are several Canadian members on IFCC committees and each of these members is asked to provide a report to each CSCC Council meeting.

ADDITIONAL INFORMATION

CSCC had a number of interactions with other Canadian pathology and lab medicine groups including:

- Canadian Leadership Council on Laboratory Medicine & Laboratory Utilization Sub-Committee
- Participation in 'Choosing Wisely Canada' <http://www.choosingwiselycanada.org/>
- Participation in 'Lab Tests Online' with AACC <https://labtestsonline.org/>

CSCC supports LabCanDx (formerly MEDEC), the national association for the Canadian medical technology industry, in their efforts to promote the value of laboratory medicine.

CSCC supports participation in ToxLRN which is an initiative by Health Canada to create a network of toxicology laboratories in Canada.

CSCC provides support and professional encouragement for Trainees and Young Scientists, such as a special reception at the annual conference.

CSCC holds an annual charity run at its annual conference and proceeds are donated to a local charity.

CSCC publishes a bi-monthly newsletter and periodic electronic newsletters.



CHILE SOCIEDAD CHILENA DE QUÍMICA CLÍNICA (SCHQC)

EDUCATION

SCHQC invited by the Ministry of Health of Chile was active in the preparation of Operational Technical Standards (NTO) for the Certification of professional specialty of biochemicals and pharmaceutical chemists. Member: Eduardo ARANDA and Milena MONARI.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
3 th Latin American and Caribbean Regional Workshop "Interpretation of critical requirements of ISO 15189 (Livestream)	26 to 28 September 2018, Quito, Ecuador	SCHQC sponsorship, Speakers: Roberto CARBONI and Leonardo AGUIRRE
Simposio Iberoamericano de Química Clínica Expolab	28-29 June 2018, Ciudad de Guatemala, Guatemala	Active participation meeting WG-IANT IFCC and speaker: member Eduardo ARANDA.
13 Congreso Ecuatoriano y 19 Congreso Internacional de Bioquímica Clínica	18-20 October, 2018, Riobamba, Ecuador	Speaker: Eduardo ARANDA
20 Congreso Argentino de la Calidad del Laboratorio Clínico CALILAB	24-27 October 2018, Buenos Aires, Argentina	Active participation Rene GOMEZ in the Assambly of COLABIOCLI
20 Congreso Argentino de la Calidad del Laboratorio Clínico CALILAB	24-27 October 2018, Buenos Aires, Argentina	Speakers: Claudio LOBOS, Jaime SASSO, Eduardo ARANDA

REGIONAL RELATIONS

SChQC has collaboration with several regional associations of medical laboratory.

- COLABIOCLI (Confederación Latinoamericana de Bioquímica Clínica) as a full member.
- IAAC (Inter American Accreditation Cooperation) as a stakeholder member.
- APTM (Asociación Panamericana de Tecnólogos Médicos)
- SOCITEM (Sociedad Científica de Laboratorio Clínico de Tecnólogos Médicos de Chile)
- INN (Instituto de Standardización Nacional); Chile



INTERNATIONAL RELATIONS

Participation in the International Scientific Advisory of World Lab Durban 2017

- SChQC is a Liaison member to the IFCC eNewsletter
- IFCC CDP WG. Ibero-American Nomenclature and Translations (WG-IANT) Member E. ARANDA
- National representative IFCC: Eduardo ARANDA
- National representative IAAC: Milena MONARI

ADDITIONAL INFORMATION

The SCHQC has been active in organizing the 20th National Conference will be held 23-25 October, Santiago, Chile



CHINA (CN)
PEOPLE'S REPUBLIC OF CHINA (PRC) - BEIJING
CHINESE SOCIETY OF LABORATORY MEDICINE (CSLM)

NATIONAL MEETINGS

Name of the meeting	Date	Topic
The 14 th National Conference on Laboratory Medicine	September 5 th – 8 th , 2018.	A total of 19 topics were conducted during the conference, including multidisciplinary discussion of intractable cases, microfluidic technology, and its clinical application, laboratory developed tests, etc.

EDUCATION

The CLSM now offers the monthly “on-air” class with internet+ remote network teaching technology through high definition broadcast streaming and Wechat. The Society will invite the laboratory and clinical experts to come online. They will use their years of rich clinical experience and expertise to answer the questions from online students in real time. The 12 sessions in 2018 has yield over 5,000 times of streaming per month.

INTERNATIONAL RELATIONS

CSLM, together with AACC , organized the Mass Spectrometry Technology and Clinical Summit Forum in the 14th National Conference on Laboratory Medicine. Professor Steven Wong from Wake Forest University and Professor Victoria Zhang from the University of Rochester conduct the sub-forum on the clinical transformation of mass spectrometry. Professor Yusheng Zhu from the University of Pennsylvania presented the conference report on the clinical application and quality control of mass spectrometry. Professor Chengbin Wang, the president of CSLM, signed a memorandum of cooperation between the CSLM and AACC, which provided a new opportunity for further expansion of foreign exchanges.

ADDITIONAL INFORMATION

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
The 14 th National Conference on Laboratory Medicine	September 5 th – 8 th , 2018.	A total of 19 topics were conducted during the conference, including multidisciplinary discussion of intractable cases, microfluidic technology, and its clinical application, laboratory developed tests, etc.



NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
9 th Congress of the Croatian Society of Medical Biochemistry and laboratory medicine (CSMBLM) with International Participation; Zagreb, Croatia	9.-12.5.2018	Pre-congress symposium: Presentation of guidelines published by CSMBLM Symposium 1: Laboratory diagnostics of Haemostasis Symposium 2: Laboratory diagnostic of chronic diseases Symposium 3: New trends in molecular diagnostics Symposium 4: New diagnostics approach in laboratory medicine Symposium 5: Laboratory management Symposium 6: Analysis of urine and other specimens
9 th CSMBLM Symposium; Zagreb, Croatia	29.9.2018	Laboratory analysis of extravascular fluids and body excretions
EQALM symposium 2018; Zagreb, Croatia	19-20 October 2018	External quality control

EDUCATION

In the 2018, Committee for the scientific and professional development performed their activities through several working groups for the specific areas in the laboratory medicine:

- WG for preanalytical phase has been working on optimization of hemolysis investigation protocol; part of scientific experiments has been done and is expected to be concluded in 2019.
- WG for blood gas testing has been working on implementation and promotion of their National recommendation
- WG of CSMBLM and CCMB for uncertainty of measurement has published Croatian translation of Minimum requirements for the estimation of measurement uncertainty: Recommendations of the joint Working group for uncertainty of measurement of the CSMBLM and CCMB. Document has been distributed to all members of CSMBLM
- WG of CSMBLM and CCMB for chronic renal disease has been evaluating degree of implementation of the National recommendation for chronic renal disease. Results have been presented at Croatian national congress: Radišić Biljak V, Honović L, Matica J, Krešić B, Šimić Vojak S. How well do Croatian laboratories adhere to CSMBLM-CCMB recommendations for laboratory diagnostics of chronic kidney disease. *Biochem Med* 2018;28(Suppl 1): S122-S123.
- WG for laboratory diagnosis of autoimmune diseases has finished drafting National recommendations for antinuclear antibodies.
- WG for extravascular body samples has submitted two documents for publication: National recommendations for serous fluids and National recommendations for synovial fluid
- WG for coagulation testing finished National recommendations for coagulation testing which are currently being revised in the public discussion by the members of the CSMBLM.
- WG for molecular diagnostics has published two congress abstracts of the nation-wide survey on practices in molecular diagnostics. The results are presented at Croatian national congress.
- WG for postanalytical phase has finished National recommendations for postanalytical phase. The manuscript has been submitted in *Biochemia Medica* journal.



- WG for standardization of sweat testing performed a survey on procedures for sweat testing in Croatian laboratories and is currently working on National recommendations
- New **WG for method validation and verification** is formed. They have been preparing a survey on verification and validation procedures in Croatian laboratories.
- New **WG for haematology** is formed.

In 2018, CSMBLM **Committee for education** provided free webinars available to all CSMBLM members. Participants of e-seminars earned credits granted by the Croatian chamber of medical biochemists (CCMB).

E-seminars in 2018:

- Flow Cytometry in Clinical Application - where we are today
- Allergic reaction - from clinical to laboratory findings
- Preanalytic factors in the determination of tumour markers
- Laboratory Diagnosis of Thrombophilia
- Galektin-3 - a new marker of acute and chronic heart failure
- Verification of the 12 Most Commonly Used Urine Tracks in the Republic of Croatia: comparability, reproducibility and accuracy
- The consistency of the distribution of the categories at different concentrations of urinary band parameters in the Republic of Croatia

Grants:

CSMBLM provided

- 22 grants for its members for the 9th Congress of the Croatian Society of Medical Biochemistry and laboratory medicine (CSMBLM) with International Participation, 9.-12.5.2018, Zagreb, Croatia

2 grants for the 5th EFLM-UEMS European Joint Congress in Laboratory Medicine, October 2018, Antalya, Turkey

ADDITIONAL INFORMATION

In 2018 **Committee for information and public relations** has regularly informed the membership about IFCC and EFLM activities by preparing newsletters and notifications in Croatian and English language. They forwarded all the calls for nominations in EFLM and IFCC working groups and committees. Committee for information and public relations gave support and helped with promotion of 9th National CSMBLM Congress (Zagreb 2018) in different local media services.

Croatian Centre for Quality Assessment in Laboratory Medicine (CROQALM), member of EQALM (CSMBLM representative in EQALM: Jasna Lenicek Krleza, PhD, Specialist in Laboratory Medicine). In 2018. CROQALM performed three cycles of external quality control (March, June, September). In December 2018, annual report for each participant was sent to Croatian Chamber of Medical Biochemists and applications for EQA in 2019 was opened. Active participation at the 9th Congress of the Croatian Society of Medical Biochemistry and Laboratory Medicine (section Ask the Experts: CROQALM and poster presentations). In October 2018, CROQALM



CUBA
CUBAN SOCIETY OF CLINICAL PATHOLOGISTS

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Central Provinces Meeting of the CSCP	June 21-22, 2018	General topics on Laboratory Medicine.
Eastern Provinces Meeting of the CSCP	September 5-6, 2018	Thrombophilia, Quality Control and other selected topics on Laboratory Medicine.
Western Provinces Meeting of the CSCP	November 22-23, 2018	Flow Citometry and other selected topics on Laboratory Medicine.



ECUADOR
SOCIEDAD ECUATORIANA DE BIOQUÍMICA CLÍNICA
(SEBIOCLI)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Course- Update Workshop in Clinical Microbiology	Quito, april 17 th – 22 th 2017	Bacteriology
Course- Update Workshop in Clinical Microbiology	Quito, may 2 th – 6 th 2017	Virology
Course- Update Workshop in Clinical Microbiology	Quito, june 26 th – 30 th 2017	Parasitology
Course- Update Workshop in Clinical Microbiology	Quito, october 17 th – 21 th 2017	Mycology
Course- Update Workshop in Clinical Microbiology	Quito, may 17 th – 19 th 2018	Veterinary microbiology
Vaginitis / vaginosis: laboratory tests. Symptomatic and asymptomatic vaginitis in Ecuadorian women.	Quito, january 29 th 2019	Bacteriology
Interpretation of the peripheral blood smear. Aerobic vaginitis	Quito, february 20 th 2019	Hematology Bacteriology
Woman: body, mind and spirit	Cuenca, march 22 th 2017	Endocrinology
Accreditation under ISO15189	Cuenca, july 1 st 2017	Quality
Identification and antimicrobial susceptibility. Methods: manual and semi-quantitative. ATCC strains	Cuenca, october 26 th 2017	Bacterial resistance, quality control
VII continued education course Module I	Cuenca, april 26 th – 28 th 2018	Endocrinology
VII continued education course Module II	Cuenca, july 12 th – 14 th 2018	Immunology Autoimmunity
Update in System of Quality in the Clinical Laboratory	Guayaquil, november 10 th – 12 th 2017	ISO 15189:2012
Why identify yeasts of clinical interest?	Guayaquil, april 9 th – 13 th 2018	Mycology





Quality assurance in microbiology Quality control	Machala, july 13 th – 15 th 2017	Quality
Updating in document management and generation of AMEF for risk management of the laboratory process in all three phases. Preanalytic, analytical and post analytical.	Machala, august 24 th – 26 th 2017	Quality
IV continued education course Biochemistry Clinic and microbiology. Module I	Machala, june 29 th – 30 th 2018	Bacteriology, endocrinology, tumoral markers, quality
IV continued education course Biochemistry Clinic and hematology workshop. Module II	Machala, november 29 th – 30 th , december 1 st 2018	Hematology, bacteriology, quality
Molecular biology	Ambato, june 2017	Molecular biology
Conferences SEBIOCLI Tungurahua	Ambato, april to october 2018	Microbiology, quality, endocrinology, tumoral markers.
XIII Ecuadorian Congress of Clinical Biochemistry and IX International Congress of Clinical Biochemistry	Riobamba, october 17 th 2018	Pre congress Bacteriology
XIII Ecuadorian Congress of Clinical Biochemistry and IX International Congress of Clinical Biochemistry	Riobamba 18 th – 20 th 2018	preanalytic mycology hematology coagulation and hemostasis microbiology mycology fertility and endocrinology molecular epidemiology endocrinology biosafety
XIII Ecuadorian Congress of Clinical Biochemistry and IX International Congress of Clinical Biochemistry	Riobamba 18 th – 20 th 2018	Intra congress urinalysis Intra congress quality

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
The 3 rd Regional Workshop ISO 15189 for Latin America and the Caribbean	Quito, september 26 st – 28 st	organization, coordination, logistics and technical assistance, speakers, moderators, authorship of the article published in IFCCeNews February 2019 (edited and translated by Rosa Sierra-Amor)

REGIONAL RELATIONS

For the organization and realization of the Regional Workshop Latin America and the Caribbean Ecuador 2018: Interpretation of critical requirements of ISO 15189: 2012 participated:
Chilean Society of Clinical Biochemistry
Santiago University of Chile
REUNA (National University Network of Chile for Research and Education)
Scientific societies, metrology organizations and national accreditation bodies of several countries in Latin America and the Caribbean.

COLABIOCLI sponsorship for national and international events
Sponsorship of the Veracruz University of Xalapa- Mexico
Auspice of the State Center of Cancerology Mexico
Auspice of the Clinical Trials Coordination Center Cuba
Wiener Lab Argentina Foundation
Argentine Biochemistry Foundation

INTERNATIONAL RELATIONS

Sponsorship of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) for national events; sponsorship and financial support of IFCC for the XIII Ecuadorian Congress and IX International of Clinical Biochemistry.

Sponsorship and financial support of the German Institute of Metrology PTB (Physikalisch-Technische Bundesanstalt) and the German Cooperation (GIZ) for the Regional Workshop Latin America and the Caribbean Ecuador 2018: Interpretation of critical requirements of ISO 15189: 2012.

ADDITIONAL INFORMATION

It is difficult to separate the National meetings from the education activities, so, I have detailed all the activities within the National meetings, because all of them were training and education activities.

SEBIOCLI renews its directory every 2 years in March. On Saturday, March 16th, we already chose the new board chaired by Dr. Francisco Vallejos, who will be our National Representative until 2021.



ESTONIA ESTONIAN SOCIETY FOR LABORATORY MEDICINE

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
General meeting of ESLM	April 19, 2018, Tartu	Diagnostic algorithm of HIV diagnostics, diagnostics of Clostridium difficile, laboratory diagnostics of vasculitis and autoimmune myositis, cystatin C and Beta trace protein, case history: haemophagocytic syndrome, case history: methemoglobinemia M, professional standards of medical laboratory specialist and biomedical laboratory scientists, approval of annual report 2017
XIX Summer School	August 30-31, 2018, Valma	Immunological markers in diabetes, overview of 2 year results in colorectal cancer screening programme, diagnostic algorithms and automatic comments, guideline for verification of methods, implementation of quality indicators and 6 sigma in medical laboratory, application of professional degree for medical laboratory specialists, clinical applications and analytical difficulties of LC-MS, developments on molecular diagnostics, cyber hygiene, agile software development, trace metals, diagnostic and treatment guidelines for fungal infections, pharmacogenetics: theory, practice and future
General meeting of ESLM	December 5, 2018, Kukruse	Therapeutic drug monitoring, assessment of professional qualifications of laboratory doctors and medical laboratory specialists, new homepage, microbiology laboratory in the future, microbiology of urinary infections, chromogenic tools in infection control, algorithm of Candida auris diagnostics, 4 year report of the ESLM board, election of new board

EDUCATION

- Interdisciplinary seminar "Prostate", March 23, 2018, Tallinn
- 2 lectures in Endocrinology Society meeting



REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
XIV Baltic Congress in Laboratory Medicine	May 10 – 12, 2018, Vilnius	ESLM participated in organisation of the Congress, together with Lithuanian (main organiser) and Latvian societies (BALM). ESLM had 10 oral presentations.

INTERNATIONAL RELATIONS

ESLM is the member of the following international organisations: IFCC, EFLM, BALM, ESCMID (EUCAST)

- Marika Jürna-Ellam participated in EUCAST meeting in ECCMID 2018 (April, Madrid).
- Helle Järv is a member of EUCAST subcommittee (AFST) and participated at AFST meeting in ECCMID 2018 (April, Madrid).
- Agnes Ivanov participated as corresponding member in the IFCC Task Force “How should Glucose Meters be Evaluated for Critical Care“ (TF-POCT). Terms of reference 1 and 2 have been submitted to IFCC in december 2017 and document confirmed in March 2018.
- Agnes Ivanov is a member in the IFCC Working Group “Laboratory Errors and Patient Safety” (WG-LEPS)
- Marge Kütt participated as corresponding member in the EFLM Working Group „Patient Focused Laboratory Medicine“ (WG-PFLM)
- Anna Velts-Lindh participated as corresponding member in the IFCC Task Force „Young Scientists“ (TF-YS). She held 2 lectures „Succeeding as a young scientist“ on 13th Hellenic Congress of Clinical Chemistry (Alexandroupoli, Greece) and 2nd Convegno Gds SIBioC Young Scientists (Rome Italy).
- Galina Zemtsovskaja is a corresponding member in IFCC Committee on Clinical Applications of Cardiac Biomarkers (C-CB). Committee Publisher an article „High sensitivity, contemporary and point-of-care cardiac troponin assays: educational aids“.

ADDITIONAL INFORMATION

Together with Estonian Society of Bioanalysts, ESLM published issue No 4 (2018) of the journal „Eesti Laborimeditsiin“ („Estonian Laboratory Medicine“) (in March).

There are 2 sections in ESLM:

- Section of clinical microbiology
- Section of laboratory physicians

There are working groups in the fields of

- Laboratory terminology,
- LOINC (Logical Observation Identifiers Names and Codes),
- Professional standard of Medial Laboratory Specialist,
- Laboratory Quality,
- Kidney Biomarkers,
- Cardiac Markers,
- Laboratory Hematology,
- Diagnostics of Urogenital Infections
- Protein electrophoresis
- Flow cytometry (created in 2018)

The following guidelines were compiled:

- Verification of analytes in medical laboratory (2018)

- Algorithm of HIV laboratory diagnostics (2018)
- Algorithm of *Candida auris* infection diagnostics (2018)

17 laboratories are sending out-patients' laboratory test results electronically to the National Digital Health Record. New forms of visual display of dynamical changes are under development into National Digital Health Record



FINLAND FINNISH SOCIETY OF CLINICAL CHEMISTRY (SKKY)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Labquality Days	8.-9.2.2018	General clinical chemistry
Spring Meeting	19.4.2018	Preanalytics
Fall meeting	4.-5.10.2018	Clinical chemistry/Research in clinical laboratory

EDUCATION

The Finnish Society of Clinical Chemistry has a member in the educational work group in Labquality Days with a purpose to enable collaboration with the society and the company.

The topic of the spring meeting was preanalytics. The meeting was organized in collaboration with two national societies (medical specialists in laboratory medicine and clinical biochemists). The meeting consisted of lectures, group work and discussions about preanalytics.

The fall meeting was general clinical chemistry organized together with medical specialists, clinical biochemists and biomedical laboratory scientists. The Finnish Society of Clinical Chemistry organised a session about conducting scientific research in clinical laboratory and improving academic career in a hospital.

The Finnish Society of Clinical Chemistry has given several grants for the members of the society for both attending educational events (congresses, educational workshops etc.) and for enabling scientific work or academic studies

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
XXXVI Nordic Congress in Clinical Biochemistry (NFKK2018)	12.-15.6.2018	Organizer
NFKK Board Meeting	14.6.2018	Anna Linko-Parvinen and Eeva-Riitta Savolainen attended
NFKK Board Meeting	28.9.2018	Eeva-Riitta Savolainen attended

REGIONAL RELATIONS

The Nordic Congress in Clinical Chemistry was organized by the Finnish Society of Clinical Chemistry (see description below) in Helsinki, Finland. The congress demanded great effort from the society with prof. Kari Pulkki being the chair of the scientific committee and adjunct professor Solveig Linko the chair of the organizing committee.





NFKK (Nordisk Forening for Klinisk Kemi, The Nordic Society of Clinical Chemistry) board meetings in June (Helsinki, Finland) and September (Malmö, Sweden). President Anna Linko-Parvonen and national representative Eeva-Riitta Savolainen attended the meeting in June and national representative Eeva-Riitta Savolainen the meeting in September. The meetings consisted of discussions of common practices in clinical chemistry in the Nordic countries as well as reference ranges and reference materials in the Nordic countries. Also educational aspects (e.g. scientific courses) were discussed.

The society has been active with other societies in clinical chemistry, e.g. in organizing educational events in Finland.

INTERNATIONAL RELATIONS

The National Representative Päivi Laitinen has been active in IFCC and the National Representative Kari Pulkki in EFLM.

The following were previous members or selected in international scientific work groups (applications in 2018):

EFLM, WG-A-ISO, Solveig Linko, member (new)

EFLM, WG-BV, Outi Itkonen, member (new)

EFLM, WG-CM, Päivi Laitinen, chair, Kari Pulkki, member, Janne Suvisaari, corresponding member

EFLM, WG-PFLM, Mikko Anttonen, corresponding member (new)

IFCC, WG-PAPPA, Saara Wittfooth, chair, Kim Pettersson, member

IFCC, WG-TNI, Aleksei Katrukha, member

IFCC, C-TLM, Saara Wittfooth, corresponding member (new)

IFCC, C-CB, Kari Pulkki, member

IFCC, C-VPLM, Päivi Laitinen, corresponding member (new)

IFCC, TF-YS, Mikko Helenius, corresponding member (new)

ADDITIONAL INFORMATION

The Finnish Society of Clinical Chemistry organized the 36th Nordic Congress in Clinical Chemistry in Helsinki, Finland on 12-15 June 2018. The Nordic Congress is organized every second year in one of the five Nordic countries by the local clinical chemistry society. A total of 455 delegates attended, from 35 different countries. The four-day congress program consisted of 16 symposia under the main theme “Information Beyond Numbers” covering recent topics of both traditional clinical chemistry and haematology, general laboratory process and basics of genetic and epigenetic testing. Among the lecturers were past presidents of IFCC prof. Maurizio Ferrari and prof. Graham Beastall, who covered the future of molecular biology in diagnostic laboratories and the future of laboratory medicine in their lectures. Keynote speakers were Director Ravinder Singh from Mayo Clinic (recent advances in clinical mass spectrometry) and prof. Tari Haahtela, (the effect of nature and environment on our health). During the congress the Lorentz Eldjarn prize (the most prominent study published in the SCJLI during 2013-2017) for Linda Hilsted (paediatric reference intervals) and the Astrup Prize (contemporary Nordic research work related to the field of clinical chemistry) for Stefan Stender (adiposity amplifies the genetic risk of fatty liver disease conferred by multiple loci) were awarded. The congress was a great success in regarding the program, the atmosphere and the possibility for networking.



NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
National meetings with SFBC auspices - 51 th Journées de Biologie Praticienne	Paris December 7 th - 8 th , 2018	Hematology / Infectious diseases / Pregnancy monitoring / Neurodegenerative diseases / Immunoassays
- Journée nationale de Biologie Médicale	Faculté de Pharmacie Paris Descartes October 17 - 18 th , 2018	French Medical Biology and EU: place and role to improve the patient health status and health outcomes

Education

- Educational Committee chaired by Dr C. Augereau and Dr F. Guerber:
 - Continuous professional development (DPC) and continuous medical education (CME) through SFBC scientific meeting sessions
- Committee on Evaluation of Professional Practices (C-EPP): chaired by Dr I. Aimone-Gastin (Nancy)
 - National Agreement SFBC as Validating Society for “EPP”
 - Relations with the Federation of Medical Specialities (FSM)

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
10 th International Palestinian Congress and AFBC	Ramallah (PA) April 18 th - 21 st , 2018	Invited lecture
Journées nationales Société Tunisienne de Biologie Clinique	Hammamet (Tunisia) May 7 th - 12 th , 2018	Invited lecture
3 rd and 4 th Serbian Biomarker Symposium (SERBIS)	Belgrade (Serbia) June 5 th - 8 th , 2018	Invited lecture. Session chairmanship
7 th International Symposium “Critical Care Testing and Blood Gases”	Antibes (FR) June 20 th - 2 st , 2018	Invited lectures. Session chairmanship
1 st IFCC - EFLM - AFBC - FIFBCML Conference on Laboratory Medicine	Roma (IT) July 2 nd - 4 th , 2018	Invited lectures. Session chairmanship
2018 AACC Annual Meeting	Chicago (IL, USA) July 27 th - August 3 rd , 2018	Meetings with AACC and IFCC
PathCape 2018 “Rejuvenating Pathology”	Stellenbosch (ZA) August 16 th - 18 th , 2018	Invited lectures
18 ^{èmes} Journées Marocaines de Biologie Clinique	Casablanca (MO) September 27 th - 29 th , 2018	Invited lecture
EFLM symposium for Balkan Region	Belgrade (Macedonia) October 3 rd - 5 th , 2018	Invited lecture
Protein and Peptide Therapeutic Workshop	Chengdu (CN) October 10 th - 12 th , 2018	Invited lecture
16 th meeting of the Greek Society	Alexandropolis (Greece) October 11 th - 13 th , 2018	Invited lecture
Colloque 2 ^{èmes} Journées Francophones	Paris (FR) October 17 th - 18 th , 2018	Invited lecture
5 th Congress on e-cardiology	Moscow (RU) October 29 th - 30 th , 2018	Invited lectures
LMCE 2018 and KSLM 59 th Annual Meeting	Seoul (South Korea) November 1 st - 3 rd , 2018	Invited lecture

REGIONAL RELATIONS

Functional unit	Name	Surname	Position
TFC: Urinalysis	Audry	MERENS	Member
Profession Committee (C-P)	Jean-Philippe	BROCHET	Member
	Simone	ZERAH	Expert/Consultant
WG: Register	Hugo	ROUX	Member - Young Scientist
WG: LM Credit Points (WG-LMCP)	Michel	PERES	Member - Young Scientist
WG: Accreditation and ISO/CEN standards (WG-A/ISO)	Guilaine	BOURSIER	Member - Young Scientist
WG: Biological Variation (WG-BV)	Nihad	MEKNACHE	Corresponding Member
WG: Accreditation and ISO/CEN standards (WG-A/ISO)	Michel	VAUBOURDOLLE	Corresponding Member

INTERNATIONAL RELATIONS

- SFBC Committee on International Relations:
 - Prof.P. Gillery
 - Dr B. Gouget
- SFBC representatives :
 - IFCC : Prof. P. Gillery
 - EFLM : Dr M. Vaubourdolle
 - WASPaLM : Prof. P. Gillery, Dr G. Boursier
- Participation in the International Advisory Board of IFCC/EFLM meetings:
 - EFLM/IFCC EuroMedLab Barcelona 2019 (Dr M. Vaubourdolle, ISAB member)
 - IFCC WorldLab Seoul 2020 (Pr P. Gillery, ISC Member)
 - EFLM/IFCC EuroMedLab Munich 2021 (Pr P. Gillery, Chair of the Scientific Programme Committee), Michel Vaubourdolle (ISAB)
 - IFCC Council, and chair Arabic Federation /FIFBCML session (Dr B. Gouget)
- SFBC: founding member of the FIFBCML: Fédération Internationale Francophone de Biologie Clinique et de Médecine de Laboratoire. Participation in meetings in 2017 : see “Regional Meetings”.
- Participation of SFBC members at National meetings of IFCC full members
- **Participation of SFBC members in IFCC Committees and Working Groups**
 - **Scientific Division (SD)**
 - Executive Committee P. Gillery, Chair, 2017-2019
 - Committees
 - Nomenclature, Properties and Units (C-NPU) F. Scherrer, Member, 2018-2020
 - Molecular Diagnostic (C-MD) K. Peoc’h, corresp. Member
 - Traceability in Laboratory Medicine (C-TLM) A. Vassault, corresp. Member
 - Standardization of Thyroid Function Tests (C-STFT) V. Raverot, corresp. Member
 - Working groups
 - Standardization of Carbohydrate-Deficient Transferrin (WG-CDT) F. Schellenberg, Member
 - Parathyroid hormone (WG-PTH) J.C. Souberbielle, Member
 - Commutability (WG-C) V. Delatour, Member
 - Standardization of Troponin I (WG-TNI) E. Romeu, Member
 - Standardisation of Hemoglobin A₂ (WG-HbA₂) G. Lefèvre, corresp. Member
 - M. Arock, corresp. Member



- Standardisation of Pregnancy-Associated Plasma Protein (WG-PAPPA) R. Garnotel, corresp. Member
- Standardisation of Albumin Assay in Urine (WG-SAU) E. Caussé, corresp. Member
- CSF Proteins (WG-CSF) S. Lehmann, Member
- Apolipoproteins by Mass Spectrometry (WG-Apo MS) V. Delatour, Member
- Standardization of Procalcitonin assays (WG-PCT) C. Hirtz, Member
- V. Delatour, Member
- V. Delatour, Chair, 2018-2020
- A. Breuf, Member
- H. Briand, Member
- P. Hausater, Member

• **Education and Management Division (EMD)**

Committees

- Committee on Clinical Applications of Cardiac Biomarkers (C-CB) G. Lefèvre, Member, 2017-2019
- Committee on Evidence Based Laboratory Medicine (C-EBLM) J. Wils, Member, 2016-2018
- Committee on Point of Care Testing (C-POCT) M. Vaubourdolle, Member, 2017-2019
- Committee on Proficiency testing (C-PT) A. Perret-Liaudet, Member, 2017-2019
- Committee on Chronic Kidney Disease J.P. Cristol, corresp. Member
- Committee on Analytical Quality (C-AQ) A. Vassault, corresp. Member
- Committee on Education in the Use of Biomarkers of Diabetes (C-EUDB) M. Fonfrède, corresp. Member

Working group

- Flow Cytometry (WG-FC) C. Lambert, Member

• **Emerging Technology Division (ETD)**

- Committee on Mobile Health and Bioengineering in Laboratory Medicine (C-MHBLM) B. Gouget, Chair, 2018-2020

• **Task Forces (TF)**

- Task force for Young Scientists (TF-YS) G. Boursier, Member, 2017-2019

• **Nominations Committee**

B. Gouget, Past-Chair

ADDITIONAL INFORMATION

SFBC Board	2018	2019
Executive Board:		
- President	Pr Marc DELPECH	Pr Vincent SAPIN
- Vice-President	Pr Vincent SAPIN	Pr Sylvain LEHMANN
- Past-President	Pr Joëlle GOUDABLE	Pr Marc DELPECH
- General Secretary	Dr Véronique ANNAIX	Dr Véronique ANNAIX
- Assistant General Secretary	Pr Bruno BAUDIN	Pr Bruno BAUDIN
- Treasurer	Dr Philippe CHATRON	Dr Philippe CHATRON
Scientific Committee:		
	Pr Sylvain LEHMANN	Dr Delphine COLLIN-CHAVAGNAC
	Dr Katell PEOC'H	Dr Katell PEOC'H
Editors in Chief ABC:		
	Pr Jean-Louis BEAUDEUX	Pr Jean-Louis BEAUDEUX
	Dr Laurence PIERONI	

Educational Committee:	Dr Christine AUGEREAU-VACHER	
	Dr Fabrice GUERBER	Dr Fabrice GUERBER
	Dr Isabelle AIMONE-GASTIN	Dr Isabelle AIMONE-GASTIN
International Relations:	Pr Philippe GILLERY	Pr Philippe GILLERY
	Dr Bernard GOUGET	Dr Bernard GOUGET
National Relations:	Dr Marie-Françoise GAUDEAU-TOUSSAINT	Dr Marie-Françoise GAUDEAU-TOUSSAINT
	Dr Carole POUPON	
Young Scientist:	Dr Guilaine BOURSIER	Dr Guilaine BOURSIER
Young Biologists:		Dr Kevin CASSINARI
		Dr Constance DELABY



GERMANY

DEUTSCHE GESELLSCHAFT FÜR KLINISCHE CHEMIE UND LABORATORIUMSMEDIZIN E. V. (DGKL)

NATIONAL MEETINGS

<i>Name of meeting</i>	<i>Date</i>	<i>Topic</i>
Annual General Meeting of the DGKL (approx. 1.000 attendees)	26 - 29 September 2018, Mannheim	Entire range of Clinical Chemistry and Laboratory Medicine
Annual meeting of the Working Group Endocrinological Diagnostics	13. April 2018, Berlin	Various topics
Annual meeting to the Working Group Molecular Diagnostics	6 – 8 June 2018, Tutzing	Various topics
Staudinger-Symposium	17 – 19 June 2018, Bad Staffelstein	Young investigators' mentoring conference
Annual meeting of the Working Group Clinical Mass Spectrometry	22. October 2018, Bad Staffelstein	Various topics

EDUCATION

Several Short Courses in the context of the Annual Meeting of the DGKL.

Revision course Clinical Chemistry for preparation of the board exam European Clinical Chemist
25 Nov - 1 Dec 2018, Hannover

Exams:

19 April 2018, Berlin

18 October 2018, Berlin

REGIONAL MEETINGS

<i>Analytica Conference</i>	10 – 12 April 2018, München	Overall organisation
2 nd EFLM Strategic Conference "The end of laboratory medicine as we know it? Handling disruption of laboratory medicine in digital health"	18 – 19 June 2018, Mannheim	Auspices, Congress President, several lectures

REGIONAL RELATIONS

Active participation in EFLM in several functional units.

DGKL-past president Prof. Dr. Michael Neumaier is EFLM president 2018-2019



INTERNATIONAL RELATIONS

- Active participation in IFCC including several Working Groups, Task Forces etc.
- Journal of Laboratory Medicine, Official Journal of the DGKL
- Supporting Society of MSACL (Mass Spectrometry Application to the Clinical Laboratory)
- Global RELA proficiency testing scheme organized by RfB (Referenzinstitut für Bioanalytik, affiliate organisation of DGKL), addressing reference measurement procedures used in traceability)

ADDITIONAL INFORMATION

approx. 1.100 members



HONG KONG

HONG KONG SOCIETY OF CLINICAL CHEMISTRY (HKSCC)

NATIONAL MEETINGS

Annual General Meeting 27 January 2018 Annual General Meeting

EDUCATION

Annual Scientific Meeting was held at the YMCA of Hong Kong on 27th January 2018. The theme was New Paradigms in Molecular Diagnostics. There were two presentations by invited local speakers: 'Molecular Diagnostics: The Bridge to Precision Medicine for Advanced Stage Lung Cancer' by Professor Tony Mok, Department of Clinical Oncology, The Chinese University of Hong Kong; 'Circulating Cell-Free DNA: New Possibilities for the Next Decade' by Professor Allen Chan, Department of Chemical Pathology, The Chinese University of Hong Kong. These were followed with three presentations by industrial partners (Beckman Coulter, Roche Diagnostics and Thermo Fisher Scientific). 145 members and guests attended the meeting.

Professor David Barry Sacks from School of Medicine and Health Sciences, George Washington University. Bethesda, Maryland, USA delivered a dinner lecture at the Eaton Hong Kong Hotel on 10th May 2018. The title of his talk was 'Glycated Haemoglobin in the Diagnosis and Monitoring of Diabetes Mellitus: Advantages and Limitations.' The lecture was well attended by 170 members and guests.

A workshop was held at Queen Elizabeth Hospital on 22nd November 2018. The theme was Internal Quality Control Implementation and Interpretation. Four quality control topics were shared by four local speakers: 'QC and Troubleshooting Experience in CPLC, Department of Health' by Mr. KC Shiu, Department of Health; 'Implementation of Quality Control in LC-MS Laboratory' by Dr. Richard Kam, Prince of Wales Hospital; 'QC Monitoring of Specialized Tests' by Dr. Iris Chan, Prince of Wales Hospital; 'Implementation and Monitoring of QC in POCT' by Mr. YC Lo, Pamela Youde Nethersole Eastern Hospital. The event was well attended by 183 members and guests



HUNGARY

HUNGARIAN SOCIETY OF LABORATORY MEDICINE (MLDT)

NATIONAL MEETINGS

<i>Name of meeting</i>	<i>Date</i>	<i>Topic</i>
QualiCont Forum	February 2, 2018, Budapest	Laboratory accreditation, external quality control, preanalytics
Intenselab Forum	April 5-7, 2018, Budapest	National meeting for emergency medicine, intensive therapy, anesthesiology specialists
59 th Biannual Congress of the Hungarian Society of Laboratory Medicine	August 30-September 01, Pécs	Biannual national meeting for all topics on laboratory medicine
12 th Congress of the Hungarian Society of Human Genetics	September 6-8, 2018, Debrecen	Advances in genetics
Joint Symposium of the Hungarian Society of Immunology and the Hungarian Society of Laboratory Medicine	October 3, 2018, Budapest	Advances in immunology
Anesthesiology Days	October 10-12, 2018, Debrecen	National meeting of laboratory and anesthesiology specialists
Flow Cytometry Day	October 26. 2018, Budapest	Hematology-immunology advanced course and conference
14th Congress of the Hungarian Society on Thrombosis and Haemostasis	October 27-29. 2018, Mátraháza	Advances in thrombosis and hemostasis

EDUCATION

Courses and Continuing Medical Education programs for laboratory professionals:

Infections of the Gastrointestinal Tract: Diagnostics and Treatment- May 5, 2018, Budapest - (Hungarian CME credit accredited course)

Qualicont Consultation Day- June 20, 2018, Budapest

Precision Diabetology- September 5, 2018, Debrecen- (Hungarian CME credit accredited course)

Diagnostics, Treatment and Prevention of Urinary Infections, September 14, 2018, Budapest - (Hungarian CME credit accredited course)

Clinical Questions-Diagnostic Answers, September 14-15, 2018, Miskolc- (Hungarian CME credit accredited course)

Free Radicals in Medicine, October 9, 2018, Budapest

Drug Monitoring and Toxicology in the Clinical Practice, October 15-18, 2018, Szeged- (Hungarian CME credit accredited course)

Flow Cytometry Day, October 26, 2018, Budapest - (Hungarian CME credit accredited course)

Medical Genetics- November 5-9, 2018. Debrecen - (Hungarian CME credit accredited course)

Sysmex Seminar-November 15, 2018, Budapest

REGIONAL RELATIONS

May 10-11, 2018, Bucharest, Romania: Romanian Association of Laboratory Medicine (RALM) congress:

The President of the Hungarian Society of Laboratory Medicine, Prof. János Kappelmayer was an invited speaker at this congress by the President of the Congress Prof. Ioanna Brudasca. Prof. Kappelmayer gave a talk on the laboratory monitoring of direct oral anticoagulants and he was the chair of the Hematology-Hemostasis Session of the Meeting.



May 17-19, 2018, Helsinki: IBFM meeting: The President of the Hungarian Society of Laboratory Medicine participated at the working group meeting. Flow cytometry has played an important role in the progress of extended survival of child acute lymphoid leukaemias. At this meeting Michael Dworzak (Wien, St Anna Kinderspital) presented the quality control phenotype results of the last 3 years of child bone marrows sampled at the 15th day of therapy. Three Hungarian University Laboratories were included in this survey (Semmelweis University, Budapest, University of Pécs and University of Debrecen), and all three had good performance results. The University of Debrecen received excellent performance results. At this workshop, potential flaws in the analysis of regenerating bone marrow were thoroughly discussed. Prof. Kappelmayer gave a presentation where he summarized the progress and achievements of the topic in the last years and highlighted the need for external quality controls.

INTERNATIONAL RELATIONS

February 27-March 07, 2018. Buenos Aires, Argentina: IFCC CPD Working Group meeting

In 2018 January, Prof. János Kappelmayer, the President of the Hungarian Society of Laboratory Medicine was appointed to be a member of the Communication and Publication Division (CPD) working group.

At the IFCC-CPD Working Group meeting Prof. Kappelmayer gave a talk on the topic of unified and integrated laboratory reports. As the Editor-in-Chief of the eJIFCC journal, he also gave a talk on the potential topics and themes of the journal's 2018 volumes.

April 20-21, 2018. Teheran, Iran: The 11th International and 16th National Congress on Quality Improvement in Clinical Laboratories. Harmonization & Standardization of Reporting Results in Medical Laboratories

Éva Ajzner, Past President of HSLM, was invited:

1/ to participate in an advisory board discussing future trends of EQA and accreditation of the Iranian medical laboratories;

2/ to provide an interactive 3-hour-workshop for laboratory specialists and leaders of Iranian laboratories on "How to produce a laboratory report providing the highest clinical value for the patient?";

3/ to present the results of surveys organized by WG-POST of EFLM-EQALM on the conference.

May 30, 2018, Voorschoten, Netherlands: EFLM Working Group on Post-analytical Phase (WG-POST) meeting

Éva Ajzner, Past president of HSLM and WG-chair of WG-POST of EFLM-EQALM lead a meeting for WG-POST

June 2-15, 2018, Helsinki, Finland: XXXVI Nordic Congress in Clinical Chemistry

Éva Ajzner, Past President of HSLM, was invited to present the results of the international EFLM-EQALM survey on „How laboratories assist clinicians in utilisation of laboratory tests?".

June 20, 2018, Mannheim, Germany: EFLM Working Group on Post-analytical Phase (WG-POST) meeting

Éva Ajzner, Past president of HSLM and WG-chair of WG-POST of EFLM-EQALM lead a meeting for WG-POST

June 22-24, 2018, Mannheim, Germany: IFCC CPD Working Group meeting

The Working Group meets 3-4 times/year. The President of the Working Group, Prof. Khosrow Adeli (Toronto, Canada) and the members of the Working Group gave talks on the process of their work. Prof. Kappelmayer informed the members of the Working Group on the contents of the upcoming volumes of the eJIFCC.

November 8, 2018, Leiden, Netherlands: 11th ECAT participants' meeting

Éva Ajzner, Past president of HSLM and chair of WG-POST of EFLM-EQALM was invited to present the results of the latest survey of WG-POST of EFLM-EQALM on the conference with the title „Can you tell me the reason of my patient' bleeding from this sample? Study in 270 European laboratories.”

November 9-11, 2018, Budapest: IFCC XIII General Conference

Seven members of the Executive Board of the Hungarian Society of Laboratory Medicine attended the IFCC General Conference in Budapest. On November 9, a Delegate Meeting and Award Ceremony was organized by the Hungarian Society of Laboratory Medicine where Prof. Khosrow Adeli (The Hospital for Sick Children, University of Toronto, Canada) received the prestigious Honorary Membership Title of The Hungarian Society of Laboratory Medicine. On November 10, Prof. János Kappelmayer, the president of the Hungarian Society of Laboratory Medicine gave a talk as a member of the CPD Working Group on his assignment of being Editor-in-Chief of the eJIFCC journal and his future plans regarding the journal.

ADDITIONAL INFORMATION

January 18, 2018, Budapest: The Hungarian Society of Laboratory Medicine was involved in the establishment of the National Medical Laboratory Accreditation Advisory Board. The role of the Advisory Board is to provide a valuable, professional contribution regarding all areas of laboratory accreditation, operating in accordance with ISO/IEC 17011 and to support laboratories in order to fulfill requirements in compliance with ISO 15189 and ISO 22870.



INDIA

ASSOCIATION OF CLINICAL BIOCHEMISTS OF INDIA (ACBI)

NATIONAL MEETINGS

<i>Name of meeting</i>	<i>Date</i>	<i>Topic</i>
45 th Annual National conference of ACBI, Kala Academy, Panjim, Goa, India.	24 – 27 th October 2018	

EDUCATION

ACBI National Conference – Goa

- (1) AACC - ACBI Workshop : Early diagnosis of biochemical genetic disorders saves children's lives: A discussion on the merits and the process to successfully implement newborn screening.
Conducted by Dr. Michael Bennett (AACC), Dr. Carla Cuthbert (CDC), Dr Seema Kapoor (LHMC, Delhi) & Dr. D. M. Vasudevan (Kochi). More than 40 delegated registered for this workshop.
- (2) Workshop on Flow Cytometry: conducted by Ubaldo Barboa
- (3) Workshop on Genome Sequencing: conducted by Dr. Sailesh Gochhait & Dr Ashish George.

Others who delivered lectures during the Annual National Conference were,
Dr. Howard Morris, President, IFCC on “Healthcare, Laboratory Medicine and Patient care”
Dr. Rajendra Prasad, on “Alcoholic Liver Disease : Pathogenesis, Biochemical Markers and Treatment”



Dr. Subrata Sinha, on “Molecular reclassification of disease; how the laboratory can guide the clinic

Dr. Anupama S. Borkar, on “Cancer in children”

Prof. P. Kaliraj, on “Development and evaluation of effective diagnostics prophylactics and drug targets for neglected parasitic diseases with filariasis as model “

Dr. Leila Florento (Philippines) - creating sustainable safety culture in the clinical laboratory

Dr. Praveen Sharma on State of Major Transformations in Healthcare & Medical Laboratory

Prof. Damien Gruson (Belgium) on Innovations & Skills: Advancing New Delivery Systems

Dr. Pradeep Kumar Dabla on Laboratory Medicine & Clinical Medicine - Interface Linking

Dr. Danni Li (USA) on Education & Training Programmes Opportunities – Preparing Young Scientists

Dr. Neeta Singh on Insights into role of genomics and proteomics in cancer : the road ahead

Dr. Purvi Purohit on Micro RNAs - Novel Biomarkers in Diabetes Mellitus

Dr. Ravinder Jit Singh(USA) on Role of LC-MS/MS spectrometry in diagnosis of various endocrine disorders

Prof. Michael Bennett (USA) on Pediatric Laboratory Medicine: why is it different?

Dr. HA Morris(President IFCC) on Vitamin D metabolism, requirement and biological activities

Dr. Helen Martin (Australia) on Critical Risk Result Reporting

Over 216 poster were presented by the delegates and 43 oral presentations were given during the conference besides the invited lectures. A total of nearly 580 delegates registered for the conference.

ACBI West Bengal Chapter: Organized a conference on “Biomarker” on January 19-20, 2018 at Kalyani.

North Zone ACBICON 2018 : was held in AIIMS Jodhpur on 7th& 8th April 2018.

The ACBI west Zone: One Day Lecture Series was conducted in Tata Memorial hospital, on Sunday, 8th July 2018.

The “Central Zone ACBICON” 2018: was held at Lucknow on 21st & 22nd July 2018.

South Zone ACBICON 2018 was held from 3 – 5th December 2018 at Manipal.

REGIONAL RELATIONS

- (1) At the ACBI National Meet in Goa, India, delegates from Nepal & Bangladesh actively participated in this meet.
- (2) Many members of ACBI are actively participating in the affairs of APFCB. Dr Elizabeth Frank, Dr Praveen Sharma (Jaipur) , Dr Sucheta Dandekar (Mumbai), Dr D.M. Vasudevan (Kochi) & Dr Rajiv R. Sinha (Patna) are chairpersons/members of various divisions & sub-committees.

INTERNATIONAL RELATIONS

The ACBI National Meet in Goa hosted the **IFCC Task Force for Young Scientists (IFCC-TFYS)** This was a collaborative effort of ACBI and IFCC to create awareness about emerging trend in Laboratory Medicine and the current and future developments in the field of Quality and Technology amongst young scientists. The conclave was addressed by eminent speakers from the IFCC, APFCB & ACBI fraternity; including **Dr. Howard Morris (President, IFCC), Dr Pradeep Dabla**, Chair, IFCC-TFYS, **Prof. Praveen Sharma** EB-ACBI, APFCB, IFCC, **Prof. Damien Gruson**, EurSpeLM & Consultant IFCC-TFYS & **Dr. Danni Li**, IFCC-TFYS, USA.

ADDITIONAL INFORMATION

ACBI is getting ready to welcome all international delegates to the **15th Asian-Pacific Congress of Clinical Biochemistry & Laboratory Medicine (APFCB) congress** that would be held in Jaipur from 17th to 20th November 2019. It will be held at the JECC, Jaipur.

The 46th Annual National Conference of the association will be held in Jaipur in conjunction with the 15th APFCB Congress.

The following were elected as office bearers of ACBI for the year 2019:

PRESIDENT: **Dr. L. M. Srivastava,**
VICE PRESIDENT: **Dr. Seema Bhargava**
ADVISOR: **Prof. K.P. Sinha**
SECRETARY: **Dr. Rajiv Ranjan Sinha**
TREASURER: **Dr Krishna Ranjan Prasad**
JOINT SECRETARY: **Dr. Ram Binay Sinha**
ZONAL COUNCIL MEMBERS:
North Zone: **Dr. Dharamveer Yadav**
South Zone: **Dr. Kanan Vaidyanathan**
East Zone: **Dr. A. N. ROY**
West Zone: **Dr. Sadanand Naik**
Central Zone: **Dr. Shivani Pandwey**



ITALY

ITALIAN SOCIETY OF CLINICAL CHEMISTRY AND CLINICAL MOLECULAR BIOLOGY (SIBIOC)

NATIONAL MEETINGS

50th National Congress of the Italian Society of Clinical Chemistry and Clinical Molecular Biology (SIBioC) 16-18 October, 2018 INNOVAZIONE NELLA MEDICINA DI LABORATORIO (Innovation in Laboratory Medicine).

EDUCATION

Organization of, or Auspices for, over 40 National, Inter-regional and Regional meetings
Permanent School of Education SIBIOC (1 course on Thrombosis and Hemostasis and 2 on Laboratory statistics);

Technological Transfer in Laboratory Medicine (INNOVA SIBioC project)

Distant education:

VARIABILI PREANALITICHE IN MEDICINA DI LABORATORIO (Coordinatori: Davide Giavarina, Graziella Bonetti)

CASI CLINICI IN MEDICINA DI LABORATORIO 1 (Coordinatore: Bruna Lo Sasso)

CASI CLINICI IN MEDICINA DI LABORATORIO 2 (Coordinatore: Bruna Lo Sasso)

QUALITÀ IN MEDICINA DI LABORATORIO: I PROGRAMMI DI VEQ (Coordinatore: Massimo Quercioli)

EMOSTASI E TROMBOSI: IL VALORE DEL LABORATORIO (Coordinatore: Sophie Testa)

BIOMARCATORI IN ONCOLOGIA (Coordinatori: Massimo Gion, Chiara Trevisiol)

APPROPRIATEZZA PRESCRITTIVA NELL'AMBULATORIO DEL MEDICO DI MEDICINA GENERALE (Coordinatori: Mariastella Graziani, Marcello Ciaccio, Bruna Lo Sasso)

Official documents:

Determinazione e valutazione dei parametri di interesse del passaporto biologico dell'atleta
RACCOMANDAZIONI PER L'ESECUZIONE DI TEST MOLECOLARI SU BIOPSIA LIQUIDA IN ONCOLOGIA

Validazione dei metodi quantitativi bioanalitici in spettrometria di massa: regole e protocolli sperimentali

Marcatori circolanti in oncologia. Guida all'uso clinico appropriato.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
AGGIORNAMENTO IN TEMA DI COAGULAZIONE	SESTO FIORENTINO (FI) 15 February 2018	SIBioC Provider
NOVITÀ DAL LABORATORIO PER UN APPROCCIO ALLE MALATTIE NEUROLOGICHE DEMIELINIZZANTI	NOVARA 28 March 2018	SIBioC Provider
LA STATISTICA IN LABORATORIO (I LIVELLO)	MILANO 11 April 2018	SIBioC Provider
AGGIORNAMENTI IN IMMUNOMETRIA - 7° CONVEGNO	BAGGIOVARA (MO) 13 April 2018	SIBioC Provider
SOSTANZE PSICOATTIVE E IDONEITÀ ALLA GUIDA PROTOCOLLI ED ACCERTAMENTI ANALITICI PER LE COMMISSIONI PATENTI	SARZANA 19 April 2018	SIBioC Provider
INDAGINI DI LABORATORIO PER LA DETERMINAZIONE DELLE SOSTANZE D'ABUSO SU SANGUE	PERUGIA 21 April 2018	SIBioC Provider
XXII CONGRESSO REGIONALE MULTIDISCIPLINARE DI MEDICINA DI LABORATORIO ABRUZZO E MOLISE	FRANCAVILLA 26 April 2018	SIBioC Provider
AGGIORNAMENTI SULLE PATOLOGIE TROMBOTICHE E IL RUOLO DEL LABORATORIO DI COAGULAZIONE	MILANO 16 May 2018	SIBioC Provider
ACCREDITAMENTO ISO 15189 DALLA TEORIA ALLA PRATICA	MILANO 16 May 2018	SIBioC Provider
LE TECNICHE CROMATOGRAFICHE E LA SPETTROMETRIA DI MASSA NEL LABORATORIO DI ANALISI CLINICHE	GENOVA 29 May 2018	SIBioC Provider
33° CONVEGNO DI MEDICINA DI LABORATORIO - L'EMOCITOMETRIA NEL LABORATORIO CLINICO DEL 2020	VICENZA 31 May 2018	SIBioC Provider
L'IMPIEGO DEI MARCATORI TUMORALI NELLA PRATICA CLINICA. L'APPROPRIATEZZA PRESCRITTIVA È UN OBIETTIVO POSSIBILE?	ALESSANDRIA 7 June 2018	SIBioC Provider
AGGIORNAMENTI NELLA DIAGNOSTICA DI LABORATORIO DELLE EMOPATIE ONCOLOGICHE	BARI 7 June 2018	SIBioC Provider
LA STATISTICA IN LABORATORIO (II LIVELLO)	MILANO 14 June 2018	SIBioC Provider
APPROFONDIMENTI IN MORFOLOGIA EMATOLOGICA	MILANO 21 June 2018	SIBioC Provider
3° MEETING DI TOSSICOLOGIA CLINICA E FORENSE - EMERGENZE TOSSICOLOGICHE: NUOVE SOSTANZE PSICOATTIVE (NSP) E DOPING	NAPOLI 27 June 2018	SIBioC Provider
MEDICINA DI LABORATORIO E MEDICINA D'URGENZA: UN CONNUBIO INDISSOLUBILE	BOLOGNA 12 September 2018	SIBioC Provider
AGGIORNAMENTI IN TEMA DI EMATOLOGIA, COAGULAZIONE E VALUTAZIONE ESTERNA DELLA QUALITÀ CONGRESSO REGIONALE SIBIOC - MEDICINA DI LABORATORIO	MILANO 18 September 2018	SIBioC Provider
L'INNOVAZIONE IN MEDICINA DI LABORATORIO CONGRESSO REGIONALE SIBIOC - SEZIONE SICILIA	FAVARA (AG) 25 September 2018	SIBioC Provider
IL LABORATORIO DI PATOLOGIA CLINICA CHE CREA VALORE III CONGRESSO SIBIOC SUD	COSENZA 28 September 2018	SIBioC Provider



UP DATES IN AUTOIMMUNITY 2018	NAPOLI 15 October 2018	SIBioC Provider
2° CONVEGNO GDS SIBIOC YOUNG SCIENTISTS LABORATORY MEDICINE: SPECIALISTS OF TOMORROW	ROMA 3 December 2018	SIBioC Provider
CORSO DI MANAGEMENT DI LABORATORIO DELEGAZIONE SIBIOC SARDEGNA	ALGHERO 5 December 2018	SIBioC Provider

REGIONAL RELATIONS

The current organization of the Society encompasses 2570 Members, distributed across the 21 National Regional Delegations. The Societies organizes many Regional and Inter-Regional scientific events, promotes additional scientific events in the area of Laboratory Medicine and organizes a 3-day annual National Meeting.

INTERNATIONAL RELATIONS

IFCC- EFLM Membership

Complete list of IFCC Officers in the IFCC website

Participation in the organization of the 1st IFCC, EFLM, AFCB Conference "Laboratory Medicine: Meeting the needs of Mediterranean Nations", Rome (Italy) July 2-4, 2018



JAPAN

JAPAN SOCIETY OF CLINICAL CHEMISTRY (JSCC)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
The 58 th Annual Meeting of Japan Society of Clinical Chemistry (JSCC)	2018/8/24-8/26	<i>See below</i>

2 Special Lectures:

Recent advance in preimplantation genetic testing by comprehensive molecular technique (Kurahashi H), Nanobioceives and AI for Society 5.0 and Future Healthcare (Baba Y)

5 Educational Lectures:

- 1 Clinical Chemistry of Bioactive Lipids,
- 2 Nutritional management for cancer cachexia,
- 3 Updates on antimicrobial resistance and diagnostics,
- 4 Development of novel biomarkers in kidney diseases,
- 5 Biomarkers for diagnosing bleeding or thrombosis,

10 Symposia:

- 1 Dawn of genomic diagnosis
- 2 Application cases and pitfalls of mass spectrometry
- 3 Challenges of clinical chemistry to countermeasures against Mibyou
- 4 Pharmaceutical research: laying the foundation for clinical chemistry
- 5 Challenge of clinical chemistry into food and diet
- 6 Open connectivity with POCT devices at home care setting
- 7 Contradiction and problems of serum protein measurement. etc.

EDUCATION

In all annual meeting of JSCC and regional meetings in Japan, educational lectures on various clinical chemistry related subjects, such as standardization, analytic methods, and laboratory related trouble shootings were performed by the specialists of clinical chemists. In addition,



clinical chemistry related companies held various types of symposiums and educational meetings in all over Japan all the year round.

Clinical Chemistry Academy and Educational Lecture for Certified Clinical Chemistry and Immunochemistry Quality Assurance Medical Technologists and Professions were held in Nagoya on Aug 26, 2018

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Society's contribution for the meeting</i>
Hokkaido branch: The 28 th branch regular meeting Tohoku branch: The 29 th branch general meeting Kanto branch: The 35 nd branch regular meeting Koushinetsu branch: The 36 rd branch general meeting Tokai & Hokuriku branch: The 29 th branch general meeting Kinki branch: The 71 th branch regular meeting Chugoku & Shikoku branch: The 14 th joint regional meeting Kyushu branch: The 30 th branch general meeting	Each branch supervises the meeting of each region

INTERNATIONAL RELATIONS

Scientific Division (SD)

SD Committees:

- Reference Intervals and Decision Limits (C-RIDL): Donchon. Kang, Member
- Reference Standardization of Thyroid Function Tests (C-STFT): Akira Hishinuma, Member

SD Working Groups

- Standardization of Albumin Assay in Urine (WG-SAU): Yoshihisa Itoh, Member

Education Management Division (EMD)

EMD Committees

- Internet and Distance Learning (C-IDL): Hideo Sakamoto, Member
- Chronic Kidney Disease (Integrated Project) - (C-CKD): Takashi Wada, Member

Communications and Publications Division (CPD)

CPD Committees

- Internet and Distance Learning (C-IDL): Hideo Sakamoto, Member

International Journal Editor

Editorial Board for Annals of Clinical Biochemistry: Kazuhiko Kotani

Editorial Board of Clini Chimica Acta:

Nobuo Okumura, Editorial Board
Masato Maekawa, Editorial Board
Takashi Miida, Editorial Board
Minoru Tozuka, Editorial Board
Katsuyuki Nakajima, Editorial Board
Akihiro Inazu Editorial Board

ADDITIONAL INFORMATION

About 1,700 members including MD and PHD belong to JSCC and 9 blocks were divided as the each centre of JSCC.

The annual meeting is held once a year and more than 300 papers are discussed in the meeting and the regional meetings were held once a year in each region and interesting symposiums and special lectures are planned by an annual president of the meeting.



NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
1. Annual Meeting of KSCC (I)	May, 25, 2018	Symposium 1. Current status of laboratory quality management (I)
		Symposium 2. Industry-sponsored symposium about CDT, blood viscosity test and PHI
		Plenary lecture. Healthcare technology assessment and blockchain
		Symposium 3. Assessment and management of the point-of-care (POC) glucose test
		Symposium 4. Current knowledge of blood gas testing
		Workshop 1. Current status and functioning of clinical mass spectrometry
		Workshop 2. Preparation of a TDM advisory report and practical session
2. Annual Meeting of KSCC (II)	October, 12, 2018	Symposium 1. Current status of laboratory quality management (II)
		Symposium 2. Calibration, A to Z (from basics to application)
		Symposium 3. Interferents affecting laboratory measurements
		Symposium 4. Standardization of enzyme assays
		Workshop 1. Clinical laboratory application of mass spectrometry
		Workshop 2. TDM reports for patients with renal impairment

EDUCATION

1. Laboratory quality management
2. Carbohydrate deficient transferrin (CDT)
3. Blood viscosity test
4. Prostate health index (PHI)
5. Healthcare technology assessment and blockchain
6. POC glucose testing
7. Blood gas testing
8. Therapeutic drug monitoring (TDM)
9. Calibration principle
10. Interfering materials on laboratory measurements
11. Standardization of enzyme assay
12. Clinical mass spectrometry

REGIONAL RELATIONS

One council member for International Affairs in KSCC has the correspondence activity for the international (IFCC) or for the regional (APFCB) works.

KSCC will send the 2018 annual report to APFCB by February 4, 2019.

INTERNATIONAL RELATIONS

1. KSCC was delegated of logistics of authority from IFCC-TSIC to facilitate participation in
2. the TSIC (Turning Science into Caring Symposium).
3. KSCC fostered the KSCC members to attend TSIC.

4. KSCC (7 KSCC members) attended TSIC.
5. President Jeong-Ho Kim participated in the IFCC General Conference 2018.
6. He presented and introduced the IFCC WorldLab SEOUL 2020, there.
7. KSCC is participating in the IFCC Network Laboratory for HbA1c in Korea.

ADDITIONAL INFORMATION

The Officer Bearer of KSCC (2019)

1. President: Prof. Jeong-Ho Kim
2. Secretary General: Prof. Hyung-Doo Park
3. Treasurer: Dr. Sung Eun Cho
4. International Committee: Prof. Sang-Guk Lee
5. Secretary: Ms. Anna Choi
6. Official Email of KSCC: ksc1111@gmail.com



LITHUANIA LITHUANIAN SOCIETY OF LABORATORY MEDICINE

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
10 th Annual Conference of the Lithuanian Society of Laboratory Medicine	12-04-2018	LLMD activities 2013-2017
National LLMD Conference	14-09-2018	Unity of Laboratory Diagnostics and Clinical Practice
International Conference	18-10-2018	What clinicians should know, and what laboratories should perform (dedicated to World Thrombosis Day)

EDUCATION

Training course “Quality in laboratory medicine: traceability of results in the medical laboratory, verification of methods, uncertainty and analytical quality specifications” 27-09-2018, Klaipeda, Lithuania (40 participants)

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
XIV Baltic Congress of Laboratory Medicine	10 May – 12 May 2018	Main organizer of the Congress

REGIONAL RELATIONS

Lithuanian Society of Laboratory Medicine (LLMD) is member of Baltic Association of Laboratory Medicine (BALM). Other 2 members of BALM are: Latvian Society of Laboratory Specialists and Estonian Society of Laboratory Medicine. The main task of the Association – organization of Baltic Congresses of Laboratory Medicine held every second year in one of the Baltic Countries.

INTERNATIONAL RELATIONS

LLMD is the member of IFCC, EFLM and Clinical and Laboratory Standards Institute (CLSI); partner of The Global World Thrombosis Day Movement.



MACEDONIA

MACEDONIAN SOCIETY OF MEDICAL BIOCHEMISTRY
AND LABORATORY MEDICINE (MSMBLM)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
6 th National Meeting of MSMBLM	03-05.10.2018	(same topics as 26 th BCLF Meeting)

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
26 th Meeting of Balkan Clinical Laboratory Federation	October, 03-05.2018, Skopje, Republic of Macedonia	Members of Society were included in Organizing Committee and Scientific Committee

REGIONAL RELATIONS

Invited plenary speakers from, Serbia, Montenegro, Bulgaria, Greece, and R. Macedonia presented their lectures at the Congress as well as 32 lecturers with their 15-minute oral presentations from all Balkan countries: Albania, Bosnia and Herzegovina, Bulgaria, Greece, Serbia, Romania, Turkey, Montenegro, and the host country R. Macedonia. Sixty-nine participants from the Balkan countries and from other European countries and Canada presented their e-posters. A total of 260 participants attended the Congress.

INTERNATIONAL RELATIONS

Plenary speakers from Norway, Italy, France, USA, Slovenia, Croatia presented their lectures at the Congress



MALAYSIA

MALAYSIAN ASSOCIATION OF CLINICAL BIOCHEMISTS
(MACB)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
28 th MACB Conference	9-10 July 2018	Conference theme: Future Fast Forward: Preparing for Medical Laboratory Professionalism. Topics presented include: biomarkers in pre-eclampsia, eGFR reporting, therapeutic drug monitoring, patient moving averages, tumour makers, HCV, POCT, laboratory errors, use of big data, laboratory medicine for the elderly, pre analytical and drugs of abuse
Pre-conference workshop	8 July 2018	Chemical Health Risk Assessment

EDUCATION

The MACB organised three (3) seminars in 2018. Details of the seminars are as follows:

1. *National HbA1c & Thalassemia Conference 2018 - 13 March 2018*
2. *Pre-analytical Symposium: The Role of Quality Management in Pre analytical Improvement - 24 April 2018*
3. *Point of Care Testing (POCT) - Arterial Blood Gas - 3 September 2018*



In 2018 the MACB Education Subcommittee was focussed on preparing for skills training and professional certification of biochemists under the National Occupational Skills Standard (NOSS) under the Department of Skills Development, Ministry of Human Resources Malaysia. On 22 October 2018, the MACB organised a one-day NOSS induction training for coaches, trainers and management personnel that was attended by 30 participants.

REGIONAL RELATIONS

Reference interval study The MACB launched the reference interval study to determine the reference intervals of the Malaysian population in 2017 and this was continued in 2018. The study involved four local institutions. A total of 615 subjects were recruited for this study, their age ranging from 18 to 65. Samples were collected from Nov 2017 to August 2018. Reagents for the project were supported by Siemens Healthcare Sdn Bhd and Abbott Laboratories (M) Sdn Bhd. Becton Dickinson and blood collection tubes by Becton Dickinson Sdn Bhd. The study was initiated under the Regional Reference Interval Study headed by Professor Kiyoshi Ichihara.

In 2018, the MACB president was selected by APFCB to be the APFCB Travelling Lecturer. She presented lectures at the following meetings:

1. College of Chemical Pathologists of Sri Lanka Annual Academic Sessions 2018 (CCPSL AAS 2018):16 - 17 March 2018
2. HKKI Conference- Bali, Indonesia: 19-21 July 2018
3. 23rd National Scientific Conference, Vietnam Association of Clinical Biochemists: 17-18 August 2018
4. 15th Annual Convention Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL): 24-27 September 2018.

INTERNATIONAL RELATIONS

The MACB participated in the IFCC General Conference that was held in Budapest, Hungary on 9-11 November 2018. The MACB was represented by the president and a council member.

ADDITIONAL INFORMATION

The MACB CKD Task Force was set up in December 2017 to look into the national standardisation of eGFR estimation in Malaysia. In 2018, the MACB carried out a three (3) months national survey to determine how eGFR and urine albumin/protein are reported by laboratories in Malaysia. Upon completion of this survey, the committee came up with recommendations and this was presented during 28th MACB Conference 2018 in Kuala Lumpur.



MEXICO MEXICAN ASSOCIATION OF CLINICAL LABORATORY SCIENCES

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Clinical Biochemistry Workshops 2018 Tlaxcala Chapter	February to December 2018 Tlaxcala, Tlax. Mexico	To provide the Clinical Chemist with knowledge on topics related to laboratory sciences for the development of their technical competences
Course Electrolytes, serum and arterial blood gases	March 31 and 1 st . April 2018 Mexico City	Serum electrolytes and arterial blood gases
Course Verification of qualitative methods	April 24, 2018 On-line	Verification of qualitative methods

Course Control of quality in Microbiology	May 29, 2018. On-line	Quality control in Microbiology
Course on blood biometry in the diagnosis of anemia	May 30, 31 and 1. June 2018 Ecatepec, State of Mexico	Course on blood biometry in the diagnosis of anemia
Course Good clinical laboratory practices	June 18, 19, 20, 2018 Ecatepec, State of Mexico	Good clinical laboratory practices
Course Statistical filters for the adequate selection of the average	June 26, 2018. On-line	Statistical filters for the adequate selection of the average
Course Limitations and advantages of External Quality Control	July 31, 2018. On-line	Limitations and advantages of External Quality Control
Course on blood biometry in the diagnosis of anemia	August 4 and 5, 2018. Mexico City	Hematic Biometry in the diagnosis of anemia
Equipment Qualification Course as a key tool in analytical performance	August 28, 2018. On-line	Equipment qualification as a key tool in analytical performance
Course Induction to the Standard NMX-EC-15189-IMNC 2015 / 15289-2012	August 29 and 30 2018. Chiapas, Mexico	Induction to the Standard NMX-EC-15189-IMNC 2015 / 15289-2012
Seminars in Clinical Biochemistry. Yucatan Chapter	Septiembre to December 2018. Merida, Yucatan, Mexico	To provide the Clinical Chemist with knowledge on topics related to laboratory sciences for the development of their technical competences
Interlaboratory Comparative Course	September 25, 2018. On-line	Interlaboratory comparisons
Course Current Westgard rules/Six sigma	October 30, 2018. On-line	Current Westgard rules/Six sigma
Lean management course in the laboratory	November 27, 2018. On-line	Lean management in the laboratory
1st 2018 training and update days "Give life, donate blood"	January 23 to November 27 2018 Mexico City	Donation of Human Blood (blood bank)
Specific Program of Training of the Clinical Laboratory "From the molecular to the human"	November 22 and 23, 2018 Texcoco, State of Mexico	Training of the Clinical Laboratory "From the molecular to the human"
Qualification Course for Laboratory Equipment. Quality control from zero minute	December 14, 2018, Mexico City	Qualification for Laboratory Equipment. Quality control from zero minute

EDUCATION

AACC LAWG Method Verification Workshop, March 17-18, Xalapa, VER

Board Certification Committee in collaboration with the College of Pharmaceutical Sciences, 2018 Mexico, City

Monthly Conferences on Education in Clinical Biochemistry, in collaboration with the College of Pharmaceutical Sciences, 2018 Mexico city.

Course of Clinical Pathology by Laboratory (140 hours in 9 modules), June-December 2018 Mexico City and Online

Course of International in Control of Analytical Quality in the Clinical Laboratory, May 7 2018 to February 2019 On-line

Symposium in Molecular Biochemistry, August 31, 2018 Guadalajara, Jalisco.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Course-Workshop AACC-CMCLabC Verification of Analytical Methods. Steps to follow to verify manufacturers' specifications	March 17 and 18 2018 Xalapa, Veracruz, Mexico	To provide the Clinical Chemist with the necessary tools for the verification of analytical methods based on the specifications of the manufacturers



IV Meeting on Accreditation in LATAM, Quito, Ecuador	September 25-26, 2018	Symposium: Trazability in LM, Certified Reference Materials
Certification Program on Human Rights and HIV or AIDS	October 24 to December 8 2018. Merida, Yucatan, Mexico	Collaborate in the certification of 27 people for the management of the patientcpn HIV or AIDS and their Rights
X CALILAB Congress Buenos Aires Argentina	October 23-26, 2018	WK on ISO 9001 procedures Lecture on: Standardization vs Harmonization Symposium on Accreditation in Latin America.

REGIONAL RELATIONS

NORTH AMERICA:

Chairmanship of the Latin American Working Group, Global Laboratory Quality Initiative of the American Association for Clinical Chemistry, AACC

COLABIOCLI:

Member, Accounting Committee, EB COLABIOCLI (2017-2019)

Member, XXVI COLABIOCLI Congress International Committee Panama 2019

Member, XXVI COLABIOCLI Scientific Committee Panama 2019

Participation in the following regional projects:

Pre-Analytical Working Group

Ethics Working Group,

Education and Management Working Group

Asian Pacific Federation of Clinical Biochemistry. APFBC

COLABIOCLI Symposium, Jaipur India 2019

INTERNATIONAL RELATIONS

CMCLC members are participating at the following activities in IFCC:

EB Regional Representative 2018-2020

WG-eJIFCC editorial board member, IFCC

WG-eNews member, IFCC

WG-IANT member, IFCC

C-CLM corresponding member, IFCC

C-MB corresponding member, IFCC

C-TLM corresponding member, IFCC

TF-YS corresponding member, IFCC

WG-PRE-LATAM full member, COLABIOCLI

WG-Ethics full member, COLABIOCLI

ADDITIONAL INFORMATION

- Mutual agreement of understanding (mou) with the mexican accreditation entity to improve laboratory accreditation awarness.
- Blood bank WG and national panel of technical experts in clinical laboratory of the mexican accreditation entity.
- ISO CT 212 WG1, WG2, WG3, WG4, WG5, mexican accreditation entity *ah doc committee*
- Mutual agreement of understanding (mou) with the association of qfb mx for clinical chemistry board certification exam.
- Clinical biochemistry students sections: faculty of chemistry of the universidad veracruzana; tlaxcala and yucatan state chapters.
- Tlaxcala CMCLABC chapter
- Yucatan CMCLABC chapter
- Universities –faculty of chemistries advisory activities for postgraduate studies



NORWAY

NORWEGIAN SOCIETY OF MEDICAL BIOCHEMISTRY (NSBM)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Vårmøtet	16-18 april 2018	

EDUCATION

National internet based educational talks a 45 minutes every second week all year round.



PAKISTAN

PAKISTAN SOCIETY OF CHEMICAL PATHOLOGISTS

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
41 st Annual Pakistan Association of Pathologist (PAP) conference at Pearl continental Hotel, Rawalpindi.	November 9 th 2018	41 st Annual Pakistan Association of Pathologist (PAP) conference
9 th Annual Conference, CHEMCON at QAMC, Bahawalpur.	Feb 16 th 2018	Annual Conference, CHEMCON

EDUCATION

1) Scholarships to attend IFCC Meetings

- a) Dr Noreen Sherazi (AKU) 2017- abstract submitted, scholarship was accepted and meeting was attended (IFCC Worldlab, Durban South Africa)
 - b) Dr Hafsa Majid (AKU) 2017- abstract submitted, scholarship was accepted and meeting was attended (IFCC Worldlab, Durban South Africa)
 - c) Dr Sibtain Ahmed (AKU) 2017- abstract submitted, scholarship was accepted and meeting was attended (AFPCB, Taiwan)
- 2) Started conducting workshops and meetings in Pakistan with mutual auspices of IFCC and PSCP. (<http://www.ifcc.org/ifcc-congresses-and-conferences/calendar-of-past-events/>)
 - 3) Meeting reports published in various IFCC newsletters from Pakistan in collaboration with PSCP:
 - i) 'Workshop on Quality Control' (Shabnum Dildar) Sep 2018.
 - ii) 'Enhancing Quality Control Skills' (Hafsa Majid) Jul 2018
 - iii) 'Meet the fraternity—a networking session' (Sibtain Ahmed) Jun 2018
 - iv) 'The 9th Annual Course of the Pakistan Society of Chemical Pathologists' (Sara Reza) May 2018
 - v) 'Meeting Report—World Rare Diseases Day' (Sibtain Ahmed) May 2018
 - vi) '40th Annual Conference of PAP' (Hafsa Majid) Mar 2018.
 - 4) A working group proposal of Pakistan Inherited Metabolic Disorders Network (Pak-IMD-Net) is developed. The mission of this group will be strengthening the diagnostics, education and research in the area of IMDs. This group was approved by the members with consensus.

REGIONAL MEETINGS

Multiple educational activities were arranged by different chapters of PSCP, report of which is shown below

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Karachi Chapter		
Workshop on 'Quality Assurance in Clinical Laboratory' at Indus Hospital	Jan 11 th 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Symposium on 'Challenges and Experiences in Diagnosing Inherited Metabolic Diseases in Pakistan' at AKU	Feb 28 th 2018	Activities were conducted under auspices of IFCC and PSCP. Information disseminated through PSCP and IFCC website. Report was published in IFCC newsletter
Advocacy Symposium on 'Bringing Laboratories Together in Fight against Inherited Metabolic Disorders' at CPSP	Mar 8 th 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Networking Session 'Meet the Fraternity to discuss expected changes in Chemical Pathology Exam' at AKU	Apr 26 th 2018	Activities were conducted under auspices of IFCC and PSCP. Information disseminated through PSCP and IFCC website. Report was published in IFCC newsletter
Workshop on 'Enhancing Quality Control (QC) Skills' at AKU	May 14 th 2018	Activities were conducted under auspices of IFCC and PSCP. Information disseminated through PSCP and IFCC website. Report was published in IFCC newsletter
Workshop on 'Quality Control' at NIBD.	July 13 th 2018	Activities were conducted under auspices of IFCC and PSCP. Information disseminated through PSCP and IFCC website. Report was published in IFCC newsletter
Symposium on 'Synacthen Stimulation test for Addison's disease: The Diagnostics' at CPSP	Jul 24 th 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Multidisciplinary Symposium on 'Management of Vitamin D deficiency and Osteoporosis' at AKU.	Oct 20 th 2018	Activities were conducted under auspices of IFCC and PSCP. Information disseminated through PSCP and IFCC website. Report was published in IFCC newsletter
Lahore Chapter		
Workshop on Dynamic Function Tests at SMDC	Feb 2 nd 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Peshawar Chapter		
Interesting cases of pediatric endocrinology at RMI	Mar 29 th 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Quetta Chapter		
Interactive Lecture on 'Requesting and Interpreting lab tests-Interactive lecture' at CMH, Quetta	Jul 2 nd 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Hands on Workshop on 'Specimen collection in lab setting' at CMH, Quetta	Jul 6 th 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Rahim Yar Khan		
CME on 'The role of Troponins as cardiac biomarker: Laboratory perspective' at SZH, RYK	May 5 th 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Bahawalpur		
Interpretation of laboratory tests' at QAMC	Jul 12 th 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.
Rawalpindi		
5 th Short Intensive Training at AFIP	Apr 2-7 th 2018	Activities were conducted under auspices of PSCP. Information disseminated through PSCP website.



INTERNATIONAL RELATIONS

PSCP is actively involved in INHERITED METABOLIC DISEASE OF NEW BORN (IMD) and PSCP Society details are now on the SSIEM website (Society for the Studies of Inborn Errors of Metabolism)

ADDITIONAL INFORMATION

Publications under the auspices of PSCP

- A publication of PSCP 'Chemical Pathology for Beginners' 2018 by Dr. Aamir Ijaz
- The Spectrum 2018 volume no 6 (newsletter)
- 'Manual of laboratory' by AFIP (Armed forces institute of Pathology) 2018 5th edition



PARAGUAY ASOCIACIÓN DE BIOQUÍMICOS DEL PARAGUAY (ABP)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Workshop on design of scientific Research projects in CONACYT format and other technical cooperation organizations.	15 – 17, february	Investigation
Arbovirus (Dengue, Chikungunya, Zika) Workshop	8, march	Virology
Culture of Quality: Implementation of internal and external control.	16 – 18, april	Quality Control
Biochemical update.	1 – 2, june	Clinical Laboratory
First Meetinf for the Emerging and unattended diseases and the Second meeting of Mycology.	22 – 24, november	Emerging diseases & Micology

EDUCATION

All the educational activities were undertaken at the “Continuing Education Program”:

National Speakers: Rosa Guillen, Laura Flores, Sonia Gini, Deisy Bordon, Elena Osnaghi, Carmen Portillo, Pasionaria Ramos, Daniel Rodriguez, Nery Ortiz, Arnaldo Aldama, Sandra Perez Macchi, Antonio Guzman, Cynthia Diaz, Maria Jose Tintel, Olga Aldama, Joaquin Villalba, Jose Pereira, Fatima Ovando, Graciela Lird, Patricia Araujo, Adriana González, Andrea Giménez, Rosalba Riveros, Jesus Garcia, Gustavo Aguilar, Michel Campi.

International Speakers: Dominic Hasson (ARG), Jose Venzal (UY), Santiago Nava (ARG), Gabriel Cicuttin (ARG), Alvaro Faccini (COL), Omar Cruz (MEX), Lourdes Ramirez Hobak (MEX), Diana Vega (MEX), Alexander Gomez (COR), Hector Freilij (ARG) and Luis Roberto Escoto, PAHO Representative.

The events were made possible by international and national speakers from the industries, government agencies, ministries, institutes and universities with which the ABP maintains close working connections

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
CALILAB congress VIII Latin American Quality Conference	October 24 to 27, 2018	Participation of many colleagues and the national representative, Juana Ortellado was part of a Symposium in Microbiology. President Raquel Caceres was at the Colabiocli Assembly.

REGIONAL RELATIONS

Active participation in COLABIOCLI activities with the participation of the National Representative, Juana Ortellado as a member for the current COLABIOCLI Board of Directors. One of this activities was the organized by the *Fundación Bioquímica Argentina*, the 10th edition of the CALILAB congress, together with the VIII Latin American Quality Conference at the Clinical Laboratory from October 24 to 27, 2018 in Buenos Aires, Argentina. Many paraguayean colleagues participated at this meeting for the Quality. Raquel Caceres, the ABP President was at the COLABIOCLI Assembly.

Participation in the call for COLABIOCLI 2018 Scholarships in Clinical Analysis. Two biochemist from Paraguay won this year, out of a total of 5 winners: Rosa Guillen for the Course "Practical theoretical course of infrared spectroscopy of molecules" realized in the *Facultad de Ciencias de la Universidad de la Republica*. Montevideo, Uruguay and Mercedes Alvarez for the Training Course in "Serological and bacteriological training for the referential diagnosis of Brucellosis" carried out at the Malbran Institute. Bs. As., Argentina from 1 to 12, july.

Montserrat Blanes member of the WG IANT participate as a speaker at the "*Jornadas Iberoamericanas del LAC*" in june 2018 with the theme "Controversies in the study of thyroid hormones and pre-analytical impact on the expected values obtained in the medical diagnosis".

We appreciate the support of foundations, organizations, scientific societies, and companies related to our profession for the implementation of activities.

INTERNATIONAL RELATIONS

Active participation of a Paraguayan delegation in the IFCC General Conference held in November 9-11 in Budapest, Hungary.

- Members of ABP at the IFCC General Conference - Budapest – Hungary:
 1. J. Ortellado as ABP National Representative.
 2. M. Blanes G. as member since 2018 1st in Congresses and Conferences Committee (C-CC)- International and Learning (C-IEL) Publication and Communication Division (CPD) as corresponding member 2018-2020. Appointed as member of the COC of the Euromedlab Munich 2021 in behalf of the CCC.
 3. G. Russomando as member in the Molecular Diagnostic Committee (C-MD), Scientific Division (SD) and member since 2018 1st in the Awards Committee (AC) appointed by the Executive Board (EB-AC).
- ABP Members integrating Working Groups
 1. e-new (WG-e news) CPD. M. Blanes, Member liaison member
 2. WG IANT E. Guillen Barua.
- ABP members in Task Force- Specially Projects.
 1. How Glucose Meters Should be Evaluated in Critical Care (WG GMECC) and Task Force on Point of Care Testing (POCT-TF). - E. Guillen Barua.
 2. Standardization of Thyroid Function Tests (C-STFT), Scientific Division Current Projects: Phase IV Method comparison studies for FT4 and TSH on Clinically Relevant samples: FT4 is Intended as technical standardization and harmonization process TSH, FT4



by Which Will Become Assays traceable to the conventional reference measurement procedure. - M. Blanes G, second term.

ADDITIONAL INFORMATION

After the important achievements of last year, the promulgation of the “5.986 / 2017 Law of the Biochemists”, which expresses the object, scope, nature and professional identity of the Biochemist, a team effort chaired by the President of ABP, Raquel Caceres, and treasurer, Mercedes Alvarez.

A Gala party was held at the *Gran Hotel del Paraguay* where Past Presidents were awarded, as well as lifetime members remembering the **Biochemical Day** (10 of December) which was approved by an extraordinary meeting held in 6 of October, 2018.

ABP continues to work with all its partners in pursuit of career recognition, ensuring the quality of education.



ROMANIA

ROMANIAN ASSOCIATION OF LABORATORY MEDICINE
(RALM)

NATIONAL MEETINGS

2 nd CONGRESS OF THE ROMANIAN ASSOCIATION OF LABORATORY MEDICINE With international participation	09-12 May Bucharest	Clinical Laboratory (Clinical Chemistry, Hematology, Microbiology)
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EDUCATION

In order to support our young colleagues, two awards are granted every year at the annual conferences, one for the best poster presentation and one for scientific activity. As the attendance of residents to the annual conferences is strongly encouraged, AMLR has preferential conference fees for residents and is also offering conference sponsorship for few residents every year.

In 2018 RALM initiated an internal grant competition for young scientists, consisting in 3000 euros. The four applications submitted were evaluated by experts, and the winner of the competition (dr. Adina Hutanu from the University of Medicine and Pharmacy of Târgu Mureş) was announced at the General Assembly.

REGIONAL RELATIONS

The Romanian Association of Laboratory Medicine is member of the Balkan Clinical Laboratory Federation BCLF.

The Publication Division of RALM collaborates with the Croatian Journal *Biochemia Medica*.

INTERNATIONAL RELATIONS

The Romanian Association of Laboratory Medicine is a full member of IFCC and EFLM.

IFCC and EFLM representatives - prof. Evi Lianidou (Greece), prof. Mauro Panteghini (Italy), prof. Janos Kappelmayer (Hungary) attended our conference and gave lectures which were appreciated by the participants.



RUSSIA
ASSOCIATION OF LABORATORY SPECIALISTS AND ORGANIZATIONS
FEDERATION OF LABORATORY MEDICINE» (FLM)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
XXIII All-Russian scientific-practical conference "Traditions and innovations of clinical laboratory diagnostics", Moscow	March 20 - 22	Issues of interactions laboratory specialists and clinicians. Quality and safety of medical care. Modern scientific and practical achievements in hematology, immunology, cytology, molecular diagnostics, microbiology, coagulology, laboratory quality assurance. Problems of rational organization of laboratory flows. Introduction of new methods in laboratory practice.
The XI International Scientific and Practical Conference "Modern laboratory medicine: efficiency, accessibility, quality", Moscow	May 24 – 25	Modern technologies in the organization of laboratory services. Organization of laboratory diagnostics socially significant infections. Modern laboratory technologies in oncology. Microbiological service in megapolis - optimization system and implementation modern technology. Quality management. ESKAPE Pathogens.
Fourth Russian Congress of Laboratory Medicine, Moscow	October 3 – 5	An organization, economics and legal aspects of laboratory services. Fundamental questions of Clinical and Laboratory Medicine. Etiology, early diagnosis and laboratory monitoring of infectious diseases. The latest and advanced technologies in the field of laboratory diagnostics. Round tables with the participation of public health leaders and representatives of the firms on the centralization of laboratory testing and procurement of equipment and reagents
Third Interdisciplinary Scientific Congress on "Autoimmune and Immunodeficiency Diseases"	November 16 - 17	IT health care in the field of autoimmune and immunodeficiency diseases. Problems of oncology and autoimmunity. Infections and autoimmune diseases. Issues of reproduction and pregnancy management in patients with autoimmune diseases. An interdisciplinary approach to systemic immune-mediated diseases. Autoimmune diseases of childhood. Ophthalmology and autoimmune conditions. Innovative methods of laboratory diagnosis of autoimmune conditions.
II Russian Congress "Reasonable therapy of hemostatic disorders», Kazan	November 23 - 24	Anticoagulants and antiplatelet agents: patient safety. Hemostatic disorders in a complicated patient. "(Un) normal" pregnancy and hemostasis. Perioperative period (Blood loss and thrombosis).
All-Russian scientific and practical conference "Laboratory diagnostics-clinical medicine: traditions and innovations" dedicated to the 95 th anniversary of the birth birthday of the professor B. F. Korovkin	December 4 - 5	Modern problems of training laboratory specialists. Topical issues of laboratory diagnostics in a general hospital. Forms of organization laboratory diagnostics in regions of the Russian Federation. New research directions of emergency conditions.

EDUCATION

All meetings under the auspices of Russian Federation of Laboratory Medicine (FLM) accredited by the Coordination Council for the Development of Continuing Medical and Pharmaceutical Education of the Ministry of Health of the Russian Federation.

Participation in each regional scientific conference allows doctors to receive up to 6 credits of continuing medical education (CME). Each Hemostasis school gets 12 CME credits.

Take part in the Fourth Russian Congress of Laboratory Medicine enable visitors to get 18 CME credits in the field: "Clinical Laboratory" and "Bacteriology".



REGIONAL MEETINGS

Name of the meeting	Date	Society's contribution for the meeting
Hemostasis school: "Thrombotic and hemorrhagic complications in obstetrics, gynecology and neonatology"	January 26-27	Full organization of the meeting
Scientific and practical conference "Yaroslavl Forum of Laboratory Medicine: Modern Approaches to Improving the Quality and Information of Clinical Laboratory Research", Yaroslavl	January 29	Full organization of the meeting
Scientific and practical conference "Voronezh forum of laboratory medicine: modern aspects of laboratory diagnostics of oncological diseases", Voronezh	February 16	Full organization of the meeting
Seminar for microbiologists "Program for the Control of Antimicrobial Resistance (AMR) in Central Asia and Eastern Europe (CAESAR), Moscow"	February 20	Co-organization with the Russian Interregional Association for Clinical Microbiology and Antimicrobial Chemotherapy (IACMAC)
Hemostasis school: "Thrombotic and hemorrhagic complications in obstetrics, gynecology and neonatology", Nizhny Novgorod	March 2-3	Full organization of the meeting
Scientific and practical conference "Saratov forum of laboratory medicine: laboratory diagnostics and organization of laboratory services in the monitoring of cardiovascular diseases", Saratov	March 3	Full organization of the meeting
Scientific and practical conference "Samara forum of laboratory medicine: modern approaches to the organization of laboratory service, improving the quality and availability of clinical laboratory studies", Samara	March 16	Full organization of the meeting
Hemostasis school: "Thrombotic and hemorrhagic complications in obstetrics, gynecology and neonatology", Rostov on the Don	March 23-24	Full organization of the meeting
Scientific and practical conference "Forum of specialists in laboratory medicine in the Republic of Sakha (Yakutia): modern approaches to the organization of the laboratory service, improving the quality and availability of clinical laboratory studies", Republic of Sakha (Yakutia)	March 28	Full organization of the meeting
Scientific and practical conference "Vladimir Forum of laboratory medicine: competence approach in the organization, training of laboratory staff and improving the quality of laboratory research", Vladimir	April 20	Full organization of the meeting
Scientific and practical conference of specialists of the Ural Federal district "Modern laboratory medicine for clinical solutions. Ural forum 2018", Ekaterinburg	April 27	Full organization of the meeting
Scientific and practical conference "Forum of laboratory medicine specialists of the Republic of Khakassia: modern approaches to the organization of laboratory services, actual aspects of hemostasis system research in medical practice", Abakan	May 11	Full organization of the meeting
Interregional scientific and practical conference "The state and directions for improvement of laboratory services in the North Caucasus Federal District of the Russian Federation and the Republic of North Ossetia-Alania - 2018", Vladikavkaz	June 9	Full organization of the meeting
Hemostasis school: "Thrombotic and hemorrhagic complications in obstetrics-gynecology and cardiology", Tyumen	June 29-30	Full organization of the meeting



XII Interregional school for laboratory medicine specialists: "Innovations in modern laboratory medicine".	October 24 - 25	Co-organization with the Ministry of health of Novosibirsk region and Novosibirsk state medical university
Scientific and practical conference "Forum of laboratory medicine specialists of the Ivanovo region: modern approaches to the organization of laboratory services, diagnosis of reproductive infections and new technologies in medical practice", Ivanovo	December 7	Full organization of the meeting
Scientific and practical conference "Forum of specialists of laboratory medicine of Udmurtia: modern approaches to the organization of laboratory services, professional standards, promising technologies in medical practice".	December 14	Full organization of the meeting

INTERNATIONAL RELATIONS

Representative of Russian Federation of Laboratory Medicine (FLM), WG-PRE EFLM-Corresponding Member took part in writing joint EFLM-COLABIOCLI Recommendation for venous blood sampling.

Representative from the Federation of Laboratory Medicine became a corresponding member of the Nomenclature Committee (C-NPU) at the IFCC.

Chairman of the Preanalytics Committee FLM participated in work The European Preanalytic Working Group (EFLM WG-PRE), Zagreb, Croatia.

Speakers from Belgium, France, Germany, Italy, Israel, Scotland and the USA made presentations at the Fourth Congress of Laboratory Medicine.

ADDITIONAL INFORMATION

In 2018 all committees of the Association of laboratory specialists and organizations "Federation of laboratory medicine" (Occupational Safety and Health Committee, Immunohematology Committee, Professional Development Committee, Pre-Analytical Phase Committee, Analytical and Forensic Toxicology Committee, Standardization and Quality Assurance of Clinical Laboratory Tests Committee, Chromatographic Methods Committee, Personnel Committee, Clinical Cytology Committee, Hemostaseology Committee, Committee of Contracting Activity in the Field of Laboratory Services, Microbiology Committee, Immunology and Allergology Committee, Committee on Development and Implementation of Innovative and High Microbiological Practice, Public-Private Partnership Committee, Committee of the Medical Industry and the Manufacture Localization, Committee on Cellular Technologies, Committee on Molecular Biological and Genetic Research, Committee of Standardization of Laboratory Tests for Autoimmune Diseases) prepared annual reports.

According to results of work for 2018, 5 committees of FLM were reorganized and 5 were abolished.



SAUDI ARABIA SAUDI SOCIETY FOR CLINICAL CHEMISTRY

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>
4 th Annual Meeting Saudi Society for Clinical Chemistry Riyadh, Saudi Arabia, Crowne Plaza Hotel	4 th – 6 th December 2018
<p>Saudi Society for Clinical Chemistry held the 4th Annual meeting 5th – 6th December 2018 in Riyadh. A pre-conference workshop was held in 4th December 2018 covering the topics on Biological Variation, Total Analytical Error, CAP Calibration Verification and Linearity Surveys: From Receiving Till Evaluation, and Measurement of Uncertainty.</p> <p>The keynote speaker for the conference was Professor Adekunle Okesina, an Executive Board Member of International Federation of Clinical Chemistry and Laboratory Medicine and representing the IFCC. The conference was accredited by Saudi Commission for Health Specialties for 22 CME with more than 500 delegates attended the meeting.</p> <p>The Scientific Program included 7 sessions with more than 26 speakers, 20 posters and 27 presentations. The Speakers were international, regional and national.</p> <p>This scientific program included sessions about Updates in Metabolic Disease, Laboratory Biomarkers of Disease, Laboratory Tests (Industry), and Good Laboratory Practice. Furthermore sessions on Laboratory Management including Laboratory Test Utilization, Work/Life Balance, Diagnosing Diabetes with HbA1c in Sickle Cell Trait Patients and Acid Base Homeostasis and Imbalance.</p> <p>In addition, Clinical Chemistry related companies held different presentations during the conference. With a launch of first Saudi Guidelines for Venous Blood Collection in collaboration with Becton & Dickinson.</p> <p>The exhibition court included more than 10 booths for different collaborators; Platinum (ROCHE, SIEMENS, and SNIBE), Gold (BECKMAN and BIORAD), Silver (SHIMADZU) and Bronze (ABBOTT, BECKTON & DICKINSON, BINDING SITE, JOHNSON & JOHNSON, and RANDOX) Others (ALEXION and IL).</p> <p>By the end of the meeting there was Poster Session Awards Announcement with more than 20 posters printed, and 3 prizes for the best 3 posters (photos attached below).</p>	

EDUCATION

1st Point of Care Training Course at King Fahad General Hospital-Jeddah, 27 February – 1 March 2018 in collaboration with MOH

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
MedLab Dubai	5 – 8 February 2018	Speakers for Scientific Sessions
Global Health Exhibition	10 – 12 September 2018	Speakers for Scientific Sessions
Saudi MedLab Expo	19 – 20 November 2018	Speakers for Scientific Sessions

INTERNATIONAL RELATIONS

During the AACC meeting Chicago Jul 29 - Aug 02, 2018, a proposal of collaboration between the ASCP and SSCC was discussed between the Board members of the SSCC and Jennifer R. Young, Director, Business Development of the ASCP. All agreed to have a full collaboration with ASCP and to have workshops introduced by ASCP through the SSCC in Saudi Arabia.

ADDITIONAL INFORMATION

Photos from the 4th Annual meeting for the SSCC held at 4th – 5th December 2018



SERBIA SOCIETY OF MEDICAL BIOCHEMISTS OF SERBIA (DMBS)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
XXI Serbian Congress of Medical Biochemistry and Laboratory Medicine with international participation	May 23-25, 2018, Belgrade	<ul style="list-style-type: none"> • Novel trends in Laboratory Medicine • Patient-oriented approach in the evaluation of analytical Quality in medical laboratory • The role of laboratory in personalized medicine • Factors and risk assessment of metabolic and endocrine disorders
15th EFLM Symposium for Balkan Region	May 23-25, 2018, Belgrade	<ul style="list-style-type: none"> • Neighbouring countries: The same professional aim • Laboratory medicine achievements in neighbouring countries • Forum of young researchers
21 th Annual Ivan Berkeš Scientific Conference	December 6, 2018, Belgrade	Presentations of doctoral and master thesis from previous year (www.dmbj.org.rs) Granted Awards of the Profesor Ivan Berkeš Fund to the best graduated students of the Pharmaceutical Faculty University of Belgrade

EDUCATION

1. Quality Indicators: pre-preanalytical and pre-analytical phases of laboratory diagnostic investigation
2. Laboratory Management
3. Novelties in Laboratory Medicine
4. QM development and application in accredited laboratory
5. Laboratory safety
6. Validation of the Laboratory Methods
7. Laboratory Medicine Environmental Health and Safety

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
26th Meeting of Balkan Clinical Laboratory Federation	Skopje, Macedonia, October 3-5, 2018	SMBS Members participate with lectures

REGIONAL RELATIONS

Cooperation with all Societies from Balkan region, members of Balkan Clinical Laboratory Federation (BCLF) (see www.bclf.info).

INTERNATIONAL RELATIONS

- Cooperation with other Societies members of IFCC and EFLM
- Participation in EFLM activities: Dr Snežana Jovičić - Corresponding Member PFLM-WG; Zorica Šumarac - corresponding member of the EFLM WG-PRE
- Participations in Meetings organised by IFCC and EFLM

Participation in the organization of the 5th EFLM-BD European Conference on the Preanalytical Phase; Participation in the organization of the EFLM-AACC Conference 2019; Participation in the EFLM WG-PRE meeting in November 2018 (Zagreb, Croatia); Participation in conducting EFLM WG –PRE Survey on Demand management in Serbia; Moderator in EFLM WG-PRE e-learning webinar (18th September 2018): Catheter Blood Collection Practices: Can A High Quality Sample for Laboratory Diagnostics Be Obtained? Implementation of the *Joint EFLM-COLABIOCLI Recommendation for venous blood sampling* in Serbia, by the Society of Medical Biochemists of Serbia.

ADDITIONAL INFORMATION

The Society of Medical Biochemists of Serbia published international JOURNAL OF MEDICAL BIOCHEMISTRY, the Official Journal of the Society, in which many scientists from region published own papers (www.dmbj.org.rs/jmb; www.degruyter.com/view/j/jomb).



SLOVENIA

SLOVENIAN ASSOCIATION FOR CLINICAL CHEMISTRY AND LABORATORY MEDICINE (SZKKLM)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Ljubljana, 15.3.2018	Laboratory diagnostics of congenital metabolic diseases
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Maribor, 1.-2. 6. 2018	Predanalytics, porphyrias, diagnostics from conception to birth
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Novo mesto, 7.9.2019	POCT yesterday, today, tomorrow
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Ljubljana, 10.12.2018	Efficiency and competence in laboratory medicine

EDUCATION

On May and June 2018; Continuous Education Courses for the Medical Laboratory Technicians with five (5) different topics in four different places in the country:

- Kidney function tests
- Ethanol and biochemical markers of alcohol abuse
- The Challenges of pediatric laboratory medicine
- Laboratory approach to the detection of patients with suspected leukemia
- Gas-blood analysis –from the sampling to the results report and quality assurance



From March to June 2018, we (our members) participated in the project “Information System for the Monitoring of Patterns, Materials and Chemicals in Health” (InfoZdrav), which was carried out within the framework of the Student Innovation Projects for Social Benefit. The project is through pedagogical mentors from the University of Ljubljana and professionals of laboratory medicine connected an interdisciplinary group of ten students in which students of computer and information science, laboratory biomedicine, pharmacy, biology, biochemistry and graphic and interactive communications participated. Students in the project have designed an information system to support diagnostic and research work in laboratories. We expect that the designed system will enable even faster and more efficient work for both health and research staff. The project was co-financed by the Republic of Slovenia and the European Union from the European Social Fund.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
The 1 st IFCC, EFLM, AFCB Conference “Laboratory Medicine: meeting the needs of Mediterranean Nations”	Italy, University of Tor Vergata (Rome) 2-4 July 2018.	Evgenija Homšak, as a IFCC national representative and chair of EFLM WG-CPE, was a Member of the scientific board, Chairman of the session and lecturer at the conference: EFLM project “Exchange of practical knowledge and skills in Laboratory Medicine” – EFLMLabX
14 th EFLM Symposium for Balkan Region, Neighbouring Countries: The Same Professional Aim XXI Serbian Congress of Medical Biochemistry and Laboratory Medicine with international participation	Belgrade, May 23-25 th 2018	Evgenija Homšak, as a IFCC national representative and chair of EFLM WG-CPE, was a Member of the scientific board, and lecturer at the conference: EFLM project “Exchange of practical knowledge and skills in Laboratory Medicine” – EFLMLabX

INTERNATIONAL RELATIONS

Through active members and national representatives of EFLM and IFCC we have established international professional relations with neighboring and other different countries (participation/organizing common meetings).

ADDITIONAL INFORMATION

2nd October is the Slovenian Day of Clinical Chemistry and Laboratory Medicine – “The Day of the Open doors of Clinical laboratories”. On that day we celebrate the beginnings of our professional national organization. On 2nd October each year all Clinical laboratories in the country open their doors to the public visitors, from general population to the doctors and students, who are interested to see and be informed where, by who and how the laboratory diagnostics and tests are performed. At that day the voice of Laboratory Medicine also goes/rise up through different national media (TV, radio, newspapers) to point out the role and importance of our profession and the problematic issues that concern our position, as well.



NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
XV Meeting of Scientific Committees, Madrid	May 24-25 th	- Diagnostic Protocols in Endocrinology - Circulating DNA - Diagnosis and treatment of dyslipidemia - Massive sequencing - Neurological autoimmune disease - Update on Serum Proteins
Course, Madrid	June 5 th	- How to publish in Laboratory Medicine
Course, Hospitalet de Llobregat (Barcelona)	September 20 th	- Analytical Validation of measurement procedures in Clinical Laboratory
XII National Congress of Clinical Laboratory (LabClin)	October 24-26 th	
First meeting of the Spanish Society of Laboratory Medicine with National Scientific Societies, Barcelona	November 8 th	This meeting was organized by the Spanish Society of Laboratory Medicine (SEQC ^{ML}) to strengthen lines of collaboration with National Scientific Societies
First meeting of the Spanish Society of Laboratory Medicine with Residents and Young Scientists, Madrid	November 16 th	Inform of the possibilities that SEQC ^{ML} offers for the development of their professional life in the field of the clinical laboratory. Promote relationships between residents of different hospitals

EDUCATION

Annual Educational Program 2017-2018:

- XXI General Educational Program 2017-2018 643 participants
- IV Clinical Cases in Haematology Program 2017-2018 364 participants
- III Clinical Cases General Educational Program 2017-2018 391 participants
- Implementation of the technical requirements of the UNE-EN-ISO 15189 quality standard. Practical cases. Program 2017-2018 467 participants
- Clinical application of Molecular Biology Techniques Program 2017-2018 490 participants

REGIONAL RELATIONS

SEQC^{ML} has relationships with:

- the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)
- the Federation of European Societies on Trace Elements and Minerals (FESTEM)
- the Clinical and Laboratory Standards Institute (CLSI)
- the Ibero-American Working Group WG IAN through "Radio Microscopio"
- the Latin-American Confederation of Clinical Biochemistry (COLABIOCLI)

INTERNATIONAL RELATIONS

SEQCML has relationships with the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC).

ADDITIONAL INFORMATION

SEQC^{ML} organizes the following EQAS programs:

- Extranalytical processes : Preanalytical and Indicators

- Biochemistry: General biochemistry tests in serum and urine, Hormones, TDM, Proteins, Blood gas, POCT, Cardiac markers, Tumor markers, Trace elements, Autoimmunity, Monoclonal components and Drug abuse.
- Microbiology and Serology
- European Project EurA1c
- Urinary sediment analysis

Nowadays there are 700 centers participating in these programs with a total of 5000 inscriptions. We are expanding SEQC^{ML}- EQAS Programs and Educational Programs to Latin-American countries.

SEQC^{ML} maintains the Spanish version of Lab Tests Online with more than 348 tests and a glossary with more than 498 contents. Consulting LTO^{ES} website has increased up to a total of 150-175 consultations/month

SEQC^{ML} has a total of 2709 memberships, 368 members of 34 Commissions/ Committees/ Working Groups and 40 SEQC^{ML} Representatives in International Federations (IFCC/EFLM/ FESTEM/CLSI/ICSH)



SWITZERLAND SWISS SOCIETY OF CLINICAL CHEMISTRY (SSCC)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Molecular Diagnostics, Zurich	March 8–9, 2018	DNA & RNA editing with CRISPR-Cas, CRISPR-based nucleic acid test: basic principles and future potential, Precision diagnosis and treatment for advanced Non-Small Cell Lung Cancer, Molecular and functional characterization of circulating tumor cells in Non-Small Cell Lung Cancer, Plasmodium Vivax diagnostic tests for control and elimination, Mycobacterium Tuberculosis and drug-resistance testing, Dengue, Zika and Chikungunya after Irma, Maria and Harvey, Genetics and environment in asthma, (Epi)genetics of human memory: from physiology to drug discovery, Porphyrins: from diagnosis to treatment, Genetic diagnosis of mendelian disorders via RNA sequencing, DNA sequencing at 40: past, present and future
SSCC Annual Assembly 2018, Bern, "Revolution drives Evolution"	November 15–16, 2018	Liquid biopsy : minimally invasive diagnostics using somatic genetic variation, Liquid biopsy – ready for routine diagnostics?, Roche sequencing solutions –from sample preparation to bioinformatical analysis of next generation sequencing data, Immune deficiency: recognition – understanding – treatment, Successes and challenges in the treatment of pediatric leukemia, Newborn screening for cystic fibrosis – benefits and pitfalls?, Mass spectrometry of exhaled breath, Clinical metabolomics by H-NMR spectroscopy, What's next in Next Generation Sequencing: the future of sequencing in the clinical laboratory, Biology of senescence: insights from the Do Health Study, Reference intervals in geriatric laboratory medicine, Choosing wisely: over- and underdiagnosis in daily clinical practice, eHealth: technical requirements and regulatory aspects, Role of semantics in electronic patient records – how to make data structures comparable, Application in the hospital setting: clinical data ware house, Has AI arrived in practicing medicine yet?

EDUCATION

A novel CAS in laboratory medicine has been established in German at the University of Zurich which will be part of the further education curriculum in laboratory medicine in Switzerland (<https://www.cas-labmed.uzh.ch/de.html>). The identical CAS in French will be established in 2019 at the University of Geneva.

Annual education program: 10 one or two day courses in general laboratory management and in some specific topics.

REGIONAL MEETINGS

<i>Date</i>	<i>Society's contribution for the meeting</i>
September 26–28, 2018	Symposium organized by SSCC



SYRIA SYRIAN CLINICAL LABORATORY ASSOCIATION (SCLA)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Syrian Clinical laboratory association general conference	28 Sept 2018	Updates on Laws and regulation of society
Third Scientific conference of Syrian Medical Syndicates	1 March 2018	There were laboratory issues
Fourth Scientific conference of Syrian Pharmaceutical Syndicates	13 April 2018	There were laboratory issues
Third Scientific Board	16 May 2018	Medical laboratory topics session

EDUCATION

CME monthly lecture in the Venue of Syrian clinical laboratory association

REGIONAL RELATIONS

With Lebanon SDBL

INTERNATIONAL RELATIONS

- A) 1st IFCC Conference Laboratory Medicine: Meeting the needs of Mediterranean Nations Rome Italy 2-4 July 2018 About 15 member of Syrian Clinical laboratory association attended this conference with two lectures first for Dr Adnan Alkhatib second for Dr Ghassan Shannan.
- B) IFCC General conference Budapest; SCLA Participated by Dr. Adnan Alkhatib National representative, and Dr Ghassan Shannan. November 10-11 2018.



NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
CACB Annual General Meeting in conjunction with 33rd Joint Annual Conference of Biomedical Science (JACBS), Taipei, Taiwan	24-25 March 2018	A key-note speech by Dr. Jozica Habijanac “The Future of Healthcare and Diagnostics: AI Application.” and a symposium: “Metabolism and Disease from Research to Clinical Diagnosis” by Prof Ching-Hua Kuo: “Development of analytical methods for metabolomics studies and therapeutic drug monitoring.” Prof Ching-Ying Kuo: “Altered mitochondrial metabolism regulates breast cancer tumorigenicity.” Prof Mei-Ling Cheng: “Metabolomics in human health.”
30 th anniversary Conference of Taiwan Society of Clinical Pathology and Laboratory Medicine.	15-16 December 2018	CACB symposium in Molecular Diagnostics and Mass spectrometry by Prof. Kang-Yi Su: “Clinical Application of Lab Developed Test in Molecular Diagnostics” Dr. Chia-Ni Lin: “Application of LC - MS/MS in Clinical Laboratories”

EDUCATION

CACB in conjunction with Dept. Clinical Laboratory Sciences and Medical Biotechnology, National Taiwan University, and Biomedical Technology and Device Research Laboratories, Industrial Technology Research Institute organized a special lecture inviting Dr. Alan Wu, Professor Laboratory Medicine, Chief, Clinical Chemistry Laboratory, San Francisco General Hospital, to deliver a speech of “Promoting the value of the clinical lab to students, patients and the general public.” On 13 April 2018. CACB members, faculties and students from Dept CLSMB, NTU enjoyed the talk and a enthusiastic discussion. This special lecture also served as the official launch of traditional Chinese edition of Dr. Wu’s book: “The Hidden Assassin: When Clinical Lab Tests Go Awry.” All the fans were very happy to have Dr. Wu’s signature on the front page of the books.

REGIONAL RELATIONS

For the upcoming APFCB 2019: 15th Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine Congress (Jaipur, India) on November 17-20, 2019, CACB proposed a symposium of “Clinical Applications of Mass Spectrometry: Sample preparation, Diagnostics and Therapeutics” by the speakers and titles of:

Dr. Jun-Jen Liu, Preparation of Sample for Mass Spectrometry

Dr. Chia-Ni Lin, Therapeutic Drug Monitoring of Newer Antiepileptic Drugs

Dr. Kang-Yi Su. Clinical Application of Lab Developed Test in Cancer Precision Medicine.

INTERNATIONAL RELATIONS

CACB Immediate Past President Prof Woei-horng Fang acted as Correspondent Member of IFCC Committee on Conference and Congress (C-CC) attended IFCC C-CC meeting on 10 November 2018, also acted as national representative participate the IFCC General Conference 2018, Budapest on 11-12 November 2018. Prof Fang provided a report of meeting accomplishment to CACB Boards.

CACB President Prof Ning participated AACC Annual Scientific Meeting on 29 July-2 August 2018, Chicago. She met with Prof Victoria Zhang, the Past President of North American Chinese Clinical Chemists Association (NACCCA) discussing the potential collaboration between CACB and NACCCA.

ADDITIONAL INFORMATION

CACB is the organizer of upcoming the 34th Joint Annual Conference of Biomedical Science (JACBS) scheduled on 23-24 March 2019. The Conference venue will be at the National Defense Medical University Campus, Taipei as previous years. The first Organizing Committee meeting was held on 27 July 2018 chaired by CACB President Ning and attended by all nine association's Presidents and/or representatives. After heated discussion, the theme of the Conference was later set as 'Traslating Science into Health Care' and a competition of oral presentation of 'From Molecules and Cells to human health'. Prof. Pan-Chyr Yang, a member of Academia Sinica, as invited as the Plenary Lecturer to deliver a speech titled: "Global Rising Health Threat: Lung Cancer in Never Smoker."



TUNISIA SOCIÉTÉ TUNISIENNE DE BIOLOGIE CLINIQUE (STBC)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
XXXII ^{ÈMES} JOURNÉES NATIONALES DE BIOLOGIE CLINIQUE XXXII th National Meeting of Clinical Biology	May, 10 th , 11 th and 12 th , 2018	<p><i>Workshops:</i></p> <ul style="list-style-type: none"> * Fighting antibiotic resistance: Situation in Tunisia * Antibiogram: New approaches * Method validation in clinical biology <p><i>Themes:</i></p> <ul style="list-style-type: none"> • Ethics in clinical biology • Clinical laboratory informatics and automation • Managing clinical laboratory variability • Clinical laboratory accreditation • Thrombotic angiopathies • Growth hormone deficiency in children • Genetics: future and challenges • Quality management, automation and accreditation: Role of the laboratory technician • Invasive fungal infections • Microorganisms food contamination • The past, present and future of microbiological diagnosis • Biological exploration in central nervous system inflammatory demyelinating diseases • Rapid tests in microbiology and parasitology • Standardisation of maternal serum markers screening • Revision of the 2002 Law of clinical laboratories

EDUCATION

Date	Place	Theme	Participation
02-09-2018	Tunis	Biological viral markers of hepatitis B and C and HIV	88
02-23-2018	Sousse	Thyroid exploration: the need for a clinical-biological dialogue	44
03-16-2018	Tunis	Ultra-sensitive Troponin	40
04-06-2018	Tunis	Automated analysis in spermology	63



04-20-2018	Zaghouan	Hemogram validation	38
09-07-2018	Sfax	Anemia in the newborn: A diagnostic approach	44
10-05-2018	Tunis	Biological risk management	25
10-26-2018	Tunis	Antifongograms	60
11-17-2018	Kebili	Kebili Clinical Biology Day	90
11-30-2018	Sousse	Irregular antibody screening: Clinical case studies	37
12-14-2018	Djerba	Djerba Clinical Biology Day	14

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
10 th course in molecular biology "Hemoglobinopathies: Molecular aspects»	May, 7 th and 8 th , 2018	International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)

REGIONAL RELATIONS

Arab Federation of Clinical Biology (AFGB)
 Faculty of Pharmacy of Monastir-TUNISIA
 National Health Assessment and Accreditation Authority (INEAS)

INTERNATIONAL RELATIONS

International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)



TURKEY TURKISH BIOCHEMICAL SOCIETY (TBS)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Symposium on Non-Alcoholic Fatty Liver: Clinical and Laboratory	January 24, 2018, Ankara	<ul style="list-style-type: none"> • Unhealthy Nutrition, Obesity Studies: Ministry of Health Perspective: Assoc. Prof. Dr. N. Yardım • Non-Alcoholic Steatohepatitis Assoc. Prof Dr. M. Kekili • Non-Alcoholic Steatohepatitis, Non-invasive Methods in the Evaluation of Fibrosis: Dr. M.S Güngören • Enhanced Liver Fibrosis Tests (ELF Test): M. Tosun • Intestinal Microbiota Dr. U. Demirpek • Importance of Intestinal Microbiota and Bile Acids in Non-Alcoholic Steatohepatitis Process Assoc. prof. Dr. H. Kayadibi
3 rd In vitro Diagnostic Symposium	February 28 - March 2, 2018 Izmir	Endocrine and Metabolic Diseases
2 nd International Congress on Environmental and Occupational Diseases	March 7, 2018, Antalya	The Role of the Laboratory in Occupational and Environmental Diseases: Moderators: Assoc. Prof. Dr. D. Yücel, Assoc. Prof. Dr. E. Tutkun <ul style="list-style-type: none"> • Heavy Metal Toxicity and Analysis Assoc. Prof. Dr. F. Aksungar, • Pesticide Analysis, Assoc. Prof. Dr. H. Kayadibi • Analysis Methods Used in Occupational Health and Safety, Dr. Ö. Güzel, • Problems in Laboratory Analysis Prof. Dr. M.A. Serdar

Symposium on Monoclonal Gammopathies	April 11, 2018, Ankara	Multiple in Clinical and Laboratory Aspects of Myeloma • Clinical and Laboratory Diagnostic Criteria in Multiple Myeloma: Dr. S. Yılmaz: • Freelite® in Myeloma: A. Pickin: • Clinical Laboratory in Multiple Myeloma: Prof. Dr. E. Devrim, Dr. Ç. Sönmez Atay
Symposium on Preanalytical Stage	April 28-29, 2018, Kayseri	Preanalytical Stage
Symposium on "Rational Laboratory Usage" Presentation	June 20, 2018, İstanbul	Rational Laboratory Usage
Conference	November 9, 2018, Ankara	The Use of Procalcitonin on the ICU and in the Hospital – Michael Meisner

EDUCATION

1. The Role of Molecular Techniques in Laboratory Applications and Usage Course, January* 29-February 2, 2018, Adana
2. Venous Blood Collection Course was organized by the TBD Preanalytical Stage Working Group on May 14 , 2018 for the students of Ayyansaray University Medical Laboratory Techniques Program in Istanbul
3. Venous Blood Collection Course was organized by the TBD Preanalytical Phase Study Group on May 15, 2018 for the students of Marmara University School of Health Services.
4. Molecular Techniques in Laboratory Course, September 10, 2018, Ankara
5. Course on Basic and Advanced Statistics for Medical Specialists, 15-16 September 2018, Istanbul (by TBS Academy).
6. miRNA course, From Theory To Practice, September 26, 2018, Bodrum
7. Cell Death Cytotoxicity Course, October 26, 2018, Bodrum.
8. Biosensor Course, October 26, 2018, Bodrum.
9. Westgard Rules QC And Six Sigma Workshop, organized by Turkish Biochemistry Association was held on October 25-26, 2018 in Bodrum.
10. Laboratory Mathematics Course was organized by the TBS Academia in December 1, 2018 in Acibadem University, Istanbul
11. Blood Gas Education Meeting was organized by TBS Academia and TBS Istanbul Branch, at Istanbul Education Research Hospital, in December 25, 2018 in Istanbul.
12. Prof. Dr. Callum G. Fraser's book titled with 'Biological Variation: From Principles to Practice" It was translated into Turkish by Abdurrahman Coşkun according to the agreement with Fraser and AACC, and published as TBD in 2018.
13. "Leadership basics for clinical laboratory professionals" written by Sedef Yenice and Edward Randell, was published by IFCC in 2018.

REGIONAL RELATIONS

TBS participated in various working groups of Ministry of Health, Social Security Institution, and Turkish Chamber of Physicians.

TBS EB members visit National Metrology Institute, Gebze, Kocaeli.

INTERNATIONAL RELATIONS

1. International IFCC Flow Cytometry (IFCC) courses organized by IFCC and Turkish Biochemistry Association was held on 20 - 22 June 2018 in Istanbul under the sponsorship of Beckman Coulter Life Sciences and Yeditepe University.
2. 1st IFCC, EFLM, AFCB, FIFBCML Conference Laboratory Medicine: Meeting The Needs Of Mediterranean Nations. Our association is here represented by Prof. Dr. Diler Aslan and Assoc.Prof. Dr. Mehmet Şeneş on the scientific committee

3. TBS participates in studies of working groups and task forces of IFCC and EFLM committees.
4. TBS represents other scientific or professional bodies in Turkey such as EFLM, BCLF, IUBMB, FEBS, and WASPaLM.

ADDITIONAL INFORMATION

The International Biochemistry Congress-2018 and The 29th National Congress of TBS were held in Bodrum in October 26-30th, 2018.

There were keynote speakers such as Edgard Delvin (from IFCC VLP), Sten Westgard, Edward Randell, Mathias Orth, Andrey Abromov and Hassan Bayat.

Educational workshops on method validation/verification, mass spectrometry applications in clinical laboratory, scientific writing, and presentation techniques were organised by TBS Academy.



UKRAINE

ASSOCIATION OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE OF UKRAINE (ACCLMU)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Scientific & Practical Conference with International Participation "Theory and Practice of Laboratory Medicine"	Kyiv, April 25-26, 2018	During the Conference, special attention was paid to the European experience in the correct use of laboratory tests in modern evidence-based medicine, as well as to the evaluation of the analytical reliability of clinical laboratory tests results. Modern clinical and diagnostic aspects of diabetes mellitus and its complications were also discussed, as well as approaches to prenatal screening, and algorithms for assessing male fertility. The experience exchange between laboratory medicine specialists in the field of cytological diagnostics concerning preoperative prediction of tumor development, the choice of adequate therapy, and the use of state-of-the-art laboratory technologies in oncohematology was very important. An expanded meeting of the ACCLMU Council was held within the framework of the Conference.
Scientific & Practical Conference with International Participation "Quality indicators as components of the quality assurance system for laboratory services and achievement of the reliability of laboratory testing results"	Kyiv, October 17-18, 2018	The main task of the conference was to formulate a unified approach and to consolidate efforts aimed at introducing a quality assurance system into the laboratories of each region of the country, because this is the key to provision of the accessible high-quality laboratory services. Special attention was paid to the world and European experience in accreditation of medical laboratories, as well as to requirements for competence and quality in medical laboratories. It was once again stressed that the main objective of ISO 15189 is to provide medical laboratories with their own effective quality management systems. Also, within the framework of the Conference, an extended round table was held devoted to the actual problems of laboratory medicine specialists training in the context of reformation of the health care system of Ukraine. The practice of training and the need for revision of training programs for medical laboratory specialists, modern requirements for general basic competencies and the procedures for evaluation of the staff competence, as well as the experience of use of the simulation laboratory for successful practical skills acquisition, were discussed.

EDUCATION

Participation in the round table meeting of the Committee on Health of the Verkhovna Rada (the Parliament) of Ukraine on the theme: “Medical self-government and professional associations as a guarantee of professional growth of medical workers” (Kiev, April 20, 2018).

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Scientific & Practical Conference with International Participation “Laboratory Diagnostics of Hemostasis Disorders. Theoretical Basics, Errors and Interpretation of the Results of Laboratory Studies”	L'viv, April 17, 2018	Organization of the meeting
Master-Class “Basic Techniques for Working with Semi-Automatic Analyzers Coag 2D/4D Series”	L'viv, April 17, 2018	Organization of the meeting
Scientific & Practical Conference on the Problems of Introduction of Standardization Processes in the L'viv Region	L'viv, April 18, 2018	Organization of the meeting

REGIONAL RELATIONS

Cooperation of the ACCLMU with the Health Department of the L'viv Regional State Administration in the organization of the Scientific & Practical Conference on the Problems of Introduction of Standardization Processes in the L'viv Region.

Cooperation of the ACCLMU with the Expert Group on Clinical Laboratory Diagnostics of the Healthcare Department of the Kyiv City State Administration concerning interactions of medical laboratories with primary care medical facilities and professionals, provision of medical laboratories with modern laboratory equipment, cooperation with young laboratory specialists and other professional medical organization, as well as implementation of quality management system according to ISO 15189 in medical laboratories.

INTERNATIONAL RELATIONS

Participation in the first part of the training for trainers on the “Laboratory Development Program for Accreditation for Laboratories” organized by the US Centers for Disease Control and Prevention (CDC) and the American Society for Clinical Pathology (ASCP) for the project “Support for strengthening laboratories in countries with limited resources in the context of the US President’s Emergency Initiative to Assist HIV/AIDS (PEPFAR)” (Kiev, January 29 – February 9, 2018).

Participation in the second part of the training for trainers on the “Laboratory development program for accreditation”, organized by the US Centers for Disease Control and Prevention (CDC) and the American Society of Clinical Pathology (ASCP) for the project “Support for strengthening laboratories in countries with limited resources as part of the US President’s Emergency Initiative to Assist HIV/AIDS (PEPFAR)” (Kiev, March 19-30, 2018).

Participation in the Meeting of International Experts and the MOH Expert Group on Clinical Laboratory Diagnostics and the Implementation of the Project “Supporting the Strengthening of Laboratories in Disadvantaged Countries within the framework of the Emergency Initiative of the President of the United States to assist in the fight against HIV/AIDS (PEPFAR)” on discussing the results. Estimates of the basic efficiency and readiness of Kyiv’s pilot laboratories for accreditation were made (Kyiv, June-August 2018).

Participation in the 4th China National Congress of Technology and Laboratory Medicine “One Belt – One Way” (Suozhou, July 2018).

Participation in the I International Congress of Young Scientists of the IFCC (Rome, July 2-6, 2018).

ADDITIONAL INFORMATION

ACCLMU performs functions of the Secretariat of the Technical Committee for Standardization 166 “Clinical laboratory testing and in vitro diagnostic test systems” (TC166) which is mirroring the ISO/TC 212.

Together with TC166, ACCLMU members participate the implementation of the international standards into the Ukrainian regulatory framework.

Since 2018, ACCLMU is publishing the Laboratory Diagnostics Journal.



URUGUAY
ASOCIACIÓN BIOQUÍMICA URUGUAY (ABU)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
“Regulation of the qualifications of companies, registers of medical products, reagents, equipment and instruments” “Good manufacturing practices”	15/3/2018 (2 nd . part)	Elaboration practices. Registration and Authorizations Dictated by: Department of Technology and Inspection Division. Ministry of Public Health
Diffusion of IFCC activities by its Corresponding Members 1- (TF-YS) María Eugenia Schroeder 2- (TF-POCT) Iris Miraballes 3- (C-NPU) and (IUPAC), Carlos Lacava 4- (C-MD) Patricia Esperón 5- (C-TLM). Ana Piana 6- (C-RIDL) Carlos Lacava	08/05/2018 (1 st part)	Knowing the systems of work and the advancement in the WG, TF, Committees, etc. of the IFCC through our Corresponding National Members
“Regulation of the qualifications of companies, registers of medical products, reagents, equipment and instruments” “Good manufacturing practices.” “Experiences of Clinical Biochemists professionals in Uruguay”	14/06/18 (3 rd . part)	Elaboration practices. Registration and Authorizations Dictated by: Department of Technology and Inspection Division. Minister of Public Health
“The laboratory in thyroid function and pathology” Dr. Raúl Supersaxco (Argentina)	20 and 21/10/2018	Endocrinology. Coordination: Wiener Foundation (Argentina)
Diffusion of IFCC activities by its Corresponding Members 1-(TF-CKD) Stella Raymondo 2-(WG-SAU) Stella Raymondo 3-(CCMBC) Patricia Esperón 4-Calidad Analítica (C-AQ) Patricia Esperón 5-(C-DL) Carlos Lacava 6-(WG-LEPS) Carlos Lacava 7-(WG-FC) Ma.Schroeder 8-(C-PR) Ma. Schroeder 9-. (WG-IANT) Carlos Lacava	09/10/2018 (2 nd part)	Knowing the systems of work and the advancement in the WG, TF, Committees, etc. of the IFCC through our Corresponding National Members
“Urgency Laboratory”	17-18/11/2018	Coordination: Wiener Foundation (Argentina) Dres. Alberto VILLAGRA y Estela MEYER

1 "Automation and interferences in the hematological results in their interpretation, through the analysis of cases". BC Cecilia Borba	4/12/18	Return of experiences of professions awarded by ABU to various courses.
2 "Endocrinology and Metabolism, Clinical and Biochemical aspects." BC Natalia Pereira		
3 "Evaluation of the infertile couple, role of the biochemist in the laboratory" BC Micaella Cipriani		

EDUCATION

Scholarships:

A call for scholarships was made between 04/10/2018 to 05/10/2018 and two scholarships were selected

One of the scholarships was in the area of Specialization in Clinical Biochemistry and Endocrinology at the University of Buenos Aires, Argentina.

The 2nd scholarship could not be completed due to the resignation of the creditor to it.

REGIONAL MEETINGS

<i>Name of the meeting.</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
3rd Latin American and Caribbean Regional Workshop "Interpretation of critical requirements of ISO 15189 (Livestream)	September 26 to 28 of 2018, Quito, Ecuador	Attendants from Uruguay: Coordinator: Ana Piana. Participants: Stella Raymondo and Monica Revello
20th Argentine Congress of Quality in Clinical Laboratory CALILAB	October 24-27, 2018, Buenos Aires, Argentine	Active Participation: Stella Raymondo, Ana Lena, Natalia Amor, Graciela Queiruga and Fernando Antunez at the Assembly of COLABIOCLI
		Conferencists of the Congress: Graciela Queiruga, Stella Raymondo, Ana Lena, Ana Piana and Beatriz Varela

ABU has collaboration with several Regional Associations of Laboratory Medicine.

1) COLABIOCLI (Confederacion Latinoamericana de Bioquímica Clínica) as a full member.

ABU is the national entity of Latin America that has been designated headquarters of the COLABIOCLI by its General Assembly since 2015, and therefore has a fluid relationship with the other national entities of the Confederation´.

2) With especial links with:

- FABA Argentine Biochemical Foundation
- CUBRA Unified Confederation of Biochemical of the Argentine Republic
- ABA Asociación Bioquímica Argentina
- UBA. Reception of colleagues to study specializations.
- WIENER FOUNDATION. Face-to-face courses in Uruguay

INTERNATIONAL RELATIONS

IFCC

National Representative IFCC/Uruguay: Stella Raymondo

I) IFCC Task Forces

1. (TF-E) Paola Audicio
2. (TF-YS) Maria Eugenia Shroeder

II) Scientific Division

Committees

1. (C-NPU) Carlos Lacava



2. (C-MD) Patricia Esperon
3. (C-TLM) Ana Piana
4. (C-RIDL) Carlos Lacava

Working Groups

1. (WG-CDT).Marcelo Lucas
2. (WG-SAU) Stella Raymondo
3. (WG-PAPPA) Paola Audicio

III) Education and Management Division.

Committees

1. (C-CMBC) Patricia Esperón
2. (C-AQ) Patricia Esperón
3. (C-CKD) Stella Raymondo
4. (C-DL) Carlos Lacava
5. (C-POCT) Iris Miraballes

Working Groups

1. (WG-LEPS) Carlos Lacava
2. (WG-FC) Maria Eugenia Shroeder

IV) Communications and Publications Division

Committees

1. (C-PR) Maria Eugenia Shroeder

Working Groups

1. (WG-IANT and WG-eNews) Ana Piana

ADDITIONAL INFORMATION

1. Guild Activities

A - As a result of an agreement signed last year, all Clinical Biochemists that perform activities in the State Health Services Administration (ASSE) received a salary adjustment and were classified in grade II. The activity in the sector was continued for the designation of grades III and V in order to achieve a functional career of the ASSE professional. The agreement also has a scope for those Pharmaceutical Chemists who work in the field of Clinical Analysis.

B - Within the framework of private health organizations governed by the Collective Agreements Group 15 of Health, progress was made by explicitly incorporating new professions in the next cycle of Collective Agreements

2. Co-government of the University of the Republic (UdelaR)

Representatives of ABU integrated the elected list to the various organs of the co-government of the UdelaR, with participation in the Council and Faculty of Chemistry and in the Cloister Assembly of the UdelaR

3. Civil Liability Insurance

An agreement was signed with the State Insurance Bank to create a civil liability policy for Clinical Biochemical and Pharmaceutical Chemical professionals, which was unprecedented in Uruguay.

4. New ABU website

5. Social

End of the year party for ABU members at Club Noa-Noa on 12/15/2018



NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
2018 AACC Annual Scientific Meeting & Clinical Lab Expo – Chicago, IL	July 29, 2018 – August 2, 2018	Multiple topics in laboratory medicine
Point-of-Care Coordinators Forum: – Chicago, IL	August 2, 2018	Point of care testing coordinator topics of interest
Point-of-Care Testing Boot Camp and Beyond: Communicating, Connecting and Collaborating Portland, OR	November 1, 2018	Point of care testing communications and connectivity for POCs
Mass Spectrometry and Separation Sciences for Laboratory Medicine – Philadelphia, PA	October 1-2, 2018	Mass spectrometry technology/ methodology
27th International Critical and Point of Care Testing Symposium Washington, DC	September 26-30, 2018	New and emerging technologies in point of care testing

EDUCATION

Online Education

CERTIFICATE PROGRAMS

1/1/2018 – 12/31/2018:

- Basic Principles and Architecture of Laboratory Information Systems Certificate Program
- Clinical Laboratory Leadership and Management Certificate Program
- Laboratory Operational Management Certificate Program
- Patient Safety Essentials for Laboratory Professionals Certificate Program
- Practical Approaches to Quality Control in the Clinical Laboratory Certificate Program
- Regulatory Affairs for Laboratory Compliance Certificate Program
- Statistical Methods for Clinical Laboratorians Certificate Program
- Fundamentals of Molecular Pathology Certificate Program
- Point-of-Care Specialist Certificate Program
- Improving Outcomes Through Point of Care Testing Certificate Program
- Principles of Clinical Toxicology Certificate Program
- Basic Concepts and Clinical Applications of Flow Cytometry Certificate Program
- Intro. Liquid Chromatography Mass Spectrometry for the Clinical Laboratory Certificate Program
- LC-MS/MS Troubleshooting for the Clinical Laboratory Certificate Program

WEBINARS

Title	Program Date
What is Your Lab's Cost of Poor Quality? How to Demonstrate the Value of Your Quality Efforts to Financial Decision Makers	01/03/18
Developing a Task Force When Making Decision About Point of Care	02/07/18
Managing Tough Conversations: Positive, Proactive Solutions	03/07/18
Procalcitonin to Guide Antibiotic Decisions in Bacterial Respiratory Infections and Sepsis	03/21/18
Facts are Friendly: Enable the Transition from Volume to Value Using Data	04/04/18
Reducing laboratory costs with freight management	04/25/18
Medicare's PAMA-Based CLFS Payment Impact: Strategies to Protect Your Lab's Revenue	05/02/18



How to Eliminate LC-MS Interference Peaks and Chemical Background: Improving the Limit of Quantitation for THC-COOH in Hair	05/16/18
Health Economic Value of PCT Testing in the US	05/31/18
Listen and Learn Campaign: A Process Improvement Initiative	06/06/18
Automating Anatomic Pathology	07/11/18
Hepatitis B: Diagnostic Challenges	07/26/18
Influenza Testing: Impact of New Testing and New Testing Options	08/01/18
Increasing STI Screening Coverage by Focusing on the End Users: Clinicians and Patients	09/05/18
Strategies for Reducing Analytical Interferences in the Clinical Chemistry Laboratory	09/12/18
Lab Developed Tests for Steroids: The Journey from Immunoassay to Mass Spectrometry	09/19/18
Implementing Total Laboratory Automation: The Difficulties and Rewards	10/03/18
Implementing Procalcitonin: A Team Approach	10/10/18
Tough Love: How Actively Managing Your Customers Can Make Them (and You) Happier	11/07/18
Validation of Clinical LC-MS/MS Methods: What You Need to Know	11/14/18
Healthy Mother/Healthy Baby: Optimal pregnancy outcomes through proper infectious disease testing	11/28/18
Procalcitonin Testing and Molecular Pathogen Detection: A Value Model	12/05/18

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Global Lab Quality Initiative Workshop: Verifying Assay Performance: Steps To Follow To Verify Manufacturer's Claims (Xalapa, Mexico)	March 17-18, 2018	Provided content and speakers, in collaboration with the Mexican Association of Clinical Laboratory Sciences
AACC Middle East, Abu Dhabi UAE	March 22-, 2018	Provided content and speakers, in collaboration with Al Borg Laboratories
Global Lab Quality Initiative Workshop: Adding Value to Patient Care Using Quality Control (Kathmandu, Nepal)	August 22-23, 2018	Provided content and speakers, in collaboration with the Nepal Association for Medical Laboratory Science
Global Lab Quality Initiative Workshop: Adding Value to Patient Care Using Quality Control (Colombo, Sri Lanka)	August 26-27, 2018	Provided content and speakers, in collaboration with the College of Chemical Pathologists of Sri Lanka and the Association for Clinical Biochemistry, Sri Lanka
Global Lab Quality Initiative Workshop: Adding Value to Patient Care Using Quality Control (Manila, Philippines)	August 30-31, 2018	Provided content and speakers, in collaboration with The Philippine Association of Medical Technologists, Inc.
Best of AACC China, Shanghai	October 12-13, 2018	Provided content and speakers, in collaboration with Chinese Medical Education Association
Global Lab Quality Initiative Newborn Screening Workshop: Early diagnosis of biochemical genetic disorders saves children's lives: A discussion on the merits and the process to successfully implement newborn screening (Goa, India)	October 24, 2018	Provided content and speakers, in collaboration with the Association of Clinical Biochemists of India

REGIONAL RELATIONS

Member of the North American Federation of Clinical Chemistry and Laboratory Medicine.

INTERNATIONAL RELATIONS

AACC maintains memoranda of understanding with several national societies for the purposes of mutually beneficial education exchanges.



VIETNAM VIETNAMESE ASSOCIATION OF CLINICAL BIOCHEMISTS (VACB)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
National Scientific Conference of the 55th Jubilee Ceremony of the Foundation of VACB	17-18 August 2018 in Da Nang City	Clinical Chemistry, Immunology, Toxicology, Therapeutic Drug Monitoring, Oncology, Molecular Biology, POCT, Quality Assurance and Quality Control, Hormones
Scientific Conference of the Clinical Biochemistry Society of Hanoi and Northern Provinces of Vietnam	21-22 September 2018 in Ha Long	Immunology, Molecular Biology, Oncology, Quality Assurance and Quality Control, Diabetes, Toxicology, Endocrinology
Scientific Conference of the Clinical Biochemistry Society of HoChiMinh-City and South Vietnam	15-16 November 2018 in HoChiMinh-City	Clinical Chemistry, Immunology, Quality Assurance and Quality Control, POCT, Oncology, Enzymology

REGIONAL RELATIONS

Good relations. The VACB invited Dr. Elina Reja Aziddin , Visiting Lecturer of the APFCB, President of the Clinical Biochemistry Association of Malaysia to participate and give lecture in the National Scientific Conference of the VACB in Da Nang City in August 2018

INTERNATIONAL RELATIONS

Good relations.

The VACB has a delegation of 4 members participating in the 1st IFCC Conference “ Meeting the needs of Mediterranean nations” in Roma, 2-4 July 2018.

Prof. Dr. Abderrazek Hedhili, representing the IFCC Direction Board, attended the National Scientific Conference of the 55th Jubilee Ceremony of the Foundation of the VACB in Da Nang City, August 2018 and gave lectures.

Prof. Dr. Hoang Van Son, National Representative of the VACB to IFCC attended the IFCC General Conference in Budapest, 9- 11 November 2018.

Affiliate member societies



BRAZIL
SOCIEDADE BRASILEIRA DE PATOLOGIA CLÍNICA /
MEDICINA LABORATORIAL (SBPC/ML)



NATIONAL MEETINGS

53° Brazilian Congress of clinical pathology - For more information, check our website: <http://www.sbpc.org.br/>

EDUCATION

EAD- Distance Education

<i>Topic</i>	<i>Date</i>
Systematization for elaboration of strategic planning in clinical laboratory	March 13 – 2018
Clinical and Laboratory Diagnosis of Diabetes Mellitus. The Importance of Glycated Hemoglobin.	March 27 – 2018
Interferences in immunoassays: Historical aspects and evolution of methods	April 10 – 2018
The Benefits of Automation in Molecular Biology in the Diagnosis of Infectious Diseases	April 24 - 2018
Systematization for the study of interferents in the evaluation of a biochemical laboratory method	May 15 2019
Natriuretic peptides	May 29 - 2018
Emotional intelligence	June 5 – 2018
Pre-analytical factors that interfere with the performance of proficiency testing and internal quality control	July 10 – 2018
Assessment of support laboratories according to PALC requirements	August 14 - 2018
Analytical quality specification: How to deploy in the clinical laboratory	October 16 - 2018
Validation of reference intervals according to PALC requirements	November 13 - 2018
Risk management and patient safety in the clinical laboratory	December 11 - 2018

REGIONAL MEETINGS

Name: Symposium of Biomarkers in Cardiology

Date: February 15th of 2019

Society's contribution: A partnership between the Brazilian Society of clinical pathology, Society of Cardiology of the State of São Paulo(SOCESP) and Brazilian College of Radiology and diagnostic imaging (CBR)

REGIONAL RELATIONS

PALC: Clinical Laboratory Accreditation Program

For more information, check our website: <http://portal.sbpc.org.br/programa-da-qualidade/palc/>

INTERNATIONAL RELATIONS

For more information, check our website: <http://www.sbpc.org.br/>

ADDITIONAL INFORMATION

Other courses and events are elaborated throughout the year. For more information, check our website: <http://www.sbpc.org.br/>



PHILIPPINES

PHILIPPINE COUNCIL FOR QUALITY ASSURANCE IN CLINICAL LABORATORIES (PCQACL)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
PCQACL 15 th Annual Convention	September 25 - 27, 2018	" Sustaining Global Quality Innovations"

EDUCATION

The PCQACL Committee on Continuing Education, Training & Research has conducted the following Seminar – Workshops last 2018 :

1. Seminar-Workshop on Handling Non- Conformities
Date: April 11, 2018 Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City
2. Seminar- Workshop on Internal Quality Control (IQC): The Basics and Beyond
Date: May 26, 2018 Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City
3. Seminar-Workshop on Hepatitis & Thyroid Function Tests
Date: July 25, 2018 Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City
4. 15th Annual Pre-Convention Seminar–Workshop on Efficient and Effective Laboratory Operations Management
Date: Sept. 24, 2018 Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City

REGIONAL MEETINGS

<i>Name of the meeting / Venue</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
ANCLS 17 th Congress held at Winsor Suites & Convention Hotel, Sukhumvit 20, Bangkok, Thailand	July 5, 2018	<ul style="list-style-type: none"> • Dr. Marissa A. Orillaza, Chairperson of the PCQACL Committee on Continuing Education, Training & Research delivered a special lecture on the topic " Standardization & Harmonization of Clinical Laboratories. • Dr. Grace J. Dela Calzada, PCQACL Vice-President and Member of the PCQACL Committee on Continuing Education, Training, & Research gave a lecture on " Standardization of Complete Blood Count".

REGIONAL RELATIONS

Member of Asian Network for Clinical Laboratory Standardization and Harmonization (ANCLS)

Member of Clinical and Laboratory Standards Institute (CLSI)

Member of Asian - Pacific Federation of Clinical Biochemistry and Laboratory Medicine (APFCB)

INTERNATIONAL RELATIONS

PCQACL is an active member of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)

IFCC-Visiting Lecturer Program has always been requested to provide Speakers at the plenary lectures of the PCQACL annual conventions, seminar-workshops and other scientific sessions.

Member of Clinical and Laboratory Standards Institute (CLSI) which gives PCQACL the authority to be the distributor of their books and other documents in the Philippines, procuring of such in bulk and distributing them to facilitate their adoption and implementation by the clinical laboratories.

CLSI will be invited by PCQACL to provide Speaker(s) at annual conventions' plenary sessions and other scientific sessions hosted by PCQACL.

ADDITIONAL INFORMATION

The IFCC Chairman on Communications & Publications Division, Dr. Khosrow Adeli has graced with his presence, the PCQACL 15th Annual Convention Opening Ceremonies as the Keynote Speaker held last Sept. 25, 2017 at Crowne Plaza Galleria Manila. Furthermore, the 15th Annual Scientific Program had the privilege to have Dr. Khosrow Adeli as the renowned IFCC- Visiting Lecturer –Program Speaker together with the distinguished Speaker from APFCB, Prof. Raja Elina Raja Aziddin on the following topics:



**Khosrow Adeli,
PhD, FCACB, DABCC**

<i>Topic</i>	<i>Date</i>	<i>Time</i>
a) Keynote Address -Advancing Laboratory Medicine through Innovation: Predicting the Lab of the Future	September 25, 2018	10:00 am - 10:15 am
b) Lipid Guidelines for Cardiovascular Risk Stratification	September 25, 2018	11:15 am - 12:00 nn
c) Panel Discussion II: Interpreting Abnormal Routine Lab Results in Cancer Patients	September 26, 2018	9:00 am - 9:50 am
d) Panel Discussion III: Challenges in Lipid Testing: Introduction of Non- Fasting Lipid Profile	September 26, 2018	1:30 pm - 2:30 pm



Prof. Raja Elina Raja Aziddin

<i>Topic</i>	<i>Date</i>	<i>Time</i>
a) Methodologies and Technologies for Therapeutic Drug		
b) Monitoring and Drugs of Abuse Testing	September 25, 2018	1:30 pm - 2:15 pm
c) Preventing or Minimizing Laboratory Errors & Non-Conformity	September 25, 2018	3:00 pm - 3:45 pm





SERBIA
**SERBIAN SOCIETY FOR CLINICAL LABORATORY MEDICINE
 AND SCIENCE (SCLM)**

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
<p>SERBIS 2018 (3rd and 4th SERbian Blomarker Symposium (www.serbis.rs))</p>	<p>Belgrade, Serbia June 05th-08th, 2018</p>	<p>Men's and Women's Health: Biomarkers in Clinical Practice and Future Approaches (IFCC, EFLM, ESPT auspiced)</p> <p>13 Sessions: SERBIS in Practice, Male infertility, Female infertility and in vitro fertilisation, Prenatal screening, Preeclampsia, Newborn screening, Oncology-prostate and testicular cancer, Oncology-breast, ovarian and cervical cancer, Bone diseases, Diabetes and obesity, Cardiovascular diseases, Psychiatric disorders, SERBIS breakthrough: unravelling taboos</p> <p>12 Industry sponsored Workshops</p> <p>60 speakers from 18 countries (30 spekaers from AU, BE, CA, HR, CZ, FI, FR, GE, GR, HU, India, IT, NL, SI, ES, SE, USA, and 30 from RS)</p> <p>1702 participants</p>
<p>CLAQ 2018 2nd Conference on Medical Laboratory Accreditation and Quality Systems</p>	<p>Belgrade, Serbia November 26th-27th, 2018</p>	<p>POCT innovation, Connected Health and Beyond: How digital technology is transforming lab medicine health and social care? (IFCC, EFLM auspiced)</p> <p>7 Sessions covered: questions to consider before introducing POCT, criteria for selecting tests suited for POCT; availability of POCT in a range of common conditions: cardiovascular disease, diabetes, acute and chronic kidney disease, infectious diseases, transmissible diseases, critical care, etc.; POCT vs Lab-based testing; economic arguments for funding POCT; mHealth; emerging technologies for POCT, common preanalytical and postanalytical errors in POCT, transition to POCT-best practices.</p> <p>1 Round table discussion: POCT Market overview and future perspectives</p> <p>30 speakers from 12 countries (19 speakers from BE, FR, GE, GR, IT, NL, NO, SI, ES, TR, UK, and 11 speakers from RS)</p> <p>689 participants</p>

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
<p>International symposium "Critical Care Testing and blood gases"</p>	<p>Antibes, France June 21th-22th, 2018</p>	<p>Session chairmanship</p>
<p>1st IFCC Conference "Laboratory Medicine: Meeting the needs of Mediterranean Nations"</p>	<p>Rome, Italy July 2nd-4th, 2018</p>	<p>Session chairmanship</p>



SINERGY (Serbian conference on iNtERventional cardioloGY) cardiovascular imaging and drug therapy	Belgrade, Serbia September 6 th -8 th , 2018	Invited lecture and Session chairmanship Scientific Committee Membership
4 th ESPT Summer School 2018 "Precision medicine and personalised health"	Geneva, Switzerland September 24 th -27 th , 2018	Group work, Session chairmanship Scientific Committee Membership
26 th The 26th Meeting of the Balkan Clinical Laboratory Federation	Skopje, Macedonia October 3 th - 5 th , 2018	Invited lecture and poster presentation
15th Annual conference of the ESC Working Group on myocardial and pericardial diseases	Belgrade, Serbia October 5 th -7 th , 2018	Invited lecture
VII Serbian Congress of Pharmacy with international participation	Belgrade, Serbia October 10 th -14 th , 2018	Invited lecture
2 nd International Congress of the Serbian Coronary Care Units Association	Belgrade, Serbia November 3 th -4 th , 2018	Invited lecture Scientific Committee Membership
Quality Day-Innovation by Abbott Laboratories	Belgrade, Serbia November 15 th , 2018	Invited lecture
7th National Symposium of the Association of Laboratory Technologists and Technicians of Serbia with international participation	Tara, Serbia November 15 th -17 th , 2018	Invited lecture

INTERNATIONAL RELATIONS

IFCC Affiliate Membership

IFCC Communications and Publications Division (CPD)
eJIFCC (WG-eJIFCC), Sanja Stankovic

EFLM Quality and Regulations Committee - Tatjana Vodnik
EFLM Science Committee - Sanja Stankovic

European Society of Pharmacogenomics and Personalised Therapy (ESPT)
General Secretary Sanja Stankovic

ADDITIONAL INFORMATION

With the idea to support education and expanding the horizons of colleagues who work in the field, SCLM has awarded one clinical chemist with registration fee for the 23 IFCC-EFLM European Congress of Clinical and Laboratory Medicine 2019, to be held in Barcelona – ES, 19 - 23 May 2019.

SCLM has given two travel scholarship grants to two young scientists (Swarup A.V. Shah from India and Janja Zupan from Slovenia) for attending SCLM international congress SERBIS 2018 and offer them an opportunity to present their research results.

SCLM has given one grant (travel grant and hotel accommodation) to one clinical chemist for attending next national congress.



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