

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



Annual Report 2017



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

ifcc@ifcc.org

Highlights of the Year

- **EuroMedLab Congress**, Athens, GR - June 2017 (<http://euomedlab.org/>)
- **WorldLab Congress**, Durban, ZA – October 2017 (<http://durban2017.org/>)
- **23rd Congreso Latinoamericano de Bioquímica Clínica – COLABIOCLI Congress**, Punta del Este – Uruguay 17-20 September 2017 (<http://www.colabiocli2017uy.com/index.html>)
- **IFCC VLP programme** (<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 Scholarship**
- IFCC **Travel Scholarships WorldLab Durban**
- **Webinars and Distance Learning Modules** (<http://www.ifcc.org/ifcc-education-division/webinars/ifcc-webinars/>)
- **e-Academy**, open educational resources (<http://eacademy.ifcc.org/>)
- **IFCC Expert Database** (<http://www.ifcc.org/ifcc-education-division/experts/>)
- **IFCC FEN - Foundation for Emerging Nations** (<http://www.ifccfoundation.org/>)
- Implement cooperation and agreements with IFCC **Regional Federations**

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Message from the President of IFCC



The IFCC represents clinical chemistry and laboratory medicine organizations throughout the world, and brings together that vast combined knowledge and experience to address the important challenges that face our profession. 2017 marked the last year of my three year term as President of the IFCC, and it was a unique privilege and an honor to lead such a vital and progressive organization. There were a number of significant achievements in 2017, as a result of the efforts of the Divisions, Committees, Working Groups and Task Forces made up of volunteers from our member organizations. These achievements are summarized in the various reports from the functional groups below. My thanks to all of these groups and their volunteers for the excellent work they have done. It is the responsibility of the Executive Board, reporting to the IFCC Council, to ensure that the functional groups have the direction, resources and support to operate as efficiently and effectively as possible. I am extremely thankful for the excellent work that the EB has done over my term as President.

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 Head 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.

Finally, my very best wishes for continued success go to the new EB, the first under the new format with representation from the Federations. I look forward to my participation as Past-President.

Maurizio Ferrari, President

EXECUTIVE BOARD (EB)

The Executive Board held three meetings during 2017. The first meeting was held in Milan on February 24-25; the second EB meeting was held in Athens in connection with the EuroMedLab Congress on June 9-10; the third EB meeting was held in Durban in connection with the WorldLab Congress on October 20-21.

The 23rd Meeting of the IFCC Council was held in Durban, with a good attendance. A general discussion ensued with a focus on the future of Laboratory Medicine and the role of IFCC in managing the incoming challenges. The National Representatives agreed that technological advances have led to integrated diagnostics while increasing use of Informatics and Management of Knowledge will be required to optimize the patient diagnostic pathway. In the near future IFCC will face significant threats including: restricted financial resources due to financial pressures on national society and corporate members including the discontinuation of direct sponsorship of congress delegates and speakers by the IVD industry, the aging of the IFCC workforce and need to establish relevance to Young Scientists, and challenges to retaining our current status with global clinical organizations. It was suggested that IFCC should seek closer collaboration with clinical societies, organizations involved in guideline development, and regulators, to increase the influence of the federation on guidelines, at the same time avoiding duplication and inconsistency.

During 2017 new full members joined IFCC: the “Kosovo Association of Clinical Chemistry



(KACC)", the new Russian Full Member Society "Federation of Laboratory Medicine (FLM)" replacing the previous member "Russian Scientifically-Practical Society of Specialists in Laboratory Medicine (RSPSSLM)"; the "Association of Clinical Chemistry and Laboratory Medicine of Ukraine (ACCLMU)" formed by merging the "Ukrainian Society of Clinical Laboratory Diagnostics (USCLD)" and the Affiliate Member "Association of Clinical Chemistry and Laboratory Medicine of Ukraine (ACCLMU)"; the "Belarus Society of Clinical Laboratory Diagnosticians", the "Colegio Nacional de Laboratoristas Clínicos de Panamá" and the "Palestine Medical Technology Association-PMTA".

In addition, the "Lab Medicine Committee, branch of China Association of Medical Equipment", the "Association for Quality Assurance of Laboratory Medicine – AQALM" and the "Egyptian Association of Healthcare Quality and Patient Safety" joined as Affiliate Members.

The EB decided that the EuroMedLab 2021 will be held in Munich and that the WorldLab/ EuroMedLab 2023 will be held in Rome.

A letter was sent to National Societies Full and Affiliate members requesting their annual report. More than forty reports were received to be included in the IFCC Annual report for 2017 which is available on the IFCC Website (www.ifcc.org).

Finally 2017 has been the last year of my 2nd term as Secretary of the IFCC and I'd like to thank all the IFCC officers and friends me serve six extraordinary years as IFCC Secretary. It has been a great opportunity for my professional growth in Laboratory Medicine as well as the chance to meet and make new friends from different countries and cultures. Thanks to the members of the EBs 2012-2014 and 2015-2017 for their support and friendship, thanks to the staff of Emmezeta-MZ Congressi in Milan (Paola Bramati, Silvia Cardinale and Silvia-Colli-Lanzi).

Sergio Bernardini, Executive Board Secretary

TREASURER REPORT

During the third year of my 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 budgets was 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 Suisse) 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 as of 31st December 2017.

COMPARISON OF 2017 PROPOSED BUDGET WITH ACTUALS AS OF 31st DECEMBER 2017: IFCC NET INCOME

The 2017 budget was expected to be closed with a deficit of CHF -725.655. Instead, it was closed with a positive balance of CHF 478 624 (Fig. 1).

IFCC NET INCOME - 2017 Budget to Actual at December 2017			
Summary	Budget 2017	Actual 2017	Proposal 2018
	CHF	CHF	CHF
Total Operational revenues & finances income	1.053.500	2.027.641	612.000
Total Operational costs & financial charges	1.779.155	1.549.017	1.712.107
Profit (-loss) for the year	-725.655	478.624	-1.100.107

Figure 1. 2017 proposed budget versus actual as of 31st December 2017.

TOTAL OPERATIONAL REVENUES AND FINANCIAL INCOME

The actual total operational revenues and financial income were CHF2 027.641(Fig. 2).

IFCC NET INCOME - 2017 Budget to Actual at December 2017				
REVENUES & INCOME		Budget 2017	Actual 2017	Proposal 2018
		CHF	CHF	CHF
02:04:00	Full members (National Societies)	175.000	180.686	175.000
03:04:00	Corporate members	270.000	341.421	270.000
04:04:00	Affiliate members	3.000	5.068	4.000
06:02:01	Income from CLSI royalties	2.000	3.575	2.000
06:38:01	Revenue for ICHCLR	0	0	25.000
07:03:22	EuroMedLab Athens 2017	400.000	774.318	0
07:02:23	WorldLab Durban 2017	100.000	189.429	0
07:07:01	APFCB 2016 Congress share	10.000	25.664	0
07:07:02	IFCC Abbott support Risk Management Workshops	0	42.318	0
08:00:01	Income for Scientific Division (SD) JRC IRMM	40.000	49.680	40.000
08:05:10	Income for Fecal Immunochemical Testing (WG-FIT)	0	11.529	0
08:05:11	Income for Commutability working group (WG-C)	0	960	0
08:05:16	Income for Ghent University project sponsorship	0	16.634	0
09:05:01	Abbott VLP sponsorship (EMD)	0	0	40.000
09:05:03	Sponsorship for clinical cardiac bio-markers (TF-CB)	0	74.509	0
10:00:01	Elsevier Support - AACC stand & royalties	3.000	3.509	3.000
10:00:02	Income from Com. Publ. div. (CPD) Elsevier endorsement	22.000	23.391	22.000
10:00:03	e-Academy support	0	67.660	0
11:01:02	Henry Wishinsky Award - Dist. Intl services - SIEMENS	0	0	0
11:01:04	Award contribution to Molecular Diagnostics - ABBOTT	10.500	10.534	0
11:01:06	Award Robert Schaffer CLSI-NIST	7.500	8.410	0
11:01:08	Award for Contribution to Cardiovascular Diagnostic - HYTEST	10.500	11.695	0
13:05:01	Surplus from satellite meeting Durban (TF-PLM)	0	8.471	0
13:05:03	Income for Roche travel scholarships	0	0	21.000
13:05:04	Surplus from POCT satellite meeting Durban	0	4.795	0
13:05:05	Natinal Societies WorldLab Scholarships support	0	12.486	0
15:05:02	Income from marketable securities	0	11.124	10.000
18:00:00	FEN expenses re-imbursed	0	935	0
18:01:01	Bank interest received	0	7.862	0
18:01:02	Profits on investment sales and recoveries of prior year's dues	0	9.505	0
18:01:03	Increase in value of investments in period	0	130.389	0
20:01:03	Profits on exchange	0	1.084	0
TOTAL REVENUES & INCOME		1.053.500	2.027.641	612.000

Figure 2. INCOME as of 31st December 2017: CHF 2.027.641.

IFCC MEMBERSHIP DUES

Table 3 below shows the major income of IFCC from the annual dues of Full, Affiliate and Corporate Members collected during 2017 (Fig. 3). Thanks to all the member Societies and Corporate members that supported the IFCC throughout the past years. Their continuous contribution has 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	180.686
Corporate members	341.421
Affiliate members	5.068
Total	527.175

Figure 3. IFCC membership dues collected in 2017.

IFCC MEETINGS INCOME PARTITION

IFCC meetings' revenues are not a regular yearly income. The average yearly income 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) calculated per year is indicated below (Fig. 4).

INCOME	PARTITION	YEAR AVAILABILITY
WordLab 2017(Durban): € 135.000	3 years	€ 45.000
EuroMedLab2017 (Athens): € 612 967-€ 133.160 (EFLM share)= € 479.807	2 years	~€ 240.000
APFCB share: € 22.716	2 years	€ 11 358
Total: € 637.523 CHF 746.029		€ 296.358 CHF 346.798

Figure 4. IFCC annual meetings income from EML Athens and WL Durban.

The income of IFCC from the membership dues and annual meetings income (excluding sponsorships and other revenues) in 2017:

CHF 527.175 (dues) + CHF 346.798 (annual meeting income) = CHF 873.973

SPONSORSHIP

Divisions and some Functional Units raise sponsorship funds which give them a certain flexibility in conducting projects. These sponsorship funds are used only for specific projects. The unspent sponsorship funds are carried over to the next years. The total amount of sponsorships available for specific projects as of 31 December 2017 to be carried to 2018 is **CHF 423.931**.

TOTAL OPERATIONAL COSTS AND FINANCIAL CHARGES

The actual total operational costs and financial charges in 2017 were CHF 1.549.017 (Fig.5).

	Total With Sponsorship expenses
5. Organisations Affiliated w/ IFCC	265.607

6. IFCC Int/Reg Organisations	62.291
7. IFCC Congresses and Conferences Committee (C-CC)	109.601
8. IFCC Scientific Division (SD)	312.952
9. IFCC Education and Management Division (EMD)	113.703
10. IFCC Communication Publication Division (CPD)	136.226
13. IFCC Special Projects	99.755
14. IFCC Statutes & Rules	10.756
15. IFCC Financial Report	34.317
16. IFCC Organisational Matters	316.995
19. IFCC Executive Board (EB)	87.114
GENERAL TOTAL	1.549.017

Figure 5: IFCC GENERAL EXPENSES – Actual as of 31st December 2017

IFCC INVESTMENT AT CREDIT SUISSE IN 2017

Due to the high investment charges, IFCC EB decided to move its investment from LGT Bank to Credit Suisse. The transfer of the securities from LGT to Credit Suisse was completed on January 12, 2017 (35 assets).

The important features of the agreement with Credit Suisse 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, only 0.20% p.a. for the safekeeping fee when invested in CS Portfolios). Plus brokerage fees. Remuneration will be given to IFCC for the transactions.**

INVESTMENT FEES AND TAXES 31.12.2016-31.12.2017
Return (TWR) 5,04% (gross of fees and taxes) Return (TWR) 4,86% (net of fees and taxes)
5,04%-4,86% = %0,18 the percentage of investment fee and tax applied
CHF 8.811 (Investment Fee) + CHF 5.654 (Taxes) = CHF 14.465 (Total Payment)

1. Overview

Return year-to-date

Period 31.12.2016 - 31.12.2017

	CHF	CHF
Market value as of 31.12.2017		3'256'922
Market value as of 31.12.2016		2'803'191
Cash flows	760'500	760'500
thereof customer orders	760'500	
Adjusted asset value		143'220
Return (TWR)		4.86%
net of fees and taxes		

Return since inception

Period 31.12.2016 - 31.12.2017

	CHF	CHF
Market value as of 31.12.2017		3'256'922
Market value as of 31.12.2016		2'803'191
Cash flows	760'500	760'500
thereof customer orders	760'500	
Adjusted asset value		143'220
Return (TWR)		4.86%
net of fees and taxes		

Portfolio structure by investment category

as of 31.12.2017 (with fund unbundling)

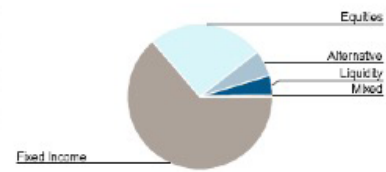
	CHF	Prop.
■ Liquidity & Similar	139'456	4.28%
■ Fixed Income & Similar	2'075'196	63.72%
■ Equities & Similar	640'441	25.80%
■ Al, Commodities & Real Estate	188'212	5.78%
■ Mbed & Other Investments	13'618	0.42%
Total Assets	3'256'922	100.00%



— Cumulative return ■ Absolute return



— Cumulative return ■ Absolute return



Assets in %

Tomris Ozben, Treasurer

CORPORATE MEMBERS

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

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

In 2017, a new Corporate Representative was elected to represent the Corporate Members at IFCC's Executive Board. Slightly more than half of the Corporate Members participated in the election, and I received 80% of their votes. I would like to thank the Corporate Members for re-electing me for a second term. I feel honored by the trust and confidence in me and I will continue to foster collaboration between IFCC and its Corporate Members for mutual benefit.

The Corporate Members make several important contributions to IFCC activities: Numerous delegates from Corporate Members are actively engaged in most of the scientific workgroups in all of IFCC's divisions and in their Executive Committees, either as full members or as corresponding members, as well as in the Congresses & Conferences Committee.

By the end of 2017, the total number of IFCC's Corporate Members was 43, providing the IFCC with annual fees of CHF 340,000 which was approximately 65 % of IFCC's total direct annual income from its members (which comprise National Societies and Affiliate Member Societies as well). In addition, Corporate Members continued sponsoring IFCC conferences, workgroups, scientific awards, e-learning programs and travel scholarships.

In return, IFCC provides value to its Corporate Members by

- emphasizing the **importance of quality** and providing **expertise in standardization**,
- providing **opportunities for exhibitions, industry symposia and networking** with lab professionals during high-level academic conferences,
- conducting **educational programs**, in particular in countries and regions with limited resources.

In 2017 the IFCC was pleased to welcome *Beijing Dream Diagnostic Medicine* as a new Corporate Member and *Hemas Hospitals Sri Lanka* joined at the beginning of 2018. Regrettably seven companies left IFCC in 2017: *Response Biomedical*, *Sonic Healthcare Europe*, *Philips*, *Axis Shield*, *Unilabs*, *Elga Labwater* and *Instrumentation Laboratory*.

During the past years we have made progress with regard to strengthening the role of Corporate Members within IFCC. However, the decline in membership poses a challenge for IFCC 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 harmonize guidelines and support medical claims leading to reimbursement for lab tests,
- **aligning stronger with others** (CLSI, FDA, clinical societies, etc.) to avoid inconsistency and duplication of regulatory guidelines and recommendations,
- **complying with the “MedTech Europe Code of Ethical Business Practice”** and other codes to avoid that Corporate Members face challenges when sponsoring and exhibiting at congresses,
- pursuing the **opportunities of data analytics** in laboratory diagnostics.

For most of these topics, first steps have been taken and first results have been achieved. However, all of these requirements of Corporate Members need to receive more emphasis in the future. The last item will be a major task to be pursued by a new division within IFCC which is called the Emerging Technologies Division.

Please find below some helpful contact information: The following Corporate Representatives were / are members of the Executive Committees of three of the IFCC's divisions and the Congresses & Conferences Committee:

- **Scientific Division: James Pierson-Perry** (*Siemens*) (1st term 2015-2017, 2nd term 2018-2020),
- **Emerging Technologies Division:** This newly established division will have 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:** Peng Yin (*Abbott*) (2nd term 2015-2017), Cheryl Jackson (*Beckman Coulter*) (1st term 2018-2020).

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

- **IFCC / EuroMedLab 2017, Athens, Greece:** Angelos Evangelopoulos (*Roche*) and Thomas Brinkmann (*Sonic Healthcare*).
- **IFCC / WorldLab 2017, Durban, South Africa:** Beth Slavic (*Ortho Clinical Diagnostics*)
- **IFCC / EuroMedLab 2019, Barcelona, Spain:** Jaime Vives (*Roche*)
- **IFCC / WorldLab 2020, Seoul, South Korea:** Douglas Chung (*Abbott*)

Out of approximately 3,300 delegates at EuroMedLab in Athens, 2,400 were sponsored by the IVD industry. In addition, more than 2,000 visitors were registered for the exhibition only. IFCC successfully sold all exhibition space at EuroMedLab; however, the distribution of the exhibition over several floors was not optimal for many of the exhibiting companies, particularly those on the upper floors. Those responsible to organize future events are working on means to prevent this for upcoming conferences.



Approximately 660 delegates attended WorldLab in Durban (around 50 of them sponsored by the IVD industry), and 330 visitors came for the exhibition only. The exhibition space had to be reduced due to a limited number of exhibitors.

It remains to be seen what the outcome will be for Barcelona since this will be the first EFLM/IFCC conference where the transition period of the MedTech Europe Code has expired and IVD industry can no longer sponsor delegates or speakers to attend conferences:

- For third-party organized conferences (main program): Companies may not directly support a healthcare professional, neither as a delegate, nor as a speaker.
- For company-organized events in the framework of third-party organized 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.

The next Corporate Members Meeting will be held during AACC in Chicago, USA, on July 31st, 2018. In general, attendance from Corporate Members at these meetings is rather low and I would like to encourage all members to take part in the meeting. The exact meeting details will be communicated soon.

Corporate Members fully support IFCC's recently developed new vision to advance excellence in laboratory medicine for better healthcare worldwide.

Rolf Hinzmann, Corporate Members Representative

COMMITTEE ON CONGRESSES AND CONFERENCES (C-CC)

International Congresses of Clinical Chemistry & Laboratory Medicine (ICCCLM)

IFCC ICCCLM (WorldLab) Durban, South Africa 2017 (October 22-25)

Congress Chair: Prof. RT Erasmus; Scientific Chair: Prof. TS Pillay

Through diligent planning and management, the Congress was an academic and financial success.

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

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

Planning for this Congress is progressing on schedule.

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

Congress Chair: Prof. Sergio Bernardini

Regional Congresses of Clinical Chemistry & Laboratory Medicine

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

Congress Chair: Prof. Praveen Sharma

This Congress will be held at the Jaipur Exhibition and Convention Centre.

EuroMedLab, Athens, Greece, 2017 (June 11-15)

Congress Chair: Prof. Alexander Haliassos

This successful Congress was held at the Megaron Athens International Conference Centre.

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

Congress Chairs: Prof. Maurizio Ferrari and Dra. Imma Caballé

Planning for this Congress is progressing on schedule.

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

Congress Chair: Dr. Michael Vogeser

COLABIOCLI, Punta del Este, Uruguay, 2017 (September 17 – 20)

Congress Chair: Dra. Stella Raymondo

This successful Congress received widespread support.

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

Congress Chair: Lizbeth Campillo, Jovanna Borace

The Congress will be held at the Megapolis Convention Center, located in the center of Panama City in Multicentro. Planning is underway.

AFCB, Ramallah, Palestine, 2018

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

Planning is ongoing.

AFCC, Durban, South Africa 2017

Congress Chair: Prof. Vanessa Steenkamp

The 5th AFCC congress was held concurrent with WorldLab 2017.

IFCC Specialised Conferences

Roche Diagnostics Bergmeyer Conference 2018

The 16th IFCC – Roche Diagnostics Bergmeyer Conference has been proposed to 2019 in Eisbee, Germany. The proposed title is “Coagulation”. A decision is pending further discussions between the IFCC EB and Roche Diagnostics. A significant concern is compliance with the MedTech Europe Code of Ethical Business Practice.

Congress Guidelines and Other Documents

Guidance for National and International Congresses

Revisions to the 2013 version of this document were completed by the C-CC and MZ Congressi. The revised document has been submitted for approval by the IFCC EB early in 2018.

IFCC Guidelines for Compliance with Applicable Codes of Ethical Business Practice

This new document was developed to create awareness of the revised MedTech Europe Code of Ethical Business Practice and the EthicalMedTech – Conference Vetting System.

IFCC General Conference

The next IFCC General Conference will be held in Budapest, Hungary, November 10 – 11, 2018.

Congresses / Conferences with IFCC Auspices – 54 events

A significant concern is the occasional request for IFCC auspices from corporations in the business, presumably for profit, of organizing congresses, conferences and other educational events. These corporations also approach IFCC officers and other laboratory professionals for their endorsement and participation. These educational events potentially represent competition for funding / sponsorship from the IVD Industry; participation in the commercial exhibition by the IVD Industry, and the competition for delegates. The EB is considering this matter.

James Wesenberg, C-CC Chair



SCIENTIFIC DIVISION (SD)

During 2017, the following members served on the SD Executive Committee: Philippe Gillery (France) (Chair), Christa Cobbaert (the Netherlands) (Vice-Chair), Joseph Passarelli (United States) (Secretary), Konstantinos Makris (Greece), Tsutomu Nobori (Japan), Mario Plebani (Italy) (members) and James Pierson-Perry (United States) (corporate representative). Four representatives of International Organizations are invited to attend the SD meetings as consultants: Gary Myers (JCTLM), Heinz Schimmel (JRC) Karen Phinney as replacement for David Bunk (NIST) and Chris Burns (NIBSC). Two meetings were held during 2017: June 9 – 10 (Athens, Greece in conjunction with EuroMedLab) and October 20 - 21 (Durban, South Africa in conjunction with WorldLab).

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.

Governance:

1. Dr. Anja Kessler (Referenzinstitut für Bioanalytik) was appointed as the new representative from the IFCC to the JCTLM Executive Committee replacing Prof Lothar Siekmann.
2. Ms. Regina Robertson informed the Executive Committee that she will no longer serve as one of the two ILAC liaisons to the JCTLM Executive due to her expanding role as General Manager International at NATA (National Association of Testing Authorities), Australia. Ms. Robertson is replaced by Ms. Martina Bednarova, Director, Czech Accreditation Institute Department for Medical Laboratories. Dr. Graham Jones will continue to also serve as ILAC liaison to the JCTLM Executive.
3. JCTLM Executive Committee Meetings were held as follows:
 - 11 June 2017 Athens, Greece in conjunction with the EuroMedLab Congress.
 - 7-8 December 2017 at BIPM

JCTLM Membership:

1. Progress with identifying potential JCTLM Executive Committee Organizations
The JCTLM Executive Committee continued its efforts to engage the International Council for Standardization in Haematology (ICSH) in collaborative programming activities in traceability. Dr. Myers met in December with representatives of ICSH, Dr. George Cembrowski and Dr. Bruce Davis to discuss plans for a potential joint meeting on traceability in hematology in 2018. As a result of these discussions a meeting of leaders from both organizations is planned for May 2018 at BIPM to discuss technical issues related to developing a reference measurement procedure for RBC testing and administrative plans for further collaboration.
2. JCTLM Membership Applications

The Executive Committee approved the following applications in 2017 for JCTLM National and Regional Membership:

1. All-Russian Scientific Research Institute for Metrological Service, Rosstandart [VNIIMS], Moscow
2. All-Russian Scientific Research Institute for Optical and Physical Measurements, Rosstandart [VNIIOFI], Moscow

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

1. Association for Quality Management in Laboratory Medicine [AQMLM], Birmingham
2. Birmingham Quality / UK National External Quality Assessment Scheme [BQ /UK NEQAS], Birmingham
3. Bio-Rad Laboratories [Bio-Rad], Irvine, United States
4. ECAT Foundation [ECAT], Voorschoten, Netherlands
5. Fujirebio Europe NV [FRE], Gent, Belgium
6. Maccura Biotechnology Co., Ltd. [Maccura], Chengdu, China
7. MedicalSystem Biotechnology Co., Ltd [MedicalSystem], Zhejiang, China
8. National Center for Clinical laboratories [NCCL], Beijing, China
9. R B Diagnostic Private Limited [RBDiagnostic], Kolkata, India
10. Roche Diagnostics [Roche], Indianapolis, United States
11. Shanghai Center for Clinical Laboratory [SCCL], Shanghai, China
12. Siemens Healthcare Diagnostics [Siemens DX], Tarrytown, United States
13. UK National External Quality Assessment Scheme for Leucocyte Immunophenotyping (UK NEQAS LI)
14. Vitamin D External Quality Assessment Scheme [DEQAS], London

JCTLM Members' and Stakeholders' Meeting:

The biennial JCTLM Members' and Stakeholders' Meeting; Accurate Results for Patient Care Workshop, was held 4-5 December, 2017 at BIPM.117 persons from 27 different countries attended the meeting. Posters were accepted and displayed for the first time.

JCTLM Database:

1. There were 79 nominations submitted by 30 May 2017 for the 2017 review cycle.
 - 46 certified reference materials
 - 11 reference measurement procedures
 - 22 reference measurement services provided by 4 reference laboratories
2. The Executive Committee appointed Professor Mauro Panteghini (CIRME) as Vice-Chair of the Database WG for Analyte Group 2 covering Blood Cell Counting and Typing, Coagulation Factors, Enzymes, Infectious Diseases, Nucleic Acids, and Proteins. He replaces Dr. Heinz Schimmel who stepped down as Vice-Chair due to other professional responsibilities.
3. The following nominations for JCTLM review team membership were approved:
 - Dr. Steven Westwood (BIPM) as new member of the Review Team for Drugs
 - Dr. Carolyn Burdette (NIST) as new member of the Review Team for Vitamins and micronutrients, and for Metabolites and Substrates.
 - Dr. John Toffaletti (Duke University Medical Center) as new member of the Review Team for Electrolytes and Blood Gases.
 - Dr. Bruce Davis (Bruce M Davis MD, Inc.) as a new member of the Review Team for Blood Cell Counting and Typing.
 - Dr. Qinde Liu (HSA) appointed as the new leader of the Non-Peptide Hormones Review Team.
 - Dr. Milena Quaglia (LGC, Ltd) appointed as the new leader of the Proteins Review Team.
4. JCTLM Database Content:
As of March 2017, the JCTLM Database contains:
 - 293 available certified reference materials;
 - 184 reference measurement methods or procedures that represent about 80 different analytes in nine categories of analytes;
 - 161 reference measurement services delivered by 17 reference laboratories.
5. The JCTLM Database WG met on 6 December, 2017 at BIPM.



JCTLM WG on Traceability Education and Promotion:

The Working Group on Traceability Education and Promotion (WG-TEP) met on 5 December, 2017 at BIPM. The WG-TEP continues to make good progress with its original work streams (see below).

1. Definitions – This project entailed producing a list of the key terms relevant to traceability in laboratory medicine and their associated formal VIM 3 definitions (when applicable).
Lead – Robert Wielgosz: Status: Complete - The output of this work is available as a glossary on www.jctlm.org
2. Mini-presentations – This project entailed producing a series of 10 presentations each addressing a specific topic related to a scientific concept that is part of traceability in laboratory medicine. Eight webinars are now published on the IFCC e-academy with direct links from www.jctlm.org . The remaining two webinars (on commutability) will be published in 2018. The PowerPoint slides used in the webinars are freely available on www.jctlm.org . Lead – Elvar Theodorsson: Status: Nearly Complete
3. Importance of traceability in laboratory medicine (TLM) to IVD manufacturers – This project involves raising awareness of JCTLM stakeholder membership among IVD manufacturers.
Lead – David Armbruster: Status: Complete
4. Importance of TLM to Patients and the Public – The initial work of the group has been to define the target audience to raise awareness of TLM possibly through “Lab Tests Online” and social media. Presentations on this topic were given in Athens (June 2017), Durban (October 2017) and at the JCTLM Members’ and Stakeholders’ Meeting (December 2017).
Lead – Graham Jones: Status: Ongoing
5. Global significance of TLM – A review article has been published in Clinical Chemistry and Laboratory Medicine. “Traceability in laboratory medicine: a global driver for accurate results in patient care”. Beastall GH, Brouwer N, Quiroga S, Myers GL. Clin Chem Lab Med 2017; 55(8): 1100-1108. Lead – Graham Beastall: Status: Complete
6. Tools for promoting TLM – This project plans to develop a series of educational tools designed to promote the importance of TLM. Lead – Graham Beastall: Status: Ongoing
7. Involving TLM in meetings – This project has two main projects:
 - Raising the profile of TLM in national and international scientific meetings

JCTLM Symposia at Scientific Meetings

- EuroMedLab – Athens, Greece, 14 June, 2017

Title: Traceability in laboratory medicine: what is it and why is it important?

- A. Traceability in laboratory medicine: what every laboratory specialist should know. Gary Myers (USA)
- B. Traceability and harmonization - powerful tools for trueness of laboratory results. Elvar Theodorsson (Sweden)
- C. Why traceability in laboratory medicine is important for patients. Graham Jones (Australia)
- D. Traceability, education and promotion: getting the message out. Graham Beastall (UK)

- IFCC WorldLab Congress – Durban, South Africa, 24 October, 2017

Title: Traceability in laboratory medicine: what is it and why is it important?

- A. Traceability in laboratory medicine: what every laboratory specialist should know. Gary Myers (USA)
- B. Traceability and harmonization - powerful tools for trueness of laboratory results. Elvar Theodorsson (Sweden)
- C. Traceability, education and promotion: getting the message out. Graham Beastall (UK)

- Organizing the JCTLM Members’ and Stakeholders’ meeting

Lead – Graham Beastall and Tony Badrick: Status: Ongoing

WG-TEP website - The new JCTLM website was launched in early February 2017 as www.jctlm.org. Regular news items are posted and the list of available resources is growing. Lead – Graham Beastall: Status: Ongoing

JCTLM Newsletter:

This fourth issue of the Newsletter was released in March 2017 and can be downloaded from the following link: <http://www.bipm.org/utis/common/pdf/JCTLM/JCTLM-Newsletter-2017.pdf>

Joint Committee for Guide in Metrology (JCGM)

Working Group 1 (GUM)

The BIPM Director wrote to the NMIs and MOs that responded to the request for feedback on the draft revision of the GUM (JCGM 100) advising that each of the thousand plus comments they had submitted will receive a response from the working group. Until this task has been completed, further development of options for overhauling the style and technical content of the revised GUM will be deferred. JCGM 103: Modelling measurement data is still in development.

Working Group 2 (VIM)

Joint Committee for Guides in Metrology Working Group 2: International Vocabulary of Metrology met 16-19 May, 2017, Paris. The major focus of the meeting was a detailed consideration of items proposed for inclusion in VIM-4. JCGM has encouraged WG2 to develop a “committee draft” of the next edition of the VIM by the end of 2018 (before the next JCGM meeting) incorporating the VIM3 annotations and a small number of new entries related to nominal and ordinal properties of current relevance to metrology. The WG2 convenor will report on progress at the next JCGM meeting. A considerable amount of time was spent on discussion of the term “unit of measurement”. The WG agreed on a position statement. This is potentially important as a change in definition of “unit of measurement” had also been introduced in the current Draft 9th Edition of the SI Brochure. The WG position statement has been forwarded to those responsible for the SI Brochure.

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. As a selected summary, the certification of three CRMs for Abeta42 is in the final stages, and the materials are expected to be released in the coming months. The autoimmune CRMs for PR3 and MPO ANCA have been released, and work is ongoing for the value assignment of a material for anti-B2GP. For amylase the production of a replacement batch has been started, after a commutability study on different raw materials was performed (manuscript in preparation).

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).

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.

National Institute of Biological Standards and Control (NIBSC)

NIBSC, previously part of the Health Protection Agency (HPA), is now a new Centre of the Medicines and Healthcare Products Regulatory Agency (MHRA) alongside the Clinical Practice



Research Datalink (CPRD). The MHRA is an executive agency of the Department of Health, UK. C. Burns serves as a Consultant to the SD.

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 are that these activities do not overlap with the IFCC SD. In fact, the EFLM WG on “Harmonisation of Total Testing Process” (WG-H) could potentially be synergistic with IFCC standardization / harmonization activities and the ICHCLR initiative. Approaches to avoid overlap and work collaboratively are being discussed and explored.

World Health Organization (WHO)

WHO meetings occur each autumn. Philippe Gillery attends and participates as the liaison from the SD. The most recent WHO meeting occurred on October 16-19, 2017 but PG could not attend the annual meeting in Geneva due to the conflict with the WorldLab meeting in Durban. There may be a significant decision on HbA2 with respect to a reference measurement procedure which then might lead to a proposal for a new reference material. Commutability of the WHO material will need to be carefully considered. Beyond this, the SD decided that there were no new projects or collaborations to consider.

Congresses (WorldLab, Regional and other congresses):

EuroMedLab 2017 - 22nd IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine

Athens, Greece: June 11-15, 2017

Standardization in Endocrinology (Chair: P. Gillery)

1. Clinical needs for standardization in endocrinology (P. Gillery)
2. Standardization of Growth hormone (E. Lentjes)
3. Standardization of Parathyroid Hormone (C. Sturgeon)
4. Standardization of thyroid function tests (L. Thienpont)

WorldLab 2017 - XXIII International Congress of Clinical Chemistry and Laboratory Medicine

Durban, South Africa: October 22-25, 2017

A). Standardization in laboratory medicine beyond clinical chemistry (Chair: P. Gillery)

1. Standardization: a universal need (P. Gillery)
2. Standardization of Hb A2 (A. Mosca)
3. Standardization of autoimmune tests (J. Sheldon)
4. Standardization in molecular diagnostics (D. Payne)

B). Recent advances in standardization (Chair G. Miller)

1. Commutability issues in standardization of laboratory measurement procedures (G. Miller)
2. Standardization of Pregnancy- Associated Plasma Protein A (S. Wittfooth)
3. Standardization of urine albumin assays (L. Bachman)
4. Standardization of CSF proteins (K. Blennow)



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

NOMENCLATURE, PROPERTIES AND UNITS (C-NPU); Chair Robert Flatman (AU)

During 2017 ongoing progress towards C-NPU terms of reference included:

Term of Reference 1. *To continuously provide advice for the management, updating and publishing of the NPU terminology*

Accomplishments include:

1. The NPU Steering Committee continues to provide governance for the NPU terminology through representation from key stakeholders consisting of IFCC, IUPAC and National Release Centre representative, while the C-NPU functions as the technical and scientific expert committee.
2. Karin Toska has now taken over from Robert Flatman as the C-NPU Chair (who had reached the end of 2 terms in the role of Chair). Robert will act as secretary of the NPU Steering Committee, and continues to consult with the C-NPU.
3. The NPU Steering Committee website continues to act as the main governance site (<http://www.npu-terminology.org>) while the NPU terminology itself can be searched from (<http://www.ifcc.org/ifcc-scientific-division/sd-committees/c-npu/npusearch/>). The NPU also holds a Wikipedia page at https://en.wikipedia.org/wiki/NPU_terminology

List planned activities in 2018 for this Term of Reference

1. Continue teleconference and face-to-face meetings of both the C-NPU and NPU SC.
2. Both NPU committees are aware of the need for international outreach wherever possible. Discussions continue at the SC level about possible utility of the NPU terminology within the UK National Health Service (which is currently considering various clinical terminologies for future informatics work) and the IHTSDO to ensure both IHTSDO (SNOMED-CT) and the NPU co-operate efficiently rather than duplicate clinical terminology in the clinical laboratory sciences arena.

Term of Reference 2. *To make recommendations on NPU for reporting clinical laboratory data that conform to or adapt current standards of authoritative organizations and that will improve their utilization for health care.*

Accomplishments include:

1. Project on Molecular Biology terms for the NPU terminology continues, chaired by Ulla Magdal Petersen.
2. Dr Young Bae Lee Hansen has commenced a new project aim to create an online “dynamic” manual for the NPU terminology. This is expected to act as both a user manual and reference, but also as repository for NPU decisions made during NPU scientific meetings.
3. NPU Steering Committee continues to administer and update a strategic plan (key items summarized throughout this report)

List planned activities in 2018 for this Term of Reference

1. Proposed new IUPAC sponsored project – Online NPU Dynamic Manual – still in approval and early planning stages (Chaired by Young Bae Lee Hansen). Aim to create an update to date and informative summary of the NPU terminology for new and existing users.
2. C-NPU continues to review technical issues around use of the NPU terminology from users and national release centres.



3. NPU Steering Committee will continue to review stakeholder, strategic and financial matters.

Term of Reference 3. *To provide a connection with other organizations concerned with NPU, such as the Bureau International des Poids et Mesures (BIPM), the European Committee for Standardization (CEN) and the International Organization for Standardization (ISO), and, by extension, clinical laboratory sciences societies, such as the International Union of Pure and Applied Chemistry (IUPAC), and the in vitro diagnostics industry, to ensure that problems encountered by health care professionals in the area of NPU are considered by those organizations.*

Accomplishments include:

1. C-NPU remains a joint committee with both IFCC and IUPAC representation. Helle Johannessen and Urban Forsum are currently IUPAC representatives. Colin Humphries from IUPAC Exec has continued to attend the majority of Steering Committee meetings and teleconferences.
2. Gunnar Nordin continues to attend BIPM WG2 meetings and provide input into the upcoming VIM4 (International Vocabulary of Metrology).
3. Daniel Karlsson reports to the NPU on IHTSDO/SNOMED-CT related matters. He has also co-ordinated communication with UK NHS representatives that were considering whether to use LOINC, SNOMED or NPU terminology for NHS projects currently in progress. LOINC has been rejected, with SNOMED the most likely choice, however discussions have continued with Daniel and the NPU recognizing the value of the NPU and how might be used in some areas.
4. The National Release Centres of Denmark, Norway and Sweden provide national NPU support for those countries, and are represented both on the SC NPU and C-NPU. The newest centre (Norway and Sweden) have reported very high uptake rates for NPU in their health systems this year, with Norway also requiring use of the terminology for billing as well as reporting.

List planned activities in 2018 for this Term of Reference

1. Continue to work with the NPU National Release Centres to ensure utility of the NPU terminology and review and respond to questions or concerns.
2. Continue communications with external metrology groups (e.g. BIPM WG2), IHTSDO representatives, etc.
3. Continue meetings with NHS representatives as required to consider how the NPU terminology might be used, or any projects with the NHS that might assist with that work.
4. Manage key NPU stakeholder imperatives via on-going NPU Steering Committee meetings

Term of Reference 4. *To act as a consultant group on NPU in clinical chemistry and, by extension, in the rest of clinical laboratory sciences to international scientific panels, regional and national clinical laboratory sciences organizations, editors of scientific journals, manufacturers of clinical laboratory instrumentation and products, and to individual clinical laboratory professionals and other health care professionals.*

Accomplishments include:

- Individual NPU members continue to be active with their societies, particularly in the informatics and terminology arenas
- NPU members from Denmark (Ulla Magdal Petersen, Helle Johannessen), Norway (Karin Toska) and Sweden (Gunnar Nordin) active as key members of their respective national NPU release centres (NRCs)
- Gunnar Nordin has stepped down as CEO of the Swedish QAP (EQUALIS), but continues to be closely affiliated with EQUALIS (also the Swedish National Release Centre for NPU)
- Prof Howard Morris (IFCC President) active on NPU SC and regularly participates in teleconference and face-to-face meetings



- Robert Flatman actively involved in Australia harmonization initiatives and now Vice President “Scientific and Regulatory Affairs” for the Australian Society
- Gunnar Nordin continues to be active within the Joint Committee for Guides in Metrology Working Group 2 (JCGM WG2)

List planned activities in 2018 for this Term of Reference

Continuation of activities described above.

MOLECULAR DIAGNOSTICS (C-MD); Chair: Deborah Payne (US)

During 2017 ongoing progress towards C-MD’s terms of reference included:

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

Accomplishments Include:

1. Updated website on EQA programs with input from various EQA suppliers
2. Added more laboratories for the Molecular Centres
3. Developed and circulated questionnaire geared to evaluate current state of reporting practices for molecular laboratories
4. Sent out survey to network laboratories and other laboratories
5. Compiled data and submitted paper to CCLM

List planned activities in 2018 for this Term of Reference

1. Design survey monkey based surveys to determine the needs of the molecular diagnostic area
2. Merge task force for pharmacogenetics with C-MD and expand projects

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

Accomplishments Include:

1. Submitted research article to CCLM entitled “Toward harmonization of Clinical Molecular Diagnostic Reports: Findings of an international Survey
2. The chair (Dr.Payne) presented findings on the Standardization of Molecular Diagnostics in Durban, South Africa

List planned activities in 2018 for this Term of Reference

1. Develop questionnaire to focus efforts of needs assessment associated with CCLM submitted paper.
2. Send out survey to C-MD members and network laboratories.
3. Send survey out to more laboratories to improve coverage and data capture
4. Translate survey into Spanish to engage more molecular diagnostic laboratories in Latin America
5. Maintain EQA on website

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

Accomplishments Include:

1. Engage Network laboratories in surveys
2. Identified candidate Expert Laboratories and reviewing applications of 10 laboratories
3. Revise requirements for expert laboratories
4. Engaged C-MD members to review articles in for CCLM

List planned activities in 2018 for this Term of Reference

1. Expand expert laboratories
2. Solicit more activity through the use of survey monkey in English and Spanish
3. Improve process for engaging established expert laboratories
4. Change website so that expert laboratories have separate page





Additional Information

The C-MD aims to gain experience with utilizing survey tools to engage the molecular diagnostic community. The C-MD expects that surveys will be a powerful tool to generate discussions on standardization and quality assurance in molecular diagnostics. The participation in the extensive survey was 16 laboratories which was half the number of invited laboratories. The C-MD will make adjustments in future surveys such as decreasing the number of questions, including examples in the questions to enhance clarity, and duplicating the survey into Spanish to entice more laboratories to participate in Latin America. Expanding the number of expert laboratories is a top priority and barriers to membership have been reviewed by the committee. Several laboratories have been identified and will be invited in 2017 but final approval is pending the acceptance of new requirements. Some current expert laboratories have a much higher activity level than other expert laboratories. Encouraging and engaging lower activity expert laboratories would benefit the centers of excellence. A goal of the C-MD committee is capture topics of interest for network and expert laboratories. The C-MD envisions that the use of the survey tool such as survey monkey will help identify quality needs and other needs of the molecular diagnostic community.

The C-MD will merge with the Pharmacogenetics Task force for 2018. The co-chairs Mark Linder and Deborah Payne have requested adjustments to the C-MD membership. The proposal focuses on amending term limits so that full membership is staggered; diversity of expertise and diversity of geographical origin of full members is maintained.

TRACEABILITY IN LABORATORY MEDICINE (C-TLM); Chair: Lothar Siekmann (DE)

During 2017 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:

JCTLM structure and activities:

The JCTLM has about 40 member organizations spread across three categories:

- Executive Committee Members: BIPM, IFCC, and ILAC
- Anja Kessler represents IFCC in the JCTLM Executive since 2017
- National and Regional NMIs
- Stakeholder Members

JCTLM Database WG:

The JCTLM Database WG (chair: Gary Myers) has been restructured. Three analyte groups were formed:

- Analyte Group 1: drugs, metabolites and substrates, non-peptide hormones (chair: Qinde Liu)
- Analyte Group 2: blood cell counting and typing, coagulation factors, enzymes, infectious diseases, nucleic acid, proteins (chair: Mauro Panteghini)
- Analyte Group 3: electrolytes and blood gases, non-electrolyte metals, vitamins and micronutrients (chair: Karen Phinney)

The main output of the JCTLM is the global database of

- higher order reference materials
- reference measurement methods/procedures
- reference measurement services

This database is freely available: www.bipm.org/jctlm/

JCTLM Education and Promotion WG:

JCTLM WG-TEP was founded in 2016. A website (<http://www.jctlm.org>) has been created by WG-TEP. The aim of WG-TEP is to produce and promote educational materials to demonstrate the value of traceability in laboratory medicine as a means to reduce between method variability in the interests of improved clinical outcomes and patient safety.

Review Teams:

The judgment of nominations of reference methods, materials and reference measurement services is the mandate of JCTLM Review Teams. Each Review Team is responsible for a particular group of measurands, e.g. electrolytes, metabolites and substrate, hormones, proteins, etc.

In view of the small number of Review Team members from the field of laboratory medicine it would be desirable to encourage colleagues to actively support this task by applying for membership.

The C-TLM supports the JCTLM, which was established about 14 years ago by the IFCC, the BIPM, and the ILAC. All details are available on the JCTLM website: www.bipm.org/jctlm/.

The JCTLM Working Group Data base received nominations for listing of reference measurement procedures, reference materials and reference measurement services every year. These are evaluated by Review Teams which are responsible for the different groups of measurands (e.g. metabolites and substrates, electrolytes, hormones, therapeutic drugs, etc.). The review teams report to the Data Base working group. Based on the proposals of the review teams and the working group chairs the JCTLM Executive decided in its meeting on December 5 - 6, 2017 on the listing of reference materials, methods and services.

a) Reference materials

Reference materials are usually proposed by National Metrology Institutes. The submitted documentation is checked first by the review teams according to the requirements laid down in ISO 15194.

b) Reference measurement procedures

The documentation submitted for listing of reference measurement procedures is checked according to the requirements described in ISO 15193 by the review teams.

c) Reference measurement services

Applications of a reference laboratory for each particular measurand are checked according to following requirements by the review teams:

- The applied reference measurement procedure should be published and it should meet the requirement of ISO 15193 and accordingly listed by the JCTLM.
- The laboratory must demonstrate accreditation as reference/calibration laboratory in laboratory medicine according to ISO 15195 and ISO 17025.
- The laboratory must participate in a collaborative survey (RELA) at least once per year in the respective group of measurands and for each individual measurand at least once in a time frame of three years.

The C-TLM RELA-consultant Dr. Anja Kessler supported the JCTLM activities by giving a presentation at the JCTLM stakeholder meeting 2017 and reporting deficiencies of some laboratories in regular participation in collaborative surveys.

List planned activities in 2018 for this Term of Reference:

The C-TLM will continue to support the JCTLM activities.

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:





IFCC External Quality Assessment for Reference Laboratories (Dr. Anja Kessler):

RELA ring trials are currently provided for 36 measurands. The results of RELA 2016 were published on the website (www.dgkl-rfb.de:81) in July 2017. 48 laboratories participated in RELA 2016 and the organizer received 361 results from these laboratories.

The shipment of samples to different provinces of China was difficult in the past due to the regulations of customs. Therefore, now the organizer sends out several requested documents in advance to overcome the delay at the customs offices.

The following are some comments on the results of RELA 2016:

- For CK, a large dispersion of the results was observed. One proposal of the participants is to send out separate samples for this measurand. The organizer will check the feasibility of the proposal.
- Until further notice, the limits of equivalence (LoE) are set to 7.5% for 250H-Vitamin D3.
- The agreement of the results for TT3 is unsatisfactory. Linda Thienpont (chair C-STFT) is to be contacted for further discussion.
- The agreement of the results for E3 is unsatisfactory as well. The aim is to bring the laboratories together and look for causes. It may be useful to replace calibrators.

The question that has been asked is what options exist for dealing with discrepant results or outliers and how the quality level of reference systems could be ensured. Various ideas were discussed (contacting, exchange of calibrators) and should be substantiated at the next meeting.

Planned activities in 2018 for this Term of Reference

The RELA ring trial system will continue its activities to provide a basis for comparison of reference laboratory results and try to collaborate with the CCQM key comparisons of the OAWG whenever this is possible.

The most recent collaborative survey (RELA 2017) has been started in October 2017. Results will be available in July 2018.

Term of Reference 3. *To promote establishment and maintenance of IFCC reference laboratory networks for clinically relevant measurands.*

Accomplishments include:

HbA1c Network (C. Weykamp):

As in previous years the network organized 2 inter-comparison studies with participation of the approved and candidate network laboratories and the designated comparison method networks in the US, Japan and Sweden. The aim was a) to re-approve the network laboratories, b) to approve candidate laboratories, and c) to confirm the master equations with the harmonization systems. All approved network laboratories kept their approval and master equations were confirmed. Candidates Reference Institute for Bioanalytics in Bonn, Germany and Fleury Laboratories in Sao Paulo, Brazil passed criteria and gained the status of approved network laboratory. There are now 18 approved network laboratories.

In December 2016 there was a network meeting in Shanghai, China where technical knowledge was exchanged. The next network meeting was foreseen in Durban, South Africa during IFCC WorldLab, but as many laboratories will not go it was decided to postpone to 2018 during the AACC annual meeting in Chicago.

For educational activities the network collaborates with the IFCC C-EUBD. Some of the activities are a) symposium on HbA1c in Shanghai, China, b) satellite symposium EuroMedLab in Sounio, Greece) satellite Symposium IFCC WorldLab, Cape Town, South Africa. Also a multinational project was organized in 2016: national EQA organizers in 15 European countries shared 2 samples in the so called EurA1c project. Results allow comparisons per country or even per manufacturer. The study was repeated in 2017. Results reveal that the differences per country are limited and confirmed that performance in terms of bias and between laboratory CV improved throughout the years.

Planned activities in 2018

The HbA1c network will continue its activities in 2018.

Term of Reference 4. *Traceability of total protein measurement results*

Accomplishments include:

No update is available at this time.

Additional Information:

1. Present state of Implementation of the Concept of Traceability in:

- Europe:

In the Netherlands the implementation of the IFCC enzyme procedures is not mandatory for the IVD manufacturers. Therefore, a separation of the results into two groups can be observed.

In Germany, the requirement of the German Medical Association is mandatory for all routine laboratories and prescribes the implementation of reference measurement systems for several measurands. EQA providers have to assign traceable target values to the control materials used in EQA schemes.

- North America:

H. Vesper reported on the current situation in the USA. Today, the FDA requires the manufacturer to compare with reference measurement methods. This is an important change in practice before. The importance of standardized methods is politically supported to ensure traceability. Further education supports the progress of the process.

2. CDT Network (C. Weykamp):

In 2016 the mission of the IFCC Working Group on standardization of CDT (an alcohol of abuse biomarker) was completed and the WG was disbanded. To warrant sustainability of the reference measurement procedure and to implement standardization of patient results, the IFCC Scientific Division asked to start a network similar to HbA1c. This was initiated in an airport meeting in Amsterdam in January 2017 and confirmed during EuroMedlab in June 2017. A first inter-comparison study with participation of 7 potential network labs and 6 manufacturers was organized and results were discussed during a meeting at EuroMedLab. The manufacturers expressed commitment to the reference measurement procedure. The analytical aspects of the network are supervised by IFCC C-TLM (the network coordinator will report to C-TLM).

REFERENCE INTERVALS AND DECISION LIMITS (C-RIDL); Chair: Yeşim Özarda (TR)

During 2017 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:

An indirect reference interval study of biochemical parameters was conducted in Turkey to compare alternative approaches (conventional and big data) for the determination of reference intervals and presented in Athens in June in conjunction with EuroMedLab. The direct reference intervals study in Nepal was completed as a part of global reference interval study.

A reference interval study in Canada was conducted to determine 'Harmonized reference intervals for 24 common biochemical parameters' with the support of the Canadian Society of Clinical Chemists.

Another important issue discussed in Athens was whether or not the reference interval is required when the clinical decision limit is available in clinical guidelines. To avoid confusion, it was concluded that it is necessary to clarify the differences between reference intervals and clinical decision limits.

List planned activities in 2018 for this Term of Reference

The indirect reference interval study in Turkey will be completed to compare alternative approaches for the determination of reference intervals with data obtained from the global study. The data from 7 geographical regions of Turkey will be included.





The indirect reference interval study in Canada will be completed for the determination of indirect reference intervals.

Two opinion papers will be published, entitled (1) “The differences between Clinical Decision Limits and Reference Intervals (2) “Indirect methods for reference interval determination”.

C-RIDL also supports working with CLSI for a proposal to update EP28-A3c (formerly C28-A3c) after some of the current C-RIDL papers are published. After publication of indirect reference intervals papers, the attempts for updating the C28A3 guideline will be initiated as a CLSI-IFCC joint project.

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:

Two papers were published in Clinica Chimica Acta about the results of Global Reference Intervals Study performed by C-RIDL: “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.

Instead of creating a website, the 2 published papers were downloaded on the web-page, as country-specific reference intervals 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 (see Publications).

List planned activities in 2018 for this Term of Reference

The findings of the Global Reference Interval Study will be confirmed and compared by an indirect study performed in Turkey. 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. The main age was 18-65 years, although older healthy individuals were also included. The list of analytes was published by CCA and age-related changes in the reference values were nearly consistent across the countries.

List planned activities in 2018 for this Term of Reference

The above findings will be compared by an indirect study conducted in Turkey, as Turkey was an important part of the Global Reference Intervals study including more than 3000 healthy individuals. In the indirect study, again 7 geographical regions will be included and data of 10 laboratories will be evaluated and then compared with the direct data obtained from the global study.

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 2018 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:

At the Athens (EuroMedLab) and Durban (WorldLab) 2017 meetings, the transference and verification protocols of reference intervals were discussed which take into consideration inter-routine laboratory method variations and achieve better applicability in clinical practice.

List planned activities in 2018 for this Term of Reference

A publication including an opinion paper and/ or a protocol for transferring and verifying will be prepared for the clinical laboratories.

Term of Reference 6. *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 new member of C-RIDL, Thomas Streichert from Germany, is also a member of the German Association of Clinical Chemistry and Laboratory Medicine (DKLG), and introduced their current projects namely, 'Integration of indirect reference intervals into laboratory information systems and pediatric reference intervals using Reference Limit Estimator' at the Athens meeting. The other new member of C-RIDL, Ken Sikaris from Australia, is also a member of the Australasian Association of Clinical Biochemists (AABC) and introduced their previous studies entitled 'Harmonizing Adult and Paediatric Reference Intervals in Australia and New Zealand'. These are the most important studies in this area, and the C discussed new projects in light of this background.

List planned activities in 2018 for this Term of Reference

In the indirect reference intervals studies previously conducted and the studies to be initiated by C-RIDL, the data will also be evaluated by the method introduced by DKLG known as the 'Reference Limit Estimator'. The data of direct and indirect reference intervals from Turkey will be used for harmonization of reference intervals.

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:

No action was taken on this Term of Reference.

List planned activities in 2018 for this Term of Reference

In the indirect reference intervals study, the data for the pediatric age group will also be evaluated and 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 obtained from the CALIPER study.

STANDARDIZATION OF THYROID FUNCTION TESTS (C-STFT); Chair: Linda Thienpont (BE)

During 2017 ongoing progress towards C-STFT terms of reference included:

Term of Reference 1. *To develop reference measurement systems for free thyroid hormones and TSH.*

Accomplishments include:

1. The free T4 reference measurement system/reference measurement procedure (RMP) was already accomplished in 2011. The free T3 reference measurement system, particularly the free T3 RMP was not further optimized to become publishable and finally put to voting by the IFCC Society members, because the IVD industry was not interested, however, tackling this task is still an option, maybe after establishment of the network of reference laboratories (see term of reference 2).



2. For TSH a reference measurement system based on the “all-procedure trimmed mean (APTM)” calculated by Factor Analysis (FA) was already established in 2013.
3. Both free T4 and TSH reference measurement systems were implemented in 2015-‘16 by performing the Phase IV studies, i.e., the final method comparison studies with panels of clinically relevant samples (called the free T4 standardization and TSH harmonization panel) intended to technically recalibrate the FT4 and TSH assays and supply the proof-of-concept.
4. The first follow-up panel for TSH was also assigned APTM targets in parallel with the harmonization panel. It follows that the follow-up panel has exactly the same uncertainty as the very first harmonization panel and its traceability to the latter is ensured. It is stored at NIBSC.
5. The free T4 follow-up panel is meanwhile also value assigned with the IFCC conventional RMP at Ghent University. Concentrations range from 4.2 – 202 pmol/L (n = 95). The C also confirmed homogeneity of these samples. The samples are stored at the NIBSC.
6. Two manuscripts describing the results of the final method comparisons, the outcome of the recalibration exercises and proof-of-concept studies (= reference interval (RI) studies), one for TSH, one for free T4 have been published in Clin Chem. (see <http://clinchem.aaccjnls.org/content/63/7/1248> and <http://clinchem.aaccjnls.org/content/63/10/1642>).
7. The last new company (Wako-Sanyo (joint-venture), Japan) has successfully finished the Phase IV study and received its final reports. The results were included in the presentations given by the chair in the annual meeting at EuroMedLab Athens. Note that this brings a total of 15 IVD companies in collaboration with C-STFT.
8. The first phase of the isochronous stability study of the free T4 standardization and TSH harmonization panels ended in June 2017 (24 months of storage), but the monitoring will be pursued (36, 48 and 60 months of storage). The measurements for the first phase study were done by one of the participating manufacturers. They showed that the samples can be considered stable when stored at -70°C up to 24 months.
9. The certificates for both the FT4 and TSH follow-up panels have been written. They also include guidance on how to use the panels and the targets for recalibration of new FT4 and TSH assays.

List planned activities in 2018 for this Term of Reference

1. Once the network of reference laboratories for free T4 is established (see below), new method comparison studies with specific patient groups can be initiated (see term of reference 5); however, this will be a task for the next chair.

Term of Reference 2. *To establish a network of laboratories competent to offer reference measurement services for thyroid hormones.*

Accomplishments include:

1. The four potential partners within the network met during EuroMedLab Athens. These are: Ref4U (K. Van Uytvanghe), CDC (H. Vesper), Radboud University Medical Center of Nijmegen (T. Van Herwaarden), the Reference Material Institute for Clinical Chemistry Standards (ReCCS) of Japan (H. Umemoto). They discussed the organization of the network itself, the implementation of the IFCC RMP and the road ahead. A report of the discussion was sent out for review to all participants.
2. To evaluate the implementation of the IFCC RMP in the different partner labs, UGent has assembled a panel of 20 frozen sera from presumably healthy subjects, and assigned it with free T4 concentrations by the IFCC RMP. The samples are stored at -70°C. These samples were shipped to the above potential partners within the network for validation of their performance.
3. The above mentioned samples were used in a first method comparison with the laboratory of the Radboud University Medical Center. The outcome looks promising; however, the lab of the candidate network member still has day to day variation that is too high. The

laboratory agreed to further optimize the implementation of the IFCC RMP. UGent is involved in the optimization experiments.

4. Also at CDC and ReCCS the implementation of the FT4 IFCC RMP has been initiated. Results for the preliminary method comparison (on the aforementioned samples) are still to be expected.
5. The design of the factual inter laboratory comparison (final proof-of-concept) amongst the 4 members has also been fixed during the aforementioned meeting. The comparison is planned early 2018. A set of 40 samples, comprising hypo-, eu- and hyperthyroid donors will be measured by all partners.

List planned activities in 2018 for this Term of Reference

1. The activities of 2017 to establish a network will be continued.
2. The collection of a new panel of 20 samples (with sufficient 1-mL aliquots) has been finalized. It is intended for measurement by all members of the network (UGent, CDC, Radboud, ReCCS) as final proof-of-concept (see “5” in the previous section). For the clinical samples, repository samples from the sample collection of the Phase IV and follow-up panels will be used. The Radboud University Medical Center of Nijmegen offered to collect additional samples if needed.
3. Targeted aliquots of the new panel will be put at the disposal of all network members, and can be used for IQC purposes (accuracy and precision) in future measurement activities of the network.
 - The laboratories of the established network will annually prove that they measure in sufficient agreement, so that each of them is entitled to offer services to the IVD industry, when needed.

Term of Reference 3 and 4. *Term of ref 3: To provide an infrastructure for procurement of serum panels and Term of ref 4: Demonstrate that the traceable assays can use a common reference interval; use this as a basis for further elaboration of the reference intervals by the IVD manufacturers; consult with clinicians about the need for ethnic, age- or sub-population-specific reference intervals in co-operation with C-RIDL.*

Accomplishments include:

Term of ref. 3: In order to source samples for the final method comparisons (Phase IV) and the samples for the RI studies, the C already established in 2015 a relationship with 2 commercial vendors but also with several clinicians.

They are:

- - in.vent Diagnostica GmbH (Germany)
- - Solomon Park Research Laboratories (USA)
- - University Hospitals of Ghent, Louvain & Brussels
- - General Hospitals Maria Middelaes (Ghent) and Sint-Jan (Bruges) (all from Belgium)
- - Dokkyo Medical University (Japan)
- - University of Sydney (Australia).

It is the aim to sustain this infrastructure.

–A questionnaire was sent out to all participating manufacturers to find out their view on the destination of the FT4 standardization and TSH harmonization panels (there are some leftovers), the FT4 and TSH follow-up panels, and the leftovers of the RI panels. Note about the FT4 and TSH RI panel: each IVD manufacturer was entitled to receive 2 aliquots of each, but obtained until now only 1 aliquot; this was because the group had decided before that the 2nd aliquot should be used for a 2nd measurement at the time that the standardized/harmonized assays are implemented; the results for the 2nd measurement should enable the manufacturers to control whether the RI remained stable. The questionnaire asked the manufacturers whether they think that the fact that they funded the panels gives them the proprietary rights (=option 1), or whether they agree that the samples can be made available to new manufacturers who want to join the C-STFT



activities (+ how much should be charged?) (=option 2). Another question was about their view whether storage of the samples (panels and 2nd aliquot of the RI study) should be continued at the NIBSC or at their own facilities (in case they opted for option 1).

The majority of the companies (66% of the replies received) consider that the follow-up panels belong in first instance to the companies-sponsors of the C-STFT activities (= option 1); however, most (again 66%) also consider that the panels should be within reach of potentially new company entrants (= option 2). A solution was suggested to join both options (see below).

The final conclusions can be summarized as follows:

1. as per advice of the majority, at least one set of samples of each of the follow-up panels should be reserved for the companies-sponsors;
2. sets should be made available to new company entrants;
3. sufficient aliquots should be set aside for making the link between the 1st and 2nd TSH follow-up panel;
4. a fair price should be fixed for the new companies to obtain a set of the follow-up panels, e.g., representing only a part of the original cost, but not prohibitive for small companies to purchase them. The current chair suggests that the new chair consults with the IFCC SD Chair on this topic;
5. storage of the follow-up and RI panels will be continued in the facilities of the NIBSC.

Term of ref. 4: The pilot RI study is completed and the results are incorporated in the above mentioned manuscripts. The message in the manuscript is that our studies provided the proof-of-concept that common RIs are feasible for assays with calibration traceability to the free T4 and TSH reference measurement systems. Particularly, the TSH proof-of-concept was convincing, while that for free T4 might need some improvement.

List planned activities in 2018 for this Term of Reference

In spite of the positive outcome of the reference interval studies, the message of C-STFT is: “our pilot reference interval studies are not the endpoint, because “common RI” does not mean “one size fits all-RI”. It is the ideal starting point for manufacturers to verify accordance of their individual RIs with accepted consensus standards, and establish, if needed, high quality reference ranges, accounting for between-population, clinical or biological differences”.

Term of Reference 5 and 6. Term of ref. 5: Liaise with key stakeholders to implement the use of the traceable assays in routine clinical practice. Term of ref. 6: Through collaboration with IFCC EMD, provide educational materials for manufacturers, clinicians and patients which will support the implementation of traceable assays.


Accomplishments include:

Term of ref. 5:

C-STFT identified who is involved as stakeholder, i.e., IVD manufacturers laboratories (and their societies/associations), clinicians/nurses (& their societies/associations), patients (Thyroid Federation International), international/national regulators (in the broader sense). First contacts were established, among others with representatives of the clinical laboratory profession, regulatory agencies (e.g., the US FDA, the Chinese FDA), professional societies, physicians and their patients. This was not only done to increase awareness on the work of the C-STFT, but also to seek input for the risk-benefit analysis. The chair together with G. Beastall and J. Faix published a letter in several journals and on the website of clinical and laboratory societies, as well as a survey among the members of AACC Endocrine Division. As suggested by the title of the letter and survey, input was requested from physicians, laboratory directors and patients regarding their views on the benefits and risks arising from TSH harmonization and FT4 standardization and thus changes in RIs.

In addition, questionnaires were sent to all levels of stakeholders: manufacturers, laboratories, endocrinologists and general practitioners.

From the different interactions at this point of time it can be cautiously concluded that, when



important changes in RI occur (i) there are well-established communication chains amongst all stakeholders, (ii) all sources of communication are used (reviewed literature, newsletters, circulars, oral communications ...), (iii) all opportunities to communicate (in meetings and workshops, through the intranet, the LIS ...). In addition, it seems that (iv) the benefits of standardization/harmonization are understood and considered valuable by all stakeholders, (v) the potential risks are mainly related to patient safety and clinical outcomes (issues may arise as a consequence of changes in the numerical values for patients with thyroid diseases, despite appropriate adjustments of the RIs), however, (vi) users are in general familiar with handling changes in numbers and RIs, so that they consider it unlikely that changes will not be captured, hence, that there is minimal risk for the patient.

Two new tools were developed to monitor the stability of the post-standardization/harmonization calibration basis of the assays (called the Percentiler and Flagger). They are intended to prevent risks due to non-sustainability of the new calibration basis. The tools and their utility to the purpose meanwhile are published. Efforts to recruit more laboratories to have reliable peer groups of all systems involved in the C-STFT activities are ongoing. At this point in time there are 79 participants. The C-STFT relies on the support from manufacturers to increase the number of participants. More experience will be built by applying the Percentiler and Flagger.

In addition, C-STFT and IVD industry are in close contact with the FDA to comply with the regulatory requirements upon implementation of the recalibrated immunoassays. For most TSH assays the changes after harmonization will be within 10% and within the limits for acceptable changes currently set by the manufacturers. In this case, internal documentation will be sufficient to obtain a new FDA clearance. For this purpose the TSH manuscript discussing the harmonization effort and the establishment of a common RI, can be part of the documentation. No date for final implementation has been fixed.

With regard to the dissemination of our work, the AACB organized a harmonization workshop, 17-18 May 2017, Sydney, Australia. It was entitled: "Thyroid harmonization symposium: changes in thyroid function tests – values and RIs". They invited several representatives of our industry partners, among others Dr. M. Patru, to represent the C-STFT. All gave their view on the future actions they will undertake. The discussion also included the view of the audience of pathologists and scientists. In a final vote the latter were supportive of TSH harmonization and FT4 re-standardization. However, a matter of concern remains with standardization/harmonization of the assays for use in thyroid testing of special patient populations like pregnant females and patients with the NTI syndrome.

List planned activities in 2018 for this Term of Reference

The above activities of 2017 will have to be continued and expanded to prepare healthcare providers/receivers for the significant changes in values for thyroid function testing that will be introduced. The outreach program to inform and educate healthcare providers/receivers needs to be structured. Particular attention should be paid to the question of whether harmonization/standardization as achieved now will also diminish assay differences for important clinical populations (e.g., pregnancy, NTI, or elderly).

The above was discussed during the meeting at the 2017 IFCC EuroMedLab in Athens, Greece (11 June – 15 June 2017) on June 13 2017.

A brief summary of the meeting can be found here:

The achieved milestones during the Phase IV studies were explained and discussed.

With regard to the proprietary rights, the availability for new IVD manufacturers and the storage facilities of the leftover aliquots from the standardization, harmonization, follow-up and RI panels, the manufacturers could not answer without consulting their respective managements. Therefore, it was decided to contact the manufacturers at a later stage to find out their preferences. This is described under the 'planned activities in 2017 for the term of reference 3 and 4'.

Concerning the impact and significance of recalibration on laboratory results and RIs, it is generally concluded that the two Phase IV publications will be a good basis for discussion with



all the involved stakeholders. Moreover, the data in the publications can be used to demonstrate the possible outcome to the customers when they follow the recommendations. However, it has to be admitted that the discussion for FT4 will be more difficult than for TSH. It is also suggested to have a panel discussion with endocrinologists or clinicians at the next meeting, to hear their opinion on the problems they encounter when working with different laboratories (and assays). Another big issue is the patient safety after standardizing/harmonizing the assays, because the patient is actually the “final customer” of thyroid function tests. Also, different groups have to be addressed when communicating changes in assays and RIs, such as: endocrinologists, GPs, textbooks, EQA/PT organizers, different guidelines, etc.

It was also discussed whether the C-STFT should help in minimizing/waiving the identified risks. Up to now, it has been the idea that the C-STFT would coordinate the implementation of the standardized/harmonized assays, which should be done by all participating IVD manufacturers worldwide and at the same point in time. Nevertheless, it will be difficult to coordinate rolling out all the standardized assays at the same time. But on the other hand, the stakeholders might not appreciate a different timing among the different manufacturers. As a compromise, it is proposed that the implementation for FT4 and TSH should not necessarily be done at the same time. The attendees agreed that for TSH the implementation of the harmonized assays should be straightforward (only minor changes for most manufacturers, so less risk should be involved) and that lessons can be drawn from the TSH experience, which should allow a smoother implementation of the FT4 assays. Last but not least, the regulatory bodies should not be forgotten in order to obtain proper coordination.

Several IVD representatives added that there are certain reasons that make setting timelines difficult, but that this does not mean that they are reluctant to do the implementation of the standardized/harmonized assays. One reason is that IVD companies take the cost/benefits into account, which sometimes results in competing priorities. Moreover, it should not be forgotten that the timeframe that will be needed for the implementation will be different among manufacturers depending on the changes they have to make to their assays.

Next, the sustainability of the new traceability basis was discussed. It was recalled that for the US FDA it was a requirement that the sustainability of the new traceability basis is demonstrated. The Percentiler application can be used as a tool to monitor the sustainability of the new traceability basis. As an alternative, there is the possibility of using EQA/PT schemes, but then under the condition that commutable samples are used.

With regard to education of involved stakeholders, it is obvious that invitations to present on the work by C-STFT to stakeholders will be accepted.

The C also updated the sections ‘achieved milestones’ and ‘way forward (now ‘the way towards implementation’ in the section ‘read more’) from our website <http://ifcc-cstft.org>.

HARMONIZATION OF AUTOANTIBODY TEST (C-HAT); Chair: Joanna Sheldon (UK)

During 2017 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:

This is a complex task for the C-HAT but will need to be addressed otherwise there will be no evidence based progression for autoantibody measurements, or harmonization or standardization. It is also a technically difficult area and current members do not have the epitope mapping (the most likely source of variation) capability within the committee. The chair contacted 2 clinicians with publications in this field to see whether they would be prepared to collaborate to help investigate the epitope coverage of the relevant antigens within ERM DA 476/IFCC and ERM DA 483/IFCC – a response is pending.

Xavier Bossuyt reported on his large study on the potential impact of the reference materials on comparability of IgG anti MPO and IgG anti PR3 measurements. It was reported that some methods did show comparability but others did not; they concluded that it would not be possible for all assays to show the same cut-off values.

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

Accomplishments include:

IgG anti glomerular basement membrane and IgG and IgA anti TTG antibodies are generally considered to be the next important antigens where a common reference material would be beneficial.

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

Accomplishments include:

ERM DA 483/IFCC IgG anti proteinase 3 antibodies was certified in February 2017.

A further commutability study for B2GP1 candidate reference material is in progress (Jan 2018).

List planned activities in 2018 for this Term of Reference

FDA and CE: The widespread adoption of these reference materials depends on having FDA approval and without this, companies have little incentive to use them.

Discussions with the FDA are complex and laborious. The C had positive messages that the FDA realizes the importance of common reference materials for the autoantibodies and if the C can achieve standardization for these complex analytes it will enable other clinical groups with comparable assays (e.g. antibodies to infectious agents) to consider standardization. However it has been rare to progress from this position. The plan is to continue to discuss with FDA and try to identify exactly what are the barriers for this to progress.

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

- information packs and presentations are in preparation:
 - to show the value of a certified reference preparation (for companies and providers of the service)
 - to ensure a consistent message about ERM-DA476/IFCC
 - to inform users of how it is best implemented
 - to suggest that values could be reported in their kit units and in mg/L
 - a conversion factor will not be appropriate

EQA: The transition and the changes will affect EQA providers and performance. EQA is one of the mechanisms that can be used to assess the impact of standardization. The C is currently in discussion with the UKNEQAS and CAP and actively seeking contact with other EQA providers

Communication: To use the presentations to disseminate information about ERM-DA476/IFCC to:

- Regulatory bodies
- Professional societies
- Clinical groups
- Accreditation bodies
- EQA providers
- Patient groups
- Attendance at meetings
- Modena, IFCC – Paris, EULAR – Rome, Dresden, Leipzig

Time scale: ERM-DA476/IFCC is now 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 into pack information will be a major task for companies. It is likely that this will take some years.

Further projects:

Anti GBM antibodies: Plasmapheresis material is available – plan to move when MPO and B2





GP1 have progressed.

Anti TTG antibodies:

There have been strong requests for the C to make a reference material for IGG and IgA anti tissue transglutaminase antibodies – currently under consideration.

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 encouraged by letter and in presentations all companies not currently members of the IFCC to become corporate members.

WORKING GROUPS

STANDARDIZATION OF HEMOGLOBIN A₂ (WG-SHbA₂); Chair: Andrea Mosca (IT)

During 2017 ongoing progress towards WG-HbA₂ terms of reference included:

Term of Reference 1. *To promote the standardization of hemoglobin A2 measurement through the definition of an international reference system, including a reference measurement procedure and primary and secondary reference materials.*

Accomplishments include:

All the experimental validation measurements have been accomplished. A draft of the paper to be submitted to the IFCC Scientific Division for the publication in Clin Chim Acta is almost ready. A third team expert in MS has been involved after the EuroMedlab meeting in Athens (Dr. Quinde Liu, Singapore, as from the IFCC website). They will perform the novel Reference Measurement Procedure (RMP) as soon it will be published and will be able to participate in future certification trials.

List planned activities in 2018 for this Term of Reference

Publication of the RMP.

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

Accomplishments include:

Experimental work has been accomplished, proving that the present routine methods are not aligned and that the inter-method variability could be improved by performing a common calibration using commutable control materials, such as those planned to be produced in

collaboration with the JRC (Geel, BE). The only presently available control material from WHO has been proven not to be commutable for the majority of routine methods.

List planned activities in 2018 for this Term of Reference

Developing the preparation of a Certified Reference Material at two levels in collaboration with the JRC.

STANDARDIZATION OF CARBOHYDRATE-DEFICIENT TRANSFERRIN (WG-SCDT); Chair: Jos Wielders (NL)

During 2017 ongoing progress towards WG-CDT terms of reference included:

Term of Reference 1. *Definition of the analyte and standardization of the nomenclature*

Accomplishments include:

The analyte was defined years ago. In 2017 several manuscripts were published outlining standardized CDT-IFCC.

List planned activities in 2018 for this Term of Reference:

Promote the use of the standardized CDT_{IFCC}.

Term of Reference 2. *Preparation of reference material and selection of reference method*

Accomplishments include:

The reference material was developed in 2014. No further actions in 2017.

List planned activities in 2018 for this Term of Reference

No additional activities are needed.

Term of Reference 3. *Establishment of appropriate reference intervals*

Accomplishments include:

The reference interval and a decision limit in forensic use have been formally established and explained in the 2017 publications.

List planned activities in 2018 for this Term of Reference

No additional activities needed, only support of ongoing policy.

Term of Reference 4. *Supporting the development of guidelines for clinical use of CDT assays*

Accomplishments include:

This is a local activity and responsibility of medical societies, which can only be supported or influenced by WG members. Activities are ongoing in a. o. Sweden, United Kingdom and the Netherlands.

List planned activities in 2018 for this Term of Reference

Ongoing local activities will be continued and broadened to other countries where possible.

Additional Information:

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
- Promoting the incorporation of the use of CDT_{IFCC} in guidelines concerning prolonged excessive alcohol consumption

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 M. Bachmann (US)

During 2017 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
4. Assess utility of candidate reference materials for use in standardization of routine measurement procedures.

A joint NKDEP/IFCC WG-SAU meeting on August 1st, 2017 held in conjunction with the AACC annual meeting in San Diego, CA took place. A manuscript describing recommended total allowable error, precision and bias goals for UA was published (see Publications). The recommendations are based on published data for intra-individual variation, and precision/bias data generated from the WG-SAU urine albumin harmonization study. Between-day CV goals of $\leq 6\%$ above 15 mg/L, specimen-specific influences $\leq 6\%$ were based on performance observed in the harmonization study and total allowable error was based on intra-individual variation estimates. Bias goals of $\leq 7\%$ (optimal) and $\leq 13\%$ (desirable) were recommended.

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 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 unfrozen and frozen aliquots were shipped to 10 manufacturers for albumin measurement. Median bias for frozen vs. unfrozen 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 2018 for this Term of Reference

The WG-SAU intends to complete data analysis for the urine albumin freeze/thaw study and pursue publication submission in the Spring of 2018.

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 Function Laboratory (John Lieske) and NIST. It is anticipated the NIST procedure will enable assessment of the molecular forms of albumin in urine that may be of importance in the specificity requirements for routine measurement procedures. 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, John Eckfeldt and a team from the University of Minnesota have expressed interest in developing a publically available reference measurement procedure for UA. To pursue this goal, Univ of Minn has received NKDEP funding to purchase 15N human albumin for use as an internal standard for method development.



NIST and Mayo continued to perform development of their candidate reference measurement procedures. Updates, coordination and future planning for these activities were the main topics of discussion at the 2017 WG-SAU meeting held in conjunction with the NKDEP Lab Working Group during the AACC annual meeting on August 1st, 2017. Minutes of the meeting can be found at <https://www.niddk.nih.gov/health-information/communication-programs/nkdep/workinggroups/laboratory/meeting-summaries>.

List planned activities in 2018 for this Term of Reference

NIST and Mayo will continue to develop and validate their reference measurement procedures and will work identifying sources of disagreement among the methods. In addition, the Univ of Minn will pursue development of a candidate reference measurement procedure.

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

Accomplishments include:

SRM 2925 Human Serum Albumin is a primary certified reference material for use with higher order reference measurement procedures for albumin. It is solid 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.

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, and 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 2018 for this Term of Reference

The frozen pooled urine samples for preparation of NIST SRM 3666 will be procured in 2018. The WG-SAU will continue to facilitate development of NIST SRM 3666.

STANDARDIZATION OF PREGNANCY ASSOCIATED PLASMA PROTEIN A (WG-PAPP A); Chair: Saara Wittfooth (FI)

During 2017 ongoing progress towards WG-PAPPA terms of reference included:

Term of Reference: *Develop a reference system for standardization of PAPPa measurement employed as marker for prenatal screening.*

Accomplishments include:

Reactivation of the work of the WG: work continued with a study to investigate the commutability of materials of pooled pregnancy sera from 2nd and 3rd trimester diluted in different diluents with commercial PAPP-A tests aimed for prenatal screening. For this study plan sample materials have been prepared and shipped to the participating companies.

List planned activities in 2018 for this Term of Reference

For the ongoing study, the samples to be analyzed will be performed by the various companies participating and the results to be analyzed at the University of Turku.

Plans will be made for continuation of the work when the results are available of the ongoing study.

GROWTH-HORMONE (WG-GH); Chair: Eef Lentjes (NL)

During 2017 ongoing progress towards WG-GH terms of reference included:





Term of Reference 1: *To achieve standardization of growth hormone through secondary reference materials and a reference measurement procedure.*

Accomplishments include:

A pilot study was started testing commutability of potential GH calibrators among 25 individual patient samples. Several potential calibrators were included: pools of patient sera and the WHO standard IS 98/574 in a serum matrix. All available routine methods were included and also a LCMS-MS method.

The results of the LCMS-MS have not yet been completed, but all other results have.

It can be concluded so far that for the analysis with the immunoassays only a single pool was commutable. Patient pools are probably not a good basis for obtaining commutable calibrators.

List planned activities in 2018 for this Term of Reference

The next step is to obtain individual serum samples from donors, which will be obtained after exercise (cycling) in order to get measurable GH levels.

1. Obtain a medical ethical approval for the blood donations. This is now in preparation
2. Organize blood donations from healthy cyclists
3. Prepare 5 individual serum volumes with increasing GH levels.
4. Test these samples for commutability

STANDARDIZATION OF INSULIN ASSAYS (WG-SIA); Chair: Amy K. Saenger (US)

During 2017 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.
2. Continued collaboration with other laboratories developing insulin methods by mass spectrometry and sustain efforts to evolve reference method procedures in these laboratories.
3. Evaluation of “wild card” serum pools with routine proficiency testing sent to US laboratories, demonstrated current state (lack of harmonization) of insulin assays.
4. Established connection with NIBSC to evaluate candidate reference material and will ultimately utilize that to calibrate the mass spec method and establish it as a higher order reference method.

List planned activities in 2018 for this Term of Reference:

1. Continued validation of an appropriate intact insulin assay via LC-MS/MS that meets all analytical and clinical specifications for insulin testing.
2. Continue collaboration with Dr. Chris Burns and colleagues at NIBSC to evaluate and assist with validation of new recombinant insulin candidate reference material.
3. Establish serum pools for insulin (and c-peptide) proficiency testing via College of American Pathologists; will assess the comparability of results across assays, using a commutable matrix, as we move towards standardization.
4. 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.

Additional Information:

The C continues to appreciate the sustained support from the IFCC, as we intend to make greater strides towards achieving a candidate reference method in the upcoming year.

STANDARDIZATION OF TROPONIN I (WG-TNI); Chair: Rob Christenson (US)

During 2017 the WG-TNI continued ongoing progress towards its terms of reference.

- Development of a candidate secondary reference measurement procedure and candidate secondary reference material for cardiac troponin I (cTnI)
- Testing for cTnI standardization and clinical validation by comparison with validated commercial assays in a round robin study

Accomplishments include:

Recruited Dr. Amy Saenger, University of Minnesota, Minneapolis, MN to the WG-TNI. Dr. Saenger holds a key position with the College of American Pathologist and has a keen interest in standardization, cardiac troponin physiology, guidelines and use in laboratory medicine.

Recruited Dr. David Armbruster to join the WG-TnI. Dr. Armbruster is an expert in characterizing assays and has a keen interest in cardiac troponin. Named Dr. Mark Lowenthal from NIST as a key member of the WG-TNI. Dr. Lowenthal came highly recommended by Dr. Karen Phinney, of NIST, and has closely followed the C's earlier work through his close association with Dr. David Bunk, also of NIST and the former WG-TNI chair. Dr. Bunk has been very gracious and provided Dr. Lowenthal with his WG-TNI files. The C's goal has been development of a commutable cTnI reference material (RM). This RM will be serum based and will be termed RM 2922 and it will be maintained and publically available NIST.

Using earlier work of the WG-TNI, Dr. Lowenthal and the chair finished drafting the protocol for collection of the human material for the RM. This draft has been distributed to the WG-TNI members, and comments are due back in Q1 2018.

List planned activities in 2018 for this Term of Reference

From the received comments, suggestions and insights on the Draft Protocol from the WG-TNI members, Dr. Lowenthal and the chair will prepare a second draft of the protocol. This will be distributed to both the WG-TNI members, Corresponding Members and Corresponding Members nominated by Corporate Members, all of whom are partners of the WG-TNI effort. The C anticipates having the protocol finalized by the 2nd quarter of 2018, and collection of the samples will commence that will be the 'raw material' for RM 2922. It is anticipated that the samples will be collected within 3 months of having a final protocol and achieving IRB/Ethics Committee approval. The samples will be collected and transferred to NIST, where they will be blended to form the RM 2922.

The chair has committed to covering the costs of collecting the samples necessary for forming RM 2922 and for the costs of performing infectious disease testing of the samples to comprise RM 2922. The C will then try to recover some of the costs from manufacturer associates, through the appropriate IFCC mechanisms. However this is not a condition for the chair's covering the costs of collecting and testing RM 2922.

After forming 2922, Dr. Lowenthal, Heinz SCHIMMEL and the rest of the committee finalize a method for quantitative value assignment of RM 2922. Depending on the logistics and timing of completing the protocol and collection of samples, the C would make this part of our work for 2018. If not, the chair anticipates that these activities will be completed in 2019.

Additional Information:

The C is exploring discussions with the CAP, through Dr. Sanger. It would be very interesting for to put together a collaboration in which CAP could distribute RM 2922 to field laboratories for measurement.

PARATHYROID HORMONE (WG-PTH); Chair: Cathie Sturgeon (UK)

During 2017 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:

There has been further discussion regarding the importance of implementing an internationally recognized standard for PTH (preferably IS 95/646 if commutable). The IFCC initiative received wide publicity through a cover page article entitled “Variability in parathyroid hormone assays: Better standardization on the way?” in *Kidney News*, a journal of the American Society of Nephrology. Further publicity was generated by another cover page article entitled “On the path to standardizing parathyroid hormone testing” in the June issue of the AACC’s *Clinical Laboratory News*.

List planned activities in 2018 for this Term of Reference:

Experimental work to assess the commutability of the 1st IS for Parathyroid Hormone (PTH) (WHO IS 95/646), for which a draft protocol has been prepared, is scheduled for the first half of 2018. A technically competent student from the Netherlands who will be working in the UK NEQAS [Edinburgh] unit for four months will coordinate this study, results of which should be available for discussion at the Working Group meeting during the AACC conference in July 2018.

Two planned UK NEQAS studies in 2018 will assess the present relationship between method bias and recovery of highly purified PTH(1-84) and PTH(7-84).

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:

Inclusion/exclusion requirements based on results of the systematic review previously undertaken by the Working Group were reviewed in some detail at an open meeting of the Working Group held during the AACC conference (July 2017). Practical arrangements are being made with UK nephrologists who have agreed to provide plasma for the commutability study. A presentation in an IFCC SD Symposium at EuroMedlab in Athens (June 2017) provided an excellent and much appreciated opportunity to disseminate some of these issues to a wider audience.

List planned activities in 2018 for this Term of Reference

Collection of EDTA plasma samples for the commutability study and distribution of samples to participants in the study, with the intention of having data available for analysis by the end of June 2018.

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:

Work is being undertaken at the CDC and NIST laboratories with the aim of increasing the analytical sensitivity of available mass spectrometric methods for PTH, such that these are closer to that of routine automated PTH immunoassays. Some progress has been made.

List planned activities in 2018 for this Term of Reference

Experimental work and collaborative discussion with the aim of achieving better sensitivity, including the possibility of avoiding the need for an initial immunocapture step, will continue.

Additional Information:

Progress with development of the mass spectrometric procedure requires patience as the issues are complex and research time and financial resources limited. However it is anticipated that significant progress will be made in 2018.

CSF PROTEINS (WG-CSF); Chair: Kaj Blennow (SE)

During 2017 ongoing progress towards WG-CSF terms of reference included:

Term of Reference 1. *Develop an international reference material for cerebrospinal fluid (CSF).*

The project aims to:

- Collect CSF material, test stability, and assign values, to establish a Certified Reference Material (CRM)
- Establishment of Reference Measurement Procedure (RMP) for the key measurands (A β 1-42 and tau) for assignment of values to the reference material.

Accomplishments include: Several of the labs in the WG have initiated work to develop a SRM method for total tau (T-tau) in CSF. Experiments show that this will need to be based on direct trypsination of CSF proteins. The method will probably be more complicated than for A β 1-42, one reason is that there are six isoforms of tau, and several phosphorylation sites, and probably also endogenous fragments of the protein. Principles for the method was discussed at the IFCC WG meeting in Paris, June 23, 2015, and the IFCC-WG CSF meeting in Geel Oct 11, 2016, and in further meetings with Group members.

A first preliminary version of the method has been developed in UGOT (Dr. J Pannee), based on the quantification of the tryptic tau peptide GAAPGQK making use of a centrifugal filter system for sample preparation. The method shows good linearity, sensitivity and repeatability.

Due to issues with the labelled tau standard (calibrator), the planned design of the tau candidate CRM now involves the use an extended tau peptide covering the tryptic tau peptide that will be used for quantification.

A third commutability study where the 3 final CRMs will be included is now ongoing. This study will include 34 different individual CSF samples analysed in duplicate, and the 3 CRMs analysed in quadruplicates. Six different immunoassays (INNOTEST ELISA, Lumipulse Abeta42, ADx beta-amyloid (1-42), MSD V-PLEX A β (6E10), IBL Amyloid-beta (1-42) CSF ELISA, Roche Elecsys β -Amyloid (1-42)) will be compared, together with the SRM RMP method for Abeta1-42. Results are coming in from the different participants at present.

Commutability studies for tau in the candidate reference materials for A β 42 show these are quite commutable also for Tau (UGOT - Ulf Andreasson). Additional commutability studies will be needed to produce a material with high tau concentration, either by spiking or by using ventricular CSF with high tau concentrations, and spike this into a pool of normal CSF.

There is a growing use of A β 40, and it had previously been discussed that a reference material would be useful. The consensus of the Geel IFCC-WG CSF meeting was that an indicative value for A β 40 would not be useful, but the existing LS-MS method for A β 42 could be adapted for A β 40, and submitted as reference method to IFCC and JCTLM. In the meantime JRC has assessed homogeneity and stability (including one-year stability) in for A β 40 in the materials produced for A β 42. Therefore the certification of A β 40 in one of these materials would require only the value assignment measurements.

STANDARDIZATION OF BONE MARKERS ASSAYS (WG-SBMA); Chair: Howard Morris (AU)

Successor Chair: Prof. Etienne Cavalier (BE)

This is a joint activity with the International Osteoporosis Foundation. During 2017 ongoing progress towards WG-SBMA terms of reference included:

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 α 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:

The comparability study of the two major clinical assays for CTX 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. A draft manuscript is being finalized in preparation for submission to an appropriate peer-reviewed journal.

List planned activities in 2018 for this Term of Reference

A manuscript will be completed including an algorithm for the harmonization of the results from each assay.

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 2018 for this Term of Reference:

Data analyses will be concluded and a study report completed. An algorithm for the harmonization of the results from each assay will be derived. A report will be prepared for publication in a peer-reviewed journal.

Additional Information:

The current Chair of the WG will step down immediately since he is the incoming IFCC President and Professor Etienne Cavalier - University of Liège, is recommended by the WG to be appointed the new Chair.

Analyses of data on bone turnover markers, concerning their clinical utility, collected under the aegis of previous osteoporosis therapy clinical trials is likely to be concluded in early 2018. These data will be valuable in informing future work in this field.

Studies of other bone turnover markers may be considered for standardization or harmonization as technically feasible. A major issue is bone-specific alkaline phosphatase as many assays are in use in clinical laboratories

COMMUTABILITY (WG-C); Chair: Greg Miller (US)

During 2017 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 have been accepted by Clinical Chemistry and are scheduled for the March 2018 issue (see *Publications at the end of this report*).

List planned activities in 2018 for this Term of Reference

Continue preparation of three additional manuscripts addressing:

- Adjustment of the value assigned to a reference material for non-commutability bias with a measurement procedure

- Validation of a replacement batch of reference material – an abbreviated validation design
- Approaches to establish criteria for commutability assessment

Term of Reference 2: Establish how to define the degree of commutability which is required for a given reference material, taking into account its intended use and the intended use of the measurand. The degree of commutability becomes the criteria used in the assessment process.

Accomplishments include:

Described in term of reference #1.

List planned activities in 2018 for this Term of Reference

Described in term of reference #1.

Term of Reference 3: Propose standard terminology to describe the degree of commutability of a reference material, taking into account its intended use.

Accomplishments include:

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

List planned activities in 2018 for this Term of Reference

Completed

Term of Reference 4: Provide guidance to manufacturers and laboratories about what information should be provided by manufacturers in relation to the commutability of reference materials used to establish the calibration traceability of a measurement procedure.

Accomplishments include:

Included in the part 1 paper to be published in Clin Chem.

List planned activities in 2018 for this Term of Reference

Additional guidance will be included in the additional manuscripts in preparation described in term of reference #1.

Additional Information:

WG-C began using a web tool from TBG Conferencing that allows voice and document sharing by participants. This service was less expensive than the voice only system used by IFCC. This tool greatly assisted the efficiency for developing the manuscripts. Once it is set up, there is no need for office staff to schedule each session because the same log in process and phone numbers are used repeatedly. The chair starts each session and members connect; very easy to use.

APOLIPOPROTEINS BY MASS SPECTROMETRY (WG-APO MS); Chair: Christa Cobbaert (NL)

During 2017 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:

It was decided to work on two routes:

a. Development of a common Reference Measurement Procedure (RMP) with calibration labs that have Mass Spec-resources and skilled personnel. Three calibration labs volunteered: the CDC lab, the Leipzig university lab and the Leiden LUMC lab. All three labs have in-house LC-MS methods for serum / plasma apolipoprotein quantitation and profiling, which have been published.

Work plans were set up using a step-by-step approach in order to develop a common accuracy base across the three calibration labs (to a degree that is realistic as every lab has its specific





LC-MS analyser). Based on the findings, transparent and consensus-based decisions will be taken regarding the characteristics of the entire RMP.

b. Search for commutable Candidate Reference Materials. The WG currently focuses on the acquirement of apo(a) candidate Reference Material. To that end, negotiations with a research group from a Japanese university are ongoing. That research group breeds pigs with transgenic apo(a). Advantage of that material is its high apo(a) concentration and a defined number of kringle IV type 2. The first preliminary commutability experiment with some of the pig-derived transgenic apo(a) across different immunoassays and the LC-MS test seems to be promising. Negotiations are ongoing to receive additional material. The lab of Professor Kostner performed the immunoassays; the Leiden lab further developed the LCMS test, including apo(a).

List planned activities in 2018 for this Term of Reference

- a. The WG should be able to realize a common RMP which would allow a unify sample prep, protein digestion, SIL standards and LC-MS analyses to a large extent across the three calibration labs in order to measure all serum apolipoproteins of interest in one multiplexed LC-MS test.
- b. If the WG receives the transgenic pig apo(a) from the Japanese it will first do extensive commutability studies (studying the behaviour of the candidate RM across CE-IVD immunoassays and the in-house LC-MS tests). This is a difficult task because of the size polymorphism of apo(a) which might confound the commutability studies. If commutability gets documented, value assignment of serum apo(a) has to be prepared.

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:

Developing cohesion and a good relation between the group members: An excellent meeting took place in December in Leiden with representatives from the three calibration labs and the Austrian lab, as well as the IVD rep.

List planned activities in 2018 for this Term of Reference

Not applicable yet

PANCREATIC ENZYMES (WG-PE); Chair Denis Grote-Koska (DE)

During 2017 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:

At the meeting in Athens in conjunction with EuroMedlab 2017, the group decided to base the method on Roche's antibodies inhibiting salivary amylase. Roche recently (11/2017) provided the desired antibodies for first experiments without costs.

List planned activities in 2018 for this Term of Reference

P-Amy: first experiments are planned to perform at the beginning of 2018. Depending on the results, lab transfer to the other WG members is aimed for reproduction.

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

Accomplishments include:

Development of Lipase procedure has paused, due to insufficient results and lack of additional and reasonable ideas from the group. Several improvements were previously made, but not sufficient for a RMP.

List planned activities in 2018 for this Term of Reference

None.

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 JRC of 5 candidate CRMs was performed in the Hannover calibration laboratory.

List planned activities in 2018 for this Term of Reference

Depending on inquiries by JRC.

FECAL IMMUNOCHEMICAL TESTING (WG-FIT), Chair: Sally Benton (UK)

During 2017 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:

A survey compiled by Ingrid Zegers from the Reference Materials Unit at the Joint Research Centre in Geel has been completed by all quantitative FIT manufacturers. The data has been collated and presented to the group to aid discussions in terms of appropriate candidate reference materials for FIT.

List planned activities in 2018 for this Term of Reference:

A study will be carried out to evaluate candidate reference materials on all available quantitative FIT analysers.

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

Accomplishments include:

A review has been carried out by Natasha Djedovic of all pre-analytical factors that impact FIT. This review has been distributed around the group.

List planned activities in 2018 for this Term of Reference

There is no current activity planned for this TOR in 2018.

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

Accomplishments include:

A document has been produced by Samantha Jones summarizing all known EQA schemes available for quantitative FIT, and qualitative FIT, around the world.

List planned activities in 2018 for this Term of Reference

To review these schemes and consider whether the IFCC-FIT-WG can provide recommendations for EQA schemes on what the scheme should include.

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

Accomplishments include:

The group has shared information on work being carried out and due for publication.

List planned activities in 2018 for this Term of Reference

Continue to share data on work being carried out to address this TOR.

Additional Information:

There has been excellent engagement in the group from all members and corporate members. The diagnostic companies have been very proactive and forthcoming with information to help progress the agendas of the group.





PUBLICATIONS BY COMMITTEES AND WORKING GROUPS:

C-NPU:

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

C-MD:

Payne, DA, Baluchova, K, Russomando, G, Ahmad Nejad, P, Mamotte, C, Rousseau, F, van Schaik, RHN, Marriott, K, Maekawa, M, Chan, KC. *Toward Harmonization of Clinical Molecular Diagnostic Reports: Findings of an International Survey*. Submitted to the CCLM in November 2017.

C-RIDL:

1. Ichihara K, Ozarda Y, Barth JH, Klee G, Ling Q, Erasmus R, et al. on behalf of the Committee on Reference Intervals and Decision Limits, International Federation for Clinical Chemistry and Laboratory Medicine. *A global multicenter study on reference values: 1. Assessment of methods for derivation and comparison of reference intervals*. Clin Chim Acta 2017; 467:70-82.
2. Ichihara K, Ozarda Y, Barth JH, Klee G, Shimizu Y, Xia L, et al. on behalf of the Committee on Reference Intervals and Decision Limits, International Federation for Clinical Chemistry and Laboratory Medicine. *A global multicenter study on reference values: 2. exploration of sources of variation across the countries*. Clin Chim Acta 2017; 467:83-97.

Other articles directly related to the C-RIDL projects.

1. Ozarda Y, Ichihara K, Bakan E, Polat H, Ozturk N, Baygutalp NK, et al. *A nationwide multicentre study in Turkey for establishing reference intervals of haematological parameters with novel use of a panel of whole blood*. Biochem Med 2017; 27(2):350-377.

C-STFT:

1. Thienpont LM, Van Uytfanghe K, De Grande LAC, Reynders D, Das B, Faix JD, MacKenzie F, Decallonne B, Hishinuma A, Lapauw B, Taelman P, Van Crombrugge P, Van den Bruel A, Velkeniers B, Williams P on behalf for the IFCC Committee for Standardization of Thyroid Function Tests (C-STFT). *Harmonization of Serum Thyroid-Stimulating Hormone Measurements Paves the Way for the Adoption of a More Uniform Reference Interval*. Clin Chem 2017;63:1248-60.
2. De Grande LAC, Van Uytfanghe K, Reynders D, Das B, Faix JD, MacKenzie F, Decallonne B, Hishinuma A, Lapauw B, Taelman P, Van Crombrugge P, Van den Bruel A, Velkeniers B, Williams P, Thienpont LM on behalf for the IFCC Committee for Standardization of Thyroid Function Tests (C-STFT). *Standardization of free thyroxine measurements paves the way for the adoption of a more uniform reference interval*. Clin Chem 2017; 63:1642-52.

Additional related publications:

3. De Grande LA, Goossens K, Van Uytfanghe K, Das B, MacKenzie F, Patru MM, Thienpont LM; IFCC Committee for Standardization of Thyroid Function Tests (C-STFT). *Monitoring the stability of the standardization status of FT4 and TSH assays by use of daily outpatient medians and flagging frequencies*. Clin Chim Acta. 2017; 467:8-14.
4. De Grande LA, Goossens K, Van Uytfanghe K, Halsall I, Yoshimura Noh J, Hens K, Thienpont LM. *Using “big data” to describe the effect of seasonal variation in thyroid-stimulating hormone*. Clin Chem Lab Med. 2017; 55:e34–e36

C- HAT:

Evanthia Monogioudi; Ingrid Zegers Dana P Hutu; Gustavo Martos; Joanna Sheldon; Heinz Schimmel; Pier Luigi Meroni; “*Standardisation of autoimmune testing – is it feasible?*” has been successfully submitted online and is presently being given full consideration for publication in Clinical Chemistry and Laboratory Medicine (CCLM).

WG-SHbA2:

Paleari R, Ceriotti F, Hartevelde 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.

WG-SCDT:

- *IFCC approved HPLC reference measurement procedure for the alcohol consumption biomarker carbohydrate-deficient transferrin (CDT): Its validation and use:* Clinica Chimica Acta 465 (2017) 91–100; François Schellenberg, Jos Wielders, Raymond Anton, Vincenza Bianchi, Jean Deenmamode, Cas Weykamp, John Whitfield, Jan-Olof Jeppsson, Anders Helander
- *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:

Standardization of Urine Albumin Measurements: Status and Performance Goals Miller WG, Seegmiller JC, Lieske JC, Narva AS, Bachmann LM. The Journal of Applied Laboratory Medicine. Sep 2017, jalm.2017.023614; DOI: 10.1373/jalm.2017.02361

WG-TNI:

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. Wu AHB, Christenson RH, Greene DN, Jaffe AS, Kavsak PA, Ordonez-Llanos J, Apple FS. Clin Chem. 2018 Jan 17. pii: clinchem.2017.277186. doi: 10.1373/clinchem.2017.277186. [Epub ahead of print] PMID: 29343532

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:

- *Perspective and priorities for improvement of parathyroid hormone (PTH) measurement – A view from the IFCC Working Group for PTH.* [CM Sturgeon, S Sprague, A Almond, E Cavalier, WD Fraser, Algeciras-Schimnich A, et al. Clin Chim Acta 467 (2017): 42-47.
- Working group members also contributed to the articles described above in *Kidney News* (American Society of Nephrology) and *Clinical Laboratory News* (AACC) described above.
- An article on PTH for the *Encyclopedia of Endocrinology* is in preparation.

WG-CSF:

- Pannee J, Blennow K, Zetterberg H, Portelius E. *Absolute Quantification of A β 1-42 in CSF Using a Mass Spectrometric Reference Measurement Procedure.* J Vis Exp 2017;(121).
- Janelidze S, Pannee J, Mikulskis A, Chiao P, Zetterberg H, Blennow K, Hansson O. *Concordance Between Different Amyloid Immunoassays and Visual Amyloid Positron Emission Tomographic Assessment.* JAMA Neurol 2017;74:1492-1501. *er's biomarker – a route to standardization.* Submitted to CCA.
- The work of the IFCC WG-CSF has been summarized in a review paper that is submitted to the CCA special issue:
- Kuhlmann J, Andreasson U, Pannee J, Bjerke M, Portelius E, Leinenbach A, Bittner T, Korecka M, Jenkins RG, Vanderstichele H, Stoops E, Lewczuk P, Shaw LM, Zegers I, Schimmel h, Zetterberg H, Blennow K, on behalf of the IFCC Working Group on Standardisation of CSF proteins (WG-CSF). *CSF A β 1-42 – an excellent but complicated Alzheimer's biomarker – a route to standardization.* Clin Chim Acta 2017;467:27-33.

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: in press.

- 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: in press. 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: in press. This paper includes additional example data and statistical tools as supplemental information.

Philippe Gillery, SD Chair and Joseph Passarelli, SD Secretary



EDUCATION AND MANAGEMENT DIVISION (EMD)

COMMITTEES activities

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

1. A symposium entitled “The Liquid Biopsy approach: Following the tumor in peripheral blood” was held on June 15th 2017 during the Athens EuroMedLab Congress; 2. The 2017 molecular biology course has had to be postponed to February 2018.

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

1. Updating of the “Directory of EQA Services” was completed in 2017 and the site will be maintained by Alexander Haliassos as an IFCC Task Force on Proficiency Testing (TF-PT) and C-AQ venture. This will be updated on a regular basis.
2. The “EQA Setup Checklist” in the C-AQ section of the IFCC website was reviewed by Annette Thomas in January 2017 and tested at a workshop in South Africa. The existing checklist was deemed suitable by the audience.
3. Updating of the existing “Resource table for EQA” database will be completed in January 2018. 4. Development of eLearning presentations for the IFCC eAcademy as follows: A power point presentation on the Principles of EQA has been reviewed and updated by Annette Thomas. ‘Principles of IQC’ has been developed by Alexander Haliassos. Quality Planning has been completed by Annette Thomas. Risks and IQC principles are to be developed by Qing Meng. David Grenache is going to inquire as to whether additional relevant material may be available from AACC Clinical Chemistry Trainee Council, Pearls of Laboratory Medicine.
4. Development of a joint C-AQ / C-CLM publication on “Developing a Quality System” aimed at developing countries is in progress. A detailed plan of contributors and content was discussed and agreed between C-AQ and C-CLM at a meeting in Durban. An update of the outline chapters for the joint monograph was distributed by the C-CLM chair in November 2017. Following discussion in Durban, the title of the monograph was changed to “Practical Approaches to Quality Systems Set-up for Resource Strained Clinical Laboratories”.

5. Annette Thomas conducted a workshop on 27th to 28th January 2017 in South Africa organized by the Chair of the C-EUBD.
6. To develop a Quality Ladder - a series of monographs covering the basic concepts of Quality that can be used by developing countries.

Evidence-Based Laboratory Medicine (C-EBLM); Chair: Chris Florkowski (NZ)

1. Although only two units have been uploaded so far, other topics have been allocated to C-EBLM members for recording as follows: - Audits of laboratory tests. Diagnostic accuracy studies; - POCT, pitfalls and advantages, STARD criteria, Tools for appraisal; - Diagnostic performance. EBLM process and examples; - Searching the evidence, Appraisal of guidelines, Cochrane; - Meta-analysis (PHI practical example; from published paper); - Improving clinical decision making; - ROC curve analysis and its application.
2. The Endocrine Guidelines evaluated to date were reviewed in Durban, October 2017: A realistic goal is to appraise guidelines with a 1 page summary pertinent to laboratory medicine. A problem to highlight is the different assays and reference intervals and the need to let clinicians know of limitations of coverage of laboratory aspects.
3. At the Durban face-to-face meeting, the results of the global survey of perceptions of competence in EBLM and learning requirements and also in the IFCC Symposium on the IFCC Worldlab Programme were presented and discussed.
4. Invited review on POCT and clinical decision making.
5. The committee organised and conducted symposia for COLABIOCLI and IFCC WorldLab.
6. A proposal has been submitted for an educational session at AACC in Chicago in 2018. Interactive sessions: Julien Wils – How to appraise guidelines; Karina Rodriguez-Capote – Perceptions of EBLM based on an international survey (needs assessment); Annalise Zemlin – EBLM and how to appraise the literature; Hernan Fares Taie – Getting the EBLM message across; new initiatives

PUBLICATION:

1. Point of Care Testing (POCT) and Evidence Based Laboratory Medicine (EBLM) – *does it leverage any advantage in clinical decision making?* Florkowski, C., Don-Wauchope, A., Rodriguez-Capote, K., Wils, J, Zemlin, A.E. *Critical Reviews in Laboratory Medicine*. <https://doi.org/10.1080/10408363.2017.1399336>

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

1. Development of a monograph on “Project Management Basics for Laboratory Leaders” is in progress and will be finalized in the first quarter of 2018.
2. C-CLM held a Satellite Educational Workshop on “Intelligent Clinical Laboratory Management: Impacts on Quality System Improvement” at the Hilton Durban Hotel on 22nd October 2017. This event was sponsored by industrial partners as well as the Federation of South African Societies of Pathology (FSASP). A survey activity by means of speaker evaluation forms was performed at the Satellite Educational Workshop.
3. A symposium entitled “Improvement in Clinical Laboratory Services: Approaches to Adding Value” at the IFCC WorldLab, on October 25, 2017.
4. Power Point presentations of the lectures delivered at the Satellite Educational Workshop as well as the symposium at the IFCC WorldLab, Durban were uploaded onto the C-CLM website on 22nd November 2017.
5. A guide entitled “A Training Manual on Leadership Basics for Clinical Laboratory Professionals” is about to be finalized and ready to be published by the end of February 2018.
6. A joint C-AQ/C-CLM publication on “Developing Quality Systems in the Clinical Laboratory” aimed at developing countries is being developed.
7. The power points of the Leadership Training Module were uploaded onto the C-CLM website on 30th January 2017.

8. Sedef Yenice was an IFCC-Abbott VLP speaker at the 2nd Conference of the Romanian Association of Laboratory Medicine (RALM) with international participation in Timișoara, from 10th till 13th May 2017. Sedef Yenice chaired the session on Quality Management with Prof.Dr.Minodora Dobreanu on 11th May 2017 and delivered two talks entitled: “Understanding quality management system: Essential strategies to improve laboratory performance” and “Role of proactive measures in clinical laboratory practice”.

PUBLICATIONS:

1. Yenice S. Understanding Quality Management System: Essential Strategies to Improve Laboratory Performance. Romanian Journal of Laboratory Medicine. S21-22, Supplement Vol.25, Nr.2, April 2017.
2. Yenice S. Role of Proactive Measures in the Clinical Laboratory Practice. Romanian Journal of Laboratory Medicine. S25, Supplement Vol.25, Nr.2, April 2017.
3. The abstracts of the lectures by C-CLM Committee members delivered at the IFCC WorldLab in Durban in a symposium entitled “Improvement in Clinical Laboratory Services: Approaches to Adding Value” were published in a supplement issue of Clinical Chemistry and Laboratory Medicine, October 2017.

Distance Learning (C-DL); Chair: Janet Smith (UK)

1. The approval of educational material to be made available on or through the IFCC website, to ensure quality, continues.
2. Considerable work has been done on the curriculum. Janet Smith has completed the sections covering clinical aspects of our specialty and Ronda Greaves has completed the analytes section and working closely with Silvia Colli-Lanzi, has produced a formatted IFCC document. Version 1 of the curriculum will be published as part of the eAcademy in 2018.
3. A successful joint CPD/EMD symposium was held at the COLABIOCLI Congress in September 2017.
4. The development of the mass spectrometry area of the eAcademy is now complete and includes learning objectives.
5. The commissioning of webinar development on topics recommended by National Societies and, where appropriate, identification of relevant presentations from IFCC and National Society conferences for recording to populate the eAcademy continues.
6. Number of published modules: 118 /Number of modules pending publication: 3
7. With the appointment of Eduardo Freggiaro as the new Chair of C-IeL, more focus has been put to provide learning objectives and multiple choice questions for published webinars for which these were not originally provided. This comprehensive task is currently being undertaken by C-DL and C-IeL members and IFCC experts. This exercise will enable the next phase of the eAcademy to be successfully launched.
8. It was agreed by IFCC EB that the C-DL and C-IeL will combine to form a single committee, as of 1 January 2018, known as the Committee for Internet and Distance Learning (C-IDL). There will be two co-Chairs, one from each of the current committees. Eduardo Freggiaro (for CPD) and Loralie Langman (for EMD) will take on these roles.

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

1. Committee members (CW, EE and GJ) will finalise the WHO ‘Compendium of diagnostic tests associated with diabetes’. This will be published as a joint WHO/IFCC document. WHO has returned comments; not all can be addressed. An updated document will be finalized in 2018
2. The results of the joint IFCC, WHO and IDF worldwide questionnaire on use of glucose and HbA1c testing will be finalized and submitted for publication within the next three months (preliminary findings were presented at the IDF congress in Vancouver in 2015).
3. The committee will collaborate in a project to look at the diagnostic cut-points for type 2 diabetes diagnosis using HbA1c. Currently, there is representation from IFCC, IDF and



ACB. Further links will be developed with ADA and EASD and an evidence gathering project launched.

4. A project to investigate a European-wide evaluation of HbA1c EQA programmes in different countries using fresh whole blood and lyophilised samples with the aim of being able to evaluate cross National network performance has been completed successfully. The outcome can be used to educate users on the analytical variability of HbA1c measurements. The results were presented in the satellite symposium on diabetes held at the end of the Athens EuroMedLab Congress in June 2017. Additionally, a publication is being written; this will be submitted in the first instance to Clinical Chemistry.
5. Members of the C-EUBD were part of the Scientific Committee for a satellite symposium on diabetes held at the end of the Athens EuroMedLab Congress in June 2017. On 15-16 June 2017, a meeting on Diabetes was organised in Sounio as a satellite meeting of EuroMedLab in Athens. This was a very successful meeting based on participants' feedback.
6. Committee members will work with National societies and with manufacturers to deliver educational meetings in countries that would benefit from scientific updates; this year educational meetings were held in South America, India and China and also in South Africa for delegates from Ethiopia and Kenya.
7. C-EUBD was successful in obtaining a EPSRC-IAA funding award. This funded a two day meeting in Cape Town with participants from Ethiopia, Nigeria, Kenya. The meeting was highly successful with the goal to build a network between these three countries; but principally focusing on Ethiopia. As a major focus was on POCT and improving quality procedures Annette Thomas, Chair of C-AQ, was invited to participate. Working with other IFCC committees is one of the objectives of the C-EUBD committee. Further funding (GCRF – AMD) for £20,000 has been applied for and if successful will fund two further educational meetings in Ethiopia and Cape Town. The outcome of this funding application will be out soon.
8. The Diabetes Biomarker meeting in Paarl, October 26-27, 2017 (held in conjunction with IFCC WorldLab Durban) had a good range of international speakers with high quality presentations and good interaction from the clinical and laboratory perspective. There was excellent feedback.
9. Following a successful research project by C-EUBD committee members which assessed HbA1c results in 30 Chinese Laboratories, the committee has been approached to develop an IFCC-Chinese Diabetes Society committee to improve Diabetes Services in China.
10. The C-EUBD committee provides a clinical steering committee for the IFCC international Network of Reference Laboratories. The Network continues to perform at a very high standard with all laboratories passing agreed quality standards.

PUBLICATIONS:

1. Leters-Westra E, English E. *Evaluating new HbA1c methods for adoption by the IFCC and NGSP reference networks using international quality targets.* Clin Chem Lab Med 2017; 55:1426-1434.
2. Leters-Westra E, English E. *Understanding the use of sigma metrics in HbA1c analysis.* Clin Chem Lab Med 2017; 37: 57-71.
3. Leters-Westra E, *Common Hb-variants no longer show interference on the Tosoh G8 after an update of the software.* Clinica Chimica Acta 2017; 463:73-74.
4. Weykamp C, Siebelder C, *Evaluation of Performance of Laboratories and Manufacturers Within the Framework of the IFCC model for Quality Targets of HbA1c, DST Special issue 2017.*

WORKING GROUPS activities





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

1. The following activity has been concluded:
 - Updating of the Model of Quality Indicators on the basis of the findings of a Consensus Conference “Harmonization of quality indicators in Laboratory Medicine: two years later?” held in Padova (Italy) on 26th October 2016;
 - A new procedure has been introduced for data inputting of Quality Indicators by laboratories in the dedicated website (www.ifcc-mqi.com).
2. Selection and appointment of a National Leader in each country who should coordinate and manage the Model of Quality Indicators project is in progress. It is expected that the National Leader should (i) encourage the use of MQI; (ii) “personalize” the use of QIs in daily practice according to national practices, requirements and regulations; (iii) cooperate with members of the WG-LEPS providing valuable suggestions for improving the project.
3. Involvement of national scientific societies, accreditation bodies and EQA/PT providers of different countries in disseminating the MQI project and promoting participation of laboratories is in progress.
4. Identification of automated and computerized systems for easy and systematic data collection and recording is in progress.
5. Invited talk entitled “Quality indicators in laboratory medicine” at MEDLAB EUROPE in Barcelona on 14th September 2017.

PUBLICATIONS:

1. Sciacovelli L, Aita A, Plebani M. *Extra-analytical quality indicators and laboratory performances*. Clin Biochem. 2017 Jul; 50(10-11):632-637.
2. Sciacovelli L, Panteghini M, Lippi G, Sumarac Z, Cadamuro J, Galoro CAO, Pino Castro IGD, Shcolnik W, Plebani M. *Defining a roadmap for harmonizing quality indicators in Laboratory Medicine: a consensus statement on behalf of the IFCC Working Group “Laboratory Error and Patient Safety” and EFLM Task and Finish Group “Performance specifications for the extra-analytical phases”*. Clin Chem Lab Med. 2017 Aug 28; 55(10):1478-1488.
3. Plebani M, Sciacovelli L, Aita A. *Quality Indicators for the Total Testing Process*. Clin Chem Lab Med. 2017 Mar; 37(1):187-205.
4. Lippi G, Sciacovelli L, Simundic AM, Plebani M. *Innovative software for recording preanalytical errors in accord with the IFCC quality indicators*. Clin Chem Lab Med. 2017 Mar 1; 55(3):e51-e53.
5. Sciacovelli L, Lippi G, Sumarac Z, West J, Garcia Del Pino Castro I, Furtado Vieira K, Ivanov A, Plebani M; Working Group “Laboratory Errors and Patient Safety” of International Federation of Clinical Chemistry and Laboratory Medicine (IFCC). *Quality Indicators in Laboratory Medicine: the status of the progress of IFCC Working Group “Laboratory Errors and Patient Safety” project*. Clin Chem Lab Med. 2017 Mar 1; 55(3):348-357.
6. Aita A, Sciacovelli L, Plebani M. *Extra-analytical quality indicators - where to now?* Clin Chem Lab Med. 2017 Dec 18. pii: /j/cclm.ahead-of-print/cclm-2017-0964/cclm-2017-0964.xml. doi: 10.1515/cclm-2017-0964. [Epub ahead of print] PMID: 29252191.

Cancer Genomics (WG-CG); Chair: Jason Park (US) (Resigned 30 June 2017); Co-Chair: Paolo Fortina (IT)

1. The IFCC EMD symposium entitled “*Implementing Cancer Genomics in Low Resource Settings*” to be held at the IFCC WorldLab Durban 2017, South Africa, was as follows: Chair: Larry J. Kricka (US): 1) *Genomic medicine: learning how to walk before we run* – M. Ferrari; 2) *Pharmacogenetic applications in oncology* -RHN van Schaik; 3) *Advanced laboratory techniques for low resource* - L. Kricka (US)
2. At the VIII Baltic Transfusion Medicine Congress and the I Latvian Congress in Laboratory Medicine Congress held in Riga, Latvia, Paolo Fortina delivered “*Technologies for Personalized Medicine*” and “*Clinical Applications of Cancer Molecular Biomarker*” talks on 11th and 12th May 2017, respectively.

3. On 14th June 2017, a presentation entitled “*Personalized Genomic Medicine Approaches in the Study of Cancer*” was delivered by Paolo Fortina at the IFCC EMD Symposium “Personalized Medicine” held at the EuroMedLab 2017 in Athens.

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

1. A workshop was organized for the IFCC WorldLab, Durban.
Title of workshop: Interpretation and Commenting on Clinical Chemistry Results: An interactive workshop, Chair: Samuel Vasikaran; Speakers: E Kilpatrick: Case presentation and discussion; M Turzyniecka: Case presentation and discussion; K Sikaris: Case presentation and discussion.
2. A patient report comment EQA program in Africa, locally led, was initiated in Durban during IFCC WorldLab.
3. The working group is working with ISO in order to include quality assessment of interpretive commenting in ISO 15189. Submission will be put forward for the revision phase of ISO 15189.

SPECIAL PROJECTS activities

Visiting Lecturer Programme (IFCC-VLP); Chair: Elizabeth Frank (IN)

Eleven VLP applications, with a total of 21 Visiting Lecturers, were approved in 2017.

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

1. One course was conducted in Europe in Munich (18th - 22nd September 2017).
2. A winter school was held in St-Etienne/France (6th - 10th March 2017).
3. One course was conducted in Montevideo/Uruguay sponsored by Beckman (29th -31st March 2017).
4. Ulrich Sack gave lectures in Bahir Dar, Ethiopia, as an IFCC-Abbott Visiting Lecturer.
5. Communication with India and Turkey has been initiated for future courses.

PUBLICATIONS:

1. Lambert C, Sack U.: *Monocytes and macrophages in flow cytometry*. Cytometry B Clin Cytom. 2017 May; 92(3):178-179.
2. Lambert C, Preijers FWMB, Yanikkaya Demirel G, Sack U. *Monocytes and macrophages in flow: an ESCCA initiative on advanced analyses of monocyte lineage using flow cytometry*. Cytometry B Clin Cytom. 2017 May; 92(3):180-188.

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

1. An Open Session of the DQCML took place during the IFCC WorldLab 2017 Congress on 23rd October 2017 to facilitate meeting National Representatives who may wish to seek the support of the Project for future Quality Systems initiatives. Twelve visitors participated (1 from Nepal, 1 from Russia, 1 from Zambia, 3 from Malawi, 4 from Nigeria, plus Ronda Greaves (Australia), and Graham Beastall (UK).
2. A DQCML application for a workshop on IQC and EQA has been received from NAMLS (Nepal Association for Medical Sciences), a full IFCC member.
 - Workshop time frame: May / June 2018.
3. On November 11, 2017 an application for a workshop on IQC and EQA was received by MAMLS (Malawi Association of Medical Laboratory Sciences).
 - Two workshops will be conducted, one in Blantyre, and one in Lilongwe.
 - Visit dates: Monday, February 26 till Wednesday, February 28, 2018.
 - Lecturers & workshop moderators: Annette Thomas, Graham Beastall, Egon Amann.
 - An EQA program with likely material sponsorship by BioRad has been planned to be implemented immediately after the workshop.



IFCC Mentoring Programme (MENT); Chair: Donald Young (US)

1. The number of Mentors and Associates has been expanded: There are now 25 mentors enrolled, although not all are active. There are 46 Associates on file although several do not actively participate. Expansion of both categories continues.
2. Recruitment of Spanish speakers as mentors has been completed with the help of Rosa Sierra Amor.
3. A proposal was approved by both EMD and EB to merge the Mentoring Programme and Register of Experts into a single Working Group for Personal Support. With the implementation of this in 2018 Graham Beastall will assume overall responsibility for the newly merged WG.

Leslie Lai, Chair EMD

COMMUNICATIONS AND PUBLICATIONS DIVISION (CPD)

In 2017, 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), G. L. Kovács (HU, Editor eJIFCC), and Peter Bialk (CH Corporate Representative). Janine Grant (AU, Website Editor), Maria del Carmen Pasquel (EC, WG- IANT Chair), Ellis Jacobs (US, IFCC Labs are Vital representative), Anthony Newman (NL, Publications consultant) and Ion Toporan (DK, Insoft, IT provider) were invited to attend the CPD meeting in Athens, on occasion of the IFCC EuroMedLab Congress 2017.

The following is a summary list of the key CPD activities in 2017:

- Three face-to-face committee meetings were held in 2017: Milan, (IT) in February, Athens (GR) in June and Durban (ZA) in October; Informal CPD meeting in San Diego on occasion of AACC.
- Actions to implement the IFCC Strategic plan in support to 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: - new agreement with Insoft has been reached for eNews, allowing to increase eNews frequency in 2018 and to publish it monthly; - IFCC social presence (FB, LinkedIn, Twitter) is lively and well managed: we run a paid promotion for IFCC Facebook page. During the period, we got more than 15.400 new followers. Now the total followers of the page are 23.5 K boosting IFCC page in 2nd position in the list of the similar page (next to Clinical Chemistry).

And:

- a) Deliver the e-academy as the platform to support IFCC educational materials: - renewal of Siemens support to the initiative; - increased communication with the Spanish speaking countries with AMARA collaboration initiative
- b) 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.
 - Enhancement of IFCC Organization's Public Relations/Visibility.
 - Social Media enhanced presence.



- IFCC App continues to be updated with IFCC initiatives and activities. A new update is planned for 2018
- 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 and Symposia in 2017
- Completion of Electronic Journal of IFCC (eJIFCC) renumbering and ordering of all archived issues for indexing by MEDLINE/PUBMED.
- Communications to list eJIFCC into Google Scholar, Thomson Reuters, Scopus, and Web of Sciences, continue.

CPD Symposia at 2017 Meetings:

- Athens, Greece, IFCC/EFLM EuroMedLab, 11-15 June 2017
CPD Symposium: Role of Communication in P4 Laboratory Medicine - Chair: Khosrow Adeli (CA); Online Resources for Patients and Healthcare Professionals – T.Pillay (ZA); eLearning and Online Educational Tools in Laboratory Medicine – P. Vervaart (AU); Electronic Apps and Medical Diagnostics Data Management – K. Adeli (CA)
- Punta Del Este, Uruguay, XXIII COLABLIOCLI, 17-20 September 2017
C-DL and C-leL Joint Symposium: The IFCC eAcademy: Progress and the future - Chair: Janet Smith (UK); The IFCC Curriculum – J. Smith (UK); The eAcademy: technical aspects and the present.me software - P Vervaart (AU); Translation of eAcademy material – E.L. Freggiaro (AR).
- Durban, South Africa, IFCC WorldLab, 22-25 October 2017
CPD Symposium: “Value of Laboratory Medicine in Healthcare Delivery” - Chair: Khosrow Adeli (CA); Anatomy of a value proposition for laboratory medicine - H. Morris (AU); Critical review of the evidence supporting the value of lab medicine in clinical care - K Adeli (CA); Demonstrating the value of laboratory tests: a clinical and economic perspective – W. van der Helm (CH)

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

A Committee Meeting was held in Athens, to which most members attended. The **2017 Survey** directed towards the individual members of the National Societies and Regional Federations was conducted and results presented on the eNews. The C-PR contributed to the **promotion of eJIFCC indexing, the IFCC App and the Website**. It is developing new **posters and brochures**, so to reflect the new IFCC value to members. The C-PR re-wrote its **terms of reference** so to broaden its reach. As for the **Labs Are Vital Consortium**, the collaboration continued. The projects for the incoming year include the preparation of a new action plan, along with the continuation of development of promotional tools targeting the lay audience inspired by the initial document “Understanding Laboratory Medicine”. The C-PR is presently developing a series of multi-panel posters on different clinical subjects that could be adapted to the local needs/policies, printed by National Societies or displayed on TV screens. To this end, template PowerPoint presentations will be developed in the course of next year.

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

A Committee Meeting was held in Athens, along with a C-leL and C-DL joint meeting. Among the C-leL accomplishments, the Content Management Software (CMS) used to maintain the IFCC website was updated, although no changes were made to the IFCC website layout. The C-leL will work on RIA and DIV pages layout to harmonize them with the IFCC website design.

IFCC eACADEMY: thanks to Siemens, that will continue providing funds for the project in general the eAcademy project continued its growth, with 117 resources published, 24 of them already completed with Learning Objectives and Multiple Choice Questions ready to be deployed in



eAcademy phase 2. New experts are joining so to add original content. A consultant will be hired to coordinate the eAcademy activities so to fulfil Phase 2 deployment, including User's profile, self-testing and certificate production, along with a significant increase in the number of available learning modules.

C-DL and C-leL held a **JOINT SYMPOSIUM ON eACADEMY AT COLABIOCLI CONGRESS**, which was very well received: Dr Michael Bennett (AACC president) attended the symposium and expressed his interest in eAcademy.

WG-IANT meeting: presentation of the eAcademy Translation Project.

This working group has a meeting in Punta Del Este during the COLABIOCLI congress. C-leL chair gave a detailed presentation about the Amara platform for collaborative translation. This idea was very well received by WG members. Originally, this project was under the C-leL umbrella. In this meeting the project was officially assigned to WG-IANT and María del Carmen Pasquel will continue leading the initiative. At the moment, 26 members have joined the translation team.

WEBSITE: The website continues to develop in 'real time' and it continues to be a major communication tool, a repository of resources, a window for IFCC members and Functional Units and a hosting platform for IFCC initiatives and projects. Several major and minor updates have been performed in 2017. Policy and Procedure for IFCC functional unit web pages have been prepared and final version will be ready for circulation shortly.

Social Media. Thanks to a promotion campaign, IFCC has now more than 23.5 K followers in Facebook, with which we are in 2nd position in the list of the similar pages (next to Clinical Chemistry).

Working Group on Electronic Journal of the IFCC (WG-eJIFCC); Chair: Gabor Kovacs (HU)

MAJOR ACCOMPLISHMENT: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. The process will continue in 2018 until the full eJIFCC archive will be published in PMC. Next steps: follow up of our application to WoS and Scopus for indexing of eJIFCC.

A new editor in chief will take over the role, as prof. Gabor Kovacs has completed his second term in December 2017. Many thanks to him for his commitment to increase further the eJIFCC quality level, and valuable efforts to bring our Journal in the renown international scientific publications arena. A new editorial board member joined the WG: Tamas Kószegi (HU). The CPD will identify a few associate or deputy editor/s to support the future, increasing work of the eJIFCC Editor. The eJIFCC collection is available at: <http://www.ifcc.org/ifcc-communications-publications-division-cpd/ifcc-publications/ejifcc-journal/e-journal-volumes/>

Volume 28 no 1/ 2017 – Feb 2017. The issue contains 9 manuscripts, 7 of them guest-edited by Prof. Edgard Delvin (CA), on "Recent Advances in Pediatric Laboratory Medicine" –

1. *Foreword of the editor* - Gábor L. Kovács
2. *Recent advances in pediatric laboratory medicine* -Guest Editor: Edgard Delvin
3. *Pediatric obesity and cardiometabolic disorders: risk factors and biomarkers* - E. Levy, A.K. Saenger, M.W. Steffes, E. Delvin
4. *Pediatric Metabolic Syndrome: pathophysiology and laboratory assessment* - Victoria Higgins, Khosrow Adeli
5. *Pediatric reference intervals for biochemical markers: gaps and challenges, recent national initiatives and future perspectives* - H. Tahmasebi, V. Higgins, A. Fung, D. Truong, N. White-Al Habeeb, K. Adeli
6. *The utility of CSF for the diagnosis of primary and secondary monoamine neurotransmitter deficiencies* - A.B. Burlina, A. Celato, G. Polo, C. Edini, A.P. Burlina
7. *Pediatric reference intervals for transferrin saturation in the CALIPER cohort of healthy children and adolescents* - Victoria Higgins, Man Khun Chan, Khosrow Adeli
8. *Congenital hyperinsulinism caused by a de novo mutation in the ABCC8 gene – a case*

- report - Z. Molnár, L. Balogh, J. Kappelmayer, L. Madar, É. Gombos, I. Balogh
9. *Letter to the editor – Hemochromatosis, erythrocytosis and the JAK2 p.V617F mutation* - Stephen E. Langabeer

Volume 28 no 2/2017 – May 2017. The issue contains 7 manuscripts (+foreword), 5 of them guest-edited by Prof. Tamas Kőszegi (HU) on “Advances in the diagnosis of sepsis”

1. *Foreword of the editor* - Gábor L. Kovács
2. *Advances in the diagnosis of sepsis* - Tamás Kőszegi
3. *Procalcitonin – assisted antibiotic strategy in sepsis* - Domonkos Trásy, Zsolt Molnár
4. *Advances and pitfalls in using laboratory biomarkers for the diagnosis and management of sepsis* - Dunja Rogić, Gordana Fressl Juroš, József Petrik, Ana Lončar Vrančić
5. *Nonconventional markers of sepsis* - Péter Kustán, Zoltán Horváth-Szalai, Diána Mühl
6. *Advances in the diagnosis of sepsis: hydrogen sulfide as a prognostic marker of septic shock severity* - Miha Košir, Matej Podbregar
7. *A validation study of after reconstitution stability of diabetes* - Shyamali Pal
8. *Case report. A toddler with anasarca caused by congenital nephrotic syndrome* - Tumelo M. Satekge, Olivia Kiabilua, Gertruida van Biljon, Komala Pillay, Tahir S. Pillay.

Volume 28 no 3/2017 – Oct 2017. The issue contains 7 manuscripts

1. *Postprandial dyslipidemia: pathophysiology and cardiovascular disease risk assessment* - Victoria Higgins, Khosrow Adeli
2. *e-Learning: a model to support ongoing education* - Ronda F. Greaves
3. *About the “Compendium of Terminology and Nomenclature of Properties in Clinical Laboratory Sciences”* -Georges Féraud, René Dybkaer, Xavier Fuentes-Arderiu
4. *Correlation of HbA1C levels with body mass index in newly diagnosed polycystic ovary syndrome* - Manju Bala, Meenakshi, Menaka K., Anjali Gupta
5. *Factors affecting quality of laboratory services in public and private health facilities* - in Addis Ababa, Ethiopia Eyob Abera Mesfin, Binyam Taye, Getachew Belay, Aytenew Ashenafi, Veronica Girma
6. *Retrospective approach to evaluate interferences in immunoassay* - Jayesh Warade
7. *Case report: biliary pancreatitis with acute cholangitis in a patient under anticoagulant treatment with dabigatran* - Franziska Baumann-Durchschein, Thomas Gary, R.B. Raggam

Volume 28 no 4/2017, the last published under Prof. Kovacs' chairmanship, Dec 2017. The issue is a TF-CKD special issue on “The laboratory diagnostics of chronic kidney diseases”. It contains 11 manuscripts, (+foreword and farewell article), 8 of them guest-edited by Dr Flavio Ferraz de Paes de Alcantara (BR) and Dr. Vanja Radišić Biljak (HR).

1. *Farewell message from the editor-in-chief* - Gábor L. Kovács
2. *Foreword of the editor* - Gábor L. Kovács
3. *IFCC Task Force on Chronic Kidney Disease (Integrated Project) (TF-CKD) special issue* – Flavio F. Alcantara, Vanja Radišić Biljak
4. *Task Force on CKD – we have come a long way* - Graham R. D. Jones
5. *Did creatinine standardization give benefits to the evaluation of glomerular filtration rate?* - L. Piéroni, A.S. Bargnoux, J.P. Cristol, E. Cavalier, P. Delanaye
6. *Moving toward standardization of urine albumin measurements* - Jesse C. Seegmiller, W. Greg Miller, Lorin M. Bachmann
7. *Cystatin C is indispensable for evaluation of kidney disease* - Anders Grubb
8. *Novel filtration markers for GFR estimation* - Amy B. Karger, Lesley A. Inker, Josef Coresh, Andrew S. Levey, John H. Eckfeldt
9. *A pathway to national guidelines for laboratory diagnostics of chronic kidney disease* - V. Radišić Biljak, K. Moberg Aakre, D. Yucel, A.S. Bargnoux, J.P. Cristol, L. Piéroni
10. *A summary of worldwide national activities in Chronic Kidney Disease (CKD) testing*

- R. Ruiz-Arenas, R. Sierra-Amor, D. Seccombe, S. Raymondo, M. S. Graziani, M. Panteghini, T. A. Adedeji, S. N. Kamatham, V. Radišić Biljak
11. *Evaluation of correlation coefficient of polyethylene glycol treated and direct prolactin results* - Shyamali Pal
12. *Letter: Lab test findings in the elderly* - Barna Vásárhelyi, Lóránd A. Debreczeni
13. Erratum



Working Group on IFCC NEWS (WG-e-NEWS); 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. The working group meeting was held in Athens on occasion of the EuroMedLab Congress. Newsflash: A number of “eNewsflash” items were sent between issues of the newsletter and this has contained items of special and urgent interest. The schedule of 6 issues per year has been maintained with good content and we plan to increase the rate of publication to monthly in 2018 as the IFCC board has requested a shorter and more frequent newsletter.

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 has also ensured 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 newsletter provides regular updates of the structure and strategy of the IFCC, Working groups, and Divisions and several of these have now appeared.

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 are participating into the WG activities representing all Ibero American IFCC countries. The RIA section of IFCC website is continuously updated. New programs and initiatives are planned, mainly focused on updating the RIA section of the website. DiV, Diagnostico in Vitro continues to be a major product of the WG-IANT activity, Three issues have been published in 2017. 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 - Dr. Peter Bialk

Peter Bialk (Roche Diagnostics) has provided great support for IFCC public relations. His recent activities included supporting recording of ICPLM Congress presentations for the eAcademy.

Khosrow Adeli, CPD Chair

TASK FORCES

Task Force on Ethics (TF-E)

Achievements during 2017:

- Created ethics teaching modules “Pearls” for *Clinical Chemistry* Trainee Council website. “Ethical Issues in Biobanking” by Ann Gronowski and Gwen Clark was completed and is now posted on the CCTC website. The Pearl has been shared with IFCC to post on the IFCC website.
- “Ethical Issues in Laboratory Medicine” Symposium was presented at the EuroMedLab meeting, Athens 2017. Symposium included three talks: “A primer in biomedical ethics”, Ann M. Gronowski; “Ethics in publishing”, Nader Rifai; “Case studies in ethics in laboratory medicine”, Trefor Higgins.
- Updated TF-Ethics website.
- TF-Ethics held a committee meeting in Athens during WorldLab.
- IFCC enews article on TF accomplishments and future plans was published February 2017.

Plans for 2017:

- Create a survey to send all IFCC member societies regarding their current ethics documents and future needs regarding ethics. Survey will request society documents on COI, code of ethics and relationship with industry. TF will then review all documents and create a list of suggested elements for each as a guide for member societies wishing to create their own documents.
- Create Ethics “toolbox” for Member Societies (starting with example COI and code of ethics from member societies) based on results from above survey.

Ann Gronowski (Chair)

Task Force on Paediatric Laboratory Medicine (TF-PLM)

Activities

The TFPLM has held 5 teleconferences during 2017 through the provision of GoToMeeting, kindly provided by the AACB contacts. The majority of these meeting focused on the organisation of the 14th ICPLM being held in Durban in October. A report of the ICPLM can be found in the February’s IFCC news detailing the congress. There were 120 registered participants from around the world attending this satellite meeting which preceded the IFCC WorldLab conference. The four Plenary Lectures and nine Symposia were delivered by 30 speakers, with over 25% of delegates from sub Saharan Africa. For first time the Congress was able to offer a large number of travel scholarships funded by sponsorship from the Society for the Study of Inborn Errors of Metabolism, which the organisers and successful applicants were truly grateful. In total 22 scholarships were awarded to delegates with 50% going to delegates from Africa and 50% the rest of the world.

Update of Reference Intervals

A summary of the TF activities in this theme were presented in the reference intervals symposium at ICPLM.

Update on Critical Values

A summary of the TF activities in this theme were presented in the Panel discussion of critical values during the ICPLM.

Update of Educational Activities

The main education activity of the ICPLM was as expected the ICPLM. A large proportion of the lectures delivered were recorded for the IFCC e-Academy, but currently none have been published on the website.



Three members recorded interviews for the EI-Microscopio audio website discussing the ICPLM and WorldLab congress.

The TFPLM gave auspices to the EuroMedLab2017 Satellite meeting on Inborn Errors of Metabolism held from 10-11/06/2017 in Athens and was organised by two of the TF members (MH and IP).

Several members of the TF were invited to prepare a consensus paper of paediatricbiochemistry for the journal Clinical Biochemistry.

- Paediatric Laboratory Medicine – Some reflections on the sub-specialty. Grey VJ et al (2017) Clin Biochem 50 (12), 648-650.

The TF has collected and collated several curriculums covering the pre and post registration/graduate training of laboratory and clinical staff in the area of paediatric biochemistry and inborn errors of metabolism. It is hope that this can be used to assess and prepare the content of future curriculum to ensure that important areas are covered and there is consistency across the board. The TF has commented on recently published curriculum in the UK and that of the IFCC education committee.

Michael Metz (Chair) and Tim Lang (Vice-Chair)

Task Force on Pharmacogenomics (TF-PG)

The TF-PG will merge with the Committee on Molecular Diagnostics (C-MD) under the Scientific Division for 2018. The Co-Chairs will be D. Payne and M. Linder.

Mark W. Linder (Chair)

Task Force on Chronic Kidney Disease (TF-CKD) (joint with WASPaLM)

Volume 28 no 4/2017 of the eJIFCC, the last published under Prof. Kovacs' chairmanship, Dec2017 was a TF-CKD special issue on "The laboratory diagnostics of chronic kidney diseases", containing 11 manuscripts, (plus foreword and farewell article), 8 of them guest-edited by Dr Flavio Ferraz de Paes de Alcantara (BR) and Dr. Vanja Radišić Biljak (HR). The TF-CKD will become the C-CKD, under the Education and Management Division in 2018, and Chaired by F. Alcantara.

Flavio F Alcantara (Chair)

Task Force for Young Scientists (TF-YS)

Achievements during 2017:

IFCC-TF YS is devoted to the preparation of young scientists for the ongoing challenges in laboratory medicine and healthcare practices. The TF creates a strong young scientists support group involving 1 chair; 5 core members; 1 consultant; 35 corresponding members; 1 corporate member. About 1500 members make up a large network at Google group, LinkedIn, Facebook and Twitter with regular exchange of information. More than 600 registered users at Lab-Surfing.com; Creation of a Discussion Forum for fast and easy communication (Q&A). Meetings conducted at IFCC-EFLM EuroMedLab Athens 2017, June 11-15: "**Meet the Experts**" Sessions, **Open meeting with Quiz, Social Gathering followed by Dinner**; COLABIOCOLI, Uruguay 2017, Sep 17-20: "Workshop for Young Scientists Networking"; IFCC WorldLab, Durban 2017, Oct 22-25: Symposium theme "ISO Accreditation & Quality Assurance" focusing African Regions and networking with young scientists; AMBICON, India 2017, Nov 17-19: Symposium theme "IFCC Young Scientists Forum"; ACBICON, India 2017, Dec 4-6: Symposium theme "Leadership Skills: Essential for Career & Organisational Success", ACBI-IFCCTFY Awards 2017 to 5 young

scientists; Online webinars for YS; Promotion of the “Mentorship Programme” and “Research Booklet”; New interviews published. The TF-YS webpage was updated throughout the year to reflect recent and forthcoming activities.

Plans for 2018:

Extend the YS network and encourage participation amongst each other the YS members. Symposiums at 1st IFCC, EFLM, AFCB Conference “Laboratory Medicine: Meeting the needs of Mediterranean Nations”– Rome, July 2018; Joint Symposium with SYCL at AACC Chicago, July 2018; IFCC General Conference Budapest, November 2018; Session and YS awards at National Conference, India; 3 Online Webinars; publishing Global “IFCC TF-YS Survey “results and initiating new needs based survey; Promotion of: Mentorship Programme, Lab-Surfing.com, Research Booklet, Radio “El Microscopio” and uniting YS globally.

Pradeep Kumar Dabla (Chair)

Task Force on Clinical Applications of Cardiac Biomarkers (TF-CB)

Educational materials describing the properties of high sensitivity cardiac troponin activities were produced, including a poster and a mouse pad. At each of the IFCC Athens and AACC San Diego meetings, 3000 posters and 1000 mouse pads were distributed to attendees at the IFCC booth. The TF completed the first of 2 tasks regarding updating educational tables for both cardiac troponin assays and natriuretic peptide tables. Three tables were posted in June for high sensitivity, contemporary and POC troponin assays, representing commercial package inserts globally on our webpage. These tables will be referenced as a link to the ‘Fourth Universal Definition of Myocardial Infarction’ paper that will be published next spring 2018. A fourth table on natriuretic peptides was posted in August. The TF established a joint venture with the AACC Academy, to draft updated educational guidelines regarding cardiac troponin, which has resulted in a manuscript that is under review at Clinical Chemistry. At the December 2017 meeting in London, manuscript preparations will begin for two papers addressing the characteristics of the tables (troponin and NP) posted on the IFCC website. The Chair has submitted proposals to the 2018 IFCC meeting in Barcelona and the 2018 AACC meeting in Chicago, to present TF-CB activities. The Chair has been in communication with the Chair of the POCT group (Chair Rosy Tirimacco), to improve the harmonization of cardiac biomarker educational documents and educational materials. Rosy will be invited to the December meeting in London. The TF has a 2017-2018 goal of developing a smart-phone APP to assist laboratorians and clinicians in better understanding cardiac biomarker assays based on data contained in the web-based tables and published educational documents in collaboration with the IFCC office and industry colleagues. This is a high priority agenda item for December meeting.

Fred Apple (Chair)

Task Force on Point of Care Testing (TF-POCT)

The TF-POCT will become the C-POCT under the Education and Management Division, with Rosy Tirimacco as the Chair. The EB agreed to a request from the Chair, Rosy Tirimacco, for a 12 months extension to find a new Chair and nominate two new members.

Rosy Tirimacco (Chair)



Task Force on Proficiency Testing (TF-PT)

Organization, history and previous achievements

The TF-PT is a multidisciplinary effort focused on the analysis and the exploration of Proficiency Testing issues. The **main project of the TF-PT** is the **creation of an online database - web application (PTDB)** accessible via web browsers also as via specific applications, for the major mobile platforms, offering much more functionality and ease of use. The contents of this database are the analytes (tests, measurands) that have to be filed with all possible synonyms, and the methods (assays, instruments, reagents etc) also with all possible synonyms. Another part of the database, maintained with the cooperation of the IFCC C-AQ and of EQALM, is the PT providers section containing all their contact information, their programs with the analytes, frequencies, type of statistics, commutability of control materials, and their accreditation or certification status etc.

During 2014, the TF-PT had his *kick-off meeting* at the WorldLab 2014 in Istanbul; afterwards at the *EuroMedLab 2015 congress in Paris* the members of the TF-PT had their *second annual meeting*. The result of this meeting was the production of two draft documents: one entitled “Exploration and Clarification of Specifications for the TF-PT Project” containing the analytical terminology of the project, and one entitled “Webpage IFCC Market Place Forum Supply and Demand EQA” describing the basic workflow diagram of the proposed application-database with various examples in a table form.

InSoft, the IT provider of the IFCC, appointed in November 2014, using the preliminary workflow and schematic of the PTDB started the implementation of this project and a **functional prototype** which was *presented at the Madrid General Conference* of IFCC. During this meeting the Chair of the TF-PT presented an **interactive workshop entitled “Meeting the clients with the producers on Proficiency Testing of rare analytes”** describing the aims, the projects, and the prototype of the **PTDB**. The presentation can be found at http://www.ifcc.org/media/412855/S6.12.Haliassos_WS_GC2016.pdf. Moreover, at the Madrid GC, the members of the TF-PT had their *third annual meeting*. Following this meeting, the TF-PT chair **in cooperation with the chair of the C-AQ**, prepared two emails, approved by the President of IFCC, to be sent automatically by the **PTDB** when this project will be rolled out, to the scientific community. These emails will invite the PT-EQA providers to cooperate in this project and register or update the data of their organizations in the database. Moreover, will request the cooperation of the National Representatives of the IFCC in order to spread the word about the functionalities of the **PTDB** project to the PT-EQA providers of their countries.

During the fall of 2016 the chair of TF-PT **participated at the EQALM EB meeting** (Barcelona, October 13th & 14th, 2016) where was *finalized the participation* and the *help* of the EQALM members for the **implementation, updating and maintenance of the TF-PT database**, especially the “P”roviders section. During the last quarter of the 2016 **another four (4) corresponding members**, *nominated by National Societies (3) or by Corporate Members (1)*, were added to the TF-PT.

Achievements during 2017

The *roll out of the “P”roviders database* by InSoft was achieved by the middle of February 2017 and *the, previously mentioned, letters* to the PT providers and the National Representatives **were sent during March 2017**. As a result, the **PTDB** has been updated by the organizations already included and amended by new PT providers listing their schemes. As of today (January 2018) we have **68 providers from all around the world** registered in the PTDB and the latest additions are from Mexico, *Russian Federation, Iran and India*. The PTDB can be consulted directly at <http://ptdb.ifcc.org/providers>

During the *EuroMedLab 2017 congress in Athens*, the members of the TF-PT had their *fourth annual meeting* and decided to start **the development and the implementation of the “A”nalytes section** and to start adding all the common analytes *from the already registered EQA-PT providers*. In order to continue this effort we decided to produce a document describing

all the fields required for the creation of an Analyte record and documenting this procedure, starting from the biomarkers of neurodegenerative diseases as they are quite complicated, but well documented and we have members at the committee with expertise in these markers. During the *EuroMedLab 2017 congress in Athens*, the **symposium** on EQA-PT issues entitled: “*External quality assurance - just a necessary evil or a valuable tool in laboratory management?*” was **co-organized with the EQALM** and, although scheduled on the last day of the Congress, **had great success**.

During the fall of 2017 the chair of TF-PT **participated at the EQALM EB meeting** (Dublin, October 19th & 20th, 2017) where the next steps of *the participation* and the *help* of the EQALM members for the *implementation, updating and maintenance of the PTDB*, **especially now including the new “A”nalytes section** was discussed, and the PTDB was advertised among the EQALM members.

From January 2018, according to the re-organization plan of the IFCC TFs, *the TF-PT has become a committee, the C-PT*, under the Education and Management Division (EMD).

Plans for 2018

After the implementation of *the above-discussed document*, describing all the fields required for the creation of an “A”nalyte record and documenting this procedure, **the development of the “A”nalytes database will be started** by InSoft.

At the same time, the C-PT with the help and cooperation of the InSoft will **start the development of e-documents on the use of the PTDB (manuals)**.

During the fall of 2018 the chair of the C-PT plans to **participate at the EQALM EB meeting** (Zagreb, October 18th & 19th, 2018) where the next steps of *the participation* and the *help* of the EQALM members for the *implementation, updating and maintenance of the C-PT database and the planning of a new co-organized symposium during EuroMedLab Barcelona 2019 congress*.

Alexander Haliassos (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 2017 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 2017 the FEN achieved the following:

- Compliance with the Handelsregister des Kantons Schwyz and the Swiss Foundation Supervisory Authority
- Publication of the annual report for 2016
- Approval of audited accounts for 2016
- Operation of the FEN website www.ifccfoundation.org
- Publication of two newsletters
- Promotion of the FEN through various IFCC media outlets
- Liaison with the AACC Global
- Fundraising initiatives
- Support for and monitoring of four funded projects

Completed Projects:

'Lab Surfing': A resource to facilitate global exchange between young scientists:

'Lab Surfing' is a project designed and operated by the IFCC Task Force for Young Scientists (TF-YS). 'Lab Surfing' is a website that connects YS from around the world and facilitates self-organised exchange programmes between YS trainees in laboratory medicine. Several hundred YS are engaged with 'Lab Surfing'. A report is on the FEN website. Details are available from www.lab-surfing.com

'Adopt a Professional': Collaboration to support the training of laboratory medicine: specialists

The 'Adopt a Professional' programme is a collaboration between the FEN and the Società Italiana di Biochimica Clinica e Biologia Molecolare Clinica (SIBioC) to support training in laboratory medicine to scientists from designated emerging nations. Trainees are selected on merit to spend time training in an Italian centre of excellence. During 2017 two trainees participated in the 'Adopt a Professional' programme:

- From June to August Lumbani Phiri from Zambia trained in Palermo under the supervision of Prof M. Ciaccio. A report is on the FEN website
- From December José Guillermo Pereira Brunelli from Paraguay trained in Rome under the supervision of Prof. S. Bernardini. A report is awaiting approval.

Ongoing Projects:

'Africa LabMed Radio':

The FEN supported the purchase of equipment to enable an internet radio station to be established for all countries in Africa. Interviews and news items will be archived. Young scientists have been recruited as reporters. The project will reach maturity in 2018.

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 is working with EPHI to develop training support for microscopists. The project will be implemented during 2018.

Challenge:

The greatest challenge faced by the FEN during 2017 was raising funds to support the ongoing work of the Foundation.

Acknowledgement:

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

Graham Beastall (Chair)

Federations



AFCB **Arab Federation of Clinical Biology**

The Arab Federation of Clinical Biology (AFCB) is a regional federation of associations, societies and syndicates of clinical biology and medicine laboratory created in 1974 and represented by 12 members. The principal objective of AFCB is the Development of the clinical Biology and laboratory medicine in the Arabic World.

The principal Arab societies and AFCB activities during 2017 were the following:

I) Activities of Arab Societies in 2017

1. Algeria: Association Algérienne des laboratoires d'Analyse Medicale (ALAM)

- Training day on automated spermogram March 18, 2017
- The 2nd Congress of Practical Biology and the 7th French speaking day of biology November 27-28, 2017

2. Lebanon: Syndicat des Biologistes du Liban - Lebanon (SNBL)

- VII Congress of Lebanon Biologist and IV Congress of the International Francophone Federation, under the IFCC and AFCB auspices - March 2-3-4, 2017 (28 CME)
- Continuous Education Session - November 4, 2017 (3 CME)
- Continuous Education Session - November 19, 2017 (1.5 CME)
- Continuous Education Session - April 2, 2017 (3 CME)
- Partnership Agreement between SBL and Association FCBM (Toulouse France): e-Medicine Image (Hematology-Parasitology-Bacteriology)
- Organization of EQC in Biochemistry, Hematology, Hormonology for all Lebanon laboratories

3. Morocco: Société Marocaine de Chimie Clinique (SMCC)

- 17th Moroccan days of Clinical Biology - October 5-7, 2017 in Marrakech
- Work shop: meeting Clinical -biology about Procalciton - September 15, 2017

4. Palestine: Palestinian Medical Technology Association (PMTA)

The PMTA is a very active Society

- Regional Clinical Lab. Conferences in 11 Governorates 2017
- Workshop Clinical Endocrinology - April-21, 2017
- National Lab. Week Theme "Unite for Patient Care" - April-25, May-12, 2017
- Workshop HbA1C & Hb Electrophoresis challenges and solutions - April-25, 2017
- Festival of the Labor Day - May-1, 2017
- Festival of Blood Donations Day - June-14, 2017
- Blood donation Campaign in all Palestinian Governorates -June and July, 2017
- Workshop Genetics & Society – October 3, 2017
- Festival for the Diabetes World Day - November 14, 2017
- Workshop QC in Lab. Medicine - November 17, 2017



5. Syria: Syrian Clinical Laboratory Association (SCLA)

The SCLA has a particular situation, it was a very active society but unfortunately their activities have been disrupted during the last fifth years in relation with the political and social situations. During 2017, the SCLA has organized and several workshops and educational programs:

- The Damascus lab days - January 24-25-26, 2017
- Infertility and tumors
- Infections, bacterial transplants and parasites
- Autism in clinical laboratory
- Molecular biology
- Heart valves.
- Autosomal diseases and systemic diseases.

6. Tunisia: Tunisian Society of Clinical Biology (STBC)

The STBC has organized JNBC2017 and several workshops and educational programs:

- Clinical-biological screening of the T21 - December 15, 2017
- Characteristics of the biological assessment in geriatrics - November 24, 2017
- Anti-vitamin K - October 23, 2017
- Thyroid exploration: the need for a clinical-biological dialogue - October 14, 2017
- World Thrombosis Day - October -13, 2017
- Validation of an automatic blood count - October-6, 2017
- Pre-congress and JNBC 2017 - May 8-12, 2017 Hammamet
- Parasitological diagnosis of amoebiasis - April 7, 2017
- Diagnostic traps in hemostasis - March 24, 2017
- Automation in microbiology, decision criteria, controls and traps – January 20, 2017
- The scientific day of the CNTS - January 19, 2017
- Edition of the journal of clinical biology “revue Tunisienne de Biologie Clinique (RTBC)”

7. Saudi Arabia: Saudi Society for Clinical Chemistry (SSCC)

The principal activities of the SSCC were the following:

- The Annual meeting for the SSCC Jeddah - November 21-23, 2017. The society hosted about 500 delegates.
- Education: Preanalytical working group was created with BD collaboration - The SSCC is collaborating with the journal called Journal of Health Specialties
- Med Lab conference, Dubai, UAE 5-8 Feb 2017 The society contributed with speakers in the scientific program
- The best of AACC in the Middle East, Abu Dhabi, UAE – March 23-24, 2017. Collaborated with the AACC and Alborg laboratories in conducting the conference
- Collaboration with other Saudi Laboratory Societies i.e. Saudi society for Clinical Laboratory Sciences (SSCLS) has been established.
- The SSCC was able to support one of the IFCC Travel Scholarship to attend Durban IFCC World Lab meeting 2017. A Young Scientist from Zambia was able to attend the meeting. The Scholarship sponsoring was called “IFCC SSCC Travel Scholarship”.

8. Libya: Libyan society of Clinical Laboratories (LSCL)

During 2017 the LSCL has realized:

- Celebrate world blood donor day
- Training was carried out in many hospitals related to all aspects of professional quality laboratory activities;
- Antimicrobial Resistance
- Bio-safety and bio-security: 3 workshops

9. Egypt: The Egyptian Society of Clinical Chemistry and Clinical Laboratory Sciences (ESCC)

10. Jordan: Jordan Society for Medical Laboratory Sciences.

11. Sudan: Sudanese Society of clinical Biology (SSCB)

The three countries have organized their National congress and workshops

12. Yemen: Clinical Laboratory Sciences Society Yemen (CLSSY)

Has reduced activities in relation of their political and social situation

II) AFCB Activities

The AFCB has organized with the collaboration of EFLM, FIFBCML and AFCC two successful experiences (horizontal collaborations) in Athens and Durban:

1. EuroMedLab, Athens (Greece), June 11-15, 2017

A Mediterranean leading platform for collaboration and innovation in laboratory medicine
Chair: M. Zablit, B.Gouget and Co-chair: F Ben Hassine, S.Amarine

- A key player in the surrounding region to strength clinical labs infrastructures and Expertise: C. Hadad
- The role of the SMCC fore sharing and transferring laboratory medicine knowledge in Morocco: L. Chabraoui
- STBC Trends in medical biology in Tunisia: A. Hedhili
- ALAM the added –value of the clinical laboratory in the Algerian health Care system: A. Chachou
- Round Table Challenge in the management of laboratory Medicine in the Mediterranean and Middle East: MT Ben Jelloun, T.Messoud, A.Ghedira, A.Sabah

2. IFCC WorldLab, Durban (South Africa), October 22 - 25, 2017

With the collaboration of the AFCC: The evolution of lab medicine in the Arabic countries
Chair: L. Chabraoui (Morocco), B. Gouget (France)

- The role of International aids to fight AIDS, tuberculosis and malaria in developing countries with special emphasis on Africa G. Shannan (Syria)
- Pandemic Preparation and Response in the AFCB countries: M. Haddad (Lebanon)
- The primary care and round table session on Quality management and EQC in the Arab Federation countries the lab: an AFBC concern M.H. Kamil

3. The next 15th AFCB Congress will held in Palestine, Ramallah April 18-21 ,2018

Abderrazek Hedhili, AFCB Representative



AFCC
African Federation of Clinical Chemistry

AFCC was actively involved in IFCC activities in the year 2017 as expected. Our challenge as a federation continues to be that only few countries within Africa are part of AFCC. Out of 54 countries in Africa we still can only boast of our presence in less than 14 countries across length and breadth of Africa. However, we have continued to make sure that the few countries who are members are actively involved in AFCC activities



ELECTION OF NEW EXECUTIVE BOARD MEMBERS:

As the term of current officers of the AFCC Board will come to an end on the 31st of December 2017, the meeting proceeded with elections for the positions of President-Elect, Secretary and Treasurer for the term 2018 - 2019. The results of the elections are as follows:

- a. **President:** Professor Rajiv Erasmus
- b. **Immediate Past President:** Prof AB Okesina
- c. **President Elect:** Dr.Mable Charles Davis
- d. **Secretary:** Mr Hilary Lumano
- e. **Treasurer:** Dr Josephine Onakoya
- f. **Member at large:** Prof Chabraoui
- g. **Member at large:** Dr Gizachew Akalu

AFCC PARTICIPATION AT WORLD LAB CONGRESSES IN DURBAN.

For the first time, AFCC in conjunction with South African Association hosted symposia at World Lab Congresses and we hope that Africa will be encouraged to host again in the nearest future. This hosting has created a very positive impact by creating awareness of the existence of IFCC in various African countries. IFCC supported many young scientists from Africa to the congress. Member countries were asked to involve many of their Young scientists to become corresponding members; but we need to clarify whether only one member qualifies to be a corresponding member or more than one can do so from the same country. In addition during this congress AFCC, supported WorldLab Durban by organizing a lunch symposium on Diabetes in Africa and supported the travel of 2 international speakers. IFCC supported the travel of nearly 90 young scientists from Africa which was a landmark for Africa. Congratulations to our member society, SAACB for hosting a successful meeting.

AFCC RADIO PROJECT.

It was reported that IFCC through Foundation for Emerging Nations donated 10,000 |CHF for the internet radio project based in Zimbabwe. The funds have since been remitted from the AFCC account to Professor Matarira for the Radio Project. Prof Matarira will move the project forward.

OTHER ACTIVITIES

1. Young scientists participated in several webinars in the Federation
2. Molecular Training workshop was held at different times
3. Assisted Kenya Association of Clinical Pathology with their academic program
4. Prof Rajiv Erasmus, interacted with Africa Society for Laboratory Medicine with a view to reactivate the MoU signed between ASLM and IFCC in 2012 which lapsed last year after 5 years of its duration. We hope therefore to sign another one and make sure it is functional.

CHALLENGES FACED

These were mostly related to financial issues and delays in transactions. The high bank fees continued to have an impact

FUTURE PLANS

The new executive has put forward an action plan which has been approved by AFCC Board

Adekunle Bashiru Okesina, President



APFCB

Asia-Pacific Federation of Clinical Biochemistry and Laboratory Medicine

1. Executive Board

President	Sunil Sethi (Singapore)
Immediate Past President	Leslie Lai (Malaysia)
Vice-President	Endang Hoyaranda (Indonesia)
Secretary	Helen Martin (Australia)
Treasurer	Leila Florento (Philippines)
Corporate Representative	Alexander Wong (Siemens)

2. Chairs of Standing Committees

Communications (C-Comm)	Praveen Sharma (India)
Congress and Conferences (C-CC)	Elizabeth Frank (India)
Education and Laboratory Management (C-ELM)	Tony Badrick (Australia)
Scientific (C-Sci)	Sam Vasikaran(Australia)

3. APFCB members

The current APFCB membership status stands at 18 Ordinary members, 6 Affiliate members and 18 Corporate members.

4. Memorandum of Understanding (MoU) between IFCC and APFCB

A renewed MoU was signed in March 2017 between the Presidents and Secretaries of both organisations. A new clause in the MoU included the election of an APFCB official within the Executive Board of the IFCC. At the APFCB Council Meeting in Taipei, Taiwan in November 2016, it was resolved that the best suited person for this role was the elected APFCB President. The inaugural APFCB representative in the IFCC EB is Sunil Sethi and his term is for three years from Jan 2018- Dec 2020.

5. Annual IFCC grant

The IFCC continued to support the APFCB with CHF 10,000 in 2017. Funds were disbursed into the APFCB Philanthropic Fund. These funds are used exclusively for support of travel awards for young scientists to attend conferences to present their research and for support of educational activity to the less developed countries within the APFCB.

6. WASPaLM-APFCB MoU

A renewed MoU was signed in November 2017 between the Presidents of both organisations. The MoU sealed the close relationship between the organisations and underscored the importance of supporting each other during scientific and educational events. An APFCB scientific symposium entitled Informatics and Laboratory Results, was part of the WASPaLM programme and was conducted immediately after the MoU signing ceremony.

7. Education and Laboratory Management Committee (C-ELM)

Chair: Dr Tony Badrick (Australia)

Committee

The Committee has been restructured in 2017/18 with each member given a responsibility for a component of the broad range of activities undertaken by the C-ELM. The Committee



compromises 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)

- **APFCB Travelling Lecturer for 2017 and 2018**

Dr Elina Raja, President of the Malaysian Association of Clinical Biochemists (MACB) was appointed APFCB TL for 2017. Her first engagement will be at the 3rd Annual Scientific Conference in Colombo, Sri Lanka on 15-17 March 2018. The title of her presentation is Drugs of Abuse Testing – Past, Present and Future.

- **MACB-APFCB Chemical Pathology Course, Kuala Lumpur, Malaysia 7-8 September 2017**

This was the second in the series of the Malaysian Association of Clinical Biochemists (MACB) – APFCB course. There were about 90 participants at the APFCB-MACB Chemical Pathology Course held in KL over two days in September.

- **Pre-Analytical Working Subgroup to Develop a Phlebotomy Process Auditor Training Program**

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 who will assist in the development and delivery of this program was signed in Singapore in late January 2018.

- **Interpretative Comments Programme**

The purpose of these cases and suggested responses is to provide some clinical cases for continuing education. There was wide range of responses with between 15 and 45 participants. The Interpretative Comments program will continue in 2018. Dr Loh Tze Ping, Singapore, will take over the management of this program with an emphasis on basic result interpretation.

- **Development of Material for Self-directed Learning for QA/QC**

The C-ELM will continue to populate the website with suitable material for laboratory staff to learn basic aspects of QA and QC.

- **Roche Pre-analytical Workshops**

The Roche Lean training program will continue for year 2 in Vietnam. There have been 3 courses with over 40 local staff trained. The expectation is that there will be further courses this year. The role of the APFCB is to monitor progress and ensure that projects continue to be completed.

- **Green Practices Survey**

To continue to promote green laboratories, a survey of suppliers will be undertaken to gauge green policies with production, distribution and use of environmentally friendly material.

- **Vietnam PoCT and Clinical Biochemistry Courses**

The work of Ronda Greaves in Vietnam will continue with further workshops in Hanoi and HCMC.

- **APFCB Workshop held at the IFCC WorldLab Congress, Durban, South Africa**

The APFCB was invited in 2016 to conduct a symposium/workshop at the IFCC WorldLab in Durban, 22-25th October 2017. The APFCB workshop, entitled Clinical Endocrinology, covered aspects of clinical endocrinology, Vitamin D and osteoporosis, parathyroid disorders and their investigation, and clinical cases on thyroid and adrenal disorders.

- **APFCB Symposium at WASPaLM, Kyoto, Japan, 20th October 2017**

APFCB was invited to conduct a symposium entitled Informatics and Laboratory Results at the WASPaLM Kyoto meeting. There were three speakers: Sunil Sethi who spoke on

Laboratory middleware, process control and result auto-verification; Tony Badrick (co-chair) on the topic Using External Quality Assurance Information and Communications Technology to drive improved Reporting; and Helen Martin who addressed Critical Risk Result Reporting.

- **APFCB-AACC Quality Workshops**

There is a new collaborative project between APFCB and the AACC. Planning has begun for the Global Laboratory Quality Workshop series, “Adding Value to Patient Care Using Quality Control” in the Asia-Pacific region from August 2018. Workshops in Nepal, Sri Lanka and Philippines are being planned, with a similar pre-congress workshop at APFCB Congress in Jaipur in November 2019.

8. Scientific Committee (C-Sc)

Chair: Sam Vasikaran (Australia)

Committee:

Kiyoshi Ichihara, Chair of Reference Intervals WG,
Graham Jones, Chair of APFCB / WASPaLM Task Force on CKD,
Leslie Lai, Vice Chair and WASPaLM Rep-APFCB / WASPaLM TF CKD,
Ronda Greaves, Chair of Mass Spectrometry Harmonisation WG
Tester Ashavaid (TD) Chair of Pharmacogenetics WG

- **Mass Spectrometry Harmonization Working Group**

A survey for 17OHP for serum and plasma was carried out via several national, regional societies/ bodies. Next steps include – technical survey/ recommendations – on minimum volumes, dynamic range of assays, consideration of QC levels, internal standards, EQA and accreditation. Work is in conjunction with the IFCC and AACB.

- **Focus on Diabetes Mellitus**

It was discussed at the APFCB EB meeting in January 2018 to focus on the disorder of diabetes mellitus – with activities involving a survey on HbA1C diagnostic cut offs, PoC versus mainframe testing, and possible APFCB region-wide accuracy-based A1C PT programme.

9. Communications Committee (C-Comm)

Chair: Praveen Sharma (India)

The Chair of the Communications Committee is also the Chief Editor of the APFCB e-News. The official communication newsletter for APFCB, APFCB e-news is being published online since 2010. The publication team includes:

Leslie Lai	General and Case Studies Editor
Tester Ashavaid	General and Case Studies Editor
Aysha Habib	General and Case Studies Editor
Dr Purvi Purohit	Web Editor
Dr Purvi Purohit	Assistant Editor

- **APFCB e-News**

The APFCB e-news is available free online for all and this has ensured wide reach of the APFCB e-News to all members at no additional cost.

- **Website**

The website is regularly updated with comprehensive information on the organisation and activities of APFCB and its member societies and latest announcements of conferences and workshops of member societies.





10. Congress and Conferences Committee (C-CC)

Chair: Elizabeth Frank (India)

In 2017, APFCB auspices was provided for the following meetings:

1. College of Chemical Pathologists, Sri Lanka, Annual Academic Session, 24-25 February 2017.
2. The Iranian Association of Clinical Laboratory Doctors (IACLD), 10th International & 15th National Congress on Quality Improvement in Clinical Laboratories, 20-23 April 2017, Tehran, Iran.
3. The 9th Scientific meeting and Chemical Pathology Course, July 2017, Vietnam.
4. 2nd APFCB-SACB-Siemens Specialty Meeting on Laboratory Excellence, 29 September 2017, Singapore
5. Korean Society of Laboratory Medicine, 58th Annual Meeting, LMCE 2017, 18-20 October, Seoul, South Korea
6. Association of Medical Biochemists of India, 25th Anniversary Silver Jubilee AMBICON, 15-19 November, Mysuru, India
7. 44th National Conference of Association of Clinical Biochemists of India (ACBICON 2017), 3-6 December 2017, Lucknow, India
8. Roche Efficiency Days (RED), 30 Nov-1 Dec, Taipei, Taiwan

11. Corporate Report by Dr Alexander Wong (Siemens Healthineers)

Corporate Member Activities

- Appointment of Corporate Representatives to APFCB Committees
The following Corporate Representatives have been nominated to the respective Committees –
C-ELM – Ms Jozica Habijanac (Roche)
C-ELM – Mr Amit Manjure (Siemens)
C-SC – Mr Tan Swee Jin (Sysmex)
- **2nd APFCB-SACB-Siemens Specialty Meeting on Laboratory Excellence**
APFCB, SACB and Siemens continued their joint collaboration to organize the second series of Specialty Meetings in Singapore, with the topic on “Laboratory Excellence”.

12. Special Event

The Association of Medical Biochemists of India, 25th Anniversary Silver Jubilee AMBICON, was held on 15-19 November, in Mysuru, India.

13. The 15th APFCB Congress 2019

The 15th APFCB Congress 2019 is being hosted in Jaipur, India from 17-20 November 2019. The event website is <http://www.apfcbcongress2019.org/>. The various congress committees have begun work and registration will be open shortly. The exciting scientific programme will include symposia from IFCC, AACC and WASPaLM. The hosts cordially invite you to participate in this grand event.

Sunil Sethi, President



COLABIOCLI

COLABIOCLI Latin-American Confederation of Clinical Biochemistry

COLABIOCLI active affiliated member societies are:

ARGENTINA	EL SALVADOR	PARAGUAY
BOLIVIA	SPAIN	DOMINICAN REPUBLIC
BRAZIL	GUATEMALA	URUGUAY
CHILE	HONDURAS	PUERTO RICO
COLOMBIA	MEXICO	VENEZUELA
CUBA	NICARAGUA	
ECUADOR	PANAMA	

The Uruguayan Association of Clinical Biochemistry” (ABU) was elected during the COLABIOCLI General Assembly in 2015, with four executive members starting from January 1st, 2016 to December 31st 2017. **During COLABIOCLI General Assembly in 2017, ABU was reelected with three executive members in agreement with the new statutes until the end of 2019.**

1) EDUCATIONAL ACTIVITIES

- The Quality Management Manual for Laboratories mentioned at the PAHO website was published also at the COLABIOCLI website and sent via email to affiliated societies.
- The On-line Course of Neonatal Screening entitled “What can be prevented in a drop of blood”, coordinated by Prof. Graciela Queiruga, PhD, was held by internet the Moodle COLABIOCLI platform on March 6, 2017. The course was free of charge COLABIOCLI Affiliated Societies members and for the Latin American society on Inborn Errors of Metabolism (SLEIMPN). This course had a duration of 12 weeks, a module per week and final evaluation. There were 705 participants from all Latin America.
- The On-line Course of Creatinine Standardization was also using the Moodle COLABIOCLI platform from Uruguay under the coordination of Prof. Dr. Stella Raymondo, beginning in July 2017 and lasting 11 weeks. It received the sponsorship of the Latin American Society of Nephrology and Hypertension with 579 colleagues registered from Latin America as follows: Bolivia (13%), Paraguay (13%), Guatemala (5%), Argentina (20%), Colombia (15%), Ecuador (17%), Panamá (4.3%), Venezuela (2.1%), Chile (1.8%), Dominican Republic (4.8%) and Uruguay (4%). From those, 328 (57%) completed the evaluation and approved the e-course. A survey was conducted to evaluate the organization, the materials, usefulness, access and use of the platform.
- The Quality Management Course coordinated by Dr. JP Grammatico was once more disseminated by PAHO to COLABIOCLI member societies throughout the COLABIOCLI platform based in Uruguay, and under request by Dr. JM Gabastou, PAHO Coordinator.
- A future topic of interest for PAHO is a course Tuberculosis, as mentioned by Dr JM Gabastou as well, and in particularly using the COLABIOCLI platform within the framework of PAHO, granting scholarships, with speakers specialized on the topic and under the coordination of JP Grammatico.

2) LEGAL ASPECTS

- With the object of obtaining a Legal Status as a Non-Profit Scientific Association for COLABIOCLI, several meetings began to register the Statutes in the Ministry of Education and Culture (MEC) in Uruguay.
- On April 2017, a request was received from the Spanish Society of Clinical Chemistry

and Laboratory Medicine (SEQC), to apply for a category membership of Collaborator of COLABIOCLI.



3) AWARDS

- It was decided to implement a new award to distinguished COLABIOCLI professionals in future COLABIOCLI Congresses. Therefore, a Recognition to Carmen-Socorro Garcia from Venezuela and to José Abol-Correa from Brazil was carried out. The acknowledgment was notified to the corresponding National Societies and a plaque was presented during the XXIII Congress of Clinical Chemistry in Punta del Este, Uruguay.

4) SCIENTIFIC ACTIVITIES

- Prof. Dr. Graciela Queiruga, new elected COLABIOCLI president was invited to attend a PAHO meeting to discuss the topic “PESQUISA NEONATAL in Latin America” (Neonatal Screening in Latin America).
- Prof. Queiruga, attended the 44th SBAC Congress took place in Joao Pessoa, Brazil from June 11 to 14, 2017, with more than 2,000 participants.
- COLABIOCLI participated at the IFCC Conference in Durban with a Symposium entitled: Dengue, Chikungunya and Zika, from October 22 to 25, 2017. This activity was coordinated by Prof. Dr. Montserrat Blanes from Paraguay, with the participation of Dr. Abraham Marcel from Cuba. This symposium was attended by Industry representatives and colleagues from South Africa interested in the topic. During the IFCC General Assembly held on October 20th, 2017, the results of the Nominations committee and final results of the elections for Regional Representatives were informed. A posthumous Gold Medal was presented to Dr. Daniel Mazziotta (Argentina) who served as IFCC EB Member in the previous term of office.
- The XXIII Latin American Congress of Biochemistry (COLABIOCLI) was held at the Punta del Este, Uruguay at the Convention Center from September 16 to 20, 2017. More than 100 speakers and 500 participants from Latin America and Europe participated, this was a Regional congress of IFCC, where Visiting Lecturers were granted by IFCC VLP Program.
- In 2017, the XVIII National Congress of Laboratory professionals took place from October 26 to 29 at the Hard Rock Hotel in the Dominican Republic with the participation of the President of COLABIOCLI and the attendance of 1200 professionals.

5) SCHOLARSHIPS

- There was a call for scholarships for internships. Two applications were received from the Uruguayan Biochemical Association (ABU). The aspirants made an internship in Paraguay, the research area of interest was renal Lithiasis; the second internship took place in Brazil, where the area of interest was Hemoglobinopathies.
- A second call for scholarships was made for the 72nd Argentine Congress of Biochemistry. There were seven aspirants (four from Uruguay, two from Argentina and one of Ecuador); once the draw was made, the beneficiaries were one from Ecuador and one from Uruguay.
- A fellowship application was sent to all countries for young researchers. Two scholarships were awarded for the COLABIOCLI Congress in Punta Del Este, they were one of Argentina and one of Uruguay.

6) WORKING GROUPS AND PROJECTS.

- A **Bioethics Working Group** was initiated under the coordination of Dr. Nilda Fink. (Argentina). Call for nominations from affiliated societies is on process.
- A **Curriculum Career Project for Clinical Laboratory Professional Working Group** which was held in Córdoba, Caracas and Quito was re-initiated.
- **Preanalytical Working Group.** The goal is to study (pre-) pre-analytical variability's and establish guidelines to be used by clinical laboratories and health care professionals in

Latin America. The Pre-A WG is formed by the following members:

- Chair Gabriel Lima- Oliveira (Brazil)
- Secretary: Beatriz Varela (Uruguay)
- Member: Patricia Ochoa (Ecuador)
- Member: Ma. Elena Arredondo (Chile)
- Member; Eduardo Aranda (Chile)
- Consultant: Gian Cesare Guidi (Italy)
- A **Project PAHO-COLABIOCLI**. President, Prof. Graciela Queiruga worked on the agreement PAHO-COLABIOCLI, where some changes on the regulation as well as the complementary guide established the basis for the organization in future activities of COLABIOCLI.

7) WEB SITE

- A new image of the webpage, with notes and photos of the activities were included, such as congresses in Punta del Este, Brazil, Cali and Santo Domingo.

8) NEW AUTHORITIES

- After the statutes were changed and approved at the Buenos Aires General Assembly in 2016, the new elected countries to lead the COLABIOCLI at the Assembly on September 19, 2017 were:
 - Uruguay with three positions: President, Secretary and Treasurer.
 - Bolivia: Vice-Presidency
 - Panamá: First Member
 - Paraguay: Second Member
 - Dominican Republic: Third Member.

After the general assembly, countries elected reported to COLABIOCLI the name of the person representing that position at COLABIOCLI Board.

Graciela Queiruga, President
Stella Raymondo, Vice-President



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

GENERAL MEETING

EFLM held its tenth General Meeting in conjunction with the EFLM EuroMedLab on 11 June 2017 in Athens, Greece, where 25 out of 40 EFLM Member Societies (NS), were represented. The EFLM President, Sverre Sandberg (SS), greeted the audience and welcomed delegates to the General Meeting (GM) in Athens. SS pointed out that IFCC proposal concerning membership of IFCC shall not be discussed, because it will first be elaborated in more details within IFCC. Once EFLM receives a well elaborated proposal, it will be discussed among EFLM members. SS reminded all attendees that EFLM is 10 years old and that one of the founders of EFLM was Vic Blaton, who sadly passed away earlier this year and who had the idea that there should be one organization within Europe and that therefore EC4 and FESC should be merged. SS called for one minute of silence to memorize the legacy of Vic Blaton. SS also provided an overview of the recent EFLM activities, since the last GM in Paris. SS said that EFLM is representing laboratory medicine in Europe and that EFLM is doing what NSs want it to do. SS called all participants to send their proposals for future actions and activities to EFLM. Furthermore, SS pointed out that



the goal of EFLM is to include representatives from all EFLM NSs in different functional units of EFLM. SS encouraged all NSs to engage more in the work of EFLM and invited all countries who are not represented yet within the EFLM, to send their nominations to various WGs. SS again reminded NSs why there was a change in bylaws. He continued by emphasizing that EFLM is trying to make a new image. SS called on all participants and NRs to support the EB in all EFLM matters, where they may see improvements. The inclusion of EC4 into the EFLM structure was successfully managed and SS explained why this was important and how it was done. Furthermore, he gave a brief overview of the ongoing and future projects within EFLM. At the end of his presentation, SS thanked all EFLM officers who voluntarily contribute to EFLM for their hard work. There were no comments. The report was endorsed.

Huib Storm (HS), EFLM Treasurer, gave a report on audit, balance sheet 2016, internal budget 2016. Audit of the EFLM financial matters for 2016 had been done in accordance with GAAP (General Accountant Audit principles) by the certified auditor. The audit was successful and EFLM has obtained a certificate proving that EFLM accounts are maintained fully in accordance with the Belgian law and GAAP. HS presented the Balance sheet for 2016 according to Belgian GAAP and invited EFLM NSs for its approval. GM has approved the accounts by General Meeting (which constitutes the discharge for EB members). HS has also presented the Internal Budget 2017 and asked for its formal approval. EFLM GM approved the Internal budget unanimously. During the GM elections were held for the positions of EFLM Vice President, Secretary, Treasurer and the two Full Members. Mauro Panteghini, the Past President (MP) acted as election supervisor and communicated the formalities: with 25 NSs present at the GM floor, the quorum of 21 votes was reached and simple majority defined at 13 votes. All decisions are made by a simple voting (majority of votes present). Ana-Maria Simundic was the only candidate and was elected by acclamation as EFLM President-elect. Giuseppe Lippi was the only candidate and was elected by acclamation as EFLM Secretary. Huib Storm was the only candidate and was elected by acclamation for a second two-years term as EFLM Treasurer (third term). Candidates for 2 Member-at-large positions were: Tiago GUIMARAES (Portugal), Grazyna SYPNIEWSKA (Poland), Michel LANGLOIS (Belgium) and Tomas ZIMA (Czech Rep). As there were 4 candidates for 2 Member-at-large positions, MP invited GM members to first vote for a first position. Two candidates had the same lowest number (5) of votes (SYPNIEWSKA and LANGLOIS). MP said that according to the procedure there should be another voting round, but he said that NSs could also decide to exclude two last candidates with the least number of votes. NSs voted for the preferred choice and 20/25 NSs were in favour of dropping last two candidates. As Tiago Guimaraes had received the majority of votes, out of the two remaining candidates, he was elected for the first Member-at-large position. As Tomas Zima had received the majority of votes, he was elected for the second Member-at-large position (third term).

EFLM EB had already discussed rules for the election of the Regional Federation Representatives to the IFCC Executive Board on several occasions. EFLM EB strongly supports that an individual representing a Region is selected by a Region according to the Region agreed electoral process and that this person participates in the policies and actions of a Region. If a separate election is organized by IFCC to elect a “regional representative” in their EB, EFLM EB thinks that there will not be any structural connection between the Regional Federation (e.g., EFLM) and IFCC. To overcome this situation, MP presented a proposal for the Election Procedure for European Region in which 1) the EFLM EB recommends the EFLM President or his/her representative (i.e., a person seated in the EFLM EB) to its Members for being elected at the IFCC EB; 2) the constituent NS officially nominates this person to IFCC for organizing a ballot to have the NRs approval. The GM has fully supported this proposal and gave the mandate to the EFLM EB to propose an official procedure, which manages all necessary steps in accordance with this decision (including a change in the EFLM statutes if needed). The proposal was voted electronically and approved by more than $\frac{3}{4}$ of the NSs.

In the remaining part of the GM, Kosovo was automatically endorsed as EFLM Full Member having received the status of IFCC Full Member, whilst Slovak Society for Laboratory Medicine

has applied for Provisional membership and has submitted all necessary documents. This is a subject to voting by the EFLM NSs. This decision has been voted for by 25/25 votes. Reports about the past and ongoing activities within the EFLM functional units were given by the Science Committee (E. Kilpatrick, C-S Chair), Profession Committee (G. Wieringa, C-P Chair), Quality & Regulations Committee (W. Huisman, C-Q-R Chair), Education & Training Committee (R. Lichthagen, C-ET Chair) and Communication Committee (M. Graziani, C-ET Chair).

EXECUTIVE BOARD

Some of the leading activities planned and developed during 2017 are listed below.

- New image of EFLM (new logo, new website, new Newsletter).
- Definition of the policy for the nomination of the Regional representation at the IFCC Board.
- Improve the quality, number and spread of EFLM Publications.
- Develop of an EFLM CPD Scheme.
- Establish and increase collaboration with clinical societies.
- Develop the visibility and collaboration with IFCC and IFCC Regional Federations.
- Liaise with EC and accrediting institutions.
- Promote the profession increasing awareness of the importance of clinical laboratories in health care and at society level.
- Optimise the activities of EFLM functional units (Committees, Working Groups and Task and Finish Groups).
- Develop visibility and collaboration with EFLM National Societies. During 2017, EB members participated in 5 EFLM National Society meetings hosted by Belgium (Simundic), Bulgaria (Zima), Czech Republic (Sandberg), France and Latvia (Neumaier).
- Strengthen and formalize relationships with industrial partners.
- Fostering the development of active WG Young Members.
- Strategic planning. The EB feels that it would be good to have a strategic planning for a longer period (5-10 years). Each EB could produce its Action plan for its term of office, but strategy is related to much longer period.

COMMITTEES

Committee – Communication (C-C)

In 2017 the C-C had two main focus: the restyling of the EFLM image and the consolidation of the collaboration with the its National Societies. The restyling of the EFLM image has been successfully completed with creation of a new logo and organization of a new website. The site incorporates now the activities of the European Register of Specialists in Laboratory Medicine and has a page dedicated to the General Public, that can be of help in bringing EFLM and the profession closer to the non-professionals. A big effort was devoted in 2017 to conception and production of the EFLM NewsLetter; EuroLabNews is now issued every two months and delivered to more than 4000 subscribers to the EFLM mailing list. The bulletin contains a number of regular columns aimed to inform the readers about the main activities of the Federation and of its National Societies. The presence of EFLM in the social media continued to receive great consideration. In 2017, an intensive campaign has been carried out to increase the visibility of the activities promoted by the EFLM among laboratory professionals. The number of followers and the number of interactions with the news published on the social media by EFLM are both increasing. The needs and the expectations of National Societies have both been explored with the help of a Satisfaction Survey. The results of the Survey will be used to improve the relationships with the National Societies and to better focus the efforts and the resources of the Federation. The comprehensive history of EFLM received also attention and a document has been created to illustrate the milestones of EFLM. The document is now on the EFLM website.

Committee – Education and Training (C-ET)





C-ET has been involved in the organization of the 13th Symposium of the Balkan region and is involved in the Congress Organizing Committee for the 23rd EuroMedLab in Barcelona and the 14th Symposium of the Balkan region. A new version of the EFLM European Syllabus has been finalized in cooperation with C-P. After endorsement by the national societies it will be published soon. In order to maintain the EFLM European Syllabus and to deliver new revision courses (EFLM European Syllabus Courses) for emerging Specialists in Laboratory Medicine (EuSpLM), the foundation of a new TG EFLM European Syllabus (TG-EES) was initiated. TFG CPD Crediting System produced documents on accreditation of CPD events for medical and non-medical Specialists in Laboratory Medicine and successfully completed the project. A new initiated WG Laboratory Medicine Credit Points (WG-LMCP) will establish and run the EFLM system to allocate credit points for educational events. The website for a program for exchanging practice and practical training within EFLM countries (EFLMLabX) was finished by WG-CPE, so that a successful start of the program is ensured. A MedTech European Code survey initiated by WG-CPE is currently running in all EFLM member societies. In 2017 WG-DE launched the new e-learning platform and started issuing of certificates of attendance for webinars. WG-DE realized four webinars and one internal webinar for EFLM officers, four webinars have been recorded from EuroMedLab in Athens and from CELME Congress in Prague.

Committee – Profession (C-P) and EC4 Foundation


At the beginning of 2017, the C-P welcomed a new working group charged with growing the Register of Specialists in Laboratory Medicine (EUSpLM), and adjudicating applications from potential registrants. By the end of 2017 the working group chair had re-established automatic registration from the Netherlands and, for the first time, auto-registration has been established from Croatia. In March the working group were delighted to welcome 12 corresponding members to its fold (including a representative from outside the European Union), drawn from national societies with longstanding interest and support for achieving recognition of specialist practice under EU Directive 2013/55/EC (The recognition of professional qualifications). The new infrastructure represents a seamless transition to the new ways of working. Towards the end of 2017, encouraging news was received that the EU Commission had invited Laboratory Medicine to propose a Common Training Framework for specialist practice, a welcomed invitation coinciding with completion of version 5 of the syllabus for specialist education and training. 2017 closed with the successful transfer of the EUSpLM database to the Milan office and finalization of new software on the EFLM web site that will allow ready access for individual and auto-registration in 2018.

Committee – Quality and Regulations (C-QR)

WG A/ISO (Accreditation and ISO) is working on several papers concerning retention time, point of care testing (POCT), measurement uncertainty and validation/verification. All members are active in making these documents generally applicable. The chair of the Committee was active in ISO TC212 WG1 especially in relation with risk management and POCT outside the hospital environment. The chair of the WG was active in CEN TC140 and the Health Care Committee of EA (European cooperation on Accreditation. Having influence on standards, guidelines and the way these are used in accreditation, and the implementation of the IVD Directive, is an important aspect of the Committee.

Committee – Science (C-S)

The eight WGs under this Committee (Biological Variation, Guidelines, Harmonization of the Total Testing Process, Patient Focused Laboratory Medicine, Personalized Laboratory Medicine, Postanalytical Phase, Preanalytical Phase and Test Evaluation), two Task Groups (Biological variation Database and Performance Specifications Based on Outcome Studies) and one Task and Finish Group (Standardization of the Colour Coding for Blood Collection Closures) remain highly active in focusing on topics which are of direct relevance in improving the effectiveness of laboratory medicine to patients. 2017 was a particularly productive year when a number of initiatives started to come to fruition. Particular highlights include: the publication of a checklist



for assessing the quality of biological variation (BV) studies and the ongoing development of a BV database. The European Biological Variation Study (EuBIVAS), has published BV estimates for many routinely measured enzymes and for creatinine, with plans for reporting on many other tests including those of lipids, electrolytes and coagulation. There have been initiatives between the EFLM and the European Atherosclerosis Society with a joint consensus paper on quantifying atherogenic lipoproteins being submitted. Other papers either published or submitted include recommendations on very clinically relevant topics such as those on venous blood sampling, order of blood draw, managing hemolyzed samples and on serum indices. The Science Committee of the EFLM has traditionally been in close contact with the Scientific Division of the IFCC and now also plans collaborate closely with the new Emerging Technology Division.

MEETINGS

EFLM has organized four meetings during 2017:

1. 4th EFLM-BD European Conference on Preanalytical Phase. Amsterdam (NL), 24-25 March 2017.
2. EuroMedLab 2017. Athens (GR), 11 - 15 June 2017
3. 13th EFLM Symposium for Balkan Region. Belgrade (SRB), 21 - 22 September 2017
4. EFLM Symposium: Cutting Edge at Laboratory Medicine (CELME 2017). Prague (CZ), 5-6 October 2017

WEBINARS

EFLM has organized three Webinars during 2017:

1. The development of guidelines and recommendations for peripheral blood film review internationally. on-line, 7 November 2017.
2. Harmonization of preanalytical phase in Europe. on-line, 21 November 2017.
3. Laboratory hemostasis. on-line, 19 December 2017

PUBLICATIONS

1. Aarsand AK, R Raas T, Fernandez-Calle P, Ricos C, Díaz-Garzón J, Jonker N, Perich C, González-Lao E, Carobene A, Minchinela J, Coşkun A, Simón M, Álvarez V, Bartlett WA, Fernández-Fernández P, Boned B, Braga F, Corte Z, Aslan B, Sandberg S. The Biological Variation Data Critical Appraisal Checklist: a Standard for Evaluating Studies on Biological Variation. *Clin Chem* 2017 doi: 10.1373/clinchem.2017.281808
2. Lippi G, Simundic AM; European Federation for Clinical Chemistry and Laboratory Medicine (EFLM) Working Group for Preanalytical Phase (WG-PRE). The EFLM strategy for harmonization of the preanalytical phase. *Clin Chem Lab Med*. 2017 Jun 3. pii: /j/cclm.ahead-of-print/cclm-2017-0277/cclm-2017-0277.xml. doi: 10.1515/cclm-2017-0277. [Epub ahead of print].
3. Carobene A; on behalf of the EFLM Working Group on Biological Variation. The European Biological Variation Study (EuBIVAS): delivery of updated biological variation estimates, a project by the Working Group on Biological Variation in the European Federation of Clinical Chemistry and Laboratory Medicine. *J Lab Precis Med* doi: 10.21037/jlpm.2017.08.13
4. Panteghini M, Ceriotti F, Jones G, Oosterhuis W, Plebani M, Sandberg S; Task Force on Performance Specifications in Laboratory Medicine of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM). Strategies to define performance specifications in laboratory medicine: 3 years on from the Milan Strategic Conference. *Clin Chem Lab Med*. 2017 Oct 26;55(12):1849-1856.
5. Carobene A, Marino I, Coşkun A, Serteser M, Unsal I, Guerra E, Bartlett WA, Sandberg S, Aarsand AK, Sylte MS, Røraas T, Sølvik UØ, Fernandez-Calle P, Díaz-Garzón J, Tosato F, Plebani M, Jonker N, Barla G, Ceriotti F; European Biological Variation Study of the EFLM Working Group on Biological Variation. The EuBIVAS Project: Within- and Between-Subject Biological Variation Data for Serum Creatinine Using Enzymatic and Alkaline



- Picrate Methods and Implications for Monitoring. *Clin Chem*. 2017 Sep;63(9):1527-1536.
6. Kristoffersen AH, Ajzner E, Bauça JM, Carraro P, Faria AP, Hillarp A, Rogic D, Sozmen EY, Watine J, Meijer P, Sandberg S. Pre- and post-test probabilities of venous thromboembolism and diagnostic accuracy of D-dimer, estimated by European clinicians working in emergency departments. *Thromb Res*. 2017 Sep 18;159:19-23
 7. Watson ID, Oosterhuis WP, Jorgensen PE, Z. Dikmen ZG, Siodmiak J, Jovicic S, Aakre KM, Palicka V, Kutt M on behalf of the EFLM Working Group on Patient Focused Laboratory Medicine. A survey of patients' views from eight European countries of interpretive support from Specialists in Laboratory Medicine. *Clin Chem Lab Med* 2017;55:1496–500
 8. Sciacovelli L, Panteghini M, Lippi G, Sumarac Z, Cadamuro J, Galoro CAO, Pino Castro IGD, Shcolnik W, Plebani M. Defining a roadmap for harmonizing quality indicators in Laboratory Medicine: a consensus statement on behalf of the IFCC Working Group "Laboratory Error and Patient Safety" and EFLM Task and Finish Group "Performance specifications for the extra-analytical phases". *Clin Chem Lab Med*. 2017 Aug 28;55(10):1478-1488.
 9. Plebani M; EFLM Task Force on Performance Specifications for the extra-analytical phases. Performance specifications for the extra-analytical phases of laboratory testing: Why and how. *Clin Biochem*. 2017 Jul;50(10-11):550-554.
 10. Jones GRD, Albarede S, Kessler D, MacKenzie F, Mammen J, Pedersen M, Stavelin A, Thelen M, Thomas A, Twomey PJ, Ventura E, Panteghini M; EFLM Task Finish Group – Analytical Performance Specifications for EQAS (TFG-APSEQA). Analytical performance specifications for external quality assessment - definitions and descriptions. *Clin Chem Lab Med*. 2017 Jun 27;55(7):949-955.
 11. Carobene A, Røraas T, Sølvi UØ, Sylte MS, Sandberg S, Guerra E, Marino I, Jonker N, Barla G, Bartlett WA, Fernandez-Calle P, Díaz-Garzón J, Tosato F, Plebani M, Coşkun A, Serteser M, Unsal I, Ceriotti F; European Biological Variation Study of the EFLM Working Group on Biological Variation. Biological Variation Estimates Obtained from 91 Healthy Study Participants for 9 Enzymes in Serum. *Clin Chem*. 2017 Jun;63(6):1141-1150.
 12. Aakre KM, Oosterhuis WP, Misra S, Langlois MR, Joseph W, Twomey PJ, Barth JH. Could accreditation bodies facilitate the implementation of medical guidelines in laboratories? *Clin Chem Lab Med*. 2017 May 1;55(6):806-808.
 13. Lippi G, Baird GS, Banfi G, Bölenius K, Cadamuro J, Church S, Cornes MP, Dacey A, Guillon A, Hoffmann G, Nybo M, Premawardhana LD, Salinas M, Sandberg S, Slingerland R, Stankovic A, Sverresdotter SM, Vermeersch P, Simundic AM. Improving quality in the preanalytical phase through innovation, on behalf of the European Federation for Clinical Chemistry and Laboratory Medicine (EFLM) Working Group for Preanalytical Phase (WG-PRE). *Clin Chem Lab Med*. 2017 Mar 1;55(4):489-500.
 14. Ceriotti F, Fernandez-Calle P, Klee GG, Nordin G, Sandberg S, Streichert T, Vives-Corrans JL, Panteghini M. Criteria for assigning laboratory measurands to models for analytical performance specifications defined in the 1st EFLM Strategic Conference. *Clin Chem Lab Med*. 2017 Feb 1;55(2):189-194.
 15. Cornes M, van Dongen-Lases E, Grankvist K, Ibarz M, Kristensen G, Lippi G, Nybo M, Simundic AM; Working Group for Preanalytical Phase (WG-PRE), European Federation of Clinical Chemistry and Laboratory Medicine (EFLM). Order of blood draw: Opinion Paper by the European Federation for Clinical Chemistry and Laboratory Medicine (EFLM) Working Group for the Preanalytical Phase (WG-PRE). *Clin Chem Lab Med*. 2017 Jan 1;55(1):27-31.

*Sverre Sandberg, EFLM Past-President
Michael Neumaier, EFLM President
Giuseppe Lippi, EFLM Executive Board Secretary*

Canadian Society of Clinical Chemists (CSCC)

Société Canadienne de Clinico-Chimistes

- 2017 CSCC Annual meeting, a joint meeting with the American Association of Clinical Chemistry (AACC), was held in San Diego, California.
- Educational activities included the Education Roundtable webinars, Travelling Lectureship Series, a Lectureship on Cardiovascular Disease, and a Lectureship on Critical Care Medicine.
- The CSCC continues to supporting appropriate laboratory utilization through participation and support for Choosing Wisely Canada.
- The CSCC supported the nomination of Dr. Eleftherios Diamandis who was awarded the 2017 IFCC Distinguished Award for Laboratory Medicine and Patient Care.
- CSCC established the CSCC Trainee Elective Visit Grants, and will fund up to 5 grants of up to \$2000 each to support short-term visits (i.e. exchanges) to other laboratories outside of the applicant's home city to provide trainees in laboratory medicine with a unique opportunity to augment their skill sets by learning a new technique, seeing how another laboratory works, etc. Such visits also provide opportunities to form novel collaborative relationships with current and future colleagues.
- Participation on the CAP-ACP Council which brings together leaders in laboratory medicine in Canada to advocate in the areas of education, workload and quality assurance.
- Working with other laboratory medicine organizations and industry partners in LabCanDx to promote the value of laboratory medicine.
- Supporting the application to the Health Professions Act in Alberta and preparations in Ontario and British Columbia, whereby clinical biochemists would be legally recognized as healthcare professionals, and better able to regulate their profession and maintain the highest standards of quality and patient safety.
- Implementation of the CSCC Monoclonal Gammopathy Working Group to standardize and ultimately develop pan-Canadian recommendations for reporting serum and urine protein electrophoresis.
- Support of Special Interest Groups and Working Groups activities including: CSCC Working Group on Clinical Laboratory Test Harmonization, Toxicology Special Interest Group, and CALIPER Special Interest Group.

American Association for Clinical Chemistry (AACC)

- 2017 AACC Annual Meeting & Clinical Lab Expo in San Diego, California, with a record breaking 21,300 delegates.
- Lab Tests Online launched a new, mobile friendly design for the US and eight country sites including UK, Spain, Italy, Hungary, Turkey, Brazil, Korea and China. The Lab Tests Online program also reached a milestone of 325 million visitors since the program launched in 2001.
- There were 14 continuing education certificate programs, 22 online webinars, 4 additional national conferences and 3 international conferences.
- There were 2 Global Lab Quality Initiative workshops in Latin America and 1 in the Asia-Pacific region, as well as a novel newborn screening workshop in Colombia that connected experts, policymakers, and other stakeholders involved in establishing the country's nascent newborn screening program to discuss the successes and challenges of newborn screening for metabolic diseases in Latin America.
- The universal sample bank sets were made available for international distribution. The first scientific paper about the universal sample bank was published in the Journal of

Applied Laboratory Medicine in May 2017.

- The US Advocacy Program advanced AACC's advocacy priorities in Children's Health, Harmonization, Laboratory-Developed Tests, and Reimbursement and the Changing Healthcare Environment.
- Preparations are ongoing for AACC's 70th Annual Scientific Meeting & Clinical Lab Expo to be held in Chicago, IL, July 29 – August 2, 2018. The meeting will feature activities and sessions celebrating AACC's 70th anniversary.

Ann M Gronowski, NAFCC Representative



Full Member Societies



ALGERIA SOCIÉTÉ ALGÉRIENNE DE BIOLOGIE CLINIQUE (SABC)

NATIONAL MEETINGS

8th Medico-Pharmaceutical Meeting (08 November 2017) Cardiology, Oncology & Psychiatry (organized by ASEPT PHARMANENIR With SABC collaboration)

EDUCATION

5th Continuing Medical Education - 06 May 2017 - Practical Microbiology

ADDITIONAL INFORMATION

Our 7th National Conference will be held in Algiers 6 and 7 May 2018



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) 30 March; 29 June; 24 July, 2017 in Buenos Aires.
- Meetings of the **Permanent Scientific Committee of C.U.B.R.A.** (CCP-CUBRA), 23 February; 31 March; 30 June, 2017 in Buenos Aires.
- Meeting of **Subcommission of Biochemistry** – Ministry of Health of the Nation. 09 May, 2017 in Buenos Aires.
- Meetings of the **Executive Committee of the Commission of National Biochemical Certification** (COCERBIN) 12 May; 24 November, 2017 in Buenos Aires.
- Meetings of **Quality Commission of C.U.B.R.A.** (C3-CUBRA) 12 May; 28 June, 24 July, 2017 in Buenos Aires.
- Meeting of the **Coordinating Entity of Academic Units of Pharmacy and Biochemistry** (ECUAFyB), 18 May, 2017 in Mendoza (AR).
- Meeting of the **Board of Directors of the Argentine Biochemical Foundation** (FBA) 23 November, 2017 in Buenos Aires.
- Meeting of the **Government Board of the General Confederation of Professionals** (CGP) 29 November, 2017 in Buenos Aires.

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 Nomenclator**”, within the Superintendence of Health Services.



REGIONAL MEETINGS

- **Assemblies of the Confederal Council of C.U.B.R.A.**
12 May; 25 August; 15 December, 2017 in Buenos Aires.
- **“IV Congreso Bioquímico del Litoral”** and **“III Congreso Bioquímico del NEA”**. 14 - 16 June, 2017 in Entre Ríos (AR).
- **“72° Congreso Argentino de Bioquímica”** (ABA). 22 - 25 August, 2017 in Buenos Aires – Argentina.
- **“I Congreso Interdisciplinario: Resistencia a los Antimicrobianos”** (COFyBCF) 07 - 09 September, 2017 in Buenos Aires – Argentina.
- **“XXIII Congreso Latinoamericano de Bioquímica Clínica”** (COLABIOCLI) and **“XI Congreso Uruguayo de Bioquímica Clínica”** - 17 - 20 September, 2017 in Punta del Este – Uruguay.
- **“Congreso Nacional Bioquímico CUBRA XIV”**
From 01 to 04 of November, 2017. San Carlos de Bariloche, Río Negro – Argentina.
- **“2nd Congreso Virtual de Bioquímica Clínica”- VIRTUALAB 2017** - 13 - 30 November, 2017 - FBA.
- **“Cuarto Encuentro de Ganadores de los Premios FABA / FBA”** and **Programa PROES-FBA: “Entrega de Premios a la Trayectoria César Milstein y Residencias Bioquímicas”**
1 December, 2017 – Buenos Aires.

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.

ADDITIONAL INFORMATION

Creation of the “Committee of Ethics in Research of C.U.B.R.A.”

(COdEICU – Comité de Ética en Investigación de la Confederación Unificada Bioquímica de la República Argentina).

Publication of the new version of the Unique Biochemical Nomenclator

“NBU-2012 Version – 2016 Actualization”.

Update made by the Permanent Technical Commission of the Unique Biochemical Nomenclator of C.U.B.R.A. (CTP-NBU – CUBRA).



AUSTRALASIA

AUSTRALASIAN ASSOCIATION OF CLINICAL BIOCHEMISTS (AACB)

NATIONAL MEETINGS

Name of the meeting	Date	Topic
Harmonisation Workshop	16-17 May 2017	Various Harmonisation topics including reference intervals in pregnancy
KIMMS workshop	19 May	Key Incident Monitoring & Management Systems, Extra-analytical KPI's and KIMMS,
Protein electrophoresis harmonisation workshop	11 September	Serum protein electrophoresis and free light chain measurement
55 th Annual AACB Scientific Conference, Melbourne	12-14 September	Time Sensitive Testing
Satellite Meeting post AACB Annual Conference	15 September	Quality Control Workshop - Part 5

EDUCATION

RCPA AACB Chemical Pathology Course – Hobart 6-10 February – covered exam curriculum topics for both the AACB and RCPA.

State Branch based monthly scientific meetings

Roman Lectures – Ms Jill Tate – The paraprotein - an enduring biomarker

Monthly webinars from February – December 2017 covering a range of AACB Curriculum related topics

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

INTERNATIONAL RELATIONS

AACB members contributing to IFCC in 2017:

Executive Board 2015-2017:

Prof Howard Morris - President Elect

Committees and Working groups

Scientific division:

C-NPU, Robert Flatman – Chair

C-MD, Cyril Mamotte - Member

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-SAU, Graham Jones

WG-TNI, Jill Tate

WG-FIT, E Symonds

Education and management division:

C-CMBC, D Kunde – Corresponding member

C-EBLM, Chris Florkowski – Chair

C-DL, Ronda Greaves – Member

WG-FC, E Spittler

WG-ICQA, Sam Vasikaran – Chair, Tony Badrick, Ken Sikaris, Michael Metz, Jill Tate (subgroup)

DQCML, Ronda Greaves – Corresponding member

Communications and Publications division:

C-leL, J Grant – Web editor

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





NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
II National Consultative of the Bolivian Society of Clinical Biochemistry	March 11, 2017 Cochabamba-Bolivia	Activity planning 2017
Mayan International Arrangements	17- 19 May 2017 Chuquisaca – Bolivia	Scientific Academy Day
International days - Julias	July 18-19, 2017 Ls Paz, Bolivia	Scientific Academy Day

EDUCATION

Convention with the Bioquímica Argentina Foundation 2016-2018 to develop training and Training activities of biochemical professionals in areas of common interest through the Bolivian continuing education program (PROBOECO).

Recognition Chamber of Deputies to the President of the Bolivian Society of Clinical Biochemistry – 17 March 2017.

Convention with the Company Management of Human Resources (GRH) Management 2016-2018, for the development of academic activities, Scientific training of Biochemical professionals.

ACTIVIDADES DE EDUCACION PROGRAMA BOLIVIANO DE EDUCACION CONTINUA

<i>Topic</i>	<i>Speaker</i>	<i>Place</i>	<i>Date</i>
QUALITY AND AUTOMATION GUARANTEE IN HEMATOLOGY LIQUIDS FROM SPILLS OF SERIOUS CAVITIES	Dra. Nilda Fink	Santa Cruz Cochabamba	10 - 13 May
LIQUIDS FROM SPILLS OF SERIOUS CAVITIES	Dr. Luis Palaoro	La Paz Oruro	7 - 11 June
QUALITY CONTROL OF QUANTITATIVE ANALYTICAL PROCEDURES	Dr. Raul Girardi	Cochabamba Sucre	7 - 11 June
CANCER AND ONCOLOGICAL MARKERS	Dra. Halina Grossman	Santa Cruz Beni	12 – 16 July
PEDIATRICS - EMERGENCIES	Dra. Mercedes Zirpoli	Santa Cruz Beni	9 - 13 August
ACCREDITATION OF LABORATORIES AND DOCUMENTATION OF QUALITY SYSTEMS	Dr. Carlos Peruzzetto	La Paz Oruro	13 -17 September
HIV / AIDS INFECTION: FROM THEORY TO PRACTICE	Dra Alejandra Musto	Santa Cruz Tarija	13 -17 September
PARASITOLOGY - INTESTINAL PARASITOSIS PRODUCED BY HELMINTOS AND LARVARIA MIGRATION SYNDROME	Dra. Leonora Kozubsky	Cochabamba Beni	11 – 15 October
MYCOLOGY: BASIC LABORATORY OF MYCOLOGICAL DIAGNOSIS	Dra. Maria V. Zuliani	Santa Cruz Sucre	8 -12 November

NEW TRENDS IN RESISTANCE TO ANTIBIOTICS AND NEW METHODS TO DETECT THEM	Dr. Horacio Lopardo	Cochabamba Tarija	6 -10 December
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REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
CORRESPONDENCE RADIO THE MICROSCOPE - IFCC	ACCORDING TO PROGRAMMING	SUPPORT FOR DEVELOPMENT IN THE 2017 MANAGEMENT ACTIVITIES PLAN
MEETING OF THE LATIN AMERICAN WORKING GROUP IFCC (WG IANT)	UNTA DEL ESTE - URUGUAY - SEPTEMBER 17 TO 20, 2017	PLAN OF ACTIVITIES 2018
ASSEMBLY OF THE LATIN AMERICAN CONFEDERATION OF CLINICAL BIOCHEMISTRY	UNTA DEL ESTE - URUGUAY - SEPTEMBER 17 TO 20, 2017	ELECTION OF THE DIRECTIVE 2017 2019 - VICEPRESIDENCIA BOLIVIA

REGIONAL RELATIONS

Continuous cooperation with the Latin American Confederation of Clinical Biochemistry (COLABIOCLI) and the National Representatives of Latin America

INTERNATIONAL RELATIONS

Participation of the Bolivian Society of Clinical Biochemistry EuroMedLab Athens, Greece 11 - 15 June 2017

Participation of the Bolivian Society of Clinical Biochemistry Meeting of the WG IANT IFCC Athens, Greece 11 .- 15 June 2017

Participation of the Bolivian Society of Clinical Biochemistry IFCC WorldLab 2017- Durban South Africa, October 22-25, 2017

Continuous cooperation with the IFCC and Spanish Society of Clinical Chemistry (SEQC)

ADDITIONAL INFORMATION

Report of the functioning of Bolivian Program of Continuing Education (PROBOECO) and accomplished activities - publication in the IFCC eNews.

Report of the EuroMedLab Athens, Greece 2017 - publication in the IFCC eNews.





NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Menhir of Prof. Masopust	26 January 2017, Prague	Bone markers, Sepsis markers
RANK 2017	18 – 19 January 2017, Pardubice	Routine analysis of nucleic acids by molecular biological methods
INDC 2017 – International Nutrition & Diagnostics Conference	9 - 12 October 2017, Prague	Nutrition and human health
XIII National Congress of CSKB	17 – 19 September 2017, České Budějovice	Advances in clinical chemistry and laboratory medicine
Conference on Monoclonal Gammopathy	26 September 2017, Hradec Kralove	Monoclonal gammopathy

EDUCATION

Co-operation on study courses of clinical biochemistry at 8 Medical Faculties in Czech Republic, cooperation with Institute of Postgraduate Training in Prague.

Co-operation with Ministry of Health in transformation of postgraduate education of medical doctors: Medical Faculties have been responsible for this education (instead of Institute of Postgraduate Studies in Prague) since the beginning of the year 2012, new educational programme was developed in 2015 and finalized in 2016 and upgraded in 2017.

Active participation on the project Lab Tests Online – education of patients and their relatives as well as non-laboratory workers in health care in problems of laboratory medicine; finalization of translations (see web pages: <http://www.labtestsonline.cz>). All items from US web pages were translated and are available for Czech readers.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
10 th Central-Moravian Regional Days	19 – 20 January 2017, Kouty nad Desnou	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
Regional meeting of clinical biochemists – West Bohemia	30 March 2017, Pilsen	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
Working day of section of laboratory technicians	5 April 2017, Prague	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
Regional conference Nejedlý's Kladno	12 April 2017, Kladno	Clinical chemistry and complex diagnostics, Czech Society of Clinical Biochemistry was the principal guarantor
34 th Regional meeting of clinical biochemists (South and Eastern Bohemian region)	7 – 8 June 2017, Velichovky	Interdisciplinary cooperation, Czech Society of Clinical Biochemistry was the principal guarantor
Regional meeting of Moravian-Silesian Region	12 – 13 June 2017, Zemanice	Varia, Czech Society of Clinical Biochemistry was the principal guarantor



Working day of section of laboratory technicians	4 October 2017, Prague	Preanalytical phase, Czech Society of Clinical Biochemistry was the principal guarantor
36th Regional conference of clinical biochemistry	13 – 15 December 2017, Karlova Studanka	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
POCT conference	12 October 2017, Ostrava	Varia, Czech Society of Clinical Biochemistry was the principal guarantor

INTERNATIONAL RELATIONS

- Our representatives (Prof. Zima, Prof. Racek and Prof. Prusa) participated at IFCC Council in Durban
- Prof. Zima worked as Member-at-Large, EFLM Executive Board, and member of IFCC Congresses and Conferences Committee
- Prof. Zima, prof. Racek, prof. Jabor, prof. Prusa, Dr. Kocna, Dr. Kotaska, Dr. Cibicek, Dr. Rajdl, Dr. Franekova, Ing. Sprongl, prof. Palicka, Dr. Sebesta, ing. Springer and Dr. Salek worked as members of various IFCC and EFLM committees and working groups

ADDITIONAL INFORMATION

Approval of three new various national clinical biochemistry guidelines in 2017.

Editing the national scientific journal “Klinicka biochemie a metabolismus”, co-editing journal “FONS”, publishing news in clinical biochemistry and activities of the Czech Society of Clinical Biochemistry.

Expert guaranty of EQA system in Czech Republic.



FINLAND
FINNISH SOCIETY OF CLINICAL CHEMISTRY (SKKY)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Spring meeting	April 27,2017	Impact of laboratory test, Proper use of laboratory tests, Follow-up and the impact of INR, Evaluation of cost-benefit of laboratory tests, Use of cardiac markers and their impact on patient care
Fall meeting	October 5-7,2017	General laboratory medicine together with other national clinical chemistry societies and organizations

EDUCATION

The focus of the spring meeting was on proper use of laboratory tests and the evaluation of their impact on patient care. The audience consisted of medical doctors and clinical biochemists.

The fall meeting was general clinical chemistry organized together with medical specialists, clinical biochemists and biomedical laboratory scientists.

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 studies.

REGIONAL MEETINGS

Name	Date	Society's contribution
NFKK Board Meeting	Jan 27, 2017	Anna Linko-Parvinen attended
NFKK Board Meeting	Nov17, 2017	Anna Linko-Parvinen and Eeva-Riitta Savolainen attended

REGIONAL RELATIONS

NFKK (Nordisk Forening for Klinisk Kemi, The Nordic Society of Clinical Chemistry) board meetings in January (Oslo, Norway) and November (Reykjavik, Iceland). President Anna Linko-Parvinen attended both meetings and national representative Eeva-Riitta Savolainen attended the meeting in Oslo. 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.

In Finland the society has been active with other societies in clinical chemistry, e.g. in organizing educational events.

INTERNATIONAL RELATIONS

The national representative Päivi Laitinen has been active in IFCC and the national representative Kari Pulkki in EFLM. Solveig Linko was accepted as a corresponding member in IFCC WG-A-ISO.

ADDITIONAL INFORMATION

The Finnish Society of Clinical Chemistry has been active in organizing the international scientific congress NFKK2018 (XXXVI Nordic Congress in Clinical Chemistry) to be held in June 2018 in Helsinki, Finland.



FRANCE SOCIÉTÉ FRANÇAISE DE BIOLOGIE CLINIQUE (SFBC)

NATIONAL MEETINGS

Name of the meeting	Date	Topic
SFBC National Congress	Cité Universitaire, Paris October 16 th - 17 th , 2017	Innovative approaches in Cancer Biology
National meetings with SFBC auspices:		
50th Journées de Biologie Praticienne	Maison de la Chimie, Paris December 1 st - 2 nd , 2017	Molecular Biology and Genetics / Endocrinology / Microbiology / Developmental Biology / Autoimmunity
Journée nationale de Biologie Médicale	Faculté de Pharmacie Paris Descartes - December 7 th , 2017	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 meeting</i>	<i>Date</i>	<i>Topic</i>
EuroMedLab 2017	Athens (Greece) June 11 th - 15 th , 2017	Invited lectures - Session Chairmanships Meetings
Satellite Meeting EuroMedLab 2017 “Under Poseidon’s eye”	Sounio (Greece) June 15 th - 16 th , 2017	Invited lecture
1. 2017 AACC Annual Meeting	San Diego (CA, USA) July 30 th - August 3 rd , 2017	Meetings with AACC and IFCC
IFCC WorldLab 2017	Durban (South Africa) October 22 nd - 25 th , 2017	Invited lectures. Session chairmanships. Meetings
Satellite Meeting - “Biomarkers in Diabetes”	Cape Town (South Africa) October 26 th - 27 th , 2017	Invited lecture. Session chairmanship
EFLM meetings		
Frontier in Lab Medicine Conference	Birmingham (UK) January 30 th - February 1 st , 2017	Invited lecture. Session chairmanship
1 st Conference on Medical Laboratory Accreditation and Quality Systems	Belgrade (Serbia) April 19 th - 22 nd , 2017	Invited lecture
Advances in Laboratory Medicine and Pathobiology 2017	Santorini (Greece) June 16 th - 19 th , 2017	Invited lecture
EFLM symposium for Balkan Region	Belgrade (Serbia) September 21 st - 23 rd , 2017	
Symposium of the OBBCSSR	Bucarest (Romania) November 10 th - 11 th , 2017	Invited lecture
APFCB meeting ACBICON 2017	Lucknow (India) November 29 th - December 5 th , 2017	Session chairmanship - Invited lecture
FIFBCML Meetings		
Congrès national du Syndicat des biologistes Libanais	Beyrouth (Lebanon) March 1 st - 4 th	Invited lecture
Journées nationales Société Tunisienne de Biologie Clinique	Hammamet (Tunisia) May 11 th - 13 rd	Invited lecture
Colloque 1 ^{ères} Journées Francophones	Bordeaux (France) September 26 th - 29 th	Invited lecture
Journées Marocaines de Biologie Clinique	Marrakech (MO) October 6 th - 7 th	Invited lecture

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 Athens 2017 (Dr B. Gouget (COC, Abstract Evaluation committee), Michel Vaubourdolle (ISAB)), and Satellite Meeting Diabetes “Under Poseidon’s Eye” (Pr P.





Gillery, ISC)

- IFCC Durban WorldLab 2017(Pr P. Gillery) (ISAB and ISC) and Satellite Meeting – Biomarkers in Diabetes, Cape Town 2017 (Pr P. Gillery, ISC)
- 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

✓ **IFCC-SD EC**

P. Gillery, Chair, 2017-2019

✓ **IFCC-SD**

Committees

- Nomenclature, properties and units (C-NPU) (Silver book (WG))
- Molecular diagnostic (C-MD)
- Traceability in Laboratory Medicine (C-TLM)
- Standardization of thyroid function tests (C-STFT)

F. Scherrer, Member, 2015-2017
(G. Féraud, Chair)
K. Peoc’h, corresp. Member
A. Vassault, corresp. Member
P. Carayon, corresp. Member

Working groups

- Standardization of Carbohydrate-Deficient-Transferrin (WG-CDT)
- Parathyroid hormone (WG-PTH)
- Commutability (WG-C)
- Standardization of Troponin I (WG-TNI)
- Standardisation of Hemoglobin A₂ (WG-HbA₂)
- Standardisation of Pregnancy-Associated Plasma Protein (WG-PAPPA)
- Standardisation of Albumin Assay in Urine (WG-SAU)
- CSF Proteins (WG-CSF)
- Apolipoproteins by Mass Spectrometry (WG-Apo MS)

F. Schellenberg, Member
J.C. Souberbielle, Member
V. Delatour, Member
G. Lefèvre, corresp. Member
M. Arock, corresp. Member
R. Garnotel, corresp. Member

E. Caussé, corresp. Member
S. Lehmann, Member
C. Hirtz, Member

✓ **IFCC-EMD**

Committees

- Committee on Evidence Based Laboratory Medicine (C-EBLM)
- Committee on Analytical Quality (C-AQ)
- Committee on Education in the Use of Biomarkers of Diabetes (C-EUBD)

J. Wils, Member
A. Vassault, corresp. Member

M. Fonfrède, corresp. Member

Working groups

- Flow Cytometry (WG-FC)
- Cancer Genomics (WG-CG)

C. Lambert, Member
P.J. Lamy, Member

✓ **IFCC-TF and IFCC-IP**

- Task force for Young Scientists (TF-YS)
- Task force on Proficiency testing (TF-PT)
- Task force on point of care testing (TF-POCT)
- Task force on chronic kidney disease (integrated project) (TF-CKD)

G. Boursier, Member, 2017-2019
A. Perret-Liaudet, Member, 2017-2019
M. Vaubourdolle, Member, 2017-2019
J.P. Cristol, corresp. Member

✓ **IFCC-Nominations Committee (2016-2017)**

B. Gouget , chair

ADDITIONAL INFORMATION

SFBC Board

2018

Executive Board:

- President
- Vice-President
- Past-President
- General Secretary
- Assistant General Secretary

Pr Marc DELPECH
Pr Vincent SAPIN
Pr Joëlle GOUDABLE
Dr Véronique ANNAIX
Pr Bruno BAUDIN



• Treasurer
Scientific Committee:

Dr Philippe CHATRON
 Pr Sylvain LEHMANN
 Dr Katell PEOC'H

Editor in Chief ABC:
Educational Committee:

Pr Jean-Louis BEAUDEUX
 Dr Christine AUGEREAU-VACHER
 Dr Fabrice GUERBER
 Dr Isabelle AIMONE-GASTIN

International Relation :

Pr Philippe GILLERY
 Dr Bernard GOUGET

National Relations:

Dr Marie-Françoise GAUDEAU-TOUSSAINT
 Dr Carole POUPON

Meetings and Conferences:
E-learning:

Dr Michel VAUBOURDOLLE
 Pr Damien GRUSON

Young Scientists:

Dr Christine AUGEREAU-VACHER
 Dr Guilaine BOURSIER



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 Meeting of the DGKL (approx. 1.000 attendees)	Oct 11-14, 2017	Entire range of Clinical Chemistry and Laboratory Medicine
Annual meeting to the Working Group Molecular Diagnostics	May 18-19, 2017	Various topics
Annual meeting of the Working Group Endocrinological Diagnostics	Apr 28, 2017	Various topics
Annual meeting of the Working Group Clinical Mass Spectrometry	Nov 7-8, 2017	Various topics

EDUCATION

Several Short Courses in the context of the Annual Meeting of the DGKL.
 Revision course Clinical Chemistry, Hannover, Nov 27-Dec 1, 2017
 Short course in analytical approaches to cell-free DNA (Munich), May 2017

REGIONAL MEETINGS

Successful application for EuroMedLab 2021 in Munich

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)
 RELA proficiency testing by RfB (Referenzinstitut für Bioanalytik, affiliate organisation of DGKL)



GREECE

GREEK SOCIETY OF CLINICAL CHEMISTRY – CLINICAL BIOCHEMISTRY (GSCC-CB)

NATIONAL MEETINGS

22nd IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine “EuroMedLab Athens 2017”

EDUCATION

Post graduate educational seminars

REGIONAL MEETINGS

22nd IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine “EuroMedLab Athens 2017”

INTERNATIONAL RELATIONS

IFCC- EFLM Membership

ADDITIONAL INFORMATION

Greek Lab Tests Online successfully uploaded 140 tests on its platform.



ITALY

ITALIAN SOCIETY OF CLINICAL CHEMISTRY AND CLINICAL MOLECULAR BIOLOGY (SIBioC)

NATIONAL MEETINGS

- 49° Congresso Nazionale della S.I.Bio.C. – Medicina di Laboratorio (Società Italiana di Biochimica Clinica e Biologia Molecolare Clinica): “Medicina di Laboratorio e Clinica: tra presente e futuro” (“Laboratory Medicine and Clinical Practice: from present to the future”). 16-18 Ottobre 2017.

EDUCATION

- Organization of 42 National, Inter-regional and Regional meetings
- Permanent School of Education SIBIOC (4 courses on ISO 15189 Accreditation, Thrombosis and Hemostasis, Laboratory statistics; Technological Transfer in Laboratory Medicine (INNOVA SIBioC project)
- Distant education. Organization of 7 courses (Thrombosis and hemostasis; Cancer Biomarkers; Appropriateness of test request; Evidence based laboratory medicine; blood gas analysis; Clinical and Laboratory cases; Chronic renal failure)

REGIONAL MEETINGS

Society’s contribution (all SIBIOC PROVIDER)

- PADOVA06Dicembre2017.LAGOVERNANCEDELLEURGENZE:DALL’ORGANIZZAZIONE ALLA PRATICA. CONGRESSO INTER-REGIONALE SIBIOC - SEZIONI VENETO, FRIULI E TRENINO ALTO ADIGE
- PALERMO 01 Dicembre 2017. 1° CONVEGNO GDS SIBIOC YOUNG SCIENTISTS. NUOVI MARCATORI NELLA DIAGNOSTICA AVANZATA DI LABORATORIO



- CEFALÙ 06 Ottobre 2017. INNOVAZIONE IN MEDICINA DI LABORATORIO. CONGRESSO REGIONALE SIBIOC - SEZIONE SICILIA
- FRANCAVILLA 05 Ottobre 2017. XXI CONGRESSO REGIONALE MULTIDISCIPLINARE DI MEDICINA DI LABORATORIO. ABRUZZO E MOLISE
- MILANO 21 Settembre 2017. QUALITÀ ANALITICA IN LOMBARDIA: AGGIORNAMENTI IN TEMA DI CONTROLLO DI QUALITÀ INTERNO E DI VALUTAZIONE ESTERNA DELLA QUALITÀ. CONGRESSO REGIONALE SIBIOC- MEDICINA DI LABORATORIO SEZIONE LOMBARDIA.
- PALERMO 13 Settembre 2017. GIORNATA DELLA MEDICINA DI LABORATORIO DELLA SIBIOC.
- ALESSANDRIA 08 Giugno 2017. GLI ESAMI SPECIALISTICI E LA GESTIONE DELLA FASE PREANALITICA: LE ATTUALI SFIDE NEL PROCESSO DI RIORGANIZZAZIONE DEI LABORATORI. CONVEGNO REGIONALE CONGIUNTO SIBIOC PIEMONTE - VALLE D'AOSTA
- VICENZA 25 Maggio 2017. LE PROTEINE: DAL LABORATORIO ALLA CLINICA. XXV[^] EDIZIONE CORSO CEFAR
- GENOVA 16 Maggio 2017. LE TECNICHE CROMATOGRAFICHE E LA SPETTROMETRIA DI MASSA NEL LABORATORIO DI ANALISI CLINICHE, III EDIZIONE. CONVEGNO REGIONALE SIBIOC LIGURIA
- ROMA 12 Aprile 2017. I BIOMARCATORI NELLA DIAGNOSI INTEGRATA DELLA MALATTIA DI ALZHEIMER E DELLE ALTRE MALATTIE NEURODEGENERATIVE. CONVEGNO CONGIUNTO SIBIOC- SINDEM
- MATERA 22 Marzo 2017. LA MEDICINA DI LABORATORIO AL SUD ITALIA: ASPETTI ORGANIZZATIVI E INNOVATIVI. II CONGRESS SIBIOC SUD - VII CONGRESSO INTERREGIONALE SIBIOC.
- SESTO FIORENTINO, FI 09 Febbraio 2017. VII CONGRESSO REGIONALE SIBIOC- MEDICINA DI LABORATORIO "LA MEDICINA DI LABORATORIO NELL'ETÀ PEDIATRICA". CONVEGNO REGIONALE SIBIOC TOSCANA

INTERNATIONAL RELATIONS

IFCC

Executive Board: Maurizio Ferrari (President)

Finance Advisory Committee: Maurizio Ferrari (Full member)

Scientific Division: Mario Plebani (Executive Committee Full member)

Working Groups:

- Standardisation of Hemoglobin A2: Andrea Mosca (Chair); R. Paleari (Full member)
- Standardisation of Carbohydrate-Deficient Transferrin: V. Bianchi (Full member)
- Standardisation of Albumin Assay in Urine in collaboration with NKDEP: Mauro Panteghini (Full member); Maria Stella Graziani (Corresponding member)
- Standardisation of Troponin I: Mauro Panteghini (Full member)
- Commutability: G. Catozzo (Full member); Ferruccio Ceriotti (Full member); Mauro Panteghini (Full member)
- Pancreatic Enzymes: Ferruccio Ceriotti (Full member)

Committees:

- Traceability in Laboratory Medicine: Ilaria Infusino (Full member)
- Reference Intervals and Decision Limits: Romolo Dorizzi (Corresponding member)
- Harmonization of Autoimmune Tests: Tommaso Trenti (Corresponding member)

Education and Management Division: Paolo Fortina (Executive Committee Secretary)

Working Groups.

- Laboratory Errors and Patient Safety: Laura Sciacovelli (Chair); Mario Plebani (Past Chair);

Giuseppe Lippi (Full Member)

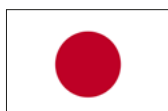
- Cancer Genomics: Paolo Fortina (Co-Chair)

Committees:

- Clinical Molecular Biology Curriculum: Ettore Capoluongo (Full Member)
- Analytical Quality: Massimo Tocchini (Corresponding Member)
- Education in the Use of Biomarkers in Diabetes: Andrea Mosca (Corresponding Member)

Task Forces:

- Chronic Kidney Disease: Michele Mussap (Full member)
- Proficiency Testing: Anna Carobene (Full member)
- Geriatric Laboratory Medicine: Giuseppe Lippi (Full member)



JAPAN

JAPAN SOCIETY OF CLINICAL CHEMISTRY (JSCC)

NATIONAL MEETINGS

Name: The 57th Annual Meeting of Japan Society of Clinical Chemistry (JSCC)

Date: 2017/10/6-10/8

Topic:

Special Lectures:

- Anti-phospholipid antibody syndrome: History of 35 years and my research (Koike T), Real pleasure of the bioactive lipid research (Yokomizo T)
- Chairman's lecture: The way from clinical medicine to health science walking with chemistry (Chiba H)
- Society Award Lecture: Measurement of anti-erythropoietin receptor and its clinical characteristics (Hara A)

Educational Lectures:

- Dynamic epitope theory: Disease specific antigen structures produced by dynamic post-translational modification of proteins,
- Etiological investigations of infectious dynamism in group levels, effectively using clinical laboratory data,
- The findings from autophagy-deficient mice,
- Implementation of clinical biobank, pioneering genomic medicine,
- Clinical Chemistry's challenge to nutrition diagnostics,
- Basic and clinical research of neutrophil extracellular traps (NETs),
- Metabolism and pathophysiology: mainly in cancer cells and immune-competent cells,
- Why serum triglyceride concentration above 1000 mg/dL does not cause arteriosclerosis?
- Roles of erythropoietic system on the maintenance of oxygen homeostasis, and effects of its failure on disease states

Project Reports from 8 Scientific Committees, 11 Symposia:

- Cannot just ask?! Pitfalls of laboratory measurement and assessment in non-clinical fields (co-sponsored by the Japanese Society of Toxicology)
- Pharmacological research supporting the basis of clinical chemistry
- Complexity diseases and presymptomatic counterplan (co-sponsored by Japan Mibyou System Association)
- Chemistry prefetch symposium
- Medical application of mass spectrometry: From *in vitro* fertilization to presymptomatic diagnosis (co-sponsored by Japanese Society for Biomedical Mass Spectrometry)
- Construction of novel clinical chemistry utilizing a variety of electrophoretic technology (co-sponsored by Japanese Electrophoresis Society)

- Student symposium (co-sponsored by Japanese Association of Medical Technology Education, Clinical Chemistry section)
- Young fostering symposium
- Corporate symposium “Future medicare altered by artificial intelligence”
- Young Investigator Award winner symposium
- Branch supported symposium “Progress in Laboratory Medicine”



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 Sapporo on Oct 8, 2017

REGIONAL MEETINGS

Name/Date:

Hokkaido branch: The 27th branch regular meeting

Tohoku branch: The 28th branch general meeting

Kanto branch: The 34nd branch regular meeting

Koushinetsu branch: The 35rd branch general meeting

Tokai & Hokuriku branch: The 28th branch general meeting

Kinki branch: The 70th branch regular meeting

Chugoku & Shikoku branch: The 13th joint regional meeting

Kyushu branch: The 30th branch general meeting

Society's contribution for the meeting: Each branch supervises the meeting of each region

REGIONAL RELATIONS

Representative to APFCB

Council: Masato Maekawa

Scientific Committee: Kiyoshi Ichihara (Members)

Education Committee: Hiroyuki Matsumoto (Corresponding Members)

Communications: Hiroshi Yoshida (Corresponding Members)

Congress and Conferences: Akifumi Yamaguchi (Corresponding Members)

INTERNATIONAL RELATIONS

IFCC Activity

Scientific Division (SD), Executive Committee (EC): Tsutomu Nobori, Member

SD Committees:

- Reference Intervals and Decision Limits (C-RIDL): Donchon. Kang, Member; Kiyohide Ishikura, Corresp. Member
- Nomenclature, Properties and Units (C-NPU): Naohito Ishii, Corresp. Member;
- Traceability in Laboratory Medicine (C-TLM): Takashi Miida, Corresp. Member
- Standardization of Thyroid Function Tests (C-STFT): Akira Hishinuma, Corresp. Member
- Harmonization of Autoimmune Tests (C-HAT): Masahiro Koshiba, Corresp. Member

SD Working Groups

- C-NPU, Working group on the Silver Book revision: Dongchon Kang, Member
- Standardization of Hemoglobin A2 (WG-HbA2): Tadao Hoshino, Corresp. Member
- Standardization of Carbohydrate Deficient Transferrin (WG-CDT): Fumio Nomura, Corresp. Member
- Standardization of Albumin Assay in Urine (WG-SAU): Yoshihisa Itho, Member
- Standardization of Insulin Assays, in collaboration with ADA/EASD (WG-SIA): Syu Meguro, corresp. Member
- Parathyroid Hormone (WG-PTH): Satoshi Hirayama, Corresp. Member
- Standardization of Troponin I (WG-TNI): Junichi Ishii, Corresp. Member
- CSF-Proteins (WG-CSF): Kazuhiko Kotani, Corresp. Member
- Standardization of Bone Markers Assays (WG-BMA) Masakazu Miura, Corresp. Member
- Commutability (WG-C): Keita Yamashita, Corresp. Member
- Pancreatic Enzymes (WG-PE): Shigeru Ueda, Member
- Fecal Immunochemical Testing (WG-FIT): S. Takehara, Member; Y. Doi, M. Fujimura, T. Fukuda, H. Hayash, T. Ichiyanagi, T. Kosaka, Y. Masuda, Corresp. Member
- Harmonisation of Autoantibody Tests (WG-HAT): Naoya Inoue, Corresp. Member
- Clinical Quantitative Mass Spectrometry Proteomics (WG-cMSP): ukio Ando, Member

Education Management Division (EMD) Committees

- Analytical Quality (C-AQ): Ryosuke Kikuchi, Corresp. Member
- Clinical Laboratory Management (C-CLM): Satoshi Kimura, Corresp. Member
- Distance Learning (C-DL): Kuniaki Saito, Corresp. Member
- Education in the Use of Biomarkers in Diabetes (C-EUBD): Asako Sato, Corresp. Member

EMD Working Groups:

- Harmonisation of Interpretive Comments EQA (WG-ICQA): Masanori Seimiya, Corresp. Member

Communications and Publications Division (CPD) Committees

- Internet and e-Learning (C-IeL): Hideo Sakamoto, Member

Task Forces/Special Projects

- Task Force on Ethics (TF-E): Masakazu Miura, Corresp. Member
- Task Force on Young Scientists (TF-YS): Ryunosuke Ohkawa, Corresp. Member
- Task Force on Chronic Kidney Disease (Integrated Project) - (TF-CKD): Takashi Wada, Member
- Task Force on Clinical Applications of Cardiac Bio-Markers (TF-CB): Hiroshi Yoshida, Corresp. Member
- Task Force on Point of Care Testing (TF-POCT): Naoto Shimetani, Corresp. Member
- Task Force on Geriatric Laboratory Medicine (TF-GLM): Shu-Ping HUI, Corresp. Member

International Journal Editor

Editorial Board for Annals of Clinical Biochemistry: atsuyuki Nakajima

Editorial Board of Clini Chimica Acta: Editor: Hiroshi Yoshida; Editorial Board: Nobuo Okumura, Masato Maekawa, Takashi Miida, Minoru Tozuka, Katsuyuki Nakajima, Akihiro Inazu.





ADDITIONAL INFORMATION

About 1,550 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.

Standing Committees:

- Publications Committee
- International Relations Committee
- Education Committee
- Liaison board for Scientific Committees
- Academic Meetings and Public Relations Committee
- Awards Committee
- Judicial and Ethical Affairs Committee
- Future Directions Committee

Scientific Committees:

- Quality Management
- Enzymes and Analytical Reagents
- Laboratory Systems and Instruments
- Point-of-Care Testing
- Diabetes Mellitus Indices
- Plasma Protein Testing
- Nutrition Testing
- Animal Clinical Pathology
- Genetic Testing
- Thrombosis and Hemostasis Testing
- Lipoprotein Testing
- Common Reference Intervals
- Pitfall Research



KOREA
KOREAN SOCIETY OF CLINICAL CHEMISTRY (KSCC)

NATIONAL MEETINGS

1. Annual Meeting of KSCC (I) May-19, 2017
 - Symposium 1. Laboratory Accreditation for Clinical Chemistry Tests
 - Symposium 2. Understanding and Utilization of the Laboratory Statistics
 - Symposium 3. Introduction of KSCC Homepage
 - Symposium 4. Why re-establishment of Reference Interval for Pediatric patients is necessary?
 - Symposium 5. Topic Review Establishment of cardiac troponin assays
 - Update of eGFR formula for the diagnosis of Korean CKD patients
 - Symposium 6. Comprehensive Interpretation of Thyroid Hormone Tests
 - Workshop 1. Clinical Application of Mass Spectrometry
2. Annual Meeting of KSCC (II) November-30, 2017
 - Symposium 1. Quality Management required for Outstanding Laboratory Accreditation

- Symposium 2. Recently Introduced Biomarkers
- Symposium 3. Clinical Significance and Utilization of Adrenocortical Hormone Test
- Symposium 4. Recent Trends of Urine Sediment Test
- Workshop 1. Clinical Utilization of Mass Spectrometry
- Workshop 2. Pharmacokinetic Report of Therapeutic Drug Monitoring (TDM)

EDUCATION

- Laboratory Accreditation in Clinical Chemistry
- Laboratory Statistics
- Reference Interval in pediatric patients
- Thyroid Hormone Test
- Biomarker
- Adrenocortical Hormone Test
- Urine Sediment Test
- Mass Spectrometry
- Therapeutic Drug Monitoring (TDM)

REGIONAL RELATIONS

One council member for international affairs have correspondence activity for the international (IFCC) or regional (Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine) in KSCC.

We will send the 2017 annual report to APFCB on Feb 28, 2018.

INTERNATIONAL RELATIONS

1. KSCC was delegated of logistics of authority from EuromedLab 2017 to facilitate participation in the EuromedLab 2017
2. KSCC fostered the KSCC members to attend EuromedLab 2017 congress in Athens
3. KSCC was delegated of logistics of authority from IFCC WorldLab Durban 2017 to facilitate participation in the IFCC WorldLab Durban 2017
4. KSCC (20 KSCC members) attended IFCC WorldLab Durban 2017 and introduced the IFCC WorldLab SEOUL 2020
5. President Jeong-Ho Kim participated in the IFCC 2017 Council Meeting
6. IFCC Network Laboratory for HbA1c in Korea
7. President Jeong-Ho Kim participated in JCTLM members' and stakeholders' meeting in Paris on December 4th to 5th, 2017.
8. KSCC submitted the biennial activity report to JCTLM

ADDITIONAL INFORMATION

The Officer Bearer of KSCC (2018)

1. President : Prof. Jeong-Ho Kim (Yonsei University College of Medicine)
2. Secretary General : Prof. Sang-Hoon Song (Seoul National University College of Medicine)
3. Treasurer : Dr. Hwan Sub Lim (Seoul Clinical Laboratories)
4. International Committee : Dr. Sung Eun Cho (LabGenomics Clinical Laboratories)
Secretary: Ms. Anna Choi
Office Address: A1105-Asterium Seoul, 372 Hangang-daero, Yongsan-gu, Seoul, 04323, Republic of Korea
Email: kscc@kscc.or.kr



LITHUANIA

LITHUANIAN SOCIETY OF LABORATORY MEDICINE

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
International Conference	12-04-2017	CSF Analysis: from Antibodies to neuroborreliosis and tick-borne encephalitis
9 th Annual Conference of the Lithuanian Society of Laboratory Medicine	20-04-2017	Young Scientists' Research in the Field of Laboratory Medicine
International Conference	17-11-2017	What clinicians should know, and what laboratories should perform (dedicated to World Thrombosis Day)
National LLMD Conference	07-12-2017	Actualities in antimicrobial resistance

EDUCATION

Training course "Quality indicators in laboratory medicine; Traceability in the medical laboratory; Verification of methods; Uncertainty and analytical quality specifications"; 28-09-2017, Klaipeda, Lithuania (51 participant)

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.



MEXICO

MEXICAN ASSOCIATION OF CLINICAL LABORATORY SCIENCES

EDUCATION

DIPLOMATE

- High specialty in Quality Control for Laboratory Science (120 total accent hours) IFCC auspiced
- Clinical Bacteriology (Series of Advanced Courses, a 120 total accent hours).

COURSES

- Clinical Laboratory Quality Control Course. IFCC auspiced.
- 2nd Managerial Training Course in Quality Control for the PREMIUM BELT Project. PT provider registered in IFCC website.
- Comprehensive Blood Bank Management Systems Course
- Theoretical-Practical update Course in Module IV of the Clinical Laboratory Career
- COLABIOCLI Pre-Congress Course 1: The Comprehensive Management System of the Blood Bank



- High Specialty online Course in Quality Control for Laboratory Science
- Course Analysis and Interpretation of Blood Chemistry

WORKSHOPS

- 1 Workshop Harmonization of the Quality Management System of the CMCLC, AC

CONFERENCES

- 4 Conferences of the Clinical Biochemistry Work Group CNQFB-MEXICO and CMCLC, A.C.

REGIONAL MEETINGS

- Second regional diabetes Meeting: Clinical and diagnostic aspects. November 2017, Diabetes and Obesity. IFCC auspiced.

REGIONAL RELATIONS

NORTH AMERICA:

Chair, Latin American Working Group, Global Laboratory Quality Initiative of the American Association for Clinical Chemistry, AACC

COLABIOCLI:

Member, Latin American Confederation of Clinical Biochemistry Executive Committee, Member, Scientific Committee COLABIOCLI 2017 Congress,

Participation in the following regional projects: Pre-Analytical, Creatinine Standardization and Neonatal Screening e-courses.

INTERNATIONAL RELATIONS

CMCLC members are participating at the following activities in IFCC:

- EB Member 2015-2017
- 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

ADDITIONAL INFORMATION

Mutual Agreement of Understanding (MoU) with the Mexican accreditation entity to improve laboratory accreditation awareness.

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, Members chapters from Guerrero, Tlaxcala and Yucatan State.

Universities- Faculty of Chemistries Advisory for Postgraduate Studies



NATIONAL MEETINGS

Name of the meeting	Date	Topic
Biochemical Update in Villarrica.	28-29 th April 2017	Hemoparasites. Collective awareness in Prevention of Antimicrobial Resistance. Remembering the eosinophil. Biochemical Diagnosis of Celiac Disease and Controversies in Daily Practice. Pulmonary Mycoses. Superficial and subcutaneous mycoses. Internal Quality Control in the Clinical Laboratory.
“Virtual Workshop USACH-PTB 2017 on critical points of Accreditation of Clinical Laboratories” in Santiago de Chile. Conacyt- ABP in Asuncion.	14-15 June 2017	Interpretation of critical requirements of ISO 15189-2012
II Biochemical Update Working Days. Filial CDE-ABP in Ciudad del Este.	17-18 November 2017	The role of the Biochemist in the Blood Bank, Methodology in the molecular genetic study, Redefining the Autoimmunity: Concept of the Integrated Laboratory. Importance of the pre-analytical stage, Multiple Myeloma and the Laboratory, Diagnostic tests for connective tissue diseases, Internal quality control in the Clinical Laboratory, Laboratory surveillance of bacterial meningitis, Advances in the surveillance of Enteropathogens, Leishmaniasis in triple zone border, Laboratory Diagnostic of Leprosy.
Pre-congress courses in Chemical Sciences Congress in Asuncion.	4 to 7 October 2017.	Hematology. Lymphoproliferative and Chronic Myeloproliferative Neoplasms. Lymphoid and Acute Myeloid Neoplasms Lla / Lma. Microbiology. Environmental Surveillance of Legionella. Diagnostic Differential Oral Injury and the Importance of Obtaining Good Samplings. Malassezia. Molecular Analysis of Significant Bacteria in Meat Production. Identification of Gram-positive Coccus of Difficult Diagnostic Using MaldiToF and Sequencing. Consensus on Collecting Samples. Biotechnology in Agricultural Microbiology. Technologies that function with the challenges of Modern Chemistry.
Intra Congress Course in Chemical Sciences Congress	October 4 to 7, 2017.	Approach and Biochemical evaluation of the patient with renal pathology

EDUCATION

The following educational activities were undertaken at the “Continuing Education Program”:

1. March 7-8, 2017. Internal Quality Control interpretations and decisions.
2. March 31, 2017. The role of the laboratory technician in the preanalytical phase.
3. April 1, 2017. Hemo parasites Workshop. *Trypanosoma*, *Leishmania*, *Plasmodium* and *Filaria*. Protocols.
4. September 28, 2017. Dengue, Zika, Chikungunya virus.
5. November 8, 2017. Human Brucellosis. Laboratory diagnosis and interpretation of results.

Many Symposiums, Workshops and Courses were made at the National Biochemical Congress.

National Speakers: Andres Canese K, Laura Mujica, José Ramirez, José Antonio Ferreira Nizza, Idalina Dalles, Patricia Araujo, Jose Pereira, Claudia Rodriguez, Hugo Torio, Juana Ortellado-Canese Verónica Espinoza, María E. León, Natalie Weiler, Andrea Gimenez A, Mariela

Meza, Marta Von Horoch, José Casañas Levi, Cynthia Vázquez, Rosa Guillen, Viviana Rojas, Sanie Buena, Hector Nakayama, Christian Mendoza, Pablo Sotelo, Natasha Diaz Meyer, Deisy Bordon, Carmen Lopez, Miriam Cino, Adriana Valenzuela, Marta Ascurra, Jaime Guggiari, Graciela Russomando, Lilian Chena, Ma. Eugenia Galeano, Patricia Langihar, Laura Mendoza, Ana Ayala, Ma. Teresa de Filartiga, Ma. Isabel Acosta, Ma. Gabriela Avila, Sonia Cabrera, Margarita Duarte.

International Speakers: Tomas Navarro (ESP), Juan Pablo Grammatico (ARG), Gustavo Velasco (ARG), Eugenia Bianchi (ARG), Johann A Zuniaga (VNZ), Silvina Lösch (ARG), María Emilia Cattana (ARG), Luis Cohelo Andrade (BRA), Isabel Sastre (SPAIN), Rolando Soloaga (ARG), Roxana Jung (Sud Korea), Gustavo Borrajo (ARG), María Natalia Rossaro (ARG), Gabriela Escobar (ARG).

The events were made possible by international and national speakers from the industries, government agencies and universities with which the ABP maintains close relations.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
IFCC WorldLab 2017, Durban, South Africa.	22-25 October 2017	M.M. Blanes G. was part of the International Scientific Committee and participated at the COLABIOCLI Symposium. Juana Ortellado-Canese was part of the International Scientific Advisory Board Committee of the Congress.
CUBRA 2017 14 th National Biochemical Congress XIV	1-4 November 2017	Promotion and participation of an ABP colleague of the Education Committee.

REGIONAL RELATIONS

Active participation in the COLABIOCLI Congress held in Punta del Este, Uruguay from September 17 to 20. Participation of the National Representative Juana Ortellado in the Assembly. Paraguay won a voice for the current COLABIOCLI Board of Directors.

Participation of Lilian Cantero on the Board of Directors of the Education Committee in the CUBRA 2017 14th National Biochemical Congress XIV in Bariloche, Río Negro. Patagonia, Argentina.

Wide participation of Paraguayan colleagues in the online distance courses of "Neonatal Research: what can prevent a drop of blood with a duration of 5 months from February 2017 and the course "Standardization of the Creatinine" were 10 modules that began in the month of August. Both courses were organized by COLABIOCLI, without cost for members of the ABP.

We appreciate the support of foundations, scientific societies, and companies related to our profession for the implementation of activities.

INTERNATIONAL RELATIONS

Active participation of a Paraguayan delegation in the IFCC Congress in Durban, South Africa.

*Members of ABP in IFCC:

1. Congresses and Conferences Committee (C-CC)- M.Blanes G corresponding Member since 2013.
2. Molecular Diagnostic Committee (C-MD), Scientific Division (SD)- G. Russomando.
3. International and Learning (C-IEL) Publication and Communication Division (CPD)- M.Blanes G, corresponding member 2nd term 01/2015 -12/2017

*ABP Members integrating Working Groups

1. e-new (WG-e news) CPD. G. Blanes, Member first and 2nd term 01/2015 -12/2017
2. WG IANT E. Guillen Barua. Member first and 2nd term 01/2015-12/2017

*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, first term member 01/2015 -12/2017.



ADDITIONAL INFORMATION

One of the most important achievements of this year, after several years of work, was the promulgation of the “5.986 / 2017 Law of the Biochemists”, which expresses the object, scope, nature and professional identity of the Biochemist. This was a team effort chaired by the President of ABP, Raquel Caceres, and treasurer, Mercedes Alvarez.

The work continued with the ABP / RIQAS 2018 External Quality Control Program in over one hundred different laboratories.

The National Congress of Chemistry Science was held in Asuncion from 4 -7 October 2017.



ROMANIA
ROMANIAN ASSOCIATION OF LABORATORY MEDICINE
(RALM)

NATIONAL MEETINGS

Name

2nd RALM Conference with international participation

Date 10.05-13.05 2017 Timisoara

Topic Clinical Laboratory (Hematology, Microbiology, Clinical Chemistry)

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, RALM has preferential conference fees for residents and is also offering conference sponsorship for few residents every year.

REGIONAL RELATIONS

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. Elizabeta Topic, Prof. Sedef Yenice, Prof. Gabor Kovacs) as well as prof. William Au (Shantou University Medical College, China) attended our conference and gave lectures and workshops which were appreciated by the participants.

ADDITIONAL INFORMATION

RALM has its own scientific publication called Romanian Journal of Laboratory Medicine RJLabM (Revista Română de Medicină de Laborator) <http://www.rrml.ro/>, 2nd RALM Conference abstracts were published in a supplement of the Romanian Journal of Laboratory Medicine (RJLabM).



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>
Third Gathering of Specialists of Laboratory Service, Sochi	June 20 – June 23	Problems and prospects of professional postgraduate education. Ways of optimization education of clinical laboratory diagnostics specialists with medical and non-medical high education. On forms of CME for laboratory medicine at the present stage. Education of medical laboratory technologists. Theory of morpho-functional and homeostatic functional systems as a basis for education of clinical laboratory diagnostics doctor. Modern technologies and approaches in teaching of laboratory medicine. Centralization in the new economic realities: experience, error, success, expectations. The head of effective laboratory service: management technologies and modern methods of motivation of the team. Meeting of the Committee of Ministry of Health of Russia on clinical laboratory diagnostics. Meeting of the Board of the Association "FLM". Meeting of the Editorial Board and the Editorial Council of magazine "Laboratory Service".
Third Russian Congress of Laboratory Medicine, Moscow	October 11 - 13	The III International Exhibition "Laboratory City" will take place in the frame of the Congress. The exhibition will bring together around 150 companies - leading Russian and international manufacturers and suppliers of laboratory equipment and supplies. Stands of companies will placed on the streets of "Laboratory City", named in honor of famous scientists who have made a major contribution to the global laboratory medicine. Russian Congress of Laboratory Medicine - the largest professional event. Recently, there has been growing interest of specialists to the event. Expected number of delegates - about 8000 this year. Among them: specialists in clinical laboratory diagnostics, laboratory chiefs, leading representatives of various clinical specializations (cardiologists, infectiologists, epidemiologists, gynecologists, urologist, etc.), leading scientists (Russian and international), heads of medical and preventive treatment facilities and healthcare administration from different regions of Russia, as well as economists and social scientists.

EDUCATION

14 clinical guidelines were developed and submitted to the Ministry of Health of the Russian Federation, 9 of which entered the Federal Electronic Medical Library. Association "FLM" has become an expert organization for the accreditation of activities in the specialties "Clinical laboratory diagnostics", "Bacteriology", "Virology", "Laboratory genetics" within the system of continuous medical education (CME). The professional standard of a specialist in the field of clinical laboratory diagnostics has been developed. A professional standard "doctor-biochemist" was developed. The list of questions for qualification of specialists for the qualification category for the specialties "Clinical laboratory diagnostics", "Bacteriology", "Laboratory genetics", "Virology" was developed. The printed edition of the Association "FLM" - the journal "Laboratory Service" - is included in the list of the leading peer-reviewed scientific journals of the Russia and it is included in the bibliographic and abstract database of SCOPUS.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Regional Forum of Laboratory Medicine, Smolensk	January 27	Full organization of the meeting
Regional Forum of Laboratory Medicine, Kostroma	March 3	Full organization of the meeting
Regional Forum of Laboratory Medicine, Nizhny Novgorod	March 31	Full organization of the meeting
Regional Forum of Laboratory Medicine, Tula	April 7	Full organization of the meeting
Regional Forum of Laboratory Medicine, Belgorod	April 14	Full organization of the meeting
Regional Forum of Laboratory Medicine, Kazan	May 19	Full organization of the meeting
Regional Forum of Laboratory Medicine, Vladivostok	September 19	Full organization of the meeting
Regional Forum of Laboratory Medicine, Tomsk	November 10	Full organization of the meeting

REGIONAL RELATIONS

Association of laboratory specialists and organizations “Federation of laboratory medicine” (FLM) created new regional office in the Ryazan region.

INTERNATIONAL RELATIONS

Participation of the Russian delegation of laboratory medicine specialists at the 22nd European Congress on Clinical Chemistry and Laboratory Medicine “EuroMedLab Athens 2017”, June 11-15, Athens, Greece.

Participation of Russian manufacturers of laboratory equipment at the International Specialized Exhibition MEDICA, November 13-16, Dusseldorf, Germany.

ADDITIONAL INFORMATION

A draft order of the Ministry of Health of the Russian Federation “On approval of the rules for conducting clinical laboratory tests” was prepared.

Some changes were made in the legislative base of the Russian Federation with the participation of the Association “FLM”:

- to the order of the Ministry of Health of the Russian Federation of March 16, 2010 N1 157n “On approval of the maximum permissible amount of narcotic drug, psychotropic substance and their precursor contained in preparations”;
- in articles 6.9 and 20.20 of the Code of Administrative Offenses (on referral to a medical examination for intoxication);
- in the annex to the order of the Ministry of Health of the Russian Federation of December 27, 2011 N1 1664n “On approval of the nomenclature of medical services” (more than 1000 laboratory tests were made).

The Federal Directory of Laboratory Tests (FDLT) has been developed.

Legal assistance was provided to the members of the “FLM” Association for 353 inquiries.

Association “FLM” was involved by the Federal Antimonopoly Service to discuss the issue of limiting the use of closed laboratory tests systems in clinical laboratories.





SAUDI ARABIA SAUDI SOCIETY FOR CLINICAL CHEMISTRY

NATIONAL MEETINGS

Name of the meeting	Date	Topic
The Annual meeting for the SSCC	21-23 Nov 2017	The society hosted about 500 delegates. Prof Maurizio Ferrari was invited as an honorary guest and keynote speaker

EDUCATION

- Preanalytical working group was created with BD collaboration
- The SSCC is collaborating with the journal called Journal of Health Specialties

REGIONAL MEETINGS

Name of the meeting	Date	Society's contribution
MedLab conference, Dubai, UAE	5-8 Feb 2017	The society contributed with speakers in the scientific program
The best of AACC in the Middle East Abu Dhabi, UAE	23-24 March 2017	Collaborated with the AACC and Alborg laboratories in conducting the conference

REGIONAL RELATIONS

Collaboration with other Saudi Laboratory Societies *i.e.* Saudi society for Clinical Laboratory Sciences (SSCLS) has been established.

INTERNATIONAL RELATIONS

The SSCC was able to support one of the IFCC Travel Scholarship to attend Durban IFCC WorldLab meeting 2017. A Young Scientist from Zambia was able to attend the meeting. The Scholarship sponsoring was called "IFCC SSCC Travel Scholarship".

ADDITIONAL INFORMATION

Photos from the 3rd Annual meeting for the SSCC held at Jeddah, 21-23 Nov 2017





SERBIA

SOCIETY OF MEDICAL BIOCHEMISTS OF SERBIA (DMBS)



NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
13 th EFLM Symposium for Balkan Region	September 21 and 22, 2017, Belgrade	Symposium is organised together with EFLM under IFCC Auspices under the title: Laboratory Medicine Management: Leadership Skills for Effective Laboratory (www.dmbj.org.rs)
20 th Annual Ivan Berkeš Scientific Conference	December 4, 2017, Belgrade	Presentations of doctoral and master thesis from previous year (www.dmbj.org.rs)

EDUCATION

Society of Medical Biochemists of Serbia in 2017 organized four CME educational seminars for the members on the following topics:

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>
24 th Meeting of Balkan Clinical Laboratory Federation	Athens, June, 2017	Members of the Society participated with three invited lectures and many posters (www.bclf.info)

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
Participations in Meetings organised by IFCC and EFLM

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, 8 th March 2017	Thyroid cancer and laboratory diagnostics
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Maribor, 25 th May 2017	Laboratory tests in diagnosis and monitoring of cancer
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Ljubljana, 14 th September 2017	Models of good practice in laboratory medicine
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Celje, 9 th November 2017	Urgent medicine and laboratory diagnostics
7 th International Conference on the Quality of Medical Laboratories, under the auspices of EFLM and IFCC.	December 12 th December 2017	“ISO 15189 requirements - investigative processes and quality assurance”.

EDUCATION

On May 2017; Continuous Education Courses for the Medical Laboratory Technicians with four (4) different topics in four different places in the country.

- laboratory analysis of feces and their clinical use
- quality sample as the basis for reliable laboratory results
- infections - their most common pathogens and laboratory diagnostics lymphoma

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.

It would be also good and important to have in general, a World day of Clinical chemistry and Laboratory Medicine.



NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Course, Barcelona	March 8-9 th	- How to perform oral presentations in biomedicine
XV Meeting of Scientific Committees, Madrid	March 30-31 st	- Colorectal cancer - Acute myeloid leukemia - Sepsis - Arterial hypertension - ISO 15189.2013 - High resolution liquid chromatography
Course, Málaga	May 25 th	- Analytical validation of clinical laboratory measurement procedures
Course, Barcelona	June 8 th	- Update of the role of the biochemical markers in patients with heart failure
II Meeting on quality SEQC ^{ML} – IVD Industry, Barcelona	October 17 th	- Quality control issues

EDUCATION

Annual Educational Programme 2016-2017:

- XX General Educational Programme 2016-2017 771 participants
- III Clinical Cases in Haematology Programme 2016-2017 265 participants
- II Clinical Cases General Educational Programme 2016-2017 305 participants
- Basic Statistics applied to the laboratory Programme 2016-2017 557 participants
- Human reproduction and clinical laboratory Programme 2016-2017 426 participants

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
VI International Clinical Laboratory and Quality Symposium, Barcelona	May 30-31 st	This Symposium was organized by the Spanish Society of Laboratory Medicine (SEQCML) and the Foundation for Quality Control in Clinical Laboratories (FPCQLC). The topic was the update and new developments about quality in Clinical Laboratories

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

SEQC has relationships with the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC).

ADDITIONAL INFORMATION

SEQC 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, Tumour markers, Trace elements, Autoimmunity, Monoclonal components and Drug abuse.
- Microbiology and Serology

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 maintains the Spanish version of Lab Tests Online with more than 348 tests and a glossary with more than 498 contents.



SWITZERLAND
SWISS SOCIETY OF CLINICAL CHEMISTRY (SSCC)

NATIONAL MEETINGS

Molecular Diagnostics, Zurich, 09.-10.03.2017:

Human Primary Immunodeficiencies, Molecular Mechanisms in Inflammasome Signalling: From NLRP1 to Pyroptosis, Host Response to Fungal Infections, Common and Rare Variants Influencing Blood Pressure, Therapeutic Target Validation for GLP1R by a Genomic Approach, Familial Hypercholesterolemia, Circulating Tumor DNA as a Liquid Biopsy for Cancer, Gene Signature as an Aid to Treatment Decisions in Early-Stage Breast Cancer, Digital PCR, Next Generation (Gene) Doping

Medi-Labo-Tech, Lausanne, 31.09-01.10.2017:

MS or not MS, monitoring thérapeutique, workshops en binômes: Kliniker und Laborexperthen, monitoring biomédical du futur : le triomphe ou la fin de la médecine?, the role of clinical chemistry in precision medicine

EDUCATION

Annual education program: 10 one or two day courses in general laboratory management and in some specific topics.

REGIONAL MEETINGS

EUROMEDLAB satellite meeting on “Inborn Errors of Metabolism”, Athens, Greece, 10.-11.06.2017, SSCC was co-organizer

XIVth International Congress of Paediatric Laboratory Medicine, Durban, South Africa, 20.-22.10.2017, SSCC was co-organizer

REGIONAL RELATIONS

Collaborative working groups for diagnostic pathways and for pre-analytics with the Deutsche Vereinte Gesellschaft für Klinische Chemie und Laboratoriumsmedizin e.V. (DGKL) and the Austrian Society of Laboratory Medicine and Clinical Chemistry (ÖGLMKC).

INTERNATIONAL RELATIONS

Member of the IFCC Task Force on Paediatric Laboratory Medicine (TF-PLM).

ADDITIONAL INFORMATION

Publication on the history of the Swiss Society of Clinical Chemistry: Zur Gründung der Schweizerischen Gesellschaft für Klinische Chemie (SGKC), Jean-Pierre Colombo, Erste Publikation: Pipette 4-2016, p 23.



SYRIA SYRIAN CLINICAL LABORATORY ASSOCIATION (SCLA)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Sheraton conference	26/1/2017	Pricing of tests & members Insurance
Armitage hotel conference	23-24/11/2017	Accountancy issues Relation with ministry of health

EDUCATION

<i>Name</i>	<i>Date</i>	<i>Topic</i>
Damascus Lab-Days	24-25-26/1/2017	Scientific conference 6 Session, 35 lectures With exhibition.
Hospital Hygiene and disinfectant	21/05/2017	Nosocomial infection, infection control
CME	Monthly lecture	Laboratory and clinical.

REGIONAL MEETINGS

<i>Name</i>	<i>Date</i>	<i>Topic</i>
Congrès SDBL 2017 - Lebanon	2-4/3/2017	participated in attendance and lectures

REGIONAL RELATIONS

With Lebanon SDBL

INTERNATIONAL RELATIONS

Attended IFCC WorldLab 2017, 22-25th October, 2017 Durban, South Africa
IFCC meeting by Dr Adnan Alkhatib, National representative of Syria
Lecturer Dr Ghassan Shannan.

ADDITIONAL INFORMATION

The Syrian clinical laboratory association will be participating in lecturing and attendance of the coming 1st IFCC Conference: "Laboratory medicine:meeting the needs of Mediterranean nations".





TAIPEI - REPUBLIC OF CHINA (ROC) CHINESE ASSOCIATION FOR CLINICAL BIOCHEMISTRY

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
CACB annual meeting during the 32 nd Joint Annual Conference of Biomedical Science	25-26 March 2017, Taipei, Taiwan	Dr. Hsien-Chang Chang, Professor, Dept. Biomedical Engineering, National Cheng Kung University, special lecture: "Development of Rapid Biosensors Based on AC Electrokinetics." Symposium: Current trend in in vitro diagnostic

INTERNATIONAL RELATIONS

CACB president Dr. Woei-horng Fang participated in IFCC Council Meeting & IFCC- WorldLab 2017 in Durban on 22-25 October 2017, and shared successful experiences of organizing 14th APFCB Congress 2016 in Taipei with IFCC C-CC.

Follow up of 14th APFCB Congress 2016, Taipei

Following the successful event of APFCB Congress 2016, the Organizing Committee assigned an independent external auditor, Grant Thornton, to do the financial audit. The auditing process was complete on 1 Dec 2017. The APFCB Congress 2016 final report was sent to APFCB EB and IFCC office on 6 Dec 2017. The organizing committee transferred the profit share to IFCC (10%) on 21 Mar 2017. The profit sharing to APFCB (23%) was transferred to APFCB on 17 Nov 2017. Dissolution of the organizing committee was done on 4 Dec 2017.

ADDITIONAL INFORMATION

This brief report summarizes some of the highlights of activities for CACB during the Year of 2017.

I. CACB annual conference and scientific symposium, in conjunction with the 32nd Joint Annual Conference of Biomedical Science (JACBS)

CACB held its annual meeting during the 32nd Joint Annual Conference of Biomedical Science (JACBS) held at the National Defense Medical University Campus, Taipei on March 25-26, 2017, we invited Dr. Hsien-Chang Chang, Professor, Dept. Biomedical Engineering, National Cheng Kung University, to deliver a special lecture on "Development of Rapid Biosensors Based on AC Electrokinetics." He shared valuable experiences with us recent advance in the development of biosensor and potential for clinical application. CACB also in collaboration with Association of Chemical Sensors in Taiwan, organized a symposium "Current trend in in vitro diagnostic" continuing the discussion from the special lecture. Three speakers shared the experiences in recent development of in vitro diagnostic technology. Chao-Sung Lai, Dean of College of Engineering and Professor of Department of Electronic Engineering, Chang Gung University, presented "Nanostructures on Biosensors for Biomedical Detection." Ching-Chou Wu, Professor of Department of Bio-industrial Mechatronics Engineering, National Chung Hsing University, presented "Electrochemical Sensing Chip from Detection of Biomolecules to Estimation of Cellular Activity". Chih-Ting Lin, Professor of Graduate Institute of Electronics Engineering, National Taiwan University, presented CMOS Biotechnologies for in vitro Diagnosis of Biomolecules". Following the symposium, student's research oral presentation competition and poster contest were also held. Overall, the two-day conference was very successful and truly an enjoyable academic gathering for the attending members of CACB.



Special lecture speaker Dr. Hsien-Chang Chang and CACB Board members



The Bureau of Foreign Trade, Ministry of Economic Affairs held the TAIWAN MICE AWARDS 2017 competition in August. CACB summarized the accomplishment of APFCB Congress 2016 for the competition and won the Convention Group A Silver Award!



Prof. Woei-horng Fang represent CACB to receive the Silver Award.

CACB supported several scientific symposiums in 2017.

CACB is actively communicating and collaborating with other scientific societies in Taiwan. The 2017 International Symposium of Smart-Sensing Medical Devices and 22nd Symposium of Association of Chemical Sensors in Taiwan was organized by Association of Chemical Sensors in Taiwan under the auspices and co-sponsored by CACB held at National Cheng Kung University, Tainan, Taiwan on 20 May 2017. The symposium covered a wide spectrum of research field including chemical engineering, electrical engineering, mechanical engineering, material science, and biomedical engineering. Many CACB members were benefit from this Inter discipline exchange activity.

CACB celebrated its 35th anniversary. A special lecture was organized to invite Dr. Soyoun Kim, Professor, Dept. of Biomedical Engineering, Dongguk University to deliver a speech of “SG Cap : Highly sensitive Multiplex Immunoassay Platform - Applications for high risk virus massive multiple screening and Superior sensitive and specific Multiplex POCT of respiratory viruses and cancers”. Followed by the celebration ceremony: past president Kwon-Jen Hsiao was invited to review the establishment of CACB and early day development of first 15 years, the past president Shu-Chu Shiesh shared the accomplishments for CACB in following 15 years. Finally, president Woei-horng Fang reported recent activity of CACB, specifically emphasized the success of organizing APFCB Congress 2016.



Celebrating CACB 35th Anniversary



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 «Problems of Cardiovascular Diseases in Focus of Clinicians and Laboratory Diagnostics Specialists»	Kyiv, April 25-26, 2017	During the work of the Conference, topical issues concerning formation of joint platform of action and consolidation of efforts in each region of the Ukraine in the conditions of reformation of the healthcare system were discussed, and a resolution was adopted with the most important positions of the medical laboratory community on the interconnection of world trends in the centralization of clinical laboratory research with the progress of medical reform in Ukraine. In particular, the important role of profile professional public associations in the creation of a national regulatory framework in accordance with European requirements was stressed. Also, attention was paid to the changes in the public health system, as well as to the formation of hospital districts.
Scientific and Practical Conference “Prospects for Diagnosis and Treatment of Hematologic Diseases”	Odessa, May 11-12, 2017	The Conference was devoted to problematic issues of diagnosis and modern methods of treatment in hematology.
Scientific and Practical Conference with International Participation “Innovative Directions for the Development of Laboratory Medicine”	Kyiv, October 17-18, 2017	During the Conference, special attention was paid to the international and European experience in the implementation of the quality system in medical laboratories, the necessity and inevitability of such implementation were stressed, as well as all the advantages of implementation of such a system for laboratories, doctors and patients. Besides, issues of modern requirements to the accuracy of the results of clinical laboratory studies were discussed. The experience of centralization of clinical laboratory tests in Ukraine and abroad was also discussed. Other discussion topics included formation of the processes in medical laboratories in the light of the requirements of international standards, the clinical and economic aspects of modern diagnostics of critical conditions, of approaches to laboratory monitoring of anticoagulant therapy, of molecular allergodiagnosis, and of planning and monitoring of technological processes in the cord blood banks. The main conclusion of the discussion at the conference was the formation of a unified platform of action and consolidated efforts in each region of Ukraine aimed at the availability and quality of laboratory research. Within the framework of the Conference, the ACCLMU General Assembly was held, where reports and re-elections of the leaders of the Association were held.

EDUCATION

ACCLMU members made online presentations concerning the implementation of the requirements of international standards into national medical laboratories practice within the framework of continuous remote education of medical laboratories staff (Kyiv, April 26 - May 15, 2017).

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Scientific & practical conference "Osteoporosis. Topical issues of modern diagnostics and treatment"	Sumy, May 24, 2017	Organization of the meeting
Master class "Hemostasis. Modern principles of diagnostics"	Lviv, September 14, 2017	Organization of the meeting

REGIONAL RELATIONS

Cooperation of the ACCLMU with the Association of Orthopedic Traumatologists in the Sumy region in the organization of the Scientific & practical conference "Osteoporosis. Topical issues of modern diagnostics and treatment" (Sumy, May 24, 2017).

INTERNATIONAL RELATIONS

Participation in the international seminar "Basics of quality control in laboratories. Development of documents" as part of the implementation of the Global Health Security Agenda in the area "System of National Laboratories" and Emergency Plan For AIDS Relief (PEPFAR), together with the Centers for Disease Control and Prevention (CDC) and the Institute for Clinical and laboratory US standards (CLSI) (Kyiv, February 20-23, 2017).

Active participation in the workshop on the development and management of laboratory networks "Network of Public Health Laboratories in Ukraine" as part of the implementation of the Global Health Security Agenda in the area "System of National Laboratories" and in the activities of its jointly support together with the Centers for Disease Control and Prevention (CDC) and the USA Association of Public Health Laboratories (APHL) (Kyiv, March 21-23, 2017).
Participation in 22 IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine (Athens, June 11-15, 2017).

Participation in the international seminar "Quality Management Systems: Organization, Personnel, Assessment, Information Management and Facilities & Safety" as part of the implementation of the Global Health Security Agenda in the area "System of National Laboratories" and Emergency Plan For AIDS Relief (PEPFAR), together with the Centers for Disease Control and Prevention (CDC) and the Institute for Clinical and laboratory US standards (CLSI) (Kyiv, December 5-8, 2017).

Cooperation with Pfizer HCP Corporation (USA) in implementation of independent investigator-initiated research grant "Evaluating Recombinant Factor IX treatment safety and efficacy in Ukrainian Subjects with Hemophilia B, Previously Treated With Plasma Derived Factor IX".

Active participation in the international workshop "Improving Public Health Nutrition: The Contribution of Laboratory Medicine" (Tallinn, December 11, 2017).

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





NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Wiener Lab. Foundation Course	May 26 and 27	Gastroenterology
Wiener Lab. Foundation Course "Emergency inLaboratory" organized by the will take place on November 17 and 18, Central Building - Institute of Chemistry, Piriz Mac Coll Classroom. Avda. Gral. Flores 2124 - Montevideo (Uruguay)	November 17-18	Lab. of Emergency
Informative course on the regulation of the qualification of companies, registers of medical products, reagents, equipment, devices, Good Manufacturing Practices and aspects related to the completion of procedures.	December 7	Manufacturing practices.

EDUCATION

Five scholarships were awarded for the pre-congress course of AACC September 2017

Four scholarships ABU awarded four colleagues in March 2017:

1. Lucia Oliveira. "Advanced course on microbiology" Online (ABA-Argentina)
2. Cecilia Borba Maggiolo" Automation and interferences in Hematology" Online (ABA-Argentina)
3. Natalia Pereira " Actualization in Endocrinology and Metabolism" Online (SAEM Argentina)
4. Micaela Cipriani "Evaluation of infertile couple" Online (ABA-Argentina)

REGIONAL MEETINGS

<i>Name</i>	<i>Date</i>	<i>Topic</i>
XXIII Latin American Congress of Clinical Chemistry XXI Uruguayan Congress of Clinical Biochemistry	September 17-20	Organized by Uruguayan National Society, hosted in Punta del Este, Uruguay

REGIONAL RELATIONS

"PTB-USACH Regional Workshop on Interpretation of the critical requirements of ISO15189 (2012)". Videoconference in Latin America and the Caribbean. Organized by the Chilean Society of Clinical Chemistry in the Livestream modality, with the participation of ABU throughout BC Lía Latierro from Faculty of Chemistry. Montevideo. Uruguay. June 14-16. 2017.

INTERNATIONAL RELATIONS

All the international connections achieved during the Congress

ADDITIONAL INFORMATION

BC Jimena Blanco is appointed as mentor for the Communication Project of the Faculty of Social Sciences to socially promote the profession of Clinical Biochemistry. An activity will be carried out to receive the Counseling from the Faculty of Social Sciences through the thesis students in charge of that task on Tuesday October 10, at 7:00 p.m

Fabiana Luzardo presents her resignation as President of the Association of Clinical Biochemistry on April 30 of the current year for particular reasons, being accepted by the board.

On May 23, the Assembly appoints the members of the vacant positions and the new Board of Directors is composed of: President: Q.F. Fernando Antúnez; Vicepresident: Dra QF BC Cristina Servetto; Secretary: B.C. Natalia Pereira; Pro-Secretary: B.C. Laura Da Rosa; Treasurer: B.C. Natalia Amor; Pro- treasurer: Q.F. B.C. Laura Yametti; Secretary of acts and NR of IFCC: Dr. Q.F. B.C. Stella Raymondo; Vowels :Q.F. B.C. Beatriz Varela, Dra. Q.F. B.C. Ana Lena, B.C. Ana Piana, B.C Jimena Blanco

Important agreement with the Administration of Health Services of the State to improve the salary conditions of our Clinical Biochemists (2017)



USA
AMERICAN ASSOCIATION FOR CLINICAL CHEMISTRY
(AACC)

NATIONAL MEETINGS

<i>Name of Meeting</i>	<i>Date</i>	<i>Topic</i>
2017 AACC Annual Scientific Meeting & Clinical Lab Expo – San Diego, CA	7/30/2017 – 8/3/2017	Multiple topics in laboratory medicine
Emerging Clinical & Laboratory Diagnostics Conference 2017	11/9-2017 – 11/10/2017	New and emerging laboratory and diagnostic technology and research
Point-of-Care Forum: Nursing and POC Teams: Working for the Same Goal – San Diego, CA	8/3/2017	Point of care testing communications
Point-of-Care Testing Boot Camp and Beyond: Communicating, Connecting and Collaborating 2017	12/7/2017	Point of care testing topics across disciplines
Mass Spectrometry and Separation Sciences for Laboratory Medicine – Philadelphia, PA	10/6/2017 - 10/7/2017	Mass spectrometry technology/ methodology

EDUCATION

Online Education

1/1/2017 – 12/31/2017:

- 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
Cell-Free DNA-based Prenatal Screening in the General Pregnancy Population	02/14/17
The Power of 10: Essentials for Conducting Successful Rapid Change Management in the Lab	03/01/17
Preanalytical Variables on Critical Care Point of Care Testing	03/28/17
Navigating Conflict at Work: How to Reach Resolutions that Improve Your Work and Your Relationships	04/05/17
Trends in designer drugs: Synthetic cannabinoids, cathinones and fentanyl analogues	04/19/17
The Clinical Chemist's Perspective on Cardiac Troponin Rule Out/Rule In Strategies and Use in Acute and Chronic Disease	04/26/17
Re-defining the Value of Diagnostics in a Changing Payment Environment	05/03/17
Applications of Next Generation Sequencing in Clinical Practice	05/17/17
Diagnostic Errors: The Laboratory Viewpoint	05/31/17
FDA Reclassification of Rapid Antigen Flu Testing and Why it's an Opportunity for Lab Leadership	06/07/17
Engaging Your Team From Good To Great	07/05/17
Laboratory Consolidation Trends: Past, Present, and Future	08/02/17
Winning Organization-Wide Support for Laboratory Proposed	08/02/17
Becoming Your Own GPS: Navigating Your Career	09/06/17
Evaluating and selecting chemistry automation solutions	09/13/17
Biotin and Laboratory Testing: Recognizing Interferences and Preventing Misdiagnosis	09/28/17
Go With It: Embrace the Unexpected to Drive Change	10/04/17
Cell-free DNA Prenatal Aneuploidy Screening: New Opportunities and Considerations	10/25/17
The Value of Clinical Pathology in Family Practice	11/01/17
The New Clinical Lab Fee Schedule-- What to Expect in 2018	11/28/17
Moving from Clinical Expert to a Strategic Facilitator	12/06/17
Procalcitonin and other Biomarkers for the Management of Infections and Sepsis	12/14/17

REGIONAL MEETINGS

Name	Program Date	Society's Contribution
Best of AACC Middle East	3/23-24/2017	Content from Annual meeting in conjunction with partners Al Borg Medical Laboratories
Global Lab Quality Initiative Workshop: Verifying Assay Performance: Steps To Follow To Verify Manufacturer's Claims (San Jose, Costa Rica)	4/21-22/2017	With the Universidad de Ciencias Médicas
Global Lab Quality Initiative Workshop: Verifying Assay Performance: Steps To Follow To Verify Manufacturer's Claims (Punta del Este, Uruguay)	9/17-18, 2017	With the Asociación Bioquímica Uruguay
Global Lab Quality Initiative Workshop: Laboratory Medicine from Education to Practice: West Meets East (Hangzhou, China)	9/20-21, 2017	With the Chinese Society of Laboratory Medicine and the Chinese Association for Clinical Laboratory Management
Global Lab Quality Initiative Workshop: Early Diagnosis of Genetic Disorders Saves Children's Lives: A Discussion on Merits and Process to Successfully Implement Newborn Screening (Cali, Colombia)	10/13/2017	Colegio de Bacteriólogos del Valle del Cauca and Colegio Nacional de Bacteriología
Best of AACC Japan	11/15-16/2017	At WASPaLM 2017 co-sponsored by Japanese Association for Clinical Laboratory Medicine
Best of AACC China	11/3-4/2017	With Chinese Society for Laboratory Medicine



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

Scientific Conference on Clinical Biochemistry in Ninh Binh, 15-16/9/2017 : Molecular Biology, Immunology, Endocrinology, Cancer and Tumor Markers, Quality Assurance and Quality Control, Genetics, Diabetes.

EDUCATION

- Workshop on POCT, Hanoi, 27-28/3/2017
- Workshop on Tumor Markers, Hanoi, 22/4/2017
- Workshop on Management and Standardisation of laboratory determinations, Quang Ninh, 20/5/2017
- Workshop on LEAN, Hanoi, 6-7/7/2017
- Workshop on Improvement of laboratory determinations, Hanoi (6/7/2017), HoChiMinh-City (8/7/2017)
- Workshop on Protein, Hanoi, 5/7/2017

REGIONAL RELATIONS

Frequent relations with the APFCB

INTERNATIONAL RELATIONS

Frequent relations with the IFCC, payment of the annual dues. Active contributions to the activities of the IFCC

ADDITIONAL INFORMATION

Preparation for the National Meeting and Scientific Conference on the occasion of the 55th Anniversary of the Vietnamese Association of Clinical Biochemists (VACB)



ZIMBABWE ZIMBABWE ASSOCIATION OF CLINICAL BIOCHEMISTS (ZACB)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Symposium	10/3/2017	Advances in Cardiovascular Diseases

EDUCATION

The ZACB Education Committee organised National Conference, Symposia and Seminars throughout 2017. Scientific papers (2) were presented and some published in international reputable journals. Diploma, Degrees, Masters and Doctorate courses were run in various institutions via UZ Zimbabwe College of Pathology and Africa University. Internship programme in UZ-CHS for Young Scientists from various universities eg. NUST, HIT and UZ Science Faculty were concluded. Some students excelled and passed their researches with distinction. Members (6) participate in a national regulatory authority MLCSCZ contributing effectively in Education, Finance and Practice Control Committees. Some 3 members are among editorial members, one Editor-in-Chief who launched the Zimbabwe Journal of Laboratory Medicine.

The AFCCF LabMed Internet Radio started Y-Tube and poster productions on Facebook and Instagram with assistance from IFCC FEN (Foundation of Emerging Nations). The productions are circulated to IFCC YS Lab Surfing Programme.

REGIONAL RELATIONS

With ASLM as members joined the continental body with Zambia and Malawi National Societies of Clinical Chemistry and Laboratory Medicine in Quality Assurance Training with AFC and EI Microscopi LabMed Internet Radio

INTERNATIONAL RELATIONS

Membership in International Immunology Society.
Member Non-Aligned Movement (92 countries)

ADDITIONAL INFORMATION

02/11/2017	i. Zimbabwe National Quality Assurance Programme Conference
21/10/2017	ii. Zimbabwe Medical Research Day Zimbabwe Medical Association
24/11/2017	iii. Annual Health Professions Conference National Biotechnology
23/08/2017	iv. Conference National STEM Innovation Research and Commercialisation

TOPICS AFCC INTERNET RADIO:

1. AFCC IFCC WorldLab Durban 2017
2. AFCC LabMed Internet Radio Production 2.
3. CID Nutrients In Treatment Of Diseases
4. AFCC LabMed Internet Radio Productions 1 and 2
5. UZ Multimedia Centre Hosting of AFCC Lab Med Internet Radio Water
6. Onions
7. Antioxidants in Micronutrients in Cancer Modulation IFCC Traceability Committee INWTBORA ECLICE
8. Protective Role of Micronutrients in Curbing Non-Communicable Diseases (NCDS)
9. Integrating CID Nutrients Kit in Cancer Infections and Malnutritional Diseases
10. The Role of Micronutrients And How They Can Be Incorporated To Manage HIV Encephalopathy
11. Malaria in Pregnancy
12. Advances and Challenges in EB P4 Laboratory Medicine in Integrating Maternal Mental Infant and Nutrition Health.



13. KIR Gene Content Variation Influences Plasma IP-10 Concentrations in Antiretroviral Therapy Naïve Adult Zimbabweans.
14. Advances in Cardiovascular Diseases
15. Vitamin D and Pregnancy.
16. Integrating Nutrients in Malnutrition Diseases in Africa P4 Laboratory Medicine.
17. HBV Genotypes in HIV Positive Patients.
18. Role of Nutrition in Hepatocellular Carcinoma in Zimbabwe.
19. Toxicity of Chrome and Gold Mining in Zimbabwe.
20. Prevalence of HPV in Cervical Cancer in Zimbabwe.
21. Diagnostic Utility of Neutrophil Gelatinase Lipokaninin Acute Kidney Injury in Resource Constraint Settings Treatment and Nephropathy
22. Association between Microalbumin, Cystatin C and Creatinine in HIV Positive Children.

ZACB JOURNAL CLUB TOPICS 2017:

1. Association between the TCFTL2 rs 12255372 (G/T) gene polymorphism and type 2 diabetes mellitus in a Cameroonian population: a pilot study.
2. Apo genotyping in Egyptian diabetic nephropathy patients.
3. Identification of sequence polymorphism in the D-Loop region of mitochondrial DNA as a risk factor for hepatocellular carcinoma with distinct etiology.
4. Very low levels of 25-hydroxyvitamin D are not associated with immunologic changes or clinical outcome in South African patients with HIV associated cryptococci meningitis.
5. Thyroid function in HIV patients treated with HAART, a longitudinal study.
6. Discordance of Low Density Lipoprotein (LDL) Cholesterol with alternative LDL-Related measures and future coronary events.
7. KIM-1 as an early marker of proximal tubular damage.
8. Soluble CD163. A novel marker of activated macrophages, is elevated and associated with non-calcified coronary plaque in HIV infected patients.
9. Host iron redistribution as a risk factor for incident tuberculosis in HIV infection: an 11 year retrospective cohort study.
10. Iron intake, body iron stores and the risk of type 2 diabetes, a systematic review and meta-analysis.
11. Cryptococcus and cryptococcosis in Zimbabwe
12. Vitamin D content in human breast milk: a 9-months follow-up study.

ZACB PAPERS IFCC WORLDLAB OCTOBER 2017:

1. KIR gene content variation influences plasma IP-10 concentrations in antiretroviral therapy naïve adult Zimbabweans.

Affiliate Member Societies



BRAZIL
SOCIEDADE BRASILEIRA DE PATOLOGIA CLÍNICA / MEDICINA
LABORATORIAL (SBPC/ML)

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
52 nd Brazilian Congress of clinical pathology		http://www.sbpc.org.br

EDUCATION

EAD- Distance Education

14/mar	Clinical and laboratory diagnosis of yellow fever
04/apr	The laboratory in the new Brazilian Guidelines on Dyslipidemias and Prevention of Atherosclerosis
02/may	What do I do when my Analytical Quality Management system does not meet the specification?
06/jun	How to identify and resolve interferences and contamination in culture exams
04/jul	Treatment of nonconformities
01/aug	Risk management in clinical laboratory
17/oct	Checking reference intervals in clinical laboratory
07/nov	Problems in the implementation of the PALC: The three highest indexes of nonconformities
05/dec	Laboratory on toxicology: how to deal with new drugs and current screening methods

For more information, check our website: <http://www.sbpc.org.br>

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Symposium - The Diagnosis in Endocrinology and Metabolism	February 23 rd 2017	A partnership between the Brazilian Society of clinical pathology, Brazilian Society of Endocrinology and Metabolism (SBEM) and Brazilian College of Radiology and diagnostic imaging (CBR) http://www.sbpc.org.br/cursos-e-eventos/o-diagnostico-em-endocrinologia-e-metabologia/

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/>



JORDAN SOCIETY FOR MEDICAL TECHNOLOGY & LABORATORIES

NATIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Annual meeting for society members	Apr. 8 th 2017	Approval of the administrative and financial annual reports. Election of a new administrative committee.
Future of Medical Laboratory profession in Jordan.	May 17 th 2017	Discussion on how to overcome the challenges faced by medical laboratory professionals in Jordan.

EDUCATION

The followings are training courses and workshops

- In collaboration with Talal Abu-Ghazaleh group, Medical Technology and Laboratory Society conducted a training course on “Medical Laboratory Quality Management System and Quality Control”, 300 training hours, started on July 2017 for 6 months duration. The participants who completed and passed the course were given a professional diploma certificate approved by Ministry of Higher Education to work as “Quality Assurance Officer”.
- In collaboration with Talal Abu-Ghazaleh group, Medical Technology and Laboratory Society conducted a training course in “Clinical Embryology”, 300 training hours, 3 months duration. Participants who completed and passed the course were given a professional diploma certificate approved by Ministry of Higher Education.
- Workshop and training sessions on “Basics in Haematology Testing”, 2 days duration started on May 19th 2017.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution</i>
The 6 th International Jordanian Congress of Allergy and Immunology	26-28 July 2017	Member of the congress organization committee.

REGIONAL RELATIONS

- Jan. 2017, Medical Technology and Laboratory Science Society signed a joint cooperation agreement with Talal Abu-Ghazaleh Organization (TAG-Org) for specialized training courses in the fields of medical laboratory and analytical disciplines.

ADDITIONAL INFORMATION

- May, 2017. Medical Technology and Laboratory Science Society became a member of the “High Health Council” as the representative of Medical Laboratory profession in Jordan.



**INDIA****ASSOCIATION OF MEDICAL BIOCHEMISTS OF INDIA (AMBI)****NATIONAL MEETINGS**

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
AMBI 2017 25 th Annual Conference of Association of Medical Biochemists of India	17 th to 19 th Workshops – 15 th & 16 th	Theme: Unfolding New Facets of Medical Biochemistry “The Bridging of Academia and Clinics”

EDUCATION

Regular education programmes such as continuing educational programmes ranging from 1 day to 2/3 days on different topics in different places are held regularly.

There is interchange of experts and juniors from not only the parent state but invites from all over the country.

Regular meetings also held in medical colleges from town and cities in small groups. Clinicians form a part of these meetings providing Clinico biochemical/Clinico pathological discussions.

REGIONAL MEETINGS

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
State Chapter – Odisha	8 th January 2017	Human Genome variations and advanced technologies
State Chapter – Pune, Maharashtra	27 th - 28 th April 2017	Seniors and experienced in different areas delivered
State Chapter – Hyderabad, Telangana	27 th July 2017	New born screening – Clinical and molecular level diagnosis
State Chapter – Rohtak, Haryana	5 th October 2017	
State Chapter – Assam	21 st and 22 nd Dec	

REGIONAL RELATIONS

The regional meetings have invited speakers from distant places among the peer group all held under the flagship of AMBI. Student poster and platform presentations, quiz programmes are held.

Experts & Expertise of members from all over the country is tapped to teach at these sessions. Clinicians form a part of these meetings providing Clinico biochemical/Clinico pathological discussions.

INTERNATIONAL RELATIONS

Members attended IFCC Conference at Durban 2017

Dr. Shanmugapriya was awarded young scientist Traveller scholarship to Durban

Some of the AMBI members are corresponding members in various committees of IFCC & APFCB



Dr.Barnali - Corresponding member - TF-Thyroid
 Dr.Rachita - Corresponding member - C-EUBI
 Dr.Shanthi Naidu - Corresponding member - TF-CKD
 Dr.Jasbinder - Corresponding member - C-CLM
 Dr.Shivani - Corresponding member - CPD
 Dr.Shanmugapriya - Corresponding member - Task Force Young scientist
 Dr.Pradeep Dabla - Chairman - Task Force Young scientist

ADDITIONAL INFORMATION

AMBICON 2017 was held under the auspices of IFCC & APFCB, November 2017.
 Dr.Graham Jones, Chairperson of the workshop – Metrological Traceability – had his lecture under the auspices of JCLTM
 Dr.Elizabeth Frank & Dr.Endang Hoyaranda delivered a symposium. Risk management
 Dr. Endang Hoyaranda also represented the APFCB
 Dr.Graham Beastall delivered a talk through webinar



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 14 th Annual Convention	September 26 - 28, 2017	Quality Beyond Borders

EDUCATION

The PCQACL Committee on Continuing Education, Training & Research has conducted the following Seminar – Workshops last 2017 :

1. 1st Training Course on Laboratory Management
 Seminar- Workshop on Documents & Records for the Clinical Laboratory
 Date: March 1, 2017 - Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City
2. Seminar-Workshop on Standardization of Tests in Detecting Chronic Kidney Disease
 Date: April 5, 2017 - Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City
3. Seminar-Workshop on External Quality Assessment Scheme (EQAS)
 Date: June 28 -29, 2017 Venue: Century Park Hotel, P. Ocampo St., Malate, Manila
4. 2nd Training Course on Laboratory Management
 Resource (Human & Facility) Management & Safety
 Date: July 18, 2017 - Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City
5. Pre-Convention Seminar- Workshop on Risk Management for the Clinical Laboratory
 Date: September 25, 2017 - Venue: Crowne Plaza Galleria, Ortigas Avenue, Qiezon City

REGIONAL RELATIONS

Member of Asian - Pacific Federation of Clinical Biochemistry and Laboratory Medicine (APFCB)
 Member of Asian Network for Clinical Laboratory Standardization and Harmonization (ANCLS)
 Member of Clinical and Laboratory Standards Institute (CLSI)
 Member of International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)

INTERNATIONAL RELATIONS

IFCC Affiliation Membership

Member of Clinical and Laboratory Standards Institute (CLSI) giving the 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 a Speaker(s) at plenary sessions and other scientific sessions hosted by PCQACL.

IFCC-Visiting Lecturer Program will be invited to provide Speakers at plenary lectures, seminar-workshops and other scientific sessions to be hosted by PCQACL

ADDITIONAL INFORMATION

The IFCC President, Dr. Maurizio Ferrari has graced with his presence, the PCQACL 14th Annual Convention Opening Ceremonies as the Keynote Speaker held last Sept. 26, 2017 at Crowne Plaza Galleria Manila. Furthermore, the 14th Annual Scientific Program had the privilege to have Dr. Ferrari as the renowned IFCC - Visiting Lecturer – Program Speaker together with the distinguished Speaker from APFCB, Prof. Nigel John Clarke on the following topics:



Dr. Maurizio Ferrari

- a. *P4 Medicine: Predictive, Preventive, Personalized, and Participatory – A New Trend in Laboratory Medicine*
September 26, 2017
- b. *Circulating Tumor DNA: a Promising Biomarker in the Liquid Biopsy of Cancer*
September 26, 2017



Prof. Nigel John Clarke

- a. *“Phenotypings” for Pharmacogenomics and Personalized Medicine- Tamoxifen*
September 27, 2017
- b. *New Assays and Directions in Diagnostic Mass Spectrometry*
September 28, 2017

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