

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



Annual Report 2016

Highlights of the Year



- **12th IFCC General Conference**, Madrid - Spain (19-21 March 2016)
- **14th Asia Pacific Federation for Clinical Biochemistry and Laboratory Medicine – APFCB Congress**, Taipei - Taiwan (26-29 November 2016) (<http://www.apfcbcongress2016.org/index.html>)
- **15th IFCC-Roche Bergmeyer Conference**, Eibsee - Germany (7-9 March) “Biomarkers in the Diagnosis and monitoring of Cancer”
- **IFCC-Roche Specialized Conference**, “Biomarkers in Alzheimer’s Disease”, Mexico City, Mexico (20 May 2016)
- **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**
- **Webinars and Distance Learning Modules** (<http://www.ifcc.org/ifcc-education-division/webinars/ifcc-webinars/>)
- **e-Academy**, open educational resources (<http://eacademy.ifcc.org/>)
- **Experts 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



This is my report after the second year as IFCC President and I am very proud to summarize what has been done during 2016.

During the year IFCC again increased its membership as welcomed two new Affiliate Member Societies:

“Society for Medical Technology & Laboratories-Jordan” and the “Nepalese Association for Clinical Chemistry”. Collectively, there are 89 Full Members, 12 Affiliate members and 47 Corporates Members and IFCC represents >45,000 senior laboratory medicine specialists.

The important work of IFCC takes place in its Divisions, Committees, Task Forces and Working Groups. During 2016 >320 experts volunteered to work on 47 IFCC projects, which cover a wide range of clinical, scientific, educational and communication related topics. Full details may be found in the IFCC website (www.ifcc.org) and reports may be found in this Annual Report. IFCC also contributes expert input to a number of global organizations.

The IFCC Strategic Plan

The Executive Board for 2015-2017 has identified and agreed below strategic objectives for its term of office. They follow the overall IFCC strategic plan and its principal objectives. They are intended to be in addition to the ongoing work of Division Executives. There are 33 strategic actions which have been classified into the following four broad areas:

1. Supporting our membership.
2. Broadening our horizons.
3. Improving the quality of laboratory medicine.
4. Improving the effectiveness of IFCC.

The Executive Board worked effectively during 2016 and completed 28 actions. Five actions are still in progress and should be completed next year.

I would like to outline some of the achievements in addition to those already reached in 2015:

- Evaluate the performance and the financial balance of Divisions through their mandatory report
- Deeply promote the Foundation for Emerging Nations-FEN as a new income stream for IFCC.
- Increase multi-languages educational material
- Perform a wide-ranging of SWOT analysis of IFCC, evaluate the findings and publish a report with recommendations of planned actions
- Further develop and promote “Shaping the Future of Laboratory Medicine”.
- Introduce and support the “Med Tech Ethical Code”
- Devise and introduce a strategy to increase the attractiveness of IFCC to Corporate members.
- Establish a new high level project with WASPaLM that aims to promote the quality of laboratory medicine through the support of the value of Laboratory Medicine.
- Increase the number of young scientists participating in the IFCC Functional Units.
- Consolidate the mentoring programme as a Special Project and promote its gradual expansion.
- Open the call for nominations for the EB Treasurer and Secretary positions (2018-2020)
- Open the call for nominations for the “IFCC Medal for outstanding services”
- General Conference, Madrid March 19-21, 2016

- IFCC Speakers Bureau (<http://www.ifcc.org/ifcc-education-division/speaker-s-bureau/>).
- Webinars and Distance Learning Modules (<http://www.ifcc.org/ifcc-education-division/webinars/>).
- e-Academy, open educational resources (<http://eacademy.ifcc.org/>).
- Experts Database (<http://www.ifcc.org/ifcc-education-division/experts/>).

Over the last year we increased the activities focused to outline the clinical effectiveness of laboratory medicine. For IFCC this has been exemplified by the work of many Task Forces and by the increasing collaboration with international clinical organizations. This trend will surely gain further momentum in the years ahead for laboratory medicine is truly central to clinical decision making in healthcare.

Finances

The annual accounts for 2016 were audited in March 2017 and copies are available upon request from the IFCC Office. IFCC had a financially difficult year but our finances are still sound as we prepare for the future.

We prepared a clear budget for 2017, trying to contain the increasing expenses but with the goal to improve as much as possible the activities of IFCC in favor of our Members.

Finally, I wish to thank, after my second year as President, the Executive Board and the Chairs of Divisions for their skill, wisdom, commitment and inspiration. Our excellent team in the IFCC Office in Milan (Paola Bramati, Silvia Cardinale and Silvia Colli Lanzi) has again demonstrated their dedication and professionalism in supporting our Members. Above all, however, IFCC owes a great debt to many scientists and medical doctors who work on a voluntary basis giving freely their time and expertise in the interest of improving the quality, delivery and relevance of clinical chemistry and laboratory medicine worldwide. It is gratifying that we are seeing an increase in the number of experts who want to work for IFCC. These people are the true strength of IFCC as we move forward.

Maurizio Ferrari, President

EXECUTIVE BOARD (EB)

The Executive Board held three meetings during 2016. The first one was held in Madrid on March 18 on occasion of the IFCC General Conference, successfully attended by 273 Participants, 71 National Societies, 14 Corporate Members, 33 Closed meetings and 13 Interactive sessions were organized. A survey has been performed with 138 answers/273 participants; 41,3 % experienced the first time at the GC, the overall satisfaction was good and more than 95% of the attendants considered the GC an important event for the IFCC.

The second EB meeting was held in Philadelphia in connection with the AACC Annual Meeting, on July 30-31; the third EB meeting was held in Taiwan in connection with the APFCB Congress on November 24-25.

In January 15-16 a strategic SWOT Meeting was held in Milan and EB agreed on the IFCC Vision: "We advance excellence in laboratory medicine for better healthcare worldwide, establishing a prioritization of targets, reviewing the Strategic Plan.

Besides two new members societies joined IFCC in 2016: *Society for Medical Technology & Laboratories-Jordan* and the *Nepalese Association for Clinical Chemistry* as Affiliate Members). In 2016 we were glad to welcome *KHB Shanghai Kehua Bioengineering* as a new Corporate Member.

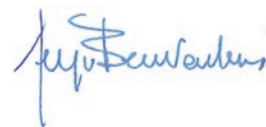
A letter was sent to National Societies of the Full and Affiliate members requesting for their annual report. More than fifty reports were received to be included in the IFCC Annual report



2016 which is available on the IFCC Website (www.ifcc.org).

Thanks to the members of the EB for their support and friendship, thanks to all IFCC officers and 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 my second year of term as the IFCC treasurer, with the valuable help and assistance of the IFCC office, the annual dues of Full, Affiliate and Corporate Members have been received, the adherence of IFCC operating units to their allocated budgeted have been monitored and detailed records of all transactions have been kept, reimbursements have been processed as quick as possible after the receipt of the claims. Close collaboration has been achieved with the IFCC investment bank, (LGT) to optimise the financial return on IFCC investments. The current and historical performances of the portfolio mandate at the LGT Bank and the investment charges for different investment models (basic fee with brokerage fees and all-in-fee models) were presented to the IFCC Executive Board (EB). The performance of investments has not been good over the past couple of years due to the reflection of global stock markets. The investment charges paid were too high especially in the periods when the returns on investment low. The high investment charge fees tempted to look at alternative ways to manage investments with the result that a more competitive fee structure has been identified. It is this reduced fee structure from another reputable investment bank (Credit Swiss) that has prompted IFCC EB to move IFCC's investment portfolio from the LGT Bank to CS. The annual accounts and financial actions have been reviewed by an external independent auditor in order to finalize the actual income and expenses at 31st December 2016.

COMPARISON OF 2016 PROPOSED BUDGET WITH ACTUALS AT 31st DECEMBER 2016: IFCC NET INCOME

The 2016 budget was expected to be closed with a deficit of CHF -1.297.341. Instead, it was closed with a less negative balance of CHF -436.459 (Fig. 1).

IFCC NET INCOME 2016 - Budget to Actual at December 2016			
Description	Proposal 2016	ACTUAL YTD	Proposal 2017
	CHF	CHF	CHF
Total Income	580.000,00	1.006.430,00	1.053.500,00
Total Expenses	1.877.341,00	1.442.889,00	1.779.155,00
Net Income	-1.297.341,00	-436.459,00	-725.655,00

Figure 1. 2016 proposed budget versus to actual at 31st December 2016.

TOTAL OPERATIONAL REVENUES AND FINANCIAL INCOME

The actual total operational revenues and financial income in 2016 were CHF 1.006.430 (Fig. 2). The main revenue sources were in decreasing order in CHF: Corporate members' contributions (CHF 290.081), SD Sponsorships (CHF 244.352), Full+Affiliate Members' contributions (CHF 184.879), bank profits/interests (CHF 67.643), Royalties (CHF 68.616); EMD funds (CHF 46.314); Conferences support (CHF 47.347); awards (CHF 31.971); scholarships (CHF 25.227).

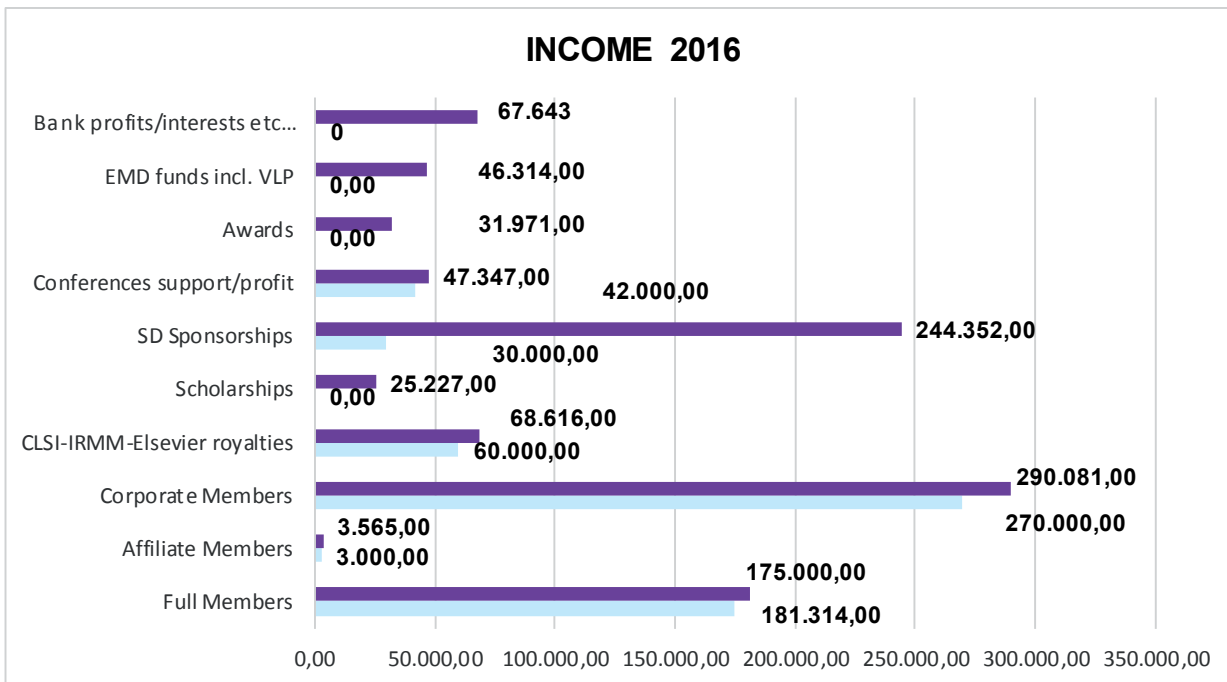


Figure 2. INCOME at 31st December 2016: CHF 1.006.430.

IFCC MEMBERSHIP DUES

Below is a diagram showing the percentage of the major income of IFCC from the annual dues of Full, Affiliate and Corporate Members collected during 2016 (Fig. 3). Thanks all the member Societies and Companies that supported IFCC throughout the years. Their continuous contributions have made possible the accomplishment of numerous IFCC tasks and projects. We also thank the members for their loyalty and attention in paying dues at the start of the year, which helps the cash flow.

<i>Dues</i>	<i>CHF</i>
<i>Full members</i>	<i>181.314</i>
<i>Corporate members</i>	<i>290.081</i>
<i>Affiliate members</i>	<i>3.565</i>
<i>Total</i>	<i>474.960</i>

Figure 3. IFCC membership dues collected in 2016.

2016 OUTSTANDING DUES: FULL MEMBERS: CHF 15.785; CORPORATE MEMBERS: CHF 34 800

IFCC MEETINGS INCOME PARTITION

IFCC meetings' revenues are not a regular yearly income. The average yearly income of IFCC arising from the meetings can be calculated dividing the revenue by the frequency of the event. The yearly income of IFCC from the EuroMedLab2015 Paris and WorldLab 2014 Istanbul) subdivided per year is shown in Fig.4.

INCOME	PARTITION	YEAR AVAILABILITY
WordLab (Istanbul) meeting 2014: ~€ 500.000	3 years	~€ 167.000
EuroMedLab (Paris) meeting 2015: ~€ 500.000	2 years	~€ 250.000
Total: ~€ 1.000.000		~€ 417.000 (~CHF 451.820)

Figure 4. IFCC annual meetings income from EML Paris and WL Istanbul.

The income of IFCC from the membership dues and annual meetings income (excluding sponsorships and other revenues) in 2016:

CHF 474.960 (dues) + CHF 451.820 (annual meeting income) = CHF 926.780

SPONSORSHIP

Divisions and some Functional Units raise some sponsorships funds that give them certain flexibility in conducting projects. These sponsorships are used for the specific projects in due time. The total amount of sponsorships available for specific projects in 2017 is CHF 504.500. The total amount of sponsorship funds including awards, scholarships, VLP and TF-PLM surplus available in 2017 are **CHF 638.915 (Fig 5)**.

	2016	2017	Total
	unused/carry over to next year	If received new	available in the current IFCC account for these activities
	CHF	CHF	CHF
Sponsorships (SD/CPD/EMD/TFs)	504.500	0	504.500
Awards	31.975	28.500	60.475
Scholarships	25.000	0	25.000
VLP	42.555	0	42.555
Other (TF-PLM surplus ICPLM Istanbul)	6.385	0	6.385
Total	610.415	28.500	638.915

Figure 5. The Sponsorship amount carried from 2016 to 2017.

TOTAL OPERATIONAL COSTS AND FINANCIAL CHARGES

The actual total operational costs and financial charges in 2016 were CHF 1.442.889. (Fig 1 and Fig. 6). This figure includes the sponsorship expenses of CHF 268.362. The total amount of expenses except sponsorship in 2016 was CHF 1.174.527. CHF 10.000 was given to each of the four regional federations upon receipt of their annual activity reports. The total amount of the contribution of IFCC to International/Regional Organisations in 2016 was CHF 67.575. The amount paid for BIPM-JCTLM Participation was CHF 67.147. Efforts of the Chairs of Divisions, Committees/Working Groups and Task Forces to remain within their allocated budgets, even below in 2016 have been appreciated.

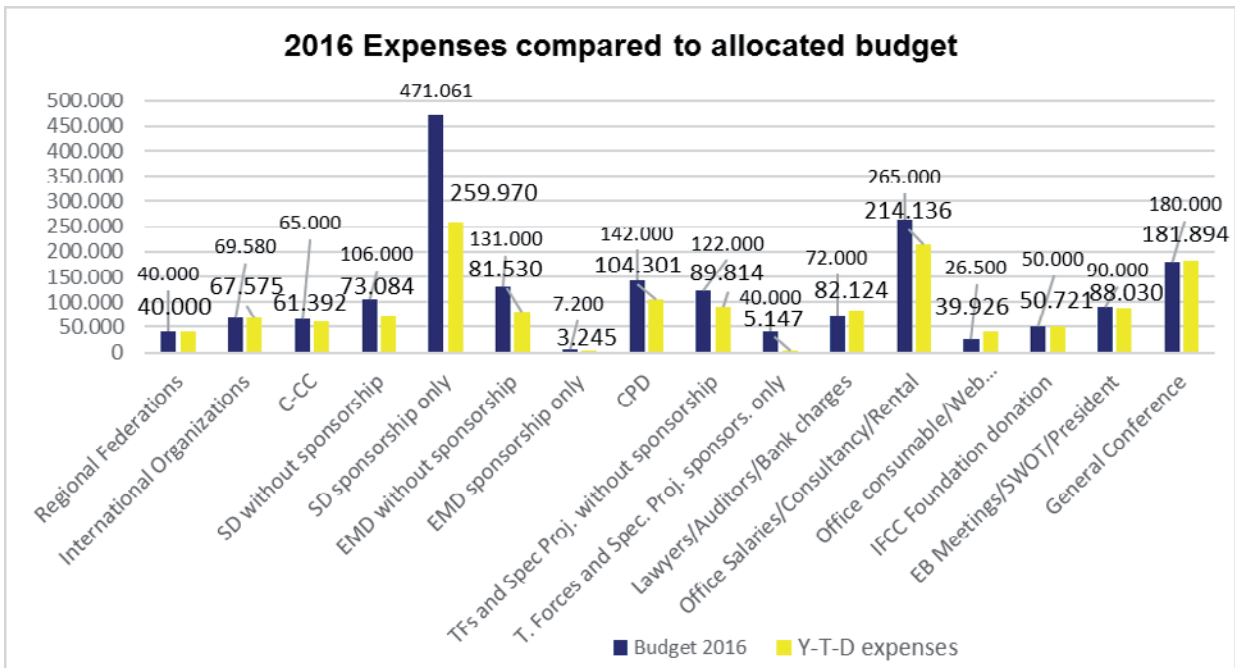


Figure 6: 2016 functional units' expenses, compared to their allocated budget (CHF)

IFCC INVESTMENT AT LGT IN 2016

The adopted strategy of IFCC for its portfolio management, the actual value of the portfolio; the historical performances (Figure 7) and risk tolerances of different portfolios were discussed at the IFCC EB.

historic performance



Figure 7. Historic Performance of IFCC Portfolio (2010-2015)

IFCC had chosen the "Growth" portfolio containing alternative investments among the five LGT Bank portfolios till the end of 2015. The financial outcome for 2015 was disappointing, mainly because of the loss of value of investments and the exchange rate between EUR and CHF. EUR has lost approximately 15% against CHF in January 2015. The EB at his meeting in Quito in September 2015, decided to move the portfolio from "growth" to "balanced".

The performance net cumulative of the IFCC investments till November 2016 is shown in Fig. 8 as -0.29%.

monthly return in the above mentioned period							
month	value end of month	change in net value	average capital	performance net per share	performance net per asset	performance net per subsector	performance net
01.2016	2.285.568.87	-107.288.90	2.285.498.87	-4.70%			-4.70%
02.2016	2.270.979.91	-14.588.94	2.299.498.87	-0.64%			-0.64%
03.2016	2.625.512.30	354.532.39	2.798.872.30	1.29%	12.38%		1.29%
04.2016	2.625.076.24	-435.04	2.822.200.24	-0.16%			-0.16%
05.2016	2.587.058.87	-37.997.37	2.822.888.58	-1.35%			-1.35%
06.2016	2.627.668.87	40.610.00	2.847.058.87	1.40%	0.08%	-0.04%	0.08%
07.2016	2.702.810.57	75.141.70	2.879.810.57	2.68%			2.68%
08.2016	2.717.258.78	14.448.21	2.879.258.78	0.52%			0.52%
09.2016	2.507.505.24	-209.753.54	2.843.888.52	-7.41%	7.79%		-7.41%
10.2016	2.688.888.91	181.383.67	2.907.788.81	6.65%			6.65%
11.2016	2.652.888.84	-36.000.07	2.952.888.71	-1.33%			-1.33%

monthly return

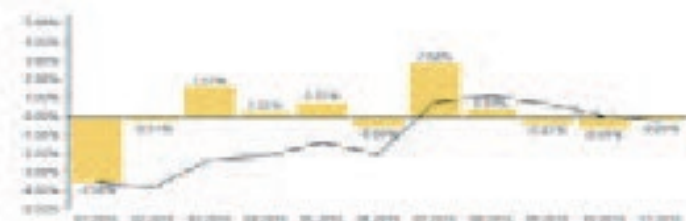


Figure 8. Performance of investments indicated as monthly return in 2016.

The IFCC Executive Board (EB) at its last meeting on November 24, 2016 evaluated carefully the current and historical performances of its portfolio mandate at the LGT Bank and the investment charges for different investment models (basic fee with brokerage fees and all-in-fee models). IFCC EB understood that the performance of investments at the LGT Bank has not been good over the past couple of years due to the reflection of global stock markets. IFCC EB considered the investment charges too high especially in the periods when the returns on investment are low. The high investment charge fees tempted IFCC EB to look at alternative ways to manage investments with the result that a more competitive fee structure has been identified. It is this reduced fee structure received by the treasurer from another reputable investment bank (Credit Swiss) that has prompted the IFCC EB to move its investment portfolio from the LGT Bank to Credit Swiss. Following the decision of the Executive Board, the portfolio mandate with LGT was cancelled on December 14, 2016, a safekeeping mandate was given to Credit Suisse, in the meantime the transfer of the securities from LGT to Credit Swiss was completed on January 12, 2017 (35 assets).

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

- Investment strategy: Income oriented
- Risk Profile: Moderate
- Risk Budget: Moderate
- Reporting currency: CHF (with investments in three currencies: CHF, EUR, USD)
- Ticket fee model: 0.20% for the safekeeping fee (no investment fee, only 0.20% p.a. for the safekeeping fee when invested in CS Portfolios). Plus brokerage fees.

EXPECTED CONSEQUENCES:

- The risk profile of the portfolio at Credit Swiss (Moderate) is lower than the risk profile at the LGT Bank (Balanced in 2016 and Growth in 2015).
- Less risk means that there will be fewer transactions and less brokerage fees.
- The number of transactions will be less leading to the less time and work spent by the IFCC Auditor to follow and control the transactions of the previous year.
- The total amount of the investment fees to be paid to the Credit Swiss is expected to be less than paid to the LGT.



FUTURE FORECASTS

- Financial difficulties are anticipated in 2017 due to shortage of income since the sole income of IFCC will be confined to the dues to be collected.
- The meeting incomes from Athens and Durban will be available 6 months after these meetings (earliest end of 2017, most probably in 2018).
- In 2017, IFCC activities and meetings can be kept as planned spending all the cash available at Credit Swiss.
- There might be a need to transfer the missing amount from the capital invested at Credit Swiss.

Tomris Ozben, Treasurer

CORPORATE MEMBERS

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

Corporate Representative at IFCC Executive Board (1st term 2015-2017)

Let me start with a big thank you to the Corporate Members for their significant contributions to IFCC activities. By the end of 2016 the total number of IFCC's Corporate Members was 47, providing the IFCC with annual fees of CHF 290.000 which was around 24% of IFCC's total annual income. In addition, Corporate Members continued sponsoring of IFCC conferences, workgroups, scientific awards, e-learning programs and travel scholarships. In 2016 we were glad to welcome *KHB Shanghai Kehua Bioengineering* as a new Corporate Member while regrettably three companies left IFCC: *Wiener Lab*, *Biocrates Life Sciences*, and *Millipore*.

In January 2016 I encouraged IFCC to conduct an analysis of its strengths, weaknesses, of opportunities and threats (SWOT). The results of the SWOT analysis were presented at the **General Conference** in Madrid in April 2016 where we had - for the first time at a General Conference - a session fully organized by the IVD industry. During this session I invited all delegates to submit proposals how IFCC could become more attractive for corporate members. We received around a hundred proposals which were later classified, consolidated, discussed by the IFCC Executive Board, and incorporated into IFCC's Strategic Action Plan:

- Extend the role of Corporate Members within IFCC and improve communication.
- Increase public awareness for the medical value provided by diagnostic lab tests.
- Together with clinical societies, support medical claims leading to reimbursement.
- Emphasize the importance of quality and provide expertise in standardization.
- Align more with others (CLSI, FDA, clinical societies, etc.) to avoid inconsistency and duplication of guidelines and recommendations.
- Continue to provide opportunities for exhibitions, industry symposia and networking with lab professionals during high-level academic conferences, thereby following the rules defined by the IVD industry in the MedTech Europe Code of Ethical Business Practice.
- Pursue the opportunities of data analytics in laboratory diagnostics.

The EuroMedLab in Barcelona will be the first conference where the transition period of the MedTech Europe Code has ended and IVD industry can no longer sponsor delegates or speakers to attend conferences. For more information please check out the MedTech Europe website.

Rolf Hinzmann, Corporate Members Representative

COMMITTEE ON CONGRESSES AND CONFERENCES (C-CC)

The 33rd meeting of the IFCC Executive Committee on Congresses and Conferences (C-CC) was held on occasion of the AACC Annual Meeting in Philadelphia, PA, USA.

**International Congresses of Clinical Chemistry & Laboratory Medicine (ICCCLM);
WorldLab Congresses: 23rd IFCC WorldLab 2017 Durban, South Africa (22-25 October 2017 - <http://www.durban2017.org/>)**

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

24th IFCC WorldLab 2020 Seoul, South Korea (24-28 May 2020 - <http://www.ifcc2020.org>)

Congress President: Prof. Won-Ki Min; Chair of the Organizing Committee: Prof. Junghan Song T

IFCC Regional Congresses of Clinical Biochemistry and Laboratory Medicine

APFCB2016 Congress - Taipei, Taiwan (November 26-29, 2016 - <http://www.apfcbcongress2016.org/>)

The 14th APFCB Congress was held at Taipei International Convention Center (TICC), Taipei, Taiwan.

Chairman is Woei-horng Fang; Executive Secretary - Jui-Ching Wu; Scientific Chair - Shu-Chu Shiesh.

APFCB2019 Congress - Jaipur, India (November 17-20, 2019 - <http://www.apfcbcongress2019.org/>)

Congress Chair: Prof. Praveen Sharma

EuroMedLab Congress 2017 – Athens, Greece (11-15 June, 2017 - <http://www.athens2017.org/>)

22nd IFCC-EFLM EuroMedLab Congress of Clinical Chemistry and Laboratory Medicine - 25th Balkan Clinical Laboratory Federation Meeting and 15th National Congress of GSCC-CB

Congress Chair: Prof. Alexander Haliassos President of the Congress is Dr. Alexander Haliassos.

T23rd EuroMedLab Congress 2019 – Barcelona, Spain (19-23 May, 2019)

Congress Chair: Dra. Imma Caballé

COLABIOCLI 2017 Congress – XXIII Congreso Latinoamericano de Bioquímica Clínica – Punta del Este, Uruguay (17-20 September, 2017). Organization on going

Congress Chairs: Dra. Queiruga and Dra. Stella Raymondo

AFCC Congress

Congress Chair: Prof. Vanessa Steenkamp

The 5th Congress of the AFCC will be a joint Congress with WorldLab 2017 in Durban, South Africa.

IFCC Specialized Conferences

15th Roche Bergmeyer Conference – Eibsee, Germany (7-9 March 2016)

Theme of the 15th Bergmeyer Conference was: “Biomarkers in the Diagnosis and Monitoring of Cancer”. The Proceedings of the Conference were published in Scand J Clin Lab Invest. (<http://www.tandfonline.com/toc/iclb20/76/sup245>).

IFCC Specialized Conference “Biomarkers in Alzheimer Disease”, Mexico City, Mexico (May 20th, 2016), supported by ROCHE.

The conference was held at the “Camino Real Hotel Polanco”, with the support of ROCHE. Chairs of the Organizing Committee were Prof. Sergio Bernardini and Dr. Rosa Sierra-Amor.

IFCC General Conference

The event was held in Madrid, Spain at the Auditorium Marriott Hotel, from March 19th – 21st, 2016. Closed meetings of IFCC functional units were planned before the conference on March 17th-18.

The primary goal of the Conference was to bring together IFCC Functional Units, as well as friends and partners from all around the world in an open dialogue under one roof to discuss the issues Lab





Medicine is facing, and to develop possible strategies to become more effective in the on-going development of our profession. There were 273 participants and 59 accompanying persons from 71 national societies plus 14 representatives from industry. In addition of the board session, the event featured 18 plenary conferences, 12 training seminars, 3 round tables, numerous breakout discussions and networking opportunities covering various aspects of the IFCC strategic plan, and the progress and outcomes achieved by the IFCC functional units led by the divisions and the executive board. A survey was conducted to better understand the scientific and educational needs and aspirations of the full members and partners and to provide feedback on accumulated experience. There were 138 responses and the overall satisfaction rate was over 95%.

Congresses with IFCC Auspices: 70 events

A significant achievement of the C-CC in 2016 has been the development of several new guideline documents and the revision of several existing guidelines. These are the guideline documents posted in the C-CC section of the IFCC website.

Guideline for Compliance with Applicable Codes of Ethical Business Practice

One of the most significant activities of the C-CC in 2016 has been the development of a document entitled IFCC Guidelines for Compliance with Applicable Codes of Ethical Business Practice. The requirement for these Guidelines is based on the introduction of the MedTech Europe Code of Ethical Business Practice. This code is applicable to the *in vitro* diagnostics industry and third party educational event organizers such as the IFCC and national societies. Although not specifically listed, the Guidelines also indicate the IFCC requirement for compliance with similar site-specific applicable codes of ethical business practice. Posting of this document to the C-CC section of the IFCC website is pending approval of the IFCC Executive.

Following documents have been revised to reflect the requirement for compliance with applicable code of ethical business practice; documents have been posted in the C-CC section of the IFCC website.

- 1) **Guidelines and Application Form for IFCC Auspices**
- 2) **Congress Guidelines and Application Forms for WorldLab (ICCCLM) and EuroMedLab**
- 3) **Guidelines for Development of the Scientific Program for WorldLab (ICCCLM) and EuroMedLab**
- 4) **Guidelines for a Satellite Meeting of an IFCC Sponsored Congress or Conference**

Both document 3 and 4 are officially new documents, developed in collaboration with MZ Congressi, based on a document that were initially developed by the COC for EuroMedLab Milano 2013 and subsequently used for EuroMedLab 2015 and 2017.

James Wesenberg, C-CC Chair

SCIENTIFIC DIVISION (SD)

During 2016, the following members served on the SD Executive Committee: Ian Young (UK) (Chair), Philippe Gillery (FR) (Vice-Chair), Joseph Passarelli (US) (Secretary), Giampaolo Merlini (IT), Christa Cobbaert (NL), Tsutomu Nobori (JP) (Members) and James Pierson-Perry (US) (Corporate Representative). Four representatives of International Organizations are invited to attend the SD meetings as consultants: Gary Myers (JCTLM), Heinz Schimmel (IRMM) David Bunk (NIST) and Chris Burns (NIBSC). Two meetings were held during 2016: March 18 (full day), 20 & 21 (partial) (Madrid, ES, in conjunction with the General Conference) and November 25-26 (Taipei, TW).

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:

- The revised text of the Declaration of Cooperation (DoC) between the BIPM, IFCC and ILAC was signed in April 2016 by the three Sponsoring Organizations, and is published on the JCTLM website.
- The Secretariat contacted the sponsoring organizations, the IFCC, the ILAC and the BIPM for nominations of JCTLM Chairperson and Secretariat.
- The JCTLM Executive approved the re-appointment of Dr. Myers as Chairperson for a second two-year term, and the BIPM's continued role as Secretariat for the JCTLM.
- Prof. Lothar Siekmann informed the Executive Committee of his retirement from the post of Vice-Chair of the Database WG, and as member of the JCTLM Review Team for Drugs, Metabolites and Substrates and Non-Peptide Hormones. The Executive Committee thanked Prof. Siekmann for his important contribution to the establishment of the JCTLM and great work in support of the JCTLM from its start and for his continued participation as a member in the JCTLM Review Teams.
- The procedure for the selection and appointment of the Working Group Chairs for renewable two year periods was followed. The Executive re-appointed Dr Karen Phinney as Vice-Chair of the Database WG as Chair of the Vitamins, Non-Electrolytes Metals, and Electrolytes and blood gases Review Teams and further agreed to re-elect Dr Heinz Schimmel as Vice-Chair of the Database WG. The Committee also appointed Dr Qinde Liu as Vice-Chair of the Database WG (covering the Drugs, Metabolites and Substrates, and Non-Peptide Hormones Review Teams) as replacement for Prof Siekmann.
- The Executive re-appointed Dr Graham Beastall as Chair the TEP WG.

JCTLM Membership:

- The JCTLM Executive Committee is investigating establishing liaison with other international organizations in different laboratory medicine disciplines as potential future members of the JCTLM Executive Committee. As a first step JCTLM has reached out to the International Council for Standardization in Haematology (ICSH). Dr Beastall attended the General Assembly of the ICSH on 26 October 2016 where he was invited to give a presentation introducing the JCTLM and traceability in laboratory medicine and gave examples of on-going standardization projects/ network for HbA1c, HBA2, and proteins containing metals. Dr. Beastall indicated that his presentation had been well received by the participants who were representatives from EQAS providers and Diagnostic industry.

Applications:

- The Secretariat produced a leaflet for introducing JCTLM to potential JCTLM Member Organizations which was published on the BIPM JCTLM website and had been distributed by email to BIPM's JCTLM contact list. As a result, eight organizations applied for JCTLM Membership with seven seeking JCTLM Stakeholder membership, and one JCTLM Regional and National membership. The Committee reviewed these applications and accepted the application of the Korean Society of Clinical Chemistry (KSCC) from South Korea for JCTLM Regional and National Membership and the seven remaining applications for JCTLM Stakeholder Membership:
 - Quik S.A.S. "Quality is the Key" (QUIK) from Colombia which was a private laboratory organization;
 - ECAT Foundation from The Netherlands which was a EQAS provider;



- Korean Association of External Quality Assessment Service (KEQAS) from South Korea which was a EQAS provider,
- Wales External Quality Assessment Scheme (WEQAS) from United Kingdom which was a EQAS provider;
- Laboratory of Toxicology, Faculty of Pharmaceutical Sciences, Ghent University (Ref4U), Belgium which was a Reference Laboratory having service listed by JCTLM;
- Guangdong Provincial Hospital of Chinese Medicine (GPHCM) from China which was a Reference Laboratory having service listed by JCTLM;
- Beijing Aerospace General Hospital from China which was a Reference Laboratory having service listed by JCTLM

JCTLM WG on Traceability Education and Promotion:

- The Working Group on Traceability Education and Promotion has the following 8 work stream projects underway:
 1. Definitions – This project entails producing a list of the key terms relevant to traceability in laboratory medicine and their associated formal VIM 3 definitions (when applicable).
 2. Mini-presentations – This project entails producing a series of about 10 presentations each of 5-8 slides that addresses a specific topic related to a scientific concept that is part of traceability in laboratory medicine.
 3. Importance of TLM to IVD manufacturers – This project involves raising awareness of JCTLM stakeholder membership among IVD manufacturers.
 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.
 5. Global significance of TLM – An opinion paper titled, “Traceability in laboratory medicine: a global driver for accurate results for patient care” has been written and submitted to *Clinical Chemistry and Laboratory Medicine*.
 6. Tools for promoting TLM – This project plans to develop a series of educational tools designed to promote the importance of TLM.
 7. Involving TLM in meetings – This project has two main aspects:
 - a. Raising the profile of TLM in national and international scientific meetings
 - b. Organizing the JCTLM Members and Stakeholders meeting
 8. WG-TEP website - The new JCTLM website has been launched at www.jctlm.org. This website is aimed at non-specialists in traceability and is intended to deliver news and educational resources. In that context it is complementary to the existing BIPM/JCTLM website and the JCTLM database.

JCTLM Database:

- The current status of the database as of December 2016 is as follows:
- 293 certified reference materials (CRMs) amongst which 33 are in List II (i.e. Reference Materials value assigned using an internationally agreed protocol), and 3 are in List III (i.e. Reference Materials for nominal properties),
- 180 reference measurement methods covering 80 analytes, and
- 146 reference measurement services covering 39 analytes. These services were delivered by 15 reference laboratories accredited for compliance against ISO 15195 and IEC/ISO 17025 as Calibration laboratories, and by two National Metrology Institutes (NMIs).
- In addition, the database web system was updated to add an auto-completion function in the analyte key word search form which provided a better guidance on the analyte present in the JCTLM Database.
- The database system was upgraded to allow it to operate on the Windows 2012/

SQL Server 2012 platform to ensure compatibility with BIPM environment hosting the application.

Meetings under the auspices of JCTLM:

- The National Institute of Metrology, China and the BIPM organized and convened a workshop on 'Protein and Peptide Therapeutics and Diagnostics: Research and Quality Assurance', that was held on 1-4 June 2016, in Chengdu China under the auspices of the JCTLM. More than 700 scientists attended the workshop.
- 10th International Scientific Meeting of the Center of Metrological Traceability in Laboratory Medicine (CIRME) "Ten years after" Milan (Italy), 17-18 November 2016.
- CALILAB (IX Congress for Quality in Laboratory Medicine in Argentina), Buenos Aires (Argentina), 30 November -02 December 2016.

Miscellaneous Activities:

Dr. Graham Jones and Mr. Craig Jackson published the following review on JCTLM. Jones GRD and Jackson C. The Joint Committee for Traceability in Laboratory Medicine (JCTLM) – its history and operation. Clinica Chimica Acta 2016;453:86-94.

Joint Committee for Guide in Metrology (JCGM)

Working Group 1 (GUM):WG1 held a meeting at the Bureau of International Weights and Measures (BIPM), Sèvres, May 30 – June 3, 2016. Since the previous meeting, 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 is complete, further development of options for overhauling the style and technical content of the revised GUM will be deferred.

Working Group 2 (VIM):WG2 has focused on developing a Draft Outline of the fourth edition of the VIM (VIM4) with completion of the Draft Outline expected by the end of 2016. The scope of the VIM4 is being expanded from the VIM3 to encompass nominal properties in a significantly more comprehensive manner. At the moment, 58 new entries for inclusion into the VIM4, which are related to nominal properties, are being evaluated by WG2. A key principle for the VIM4 is to try to incorporate simplified language, similar to that used in the 'VIM Definitions with Informative Annotations'. WG2 is considering changing the name of the VIM4, to the 'International Vocabulary of Metrology 4th Edition (VIM)', from the VIM3 'International vocabulary of metrology – Basic and general concepts and associated terms (VIM) 3rd edition'. The motivation was to remove 'concepts' from the title, which was a cause of some confusion. A draft document will be available by the end of 2018 to circulate to the member organizations for comment.

- **Institute for Reference Materials and Measurements (IRMM)**

Close collaboration with IRMM continues through a number of joint ventures involving SD Committees and Working Groups. The organization "IRMM" is now referred to as the Joint Research Center (JRC). Within the JRC there are five Directorates. Directorate F is focused on Reference Materials.

- **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 an Observer to the SD.

European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)

The EFLM Science Committee and SD leadership agreed there should be close liaison and communication between the two groups. The purpose is to share information on activities and look for areas of mutual interest. It was agreed the leadership of the SD and the EFLM Science Committee should meet formally once per year, preferably at a major conference. 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. The EFLM SC has more of a focus to promote and improve science through education within the field of clinical chemistry and laboratory medicine. Results of the Committee's work are actively disseminated at conferences and workshops, published in scientific journals (e.g. CCLM) and available on the EFLM web site.

World Health Organization (WHO)

WHO meetings occur each Fall. Philippe Gillery attends and participates as the liaison from the SD. PG participated in the World Health Organization Expert Committee on Biological Standardization (ECBS) meeting as IFCC-SD representative in Geneva (CH) from October 16th to 18th, 2016. There were relatively few topics relevant to the SD. The SD decided that there were no new projects or collaborations to consider.

Congresses (WorldLab, Regional and other congresses):

IFCC General Conference, Madrid, Spain, March 18 -21, 2016

SD Executive Summary – I. Young

Standardization of laboratory tests - why it is needed – G. Beastall

Standardization of laboratory tests - how to do it – G. Miller

Standardization - the example of thyroid function tests – L. Thienpont

Discussion

14th Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine Congress,

Taipei, Taiwan, November 26-29, 2016

Standardization as a Global Activity:

1. International co-ordination of standardization activities.
 - Prof Ian Young, Belfast, UK (also acted as chair)
2. Standardization of Thyroid Function Tests - changes are coming
 - Prof Linda Thienpont, Ghent, Belgium was originally invited but presentation made by Prof Graham Beastall, UK
3. Measurement and clinical utility of CSF proteins
 - Prof Kaj Blennow, Gothenburg, Sweden

Congresses with IFCC Auspices

ROCHE BERGMEYER

The Roche Bergmeyer Conference was held on March 7-9, 2016. The conference topic was *Biomarkers in the Diagnosis and Monitoring of Cancer*.

Listed on web pages for information only (<http://www.ifcc.org/ifcc-congresses-and-conferences/>)

Activities of Committees and Working Groups

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

COMMITTEES

C-Nomenclature, Properties and Units (C-NPU), Chair: Robert Flatman

During 2016 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:

- Applications for formal National Release Centre status from both Norway and Sweden received, accepted and formalized. These formal agreements are an important accomplishment from the conception and implementation of the NPU Steering Committee, and help clarify the governance relationships between IFCC, IUPAC and major international NPU users.
- Following on from 2015 planning work, the NPU Steering Committee website was finalized (<http://www.npu-terminology.org>). The website is searchable for NPU terms, explains the functions of the Steering Committee, and has lists news and publications relevant to the NPU terminology.
- Survey of IFCC members on the use of the NPU terminology late 2015 co-ordinated by the IFCC office

List planned activities in 2017 for this Term of Reference

1. The committee has been most thankful for the significant time invested in the NPU by Graham Beastall and Ian Young. With the election of new officers in 2017 there will be a transition period as the NPU committee does our best to help explain challenges and priorities.

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. n-going project for better definition of poorly identified NPU terms - Project for establishing definitions for non-referenced terms in the NPU terminology ongoing (IUPAC Project 2010-035-700) (Chair: Helle Moller Johannessen). Maintenance work continues to be very slow as resourced with volunteer time and labour from the NPU Scientific committee.
3. NPU Steering Committee continues to administer and update a strategic plan.



List planned activities in 2017 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. Continue to strengthen NPU Steering Committee with emphasis on strategic goals, funding and distribution of the NPU terminology
3. Continue to pursue relationship with SNOMED-CT/IHTSDO.
4. Continue to improve and add content to NPU Steering Committee website.

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. IUPAC representation continues with Helle Johannessen, Urban Forsum continuing as elected representatives. Colin Humphries from IUPAC Exec has continued to attend the majority of Steering Committee meetings and teleconferences
2. Gunnar Nordin and Georges Férard continue to contribute to BIPM WG2 and attend meetings
3. Formalising of the National Release Centre status for Norway and Sweden has been a challenge and opportunity for the Danish Release Centre (significant time invested supporting Norway and assisting with education and customisation)
4. Danial Karlsson and Colin Humphries (IUPAC) attended IHTSDO meeting late 2016. IHTSDO does not see NPU as a priority currently. Alternative proposal that the NPU terminology could exist within SNOMED-CT discussed briefly, but there would need to be substantial further investigation on benefits or risks for any work on this to proceed.

List planned activities in 2017 for this Term of Reference

1. Continue NPU member representation at major metrology working group meetings
2. Continue communications with IHTSDO/SNOMED-CT
3. Manage key NPU stakeholder imperatives via on-going NPU Steering Committee meetings – most by teleconference, but also aim for one face to face meeting each year (usually Copenhagen)

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)
- New IFCC NPU committee member from the Danish Health Data Authority – Young Bae Lee Hansen



- *Completion of the IUPAC project “Vocabulary on nominal property, nominal examination, and related concepts for clinical laboratory sciences (see publications below for final recommendations paper details)*
- *Scientific publications as per below*
- *Chair (RF) part of the Australian informatics harmonization project sponsored by Australian Government - RCPA Pathology Information, Terminology and Units Standardization Project (PITUS) on both Steering Committee and Working Group 2*
- *Revision of the IUPAC book “The Silver Book” completed. Substantial input from past/ consultant NPU members Georges Ferard, Rene Dybkaer, Xavier Fuentes-Arderiu*

List planned activities in 2017 for this Term of Reference

- *Continuation of activities described above (exception Silver Book 2 revision – now complete)*

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

During 2016 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. Helen Parkes provided presentation on standardization of reference materials.
2. Updated website on EQA programs with input from various EQA suppliers.
3. Payne and Ahmad-Nejad are liaison members of the cancer working group and Helen Parkes as consultant.

List planned activities in 2017 for this Term of Reference

1. Update C-MD website.
2. Design survey monkey based surveys to determine the needs of the molecular diagnostic area.
3. Request from SD that laboratories with expertise in developing reference materials be eligible for inclusion in the network.

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

Accomplishments Include:

One manuscript published (see Publications section)

List planned activities in 2017 for this Term of Reference

1. Develop questionnaire for standardized reporting template.
2. Send out survey to C-MD members and network laboratories.
3. Sending survey out to more laboratories to improve coverage and data capture.

Term of Reference 3. *Provide reference materials; and create a network of locus-specific IFCC Molecular Diagnostics Centers.*

Accomplishments Include:

1. Expanded Network to a total of 17 laboratories including the pre-existing expert laboratories. Seven laboratories are outside Europe, Canada, and the USA.
2. Identified candidate Expert Laboratories and reviewing applications of 10 laboratories
3. Engaged C-MD members to review articles for CCLM



List planned activities in 2017 for this Term of Reference

1. Expand expert laboratories
2. Solicit more activity through the use of a survey monkey

Additional Information

The C-MD aims to gain experience with utilizing survey tools to engage the molecular diagnostic community. None of our committee members have experience with these electronic tools is working through the process of learning how best to phrase questions and when to request specific answers versus free style responses. A limited test survey among the full members illustrated the challenge of defining clear questions. The C-MD expects that surveys will be a powerful tool to generate discussions on standardization and quality assurance in molecular diagnostics. Expanding the number of expert laboratories is a top priority. Several laboratories have been identified and will be invited in 2017. 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 to 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.

C-Reference Systems for Enzymes (C-RSE), Chair: Ferruccio Ceriotti

During 2016 ongoing progress towards C-RSE terms of reference included:

Term of Reference 1. *IFCC Enzyme Reference Measurement Procedures: New 37°C IFCC enzyme reference procedures are being developed on the basis of the existing 30°C IFCC.*

Accomplishments include:

Development of a reference measurement procedure for Pancreatic Lipase: a series of experiments were performed at the beginning of the year to ameliorate the method transferability, unfortunately with limited success. Some important weak points were identified and the Japanese group did further work to try overcoming them. A new formulation of the reagent has been proposed and tested with promising results in Germany, experiments in Italy are in place.

List planned activities in 2017 for this Term of Reference

If the experiments in Italy provide acceptable results a new inter-laboratories experiment will be programmed and a method comparison with routine methods will be performed. The evaluation of a reference method for pancreatic amylase will then be initiated.

Terms of Reference 2.

Network of Enzyme Reference Laboratories: Coordination of a group of reference laboratories from hospitals, academy and industry, which are able to perform adequate measurements according to a list of stated requirements.

Accomplishments Include: Not accomplished.

Terms of Reference 3

Enzyme Reference Materials: Evaluate reference materials provided by IRMM within the network of reference laboratories prior to certification. The materials are available as primary reference materials for calibration and/or validation of lower order procedures for the measurement of the catalytic concentration of enzymes.

Accomplishments include:

A recertification campaign for a primary reference material for LD, CK and ALT by the network

in cooperation with IRMM was completed last year. The results were elaborated by JRC-ERM and the new materials are now available.

A commutability evaluation of candidate Reference materials for amylase has been organized and will be concluded within the end of 2016.

List planned activities in 2017 for this Term of Reference

Evaluation of the results of the Amylase commutability experiment.

C-RSE concludes its course at the end of 2016.

It will continue as WG “Development of reference methods for pancreatic enzymes” with the following terms of reference:

- Development of a reference measurement procedure for pancreatic lipase
- Development of a reference measurement procedure for pancreatic amylase

The appointed Chair is Denis Grote-Koska

A meeting during the 2017 EuroMedLab congress in Athens has been planned.

C-Traceability in Laboratory Medicine (C-TLM), Chair: Lothar Siekmann

During 2016 ongoing progress towards C-TLM terms of reference included:

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

Accomplishments include:

The C-TLM supports the JCTLM which has been established approximately 13 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 different groups of measurands (e.g. metabolites & 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 6 - 5, 2016 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 first checked 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 by the review teams according to the requirements described in ISO 15193.

c) Reference measurement services

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

- 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.





JCTLM Working Group 2 conducted its first meeting in December 2015. The working group deals with the project of “**Education and Promotion**”. Anja Kessler acts as member of this working group.

Planned activities in 2017 for this Term of Reference

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

Term of Reference 2. *Establish an External Quality Assessment Scheme (EQAS) for reference laboratories and act as an advisory committee.*

Accomplishments include:

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

RELA ring trials are currently provided for 38 measurands. The results of RELA 2014 are published on the website (www.dgkl-rfb.de:81) in July 2015. 59 laboratories participated in RELA2014 and the organizer received 351 results from these laboratories. LDL-cholesterol, HDL-cholesterol, and free Thyroxine were offered as measurands for the first time. For these measurands lyophilized control materials are available. The organizer received 2 results for HDL-cholesterol and none for free thyroxine and LDL-cholesterol. The reason why there were no results for LDL-cholesterol is that the control materials did not behave like patient samples. The formation of boundary layers did not take place, so that a separation of fractions was not possible. Therefore, additional pre-investigations have to be performed in future to ensure that the control material used is commutable. Only then the survey for LDL-cholesterol will be offered again.

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.

For CK, a large dispersion of the results was observed. The samples seem to be very sensitive with regard to light and temperature. The participants should be advised to pay attention to these aspects.

Annotation: Every year in each group of measurands a “key measurand” is announced in order to encourage laboratories to select this measurand in case that they are not able to provide results for all measurands in that group. According to the experience during recent years, this procedure results in a relative large number of results for the key measurand providing a valid basis for comparison. The key measurands for RELA 2015 are total cholesterol, magnesium, ALT, HbA1c, total protein, testosterone, digoxin, total triiodothyronine, and 25-OH-Vitamin D3. The results of the RELA 2015 were already published on the website (www.dgkl-rfb.de:81) in July 2016 and will be reported to the C-TLM at its next meeting in Athens in June 2017.

Planned activities in 2017 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 possible. The most recent collaborative survey (RELA2016) has been started in October 2016. Results will be available in July 2017.

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

Accomplishments include:

HbA1c Network (Cas Weykamp):

Like in previous years the Network organized 2 inter-comparison studies with participation of all approved and candidate network laboratories as well as all laboratories of the designated comparison method networks in the US, Japan and Sweden, respectively. This to allow a)

IFCC network laboratories to demonstrate their performance and keep their approval status, b) candidate laboratories to gain the approval status, and c) to confirm the master equations between the network laboratories. All IFCC network laboratories met the quality criteria and kept their status of approval. The BCCL (Beijing Center Clinical Laboratory) gained the status of approved network laboratory. Lectures to promote the IFCC Reference system were given in India, Atlanta, Paris, and Quito. A meeting was scheduled in Shanghai in December 2016.

The IFCC network will as usual organize two inter-comparison studies to re-approve approved network laboratories and to approve candidate network laboratories. Included are blind samples, old calibrators, new calibrators and controls of different batches. Blind samples are also assayed by the laboratories of the NGSP/DCCT- and JDS/JSCC and Mono-S Networks to monitor the master equations. Reports are expected in July and December. In the past year one candidate laboratory was approved (National Center Clinical Laboratory in China). In conjunction with the IFCC Task Force on HbA1c, the network is working on a generic model for quality targets for HbA1c and organizing a worldwide survey on the implementation of IFCC standardization.

Planned activities in 2017

The HbA1c network will continue its activities in 2017.

Term of Reference 4. Traceability of total protein measurement results (Gerhard Schumann)

Accomplishments include:

Introduction

Measurements of total protein (TP) in human serum/plasma are performed frequently in medical service laboratories. The preferred measurement principle is based on the biuret reaction using peptide bonds of the proteins forming a complex with a copper ion. The resulting blue dye is recorded spectrophotometrically. In metrological sense the measurand TP is not well defined. A stoichiometric relation between peptide bonds and the mass or molecular weight of reacting protein is not given. Furthermore, the composition of plasma proteins in samples from patients varies.

Reference measurement procedure: Measurement procedures in medical service laboratories for TP refer to the two publications from Doumas et al. (1981): A Candidate Reference Method for Determination of Total Protein in Serum; I. Development and Validation; II. Test for Transferability. The procedure, even though very well described, was never endorsed as a RMP in sense of ISO 15193 requirements. Investigation of relevant components of measurement uncertainty (MU), and the calculation of the combined expanded MU were not common 30 years ago.

A reference measurement procedure for TP is not yet listed in the BIPM/JCTLM data base.

Reference material, calibrator: Due to the fact that the largest fraction of proteins in human serum/plasma is albumin (HSA), this protein should be an appropriate calibrator for the determination of TP. The primary protein structure of albumin is very well suited for the biuret reaction. Using bovine serum albumin (BSA) as a calibrator instead of (HSA) has very likely economic rationality. NIST is providing the standard reference material SRM-927, consisting of a fraction of BSA. Lot SRM-927a, SRM-927b and SRM-927c had values certified by use of a reference measurement procedure (RMP) based on the biuret reaction: "Reference Bovine Serum Albumin Concentration by the Biuret Method". The BSA fraction in the latest lots SRM-927d and SRM-927e is analytically much better defined: "Certified Bovine serum Albumin Concentration by Amino Acid Analysis". The two certificates (-d and -e) have two entries with values and MUs related to amino acid analysis and biuret method, respectively. The values differ by about 5 %. Since there is not yet an officially accepted RMP for TP using the biuret measurement principle, the respective value issued in the NIST certificate is of limited use for a calibration at a high metrological level.





Reference system for total protein in serum/plasma: A reference system for TP should consider the existing performance criteria for TP measurements in medical service laboratories. Biuret methods for TP are used in medical service laboratories on various analytical platforms. TP is a measurand which is described by a set of standardized measurement parameters. The better the measurement parameters are defined the higher the level of standardization. With reference to the existing candidate reference measurement procedure for TP it should not be too difficult to agree on a set of measurement parameters for standardization of a RMP for TP. The reference material SRM-927e from NIST for calibration fulfils the required high level of analytical and metrological quality, provided the certified value based on amino acid analysis is used.

Scope of the IFCC initiative should focus on:

- Consensus on the Doumas et al. publications from 1981 as a template for a RMP for TP.
- Re-investigation of the biuret procedure with reference to the publications of Doumas et al.
- Consensus on the use of SRM-927e as the primary reference material for calibration.
- Comparisons of SRM-927 versus a highly purified HSA preparation to investigate the effect of the biuret procedure on albumins with different chemical structures (amino acid sequences) of BSA and HSA.
- Investigations of the relevant measurement uncertainty components, provision of a statement for combined expanded MU and declaration of the calibration and measurement capability (CMC).
- A concept to bring the IFCC reference system into practice despite a possible shift of the values and of reference intervals when using the certified BSA concentration (related to amino acid analysis) for calibration.

Planned activities in 2017

The IFCC C-TLM will promote further activities for establishing an IFCC reference measurement procedure for total protein.

C-Reference Intervals and Decision Limits (C-RIDL), Chair: Kiyoshi Ichihara (new Chair as 2016: Yesim Ozarda).

During 2016 ongoing progress towards C-RIDL terms of reference included:

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

Accomplishments include:

The results of the global reference interval (RI) study were finished and reported in papers in 2016 by Clin Chim Acta (CCA) (See Publications Section). The studies in Turkey for RI of haematological parameters and in USA including Mayo and ARUP data were finished and presented in Madrid at the General Conference (March 2016).

Another controversy discussed in Madrid was whether or not the RI is required when clinical decision limit (CDL) is available in clinical guidelines. To avoid confusion, it is necessary to clarify differences in concept, the method for determination, and the utility of each.

List planned activities in 2017 for this Term of Reference

Alternative approaches for the determination of RIs (conventional and “big data”) will be examined in comparison with the current one being used in the C-RIDL study. For this purpose, the datasets collected during the last few years will be used in combination with RIs determined in similar populations using very large anonymized datasets.

A new study will be conducted to compare alternative approaches (conventional and big data) for the determination of reference intervals, especially in the pediatric age group. For the

adult population, the indirect reference intervals will be compared with data obtained from the global study. Three opinion papers will be published, entitled (1) “Comparison between RIs and CDLs regarding their concepts, and method of derivation”, and (2) “New concepts for the development of reference intervals: improving international utility”, (3) “Big Data: Is it a good source for deriving reference intervals?”

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:

Country-specific RIs for 12 countries (China, Japan, Turkey, Russia, UK, USA, Saudi Arabia, Argentina, India, Philippines, South Africa, and Pakistan) were derived and related analyses on RVs were carried out. The traceability of test results was confirmed by common measurement of the serum panel. When found to be biased, the test results were recalibrated according to the traceable values assigned to the panel. Comparison of the RVs across 12 countries after alignment based on the panel test results was fully described in Part One of the key note paper (see Publications).

List planned activities in 2017 for this Term of Reference

A website will be made to provide the reference intervals obtained from the global study for practice of Evidence Based Laboratory Medicine. It will allow interactive viewing of RIs for EBLM by specifying sources of variation (gender, age, country, BMI, ABO blood groups, level of alcohol drinking, smoking, and exercise) or by specifying any two laboratory tests for analysis of correlation.

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 list of analytes in the global RI study published by CCA is the most commonly used tests in the clinical laboratory. A relevant issue for this Term of Reference is also the exploration of biological sources of variation (SV) of measurands. By merging RVs from 12 countries, SVs were harmoniously analysed using multiple regression analysis and ANOVAs. The most intriguing finding in 2014 was the differential effect by ethnicity of body mass index (BMI) on test results. The finding was reinforced by inclusion of 12 countries in this year’s analysis. Gender and age-related changes in RVs were nearly consistent across the countries. The analyses of SVs across the countries were fully described in Part Two of the key note paper.

List planned activities in 2017 for this Term of Reference

The above findings are to be confirmed and compared by an indirect study which will be planned in 2017 in Athens.

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 primary action was taken on this TR.





List planned activities in 2017 for this Term of Reference

Not planned.

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

Accomplishments include:

The Data Management System was built, which enables alignment of all the results from the global study through flexible conversion of test results from one laboratory to another based on common test results for the serum panel. The new lot of serum panel (80 sets altogether) each consisting of 100 specimens of multiracial origins, which were value assigned with the help of C-TLM, were measured by four countries for the purpose of ensuring traceability. It was also measured by the Hamilton General Hospital in Canada (HGH) for the purpose of comparing RVs between the adult and pediatric populations.

List planned activities in 2017 for this Term of Reference

The Data Management System will be further refined so that it can act as a data-server for the planned website which will allow flexible access to the information being accumulated from the global study.

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:

No action was taken on this so far.

List planned activities in 2017 for this Term of Reference

Not planned

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:

The specimens in the new lot of the serum panel were value assigned for 12 biochemical analytes (creatinine, urea, uric acid, triglyceride, total cholesterol, AST, ALT, LDH, ALP, GGT, CK, and AMY) with the support of the Committee on Traceability in Laboratory Medicine. The panel was actively used in the ongoing global multicentre study.

List planned activities in 2017 for this Term of Reference

An attempt will be made to collaborate with the Task Force for Pediatric Laboratory Medicine for comparison of RIs between adult and pediatric populations based on the panel test results obtained from the HGH, which measured the samples obtained for the CALIPER study.

Additional Information:

A website will be made available to provide the reference intervals obtained from the global study for practice of Evidence Based Laboratory Medicine. It will allow interactive viewing of RIs for EBLM by specifying sources of variation (gender, age, country, BMI, ABO blood groups, level of alcohol drinking, smoking, and exercise) or by specifying any two laboratory tests for analysis of correlation.

C-Standardization of Thyroid Function Tests (C-STFT), Chair: Linda Thienpont

During 2016 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 optimized to become publishable and finally put to voting by the IFCC Society members, because the IVD industry was not interested.
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 comparisons 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 by all-procedure trimmed mean (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. Two manuscripts currently have been prepared describing the results of the final method comparisons, the outcome of the recalibration exercises and proof-of-concept studies (= reference interval studies), one for TSH, one for free T4. The TSH-manuscript has been reviewed by all co-authors and participants and is submitted to Clin Chem. The free T4 manuscript has been circulated for review and will be submitted to Clin Chem early in 2017.
6. In 2016 another 3 new companies joined the C-STFT activities: LSI Medience, Sysmex and Wako-Sanyo (joint-venture) – all from Japan. The first two already completed the entire “Step-Up”-approach and their final results for Phase IV are included in the above mentioned manuscripts. The joint-venture company just finished the familiarization phase and will enter phase IV soon. Note that this brings the count to 15 IVD companies who are partner of the C-STFT.
7. The free T4 follow-up panel value assigned with the IFCC conventional RMP is ongoing at Ghent University. The homogeneity of the samples is also confirmed.

List planned activities in 2017 for this Term of Reference

1. The stability study of the free T4 standardization and TSH harmonization panels is ongoing and will be followed-up.
2. If new companies contact C-STFT to join, C-STFT will guide them to do the free T4 and TSH standardization/harmonization of their assays.
3. C-STFT will follow-up the revision of the above 2 manuscripts.
4. Once the network of reference laboratories for free T4 is established (see below), new method comparison studies with specific patient groups can be initiated, if needed, e.g., patients with non-thyroidal illness.

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

Accomplishments include :

To establish a network, 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 have and/or will be made available to the potential new partners within the network for validation of their performance. These are: CDC (H. Vesper), Radboud





University Medical Center of Nijmegen (T. Van Herwaarden), the Reference Material Institute for Clinical Chemistry Standards (ReCCS, Japan).

2. The above mentioned samples were recently used in a first method comparison with the laboratory of the Radboud University Medical Center of Nijmegen. The outcome looks promising; however, the day to day variation at the lab of the candidate network member is too high. The laboratory agreed to further optimize the implementation of the IFCC RMP. UGent is involved in the optimization of the experiments.

3. Also at the CDC the implementation of the FT4 IFCC RMP has been initiated. The first method comparison data will be available soon.

4. At ReCCS, the new president after the decease of Dr. M. Umemoto is currently reconsidering the commitments of his institute to support the reference laboratory network.

List planned activities in 2017 for this Term of Reference

1. The activities of 2016 to establish a network will be continued.
2. The collection of a new panel of 20 samples (with sufficient 1-mL aliquots) has been initiated. It is intended for measurement by all members of the network (UGent, CDC, Radboud, ReCCS) as final proof-of-concept.
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.
4. 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 reference interval studies, the committee established 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).

The committee aims at sustaining the excellent relationship with the clinicians.

Term of ref. 4: The pilot reference interval study is completed and the results are incorporated in the above mentioned manuscripts. The key takeaway in the manuscript is that these studies provided the proof-of-concept that common reference intervals 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 the free T4 might need some improvement.

List planned activities in 2017 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:

List 2016 accomplishments for this Term of Reference

Term of ref. 5: two members of C-STFT, supported by the IFCC past-president, published in several journals a call for benefit-risk analysis by involved stakeholders (general practitioners, endocrinologists, patients). Unfortunately, few answers came in, but the balance clearly was in favour of benefit. Clinicians seemed not afraid of risks when reference intervals change, because they rely on the guidance from the clinical community. Patient organizations are more concerned. The C-STFT started a discussion forum with members of the Society Members of IFCC to learn how the laboratory community prepares the implementation of newly calibrated assays and changed reference intervals.

Two new tools were developed to monitor the stability of the post-standardization/harmonization calibration basis of the assays. 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. The chair is trying to recruit more laboratories to have reliable peer groups of all systems involved in the C-STFT activities. The hope is to receive the support from manufacturers.

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. No date for final implementation has been fixed.

List planned activities in 2017 for this Term of Reference

Activities of 2016 will be continued.

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.

WORKING GROUPS

WG-Standardization of Hemoglobin A₂ (WG-SHbA₂), Chair: Renata Paleari

During 2016 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:

The ID-MS candidate reference measurement procedure based on peptide mapping and calibration with recombinant hemoglobins (HbA₀ and HbA₂) has been finalized and implemented in two different reference laboratories of our WG, i.e. INSTAND e.V., Düsseldorf, DE and Physikalisch-Technische Bundesanstalt (PTB), Braunschweig, DE.

During 2016, the measurement conditions have been completely optimized and the experimental work for the validation of the candidate reference measurement procedure has been completed.

List planned activities in 2017 for this Term of Reference

A scientific publication on the candidate reference measurement procedure for HbA₂ will be prepared. A draft will be first submitted to the IFCC-SD for comments.

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



**Accomplishments include:**

The stability study on the first pilot batch of candidate reference material (lyophilized hemolysate) has been continued. The material is quite stable with respect to HbA₂ content for more than seven years when stored at -20°C. Moreover, no degradation products were detectable. MetHb content was also very low, essentially identical to the one measured on blood before the processing.

In the framework of the IFCC-ICSH joint group, a multicenter study has been defined with the aim to evaluate the alignment of current high performing HbA₂ methods and to test the commutability of various control materials including the WHO-NIBSC International Reference Material for HbA₂. Three laboratories are involved in the study (2 in Italy and 1 in The Netherlands) and 8 analytical methods (7 HPLC and 1 CE) will be tested. All the necessary materials have been prepared and shipped to the laboratories. The experimental work is in progress.

List planned activities in 2017 for this Term of Reference

The multicenter study will be completed and a publication prepared.

A plan for the production of the certified reference material at the IRMM will be finalized and related activities (starting from the collection of raw materials) will be started. A road map for the production of this material will be completed and submitted to the IFCC SD for approval.

WG-Standardization of Carbohydrate-Deficient Transferrin (WG-SCDT), Chair: Jos Wielders

During 2016 ongoing progress towards WG-CDT terms of reference included:

Term of Reference 1. *Maintaining a network of CDT reference laboratories that perform the HPLC candidate reference method.*

Accomplishments include:

While waiting for the IFCC-SD review of the manuscript for (c)RMP for CDT, no further action was taken in 2016. Last round with blinded samples was in 2015.

List planned activities in 2017 for this Term of Reference

Check of the performance as was done in 2015. Where needed support will be given to individual labs.

Term of Reference 2. *Development of a reference material for CDT (suitable for harmonization of present methods)*

Accomplishments include:

The reference material was developed in 2014. No further actions in 2016.

List planned activities in 2017 for this Term of Reference

Using the multi-level reference material for harmonization of the commercial methods

Term of Reference 3. *To appoint the HPLC reference method, the reference interval and measurement uncertainty in a formal publication. To develop a formal IFCC RMP.*

Accomplishments include:

The final manuscript describing validation of the cRMP according to ISO15193 and its use was sent to the IFCC-SD chair in February 2016. After approval by the IFCC-SD, board and national societies it was accepted and declared to be a RMP. The Epub in ClinChimActa appeared in the last days of December.

List planned activities in 2017 for this Term of Reference

Promote the knowledge of the IFCC RMP for CDT towards diagnostic firms and national societies involved in diagnosing and monitoring of alcoholism.

Term of Reference 4. *Guidance of diagnostic firms in standardization towards the (c)RMP.*

Accomplishments include:

Very little progress could be made while waiting for the IFCC response towards the cRMP validation manuscript. Only some contacts by email.

List planned activities in 2017 for this Term of Reference

Full support and two meetings about guidance of the diagnostic firms.

WG-Standardization of Albumin Assay in Urine (WG-SAU)(a joint committee with the Laboratory Working Group (LWG) of the National Kidney Disease Education Program (NKDEP), USA), Chair: Lorin Bachmann

During 2016 ongoing progress towards WG-SAU terms of reference included:

Terms of Reference 1. *Physiologic variability of UA in stable mild kidney disease (funded by NKDEP).*

Accomplishments include:

No activity due to funding limitation and lack of identification of investigators willing to perform the studies.

List planned activities in 2017 for this Term of Reference

No activity due to funding limitation and lack of identification of investigators willing to perform the studies.

Terms of Reference 2. *Status of harmonization among commercial immunoassays for UA (funded by NKDEP).*

Accomplishments include:

The objectives of this project are to:

- 1.) Assess current status of harmonization of routine measurement procedures versus ID-LCMS candidate reference measurement procedure using native patient samples;
- 2.) Evaluate analytical performance characteristics of urine albumin measurement procedures;
- 3.) Evaluate commutability characteristics of the Japan Society for Clinical Chemistry (JSCC) and diluted IRMM ERM-DA470k/IFCC reference materials; and
- 4.) Assess utility of candidate reference materials for use in standardization of routine measurement procedures.

Findings included:

- a) Bias was greater than ± 10 percent for 14 of 16 quantitative methods vs. ID-LCMS indicating that standardization is needed.
- b) Several methods had non-constant bias with concentration suggesting that calibration technique needs investigation.
- c) Dilution caused changes in bias for some methods.
- d) CV total was greater than 10 percent for five methods showing that improvement in precision is needed for those assays
- e) In general, sample specific effects were not clinically significant

Recommendations for manufacturers include:

- 1) method imprecision should be reduced, especially at low urine albumin concentrations that





may influence CKD risk assessment,

2) methods that showed a non-constant calibration bias over the method measuring interval should be investigated and corrected and

3) methods with poor dilution protocols should improve their user information to include specified dilution buffers and validate their protocols for matrix bias.

To facilitate standardization of routine methods, NIST SRM 3666 is currently being prepared based on the specifications developed by the WG-SAU and the LWG of the NKDEP. The NIST Albumin in Human Frozen Urine standard reference material (SRM 3666) is pooled urine collected from human subjects with urinary albumin levels ranging from the following stages of albuminuria: normoalbuminuria (0-25 mg/L), microalbuminuria (25-200 mg/L), and macroalbuminuria (>200 mg/L). All four levels of pooled urine will be available frozen, in 1 mL aliquot volume.

The next step is to perform a freeze-thaw study to assess the ability to use frozen patient samples for the commutability study for NIST SRM 3666.

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 non-frozen and frozen aliquots were shipped to 10 manufacturers for albumin measurement. Median bias for frozen vs. non-frozen samples was < 1.2% for all methods tested suggesting that frozen samples may be used for the commutability studies. However outlier samples were observed with biases that exceeded 10%. It was noted that formal statistical analysis has not yet been completed and the raw data has not been inspected for transcription errors or other types of errors.

The preliminary data was presented at the joint NKDEP/IFCC WG-SAU meeting on August 3rd, 2016 held in conjunction with the AACC annual meeting in Philadelphia, PA.

List planned activities in 2017 for this Term of Reference

Rigorous statistical analysis will be performed on the raw data after the data is inspected for transcription and other errors. The study will then be submitted for publication.

Term of Reference 3. *Establish a reference procedure and reference materials for the measurement of albumin in urine. Reference measurement procedure for UA (funded by NKDEP and NIST)*

Accomplishments include:

The Mayo Clinic (John Lieske) ID-LC-MS/MS candidate reference measurement procedure was included in a manuscript “A reference system for urinary albumin: current status” was published in CCLM as part of the special issue devoted to SD activities (see Publications section).

This procedure was also used in the status of harmonization among commercial immunoassays project. The Mayo reference method was used to assign albumin values for CAP and CEQAL urine samples.

NIST has developed and performed an in-house validation of an ID-LC-MS/MS reference measurement procedure for urine albumin. 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. There were some unexplained discrepancies that are under investigation.

NIST and Mayo continued to perform comparison studies for their respective IDMS candidate reference measurement procedures. However, both parties continued to observe unexplained differences among results for the two methods. It was discussed during the NKDEP/IFCC WG-SAU meeting that standardizing pre-analytical protocols between the two methods may improve agreement.

List planned activities in 2017 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.

Terms of Reference4. *Reference materials for UA and urine creatinine (funded by JSCC and NIST)*

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 available.

SRM 3666 is currently being prepared based on the specifications developed by the WG-SAU and the LWG of the NKDEP. The NIST Albumin in Human Frozen Urine standard reference material (SRM 3666) is pooled urine collected from human subjects with urinary albumin levels ranging from the following stages of albuminuria: normoalbuminuria (0-25 mg/L), microalbuminuria (25-200 mg/L), and macroalbuminuria (>200 mg/L). All four levels of pooled urine will be available frozen, in 1 mL aliquot volume. A contract to a commercial vendor for the production of SRM 3666 was awarded in September 2014. However, the vendor has not satisfied the contract requirements.

In order to obtain urine samples for SRM 3666, Virginia Commonwealth University has agreed to serve as a residual urine sample collection site. A preliminary protocol was drafted and needs to be finalized.

List planned activities in 2017 for this Term of Reference

VCU will continue to work with NIST to finalize the collection protocol for SRM 3666.

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

During 2016 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:

Due to the maternity leave of the Chair, there have been limited activities in 2016. The chair submitted a revised project plan to the SD including schedule and cost estimates. The WG previously used purified material to assess ability to standardize assays, but this did not work for all assays. The group will assess the potential of harmonization and the goal of making assay results more comparable.

List planned activities in 2017 for this Term of Reference

1. Sample collection and preparations
2. Sample analyses at the University of Turku
3. Sample analyses at IVD manufacturers
4. Data analysis
5. Report of the results

WG-Standardization of Insulin Assays (WG-SIA), Chair: Amy Saenger, Co-Chair: Mike Steffes

During 2016 the WG-SIA continued ongoing progress towards its terms of reference. This is a joint project between ADA and IFCC. Establishment of a reference measurement procedure for





serum insulin is on-going. Several labs are currently testing samples with the candidate reference method. At the same time the WHO is vetting a reference material via C. Burns at NIBSC. This material will be used as calibrator for the mass spec procedure to assign values. The plan is to use the mass spec method, reference material, samples or pools or some combination of these to bring the immunoassays closer together.

The next meeting is planned for in October in conjunction with the 2017 WorldLab in Durban.

WG-Standardization of Troponin I (WG-TNI), Chair: David Bunk

During 2016 the WG-TNI continued ongoing progress towards its terms of reference. The WG continued developing a CRM for Troponin I in serum (NIST SRM 2922). The plan is to mix pools from a normal population and one from cardiac patients. The normal pool will be evaluated in an interference study prior to being used in the production of SRM 2922. If okay, a limit of blank study will be performed with a few different methods being considered. Once complete, value assignment will be performed. Plans for this work were outlined and discussed with a focus on how best to ensure and validate measurement quality during the value-assignment process. It was suggested that participating manufacturers be queried about their measurement batch times for the anticipated sample analyses for both the value-assignment and commutability studies.

Assay manufacturers present at the WG-TNI meetings expressed concerns that performing a re-calibration of their cTnI platforms in the middle of their lifespans would be a significant financial and bureaucratic burden. The WG plans for a next face-to-face meeting in August 2017 in conjunction with the AACC in San Diego.

WG-Harmonization of Autoantibody Test (WG-HAT), Chair: Joanna Sheldon

During 2016 ongoing progress towards WG-HAT terms of reference included:

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

Accomplishments include:

The certification process for IgG anti proteinase 3 antibodies is showing significant differences between methods and comparable to the results for the IgG anti myeloperoxidase antibodies. Some of the issues are likely to relate to the specificity of different methods with different epitopes of the antigens and this makes further investigation into the causes of variation between methods vital. It may also lead to better definitions of the antigens or epitopes that are important and the clinical utility of these tests.

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

Accomplishments include:

Diagnostic companies are becoming more receptive to the concept of proper standardization for autoantibodies although there remains some reluctance.

The WG has been asked to consider production of reference materials for more autoantibodies but believe that it should continue with the plan to generate a robust process and concentrate on IgG anti MPO (complete) PR3 (final stages of certification), GBM (raw material sourced), B2GP1 (issues with value assignment so a further commutability study is necessary) and CCP.

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

Accomplishments include:

IgG anti PR3 antibodies

- The value assignment process is complete and the certification report is in the IRMM validation process.
- The WG delayed wide publicity of the ERMDa 476 until the reference preparation for IgG anti proteinase 3 is also ready. This will be a more logical release of reference material for the two ANCA related antibody specificities.
- The WG continue to try to find a way of working with the FDA.
- Liaison with manufacturers and EQA providers is ongoing but will become more formal once both reference materials are certified.

Gaining further information and experience:

- Large trial of well characterised clinical samples (Prof Xavier Bossuyt) to be analysed with respect to ERM-DA476/IFCC and the IgG anti proteinase 3 material. The data can be finalized when the IgG anti PR3 material has been certified.
- Assessing reference ranges and cut-off values
- Companies to run their panels of clinical samples with respect to ERM-DA476/IFCC
- To better define the changes in the “value” reported by their kits
- To better define reference range and clinical cut off values for their kits

FDA and CE

- The change from “units” to mg/L is likely to alter cut off values and clinical interpretation in many assays
- It is likely that an additional FDA approval phase is needed for kits using ERM-DA476/IFCC – the WG is currently in discussion with the FDA.

Education

- WG preparing information to guide companies on how to transfer values from ERM-DA476/IFCC to their local or kit calibrators
- WG is preparing information packs and presentations to be used by companies and providers of the service to show the value of a certified reference preparation. Goal is a consistent message about ERM-DA476/IFCC and informing users of how it is best implemented
- Suggestion 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 WG 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 with Regulatory bodies, Professional bodies, Clinical groups, Accreditation bodies, EQA providers, Patient groups, Attendance at meetings.

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 months





FDA – WG is continuing discussions and identifying possible routes forward but full FDA approval of kits using ERM-DA476/IFCC will take some months

IgG anti cardiolipin and IgG anti beta-2 glycoprotein I antibodies

- some of the validation testing has shown a possible issue with the commutability of the material; therefore a further commutability study is needed in order to select an appropriate material. This is in progress.

Further projects

Anti CCP antibodies:

- the “ownership” of sera to make potential reference materials remains in question. The WG is trying to find suitable raw materials as the basis for an IRP.

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 WG to make a reference material for IGG and IgA anti tissue transglutaminase antibodies and will consider this.

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:

ERM Da 476 is now a certified reference material. IgG anti proteinase 3 is in the final stages of certification by the IRMM.

Continue with the characterization of the materials as they become available.

Additional Information:

The WG-HAT has been working on this exciting project for 6 years with considerable effort from a small group of clinicians and scientists. It has been a challenge to develop the reference materials and prove, in principle, that it was possible. It has been appropriate to have been a working group but now that there are two materials for IGG anti MPO and IgG anti PR3, the WG will need to increase visibility and have a much greater impact on the laboratory clinical chemistry and immunology community and on the rheumatology and nephrology communities. The WG needs to raise its profile and participate in much broader activities while continuing to develop more reference materials and identify the sources of variation in autoantibody testing.

Companies generously supported these studies were:

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

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

WG-Quantitative Mass Spectrometry Proteomics (WG-cMSP), Chair: Sylvain Lehmann

During 2016 the WG-cMSP continued ongoing progress towards its terms of reference. It was recognized that different laboratories participating in the WG have different operating procedures to perform quantitative mass spectrometry analyses for peptides and proteins. The WG has an ongoing QA/QC program on hepcidin to exchange standards to be able to compare and adjust values obtained in the different laboratories. The WG is also collaborating with the LNE to evaluate the possibility to generate a CRM for hepcidin. Samples and purified materials have been sent to 5 labs (2 within the WG and 3 in France). A few of their procedures might be able to develop into reference method. However, realization in developing a reference method for hepcidin has proven difficult and remains uncertain. The

SD decided that this WG will close at the end of 2016 and thank the chair and members for their service.

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

During 2016 the WG-PTH continued ongoing progress towards its terms of reference. The WG continues to work on developing a reference system for PTH. Currently, activities are focused in three areas:

1. Assessment of commutability
2. Development of a reference measurement procedure: Several groups are involved including Mayo, CDC, and NIST.
3. To gain a better understanding of what is the actual measurand being measured as many manufacturers have gone to third generation assays. Manufacturers are highly supportive and engaged.

WG-CSF Proteins (WG-CSF), Chair: Kaj Blennow

During 2016 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 a 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:

- Collection of CSF material and preparation of the Certified Reference Material (CRM):
 - University of Gothenburg, Sweden has collected a large (5 litre) pool of CSF to be the basis for the reference material.
 - A study has been performed to test that no individual high-volume sample shows interference in the mixing to obtain the pool. Results show acceptable agreement between expected (calculated) and measured values, meaning that these samples will be suitable for the CRM.
 - A first commutability study has been done, comparing the candidate CRM as well as spiked variants and pools containing detergents.

In this study, the SRM mass spec method for A β 1-42 (candidate CRM, see below) was compared with several immunoassays (ELISA, Luminex, and MesoScale).

A large series of individual patient samples was analyzed together with aliquots of the CSF candidate CRM.

The analysis showed high correlations between the SRM method and the immunoassays, and also very good commutability of the candidate CRM, but not for different variants of artificial CSF, or for samples containing detergents.

- Based on these results, a second commutability study has been performed, in which a common calibrator (A β 1-42 peptide) was used, and the candidate CRM included (neat and spiked at 3 levels).

In this study, the SRM mass spec method for A β 1-42 (candidate CRM, see below) was compared with eight different immunoassays (Innotest ELISA, Luminex, and MesoScale, and also IBL, Roche, Vitros/Saladax, ADx, Simoa). A large series of individual patient samples was analyzed together with aliquots of the CSF candidate CRM, spiked at three levels.

The analysis showed high correlations between the SRM method and the immunoassays, and also very good commutability of the candidate CRM, but less commutability for spiked variants. For these reasons, it was decided that the high-volume samples for the CRM will be pooled based on the original A β 1-42 levels, so that three different CRMs will be produced with high, medium and low levels.





Three reference materials have now been produced for A β 42, with high, middle and low A β 42 concentration. Homogeneity and stability have been verified, long-term stability (1 year) is good. The homogeneity after 1 year storage is also still acceptable. The value assignment is on-going, with four LC-MS datasets received. Of these one has technical problems, and will be repeated. One or two additional datasets were expected at the end of 2016.

Both these commutability studies have been reported in a paper (Bjerke M, et al. Assessing the commutability of reference material formats for the harmonization of amyloid beta measurements. Clin Chem Lab Med 2016.).(see Publications).

- A **common calibrator for A β 1-42** has been quantified by amino acid analysis in certified laboratories. The calibrator will be used as the master calibrator, and also distributed to the labs doing the mass spec method.

• Establishment of reference methods for the key measurands for assignment of values to the reference material:

- This part of the project is focused on developing a SRM mass-spec method for A β 1-42 in CSF, to qualify as a reference measurement procedure (RMP). There are five laboratories that are working on this in a collaborative effort, including University of Gothenburg, Sweden (Blennow and Zetterberg). University of Pennsylvania, USA (Shaw and Korecka), PPD (Jenkins), and Roche Diagnostics. All labs have developed SRM mass spec assays for CSF A β 1-42.

- The assays have been compared in a detailed Round Robin study in which both human CSF samples and the calibrators have been analyzed in all labs. The results show very good correlations and agreements between assays. In this Round Robin study, the candidate Reference Material was included as one sample, and if data from each laboratory were corrected based on this sample, the agreement between methods was excellent. The Round Robin study has been reported in a paper (Pannee J, et al. Round robin test on quantification of amyloid- β 1-42 in cerebrospinal fluid by mass spectrometry. Alzheimers Dement 2016;12(1):55-59.

- A second Round Robin study has been performed in which the master calibrator is used, to test a common procedure for calibration in preparation of the value assignment of the CRM. Data from this study showed linear correlations and good agreement between the five methods with a variation <4%.

- Both Univ. of Gothenburg and Univ. of Pennsylvania have made a full validation, according to ICH guidelines, of their SRM mass spec assays for CSF A β 1-42. Both the Roche/Gothenburg and the UPenn methods are now accepted and listed as a RMP by the Joint Committee for Traceability in Laboratory Medicine (JCTLM).

Further planned activities for 2016-17

- 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 were discussed at the IFCC WG meeting in Paris, June 23, 2015, and the IFCC-WG CSF meeting in Geel Oct 11, 2016.

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 show good linearity, sensitivity and repeatability. However, there have been issues with the labelled standard (calibrator); the recombinant protein (labelled and unlabelled) seems to give a lower peptide peak area than expected. Identification of a suitable calibrant is in progress.

- 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) 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.

WG – Standardization of Bone Marker Assays (WG-SBMA), Chair: Howard Morris

During 2016 ongoing progress towards WG-SBMA terms of reference included: This is a joint activity with the International Osteoporosis Foundation.

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 protocol for an assay comparability study of the two major clinical assays for CTX has been prepared. The study is being conducted at four European centres collecting 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. The study is funded by the two IVD companies involved.

List planned activities in 2017 for this Term of Reference

Data analysis will be conducted, the results collected 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.

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 protocol for an assay comparability study of the three major clinical assays for PINP has been prepared. The study will be conducted at four European centres collecting 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 from the three manufacturers of assay reagents used by clinical laboratories for this analyte. The study is funded by the two IVD major companies involved.

List planned activities in 2017 for this Term of Reference:

Data analysis will be conducted, the results collected 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 results from the WG will be reported at the IOF Business meeting being held in Florence, Italy 24 March 2017 in conjunction with the World Congress of Osteoporosis.

WG – Commutability (WG-C), Chair: Greg Miller

During 2016 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:

A draft recommendations document is fairly complete. The recommendations address: definition of commutability; individual clinical samples for inclusion in a commutability assessment; pools of clinical samples for use in a commutability assessment; reference material(s) to be included in a commutability assessment; qualification of measuring systems for inclusion in a commutability assessment; statistical designs to assess commutability (two approaches, one based on difference in bias between patient samples and a candidate RM and the other based on calibration effectiveness of a candidate reference material); criteria to make a determination that a RM is commutable (criteria are based on intended use for medical decisions); replacement of a RM with a new preparation; correction to the assigned value of a non-commutable certified reference material (CRM) used in a calibration traceability hierarchy; and information on commutability to be provided in the certificate for a RM.

List planned activities in 2017 for this Term of Reference

Finalize the statistical approaches for evaluating commutability using the calibration effectiveness approach, for replacement of a RM with a new preparation, and for correction to an assigned value of a RM for non-commutability. Convert the current numbered format of the draft recommendations into manuscripts suitable for publication. The plan is to publish five papers to divide the large amount of content into manageable papers: (1) general recommendations; (2) statistical evaluation approach based on difference in bias; (3) statistical evaluation approach based on calibration effectiveness of a RM; (4) validation of a replacement batch of a RM; (5) correction of an assigned value for a RM for non-commutability with one or more measurement procedures. It is not likely that all five papers will be completed in 2017.

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.

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:

Described in term of reference #1.

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: Not addressed.

List planned activities in 2017 for this Term of Reference

Described in term of reference #1.

Term of Reference 5: Develop educational materials regarding commutability for manufacturers, laboratories and users of laboratory results.

Accomplishments include: Not addressed.

List planned activities in 2017 for this Term of Reference

Described in term of reference #1.

Additional Information:

The chair has discussed publication approaches with Nader Rifai, Editor-in-Chief, Clinical Chemistry, for the quantity of material in the final recommendations. An approach of several papers with substantial use of supplemental data is likely to be acceptable.

Face to face meeting is scheduled on June 11, 2017 during the EuroMedLab meeting in Athens.

PUBLICATIONS BY COMMITTEES AND WORKING GROUPS:

C-NPU:

- Wikipedia page for the NPU Terminology went live:
https://en.wikipedia.org/wiki/NPU_terminology
- Understanding the 'Silver Book' – An important reference for standardised nomenclature in clinical laboratory sciences. Flatman R, Gerard G, Dybkaer R, IFCC IUPAC Joint Committee on Nomenclature, Properties and Units (C-NPU), Clin Chim Acta 2016 Jun 29
- Silver Book 2:
Compendium of Terminology and Nomenclature of Properties in Clinical Laboratory Sciences: Recommendations 2016. Georges Ferard, Rene Dybkaer, Xavier Fuentes-Arderiu. Royal Society of Chemistry eBook.
- Vocabulary on Nominal Property, nominal examination, and related concepts for clinical laboratory sciences. IFCC-IUPAC Recommendation 2016. IUPAC Project 2004-023-1-700, extended 2008-019-1-700 (in final review pending publication)

C-MD

- Payne DA, Baluchova K, Peoc'h KH, van Schaik RHN, Chan KC Allen, Maekawa M, Mamotte C, Russomando G, Rousseau F, Ahmad-Nejad P, on behalf of the IFCC Committee for Molecular Diagnostics (C-MD). Pre-examination factors affecting molecular diagnostic test results and interpretation: A case-based approach. Clinica Chimica Acta (in press) available online June, 2016 <http://dx.doi.org/10.1016/j.cca.2016.06.018>

C-RIDL:

Published:

- Ichihara K., Ozarda Y., Barth J.H., 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 , 2016, <http://dx.doi.org/10.1016/j.cca.2016.09.016>

- Ichihara K., Ozarda Y., Barth J.H., 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 , 2016, <http://dx.doi.org/10.1016/j.cca.2016.09.015>



Other articles directly related to the C-RIDL projects.

- Ozarda Y. Reference intervals: current status, recent developments and future considerations. Biochem Med, 2016;26(1):5–16
- Bakan E, Polat H, Ozarda Y, et al. A reference interval study for common biochemical analytes in Eastern Turkey: a comparison of a reference population with laboratory data mining. Biochem Med 2016;26(2):210–23

C-TLM:

- Mass spectrometry – a key technique for traceability in clinical chemistry. Anja Kessler: Trends in Anal. Chem. 84 (2016) 74-79.

C-STFT:

- Thienpont LM, Faix JD, Beastall G. Standardization of FT4 and Harmonization of TSH Measurements--A Request for Input from Endocrinologists and Other Physicians. Endocr Pract 2016;22:374.
- Thienpont LM, Faix JD, Beastall G. Standardization of FT4 and Harmonization of TSH Measurements--A Request for Input from Endocrinologists and Other Physicians. Exp Clin Endocrinol Diabetes 2016;124:61-2.
- De Grande LA, Goossens K, Van Uytvanghe 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. 2016 Jul 22. pii:/j/cclm.ahead-of-print/cclm-2016-0500/cclm-2016-0500.xml. doi: 10.1515/cclm-2016-0500.
- De Grande LA, Goossens K, Van Uytvanghe 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. 2016 Apr 27. pii: S0009-8981(16)30157-7. doi: 10.1016/j.cca.2016.04.032.

Publication submitted:

- Thienpont LM, Van Uytvanghe 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 common reference interval – A technical report. Submitted to Clin Chem

Publications in preparation:

- 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). IFCC report on global standardization of free thyroxine immunoassays and its impact on future reference intervals. Will be submitted to Clin Chem.

WG-SHbA2:

- Paleari R, Caruso D, Kaiser P, Arsene CG, Schaeffer-Reiss C, Van Dorsselaer A, Bissé E, Ospina M, De Jesús VR, Wild B, Mosca A, on behalf of the IFCC Working Group on Standardization of Hemoglobin A2 (WG-HbA2). *Developing a reference system for the IFCC standardization of HbA₂*. Clin Chim Acta (2016), <http://dx.doi.org/10.1016/j.cca.2016.05.023>

WG-SCDT:

- Standardisation and use of the alcohol biomarker carbohydrate-deficient transferrin (CDT) Helander, Wielders, Anton et al Clin Chim Acta. 2016;459:19-24
- IFCC approved HPLC reference measurement procedure for the alcohol consumption biomarker carbohydrate-deficient transferrin (CDT): Its validation and use Schellenberg Wielders Anton et al Clin Chim Acta Epub doi: 10.1016/j.cca.2016.12.022

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-HAT:

- Journal: Clinica Chimica Acta
Corresponding Author: Ingrid zegers
Co-Authors: Evanthia Monogioudi; Dana P Hutu; Gustavo Martos; Joanna Sheldon; Heinz Schimmel; Pier Luigi Meroni;
Title: Towards standardisation of measurements for small-vessel associated vasculitis

WG-CSF:

- Bjerke M, et al. Assessing the commutability of reference material formats for the harmonization of amyloid beta measurements. Clin Chem Lab Med 2016.
- Pannee J, Gobom J, Shaw LM, Korecka M, Chambers EE, Lame M, Jenkins R, Mylott W, Carrillo MC, Zegers I, Zetterberg H, Blennow K, Portelius E. Round robin test on quantification of amyloid- β 1-42 in cerebrospinal fluid by mass spectrometry. Alzheimers Dement 2016;12(1):55-59.
- 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. Submitted to CCA.





WG-SBMA:

- Morris HA, Eastell R, Jorgensen NR, Cavalier E, Vasikaran S, Chubb SAP, Kanis JA, Cooper C, Makris K, on behalf of the IFCC-IOF Working Group for Standardisation of Bone Marker Assays (WG-BMA). Clinical usefulness of bone turnover marker concentrations in osteoporosis. *Clinica Chimica Acta* 2016 Jun 30. pii: S0009-8981(16)30281-9. doi: 10.1016/j.cca.2016.06.036.

Ian Young, SD Chair and Joseph Passarelli, SD Secretary

EDUCATION AND MANAGEMENT DIVISION (EMD)

COMMITTEES activities

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

1. The C-CMBC website was updated where general Information about the Course can be found at <http://www.ifcc.org/ifcc-education-division/emd-committees/c-cmbc/>
2. The 8th Course on “Molecular Diagnostics for Beginners” was conducted in Tirgu Mures, Romania, on December 5-10, 2016, in collaboration with the National Representative, Dr. Ioanna Brudasca, President of the Romanian Association of Laboratory Medicine (RALM).
3. Organization of a symposium in EuroMedlab 2017, entitled: “The Liquid Biopsy approach: Following the tumor in peripheral blood”. The symposium will take place in June 2017 during Athens EuroMedlab 2017.

Analytical Quality (C-AQ), Chair: Egon Amann

1. A survey on national EQA services was conducted in 2014/2015. Based on this survey, the “Directory of EQA Services” database was established and placed on the C-AQ website for consultation by interested parties. This database requires occasional updates and this was done in 2016, but the systematic update by contacting IFCC Full Member National Societies and affiliated members and asking them for possible changes, feedback and experiences is still pending. It is planned to replace the Directory of EQA Services by the Proficiency Testing – External Quality Assurance Programs in Laboratory Medicine database (PTDB; see ptdb.ifcc.org) in 2017. PTDB was initiated by Alexander Haliassos and was released as a prototype version for review by C-AQ committee members in its first version on November 9, 2016. The present version is not final and needs further refinement. C-AQ members find this database helpful when searching for analytes. PTDB will replace the existing Directory of EQA Services on the C-AQ website. PTDB will be maintained jointly by the IFCC Task Force on Proficiency Testing (TF-PT) and C-AQ.
2. A minimum requirement EQA Setup Checklist has been prepared to assist countries to plan and design an EQA scheme. The EQA Setup Checklist is available on the C-AQ web site. It is planned to expand the presently available information with additional, more detailed procedures for the planning of a new EQA scheme (for example, to achieve ISO 15189 accreditation).
3. A “Resource table for EQA” was established and placed in the C-AQ website at the end of 2015. This database is a compilation of relevant documents on pre- and post-analytical steps and other topics related to analytical quality. This database was reviewed in 2016 and found to be current and adequate. It should be re-reviewed in 2017.
4. Development of eLearning presentations on “Principles of EQA” and “Principles of IQC”. Presentations on the above topics already exist on the C-AQ website. It is planned, however, to expand such topics to offer suitable materials to the IFCC eAcademy. The two “voice-over” presentations on IQC and EQA are still pending. David Ducroq of

WEQAS has useful presentations on Traceability and Uncertainty for inclusion into C-AQ Resources web site section and for eAcademy.

5. A joint C-AQ / C-CLM workshop entitled “What is the best strategy to achieve compliance with QMS- and QC-requirements in the clinical laboratory?” was conducted at the IFCC General Conference in Madrid in 2016. Feedback from participants of this workshop was very positive. A report has been written for future reference and an article has been published in the IFCC eNews, July-August 2016 issue for broader distribution of the relevant learnings to National Societies and other interested parties.
6. Egon Amann participated in the Biennial Scientific International Conference of the Association of Clinical Chemists of Nigeria (ACCN) in Lagos from October 12-14, 2016, a DQCML sponsored activity. Other IFCC officers in attendance were Maurizio Ferrari, Graham Beastall, Mike Thomas and Catherine Sturgeon. EA moderated a workshop entitled: What is the best strategy to achieve compliance with QMS- and QC-requirements in the clinical laboratory? and delivered a lecture entitled: Standardization of laboratory tests: Why is it needed and how is it done? The output of this workshop provided input for the interactive workshop Quality challenges going forward: understanding the needs of Nigeria moderated by Cathie Sturgeon, Graham Beastall and Mabel Charles-Davies. The conference was considered successful and a national QMS/QC-improvement program was initiated by the ACCN.
7. PUBLICATION: Achieving compliance with QMS- and QC-requirements in the Clinical laboratory: What is the best strategy? E. Amann, S. Yenice (joint C-AQ / C-CLM publication) in the IFCC eNews/ LabMedica International August-September, 2016.

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

1. The EBLM Curriculum has been completed. This is intended to be used as a template for allocation of topics for inclusion as units in the IFCC eAcademy. This was achieved through collaboration of all members of the EBLM and discussed at the General Meeting in Madrid, where some refinements were suggested.
2. Submission of units to the IFCC eAcademy. At the time of writing, at least TWO units have been uploaded to the IFCC eAcademy, together with key words and questions. The Curriculum has been used to define relevant topics, which have been assigned to individual EBLM members to work on using the Present.Me tool. It is anticipated to enlarge this in 2017.
3. Guideline appraisals (initiated by J Wils) – with a focus on endocrine areas is being conducted. To date, EBLM members have participated in guideline appraisals, including several on adrenal insufficiency, using the AGREE II instrument. Other guidelines, including diagnosis of primary hyperaldosteronism and adrenal incidentaloma, have been circulated to the EBLM committee for review. Dr J Wils is collating the data, with a view to an eventual EBLM group publication.
4. A Questionnaire on EBLM resources and requirements for training has been formulated. This has been developed by Dr K Capote and Dr N Gimenez and is undergoing pilot testing before global circulation. IFCC CPD has agreed to support C-EBLM with the distribution and eventual collation of the data. The goal is to present the data at the IFCC Worldlab in Durban, 2017 and to achieve a full publication.
5. C-EBLM website pages were updated in 2016.
6. Dr Hernan Taie (Argentina) continues to contribute his excellent Iberian Laboratory Medicine Radio Station that is broadcasted in Spanish. C-EBLM members have contributed to the programming of this effort and have provided several lectures. These activities were presented at the Madrid meeting.
7. Dr C Florkowski presented at a symposium at the EFLM-UEMS conference in Warszawa, Poland: POCT and clinical outcomes – quality of evidence.
8. Symposium on EBLM has been accepted at COLABIOCLI, 2017, Uruguay. Contributors:

- K Capote; N Gimenez; H Fares-Taie.
9. Symposium on EBLM has been accepted at IFCC Worldlab, Durban 2017. Contributors: all EBLM members.
 10. PUBLICATIONS: Dr C Florkowski has been invited to submit a review to Critical reviews in Laboratory Medicine on: POCT and clinical outcomes – quality of evidence. Other full members of the C-EBLM will be recruited as co-authors.



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

1. C-CLM teamed up with C-AQ to produce a joint publication on “Developing Quality Systems in the Clinical Laboratory” (Refs. Minutes of Face-to-Face Meeting/June 21, 2015, EuroMedLab Paris 2015, by C-CLM and Minutes in Paris, 22 June 2015, by C-AQ). Target audiences of this monograph are developing countries. Sedef Yenice provided a detailed report with a gap analysis on the contents of previous published two monographs and proposed a list of contents/themes along with prospective authors from C-CLM on September the 13th, 2015. A chapter on Ethics has been contributed by the Task Force on Ethics. It is planned to upload this document to the C-CLM website in January 2017.
2. An interactive workshop on “What is the best strategy to achieve compliance with QMS- and QC-requirements in the clinical laboratory?” was jointly conducted with C-AQ at the IFCC General Conference on 20 March 2016, Hotel Auditorium, Madrid, Spain. A post-implementation report was submitted to EMD-EC on April 14, 2016, and the related article was published in the July-August 2016 issue of IFCC’s eNews. (Ref. What is the best strategy to achieve compliance with QMS- and QC-requirements in the clinical laboratory? July-August 2016 issue of IFCC eNews, pages 9-13).
3. “Terms of Reference” of C-CLM were updated on the website on June 29, 2016.
4. Development of a training module on Leadership is in progress.
5. In order to complement the training module, a guide entitled “A TRAINING MANUAL ON LEADERSHIP BASICS FOR CLINICAL LABORATORY PROFESSIONALS” is being prepared. C-CLM is currently working on the 2nd draft.
6. Sedef Yenice delivered a lecture on “Evolving clinical laboratory management through implementation of a risk assessment plan” on May 12, 2016, at the session on “Laboratory Management”, analytical conference 2016 in Munich (10.05.2016-12.05.2016) www.gdch.de/analyticaconf2016 and https://www.gdch.de/fileadmin/downloads/Veranstaltungen/Tagungen/2016_Tagungen/Analytica_2016/analytica_conference_2016_web.pdf. MO chaired the session “Laboratory Management” and gave a talk on “QMS Standards in the medical laboratory (EN 15189, EN 17020, EN 17025, Rilibäk or SLIPTA)”.
7. Michael Orth delivered a lecture on “Direct-to-Consumer Testing: The Business with Lifestyle Tests” on September 22, 2016, at the AACC Conference (<https://www.aacc.org/publications/cln/cln-stat/2016/september/1/the-consumer-angle-in-point-of-care-testing>).
8. A symposium on “Improvement in Clinical Laboratory Services: Approaches to Adding Value” has been accepted for the IFCC WorldLab, on October 25, 2017. C-CLM will, in addition, conduct a satellite educational workshop entitled “Intelligent Clinical Laboratory Management: Impacts on Quality System Improvement” at the IFCC WorldLab, on October 22, 2017, Durban, South Africa. Application for partial funding through the FSASP has been approved.
9. Sedef Yenice delivered a talk on “Patient-centric and value-based management at the clinical laboratory” during the National Biochemistry Congress of Turkish Biochemical Society that was held on November 2-5, 2016, at Sivas Cumhuriyet University, Sivas – Turkey. The abstract was published in the Turkish

Distance Learning (C-DL), Chair: Janet Smith

1. On-going approval of educational material for the website as it becomes available.
2. Development of the IFCC curriculum is ongoing.
3. Continuing development of the eAcademy in collaboration with the Committee on the Internet and e-Learning (C-leL). The eAcademy development is going well. The second phase was launched in March 2016 at the IFCC General Conference in Madrid. The third phase, which will permit the issue of a certificate of completion of modules to those using the eAcademy is currently under development by Insoft.
4. The mass spectrometry module continues to be developed by Dr Ronda Greaves and material is gradually being added to the eAcademy on this topic.
5. A joint C-DL / C-leL workshop on using the eAcademy to aid National Societies and individual laboratory professionals in training and CPD programmes was conducted during the IFCC General Conference in Madrid. We were pleased with the reception the workshop received and for the support expressed by IFCC Officers for the work the two committees are undertaking.
6. Janet Smith has undertaken IFCC-VLP visits to Estonia and Romania in 2016 to speak about the eAcademy. At both congresses, there was great support and enthusiasm for the initiative.
7. The proposal for a joint EMD/CPD symposium on the eAcademy at the COLABIOCLI Congress in Uruguay in September 2017 has been accepted.
8. To continue to collaborate with other EMD committees in the development of e-learning modules. Most progress has been made by the C-EBLM. The first modules of a series on EBLM have been published on the website.
9. Identification of relevant presentations from IFCC and National Society conferences for recording to populate the eAcademy is on-going. It was decided at meetings in Madrid that we should concentrate on the preparation of short modules, on priority topics, prepared by recognised experts, using the present.me software. We are grateful to those experts who have prepared modules which have already been uploaded to the eAcademy as well as to those currently preparing material for us.
10. We have also provided links to high quality webinars produced by other organisations. Most recently, we have approved links to webinars on aspects of gastrointestinal disorders, prepared by Petr Kocna, a member of C-leL.
11. Liaison with the IFCC Office continues over communication with and permissions from authors whose work is to be published on or linked from the IFCC website, as well as on website and IT issues.

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

1. Annual Inter-study Laboratory Network has been accomplished with good outcome.
2. Data gathering of Questionnaire has been completed and the data is being refined for publication.
3. EurA1c project: bloods have been circulated around Europe.
4. A grant from the UK Economic and Social Research Council has been awarded to organise a training meeting for developing countries.
5. WHO/IFCC Handbook has been completed and is awaiting WHO approval.
6. Helped develop and organise a Satellite Meeting of IFCC EuroMedLab Athens, June 2017.
7. Developing a Satellite Meeting for Durban WorldLab. The outline programme is in place.





WORKING GROUPS activities

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

1. A Consensus Conference on “Harmonization of quality indicators in laboratory medicine: two years later” that aimed to approve the Model of Quality Indicators (MQI) to be used in clinical laboratories over the world, and to define the criteria to evaluate the quality indicator data (quality specifications) was held on 26th October 2016 in Padova, Italy. A scientific paper will be published with all findings of the meeting.
2. Quality indicator results of participating laboratories collected through dedicated website (www.ifcc-mqi.com) has been written up and a scientific paper has been sent to the Journal Clinical Chemistry and Laboratory Medicine for publication.
3. Collaboration with other international Working Groups/Task forces in order to define quality specifications for quality indicators. The EFLM WG-PRE and WG-POST have been involved and attended the Consensus Conference.

Cancer Genomics (WG-CG), Chair: Jason Park, Co-Chair: Paolo Fortina

1. The membership of the working group has been expanded to increase non-US members.
2. The outline of the first document has been completed and is currently in preparation for publication. A presentation at the IFCC General Conference was made by Jason Park and Paolo Fortina on “Cancer Genomics: Revolution in Medical Practice”.
3. A symposium on Clinical Cancer Genomics was held at the APFCB Congress in Taipei, November 2016. The speakers were as follows: Paolo Fortina (Thomas Jefferson University, USA); David Wang (UT Southwestern Medical Center, USA); Jason Park (UT Southwestern Medical Center, USA)
4. Financial support for the working group has been received from Softgenetics and Affymetrix. Additional support is being solicited for future activities.

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

1. Harmonised goals for EQA of IC have been developed.
2. Standard methods of assessment, nomenclature and marking scales for EQA of IC have been devised.
3. Input from similar schemes in Histopathology has been obtained.
4. A position paper has been published: Assuring the quality of interpretative comments in clinical chemistry. Vasikaran S, Sikaris K, Kilpatrick E, French J, Badrick T, Osypiw J, Plebani M; IFCC WG Harmonization of Quality Assessment of Interpretative Comments. Clin Chem Lab Med 2016; 54(12): 1901-1911.5.
5. Proposal for a Workshop on Interpretative Commenting at IFCC WorldLab 2017, Durban has been accepted by the Congress Scientific Committee.

SPECIAL PROJECTS activities

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

There has been an overwhelming response to this programme. However, due to paucity of funds we had to decline a few countries. Now with Abbott sponsoring the programme in 2017 we will be able to reach many more nations. In 2016, 13 VLPs were approved. Details of VLPs approved in 2016 are attached in a separate file.

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

1. The annual flow cytometry workshop took place from October 26 to 28 in St Petersburg, Russia. The established principle was continued: intense interaction between participants and trainers; 3 topics a day with short introduction and extensive practical exercises; duration of 3 days; and emerging and relevant scientific topics with clinical impact for daily practice.

2. The first Latin American Course was offered in Cordoba/Argentina, March 9 to 11 in 2016.
3. The webpage has been updated, and new members entered the working group. The homepage is updated bi-monthly.
4. Publication. A report of the activities of the working group was published in the IFCC eNews, Sept/Oct 2016.

Developing Quality Competence in Medical Laboratories (DQCML), Chair: Michael Thomas

1. A brief synopsis of the aims and objectives, resources, successes and future work of the DQCML Project was presented by Michael Thomas within the EMD Session at the IFCC General Conference, March 2016.
2. On-going engagement and collaboration with Chairs of EMD Committees and the VLP Programme by seeking their support in the delivery of Quality Systems initiatives and utilising when appropriate their expertise and resource in the delivery of programmes under the DQCML Project.
3. To seek to engage and assist IFCC Members in the development of Quality Systems in their countries through the delivery of educational lectures, seminars and workshops, specifically:
 - a. To follow-up contact with the President of the Association of Clinical Biochemistry of Sri Lanka and to identify the needs of laboratories in Sri Lanka for accreditation (ISO 15189) and support the organisation and delivery of a 2-day accreditation workshop in 2016.
 - b. To follow-up contact the President of the Ukrainian Society of Clinical Laboratory Diagnostics to identify the needs of laboratories in Ukraine and formulate a programme plan for delivery in 2016. This matter remains outstanding due to changes in National officers locally and will be carried forward to the work plan for 2017.
4. To ensure that any presentations delivered under the auspices of the DQCML Project can subsequently be made available through appropriate electronic means via the IFCC web site and eAcademy. Hilary Lumano has been approached to record a presentation of his experiences of the RQA Zambia project for publication on the IFCC web site under the eAcademy
5. Continued support is being offered for the EQA Zambia Project being led by Dr Renze Bais, for example in the provision of logistics and support for an educational seminar in 2016/2017. DQCML continues to update Renze Bais on the project's progress. It is hoped that Hilary Lumano will record a presentation of his experiences of the project for publication on the IFCC web site under the eAcademy.
6. To determine those activities that may be appropriate in supporting the ambitions of Malawi to develop a programme of Quality Competence following an exploratory visit and report by the IFCC Past President, Graham Beastall in January 2016. Graham Beastall undertook a scoping visit to Malawi to better understand the needs of this new national Member. It is likely that they will submit an application for a DQCML project in the future and this should be encouraged and included in the work plan for 2017.
7. By invitation, a one-day symposium was delivered as part of the 6th Scientific Conference of the Association of Clinical Chemists of Nigeria on 13th October 2016 on Sustaining Quality Practice and Process in Developing Countries. The presentation is likely to encourage a further application from the Nigerian Association in 2017.
8. Michael Thomas was interviewed for the El Microscopio radio programme.
9. Publications: A short article on the DQCML Project was published in the September-October issue of IFCC eNews and an abridged version appeared in LabMedica International in November 2016.



IFCC Mentoring Programme, Chair: Donald Young

The number of Mentors has been expanded to 24 and that of Associates to 36. Attempts to work with CLSI to recruit Associates have been deferred by CLSI several times.

The pool of Spanish-speaking mentors has been enlarged with Rosa Sierra Amor's endorsement of using the Spanish-speaking experts as potential mentors although most have not yet been invited to participate and are not included in the number above. Then Associates from Latin America must be identified. In 2017 the Spanish-speaking experts will be asked if that would also wish to become mentors.

A major difficulty for the programme has been to get Associates to respond to requests from either the Director or their selected mentors. The number of Mentors needs to be increased to expand number of interests of associates that can be addressed. As a routine practice individuals who have participated in the IFCC PSEP/PMEP programmes are now invited to become Associates. The IFCC Secretary has agreed to make available the e-mail addresses of IFCC's Register of Experts so they can be consulted directly without the need to go through the IFCC Office. Agreement of the individual experts will be sought.

Leslie Lai, Chair EMD

COMMUNICATIONS AND PUBLICATIONS DIVISION (CPD)

In 2016, the following members served on the CPD Executive Committee: Khosrow Adeli (CA, Chair), Edgard Delvin (CA, Vice Chair/Public Relations Coordinator), Peter Vervaart (AU, Publications/Distance Learning Coordinator), Tahir Pillay (ZA, News Editor), G. L. Kovács (HU, Editor eJIFCC), and Bruce Jordan (CH Corporate Representative). Janine Grant (AU, Website Editor), Maria del Carmen Pasquel (EQ, WG- IANT Chair), Ellis Jacobs (US, IFCC Labs are Vital representative) and Anthony Newman (NL, Publications consultant) were invited to attend the CPD meeting in Madrid, on occasion of the IFCC General Conference 2016. A Call for nominations was issued to replace Dr Peter Vervaart as Secretary/Publications Distance Learning Coordinator and Dr Bruce Jordan Member / Corporate Representative, who completed their second term in office.

The following is a summary list of the key CPD activities in 2016:

- Two face-to-face committee meetings were held in 2016: Madrid, (ES) in March, and Budapest-Pécs (HU) in September.
- Informal CPD meeting in Philadelphia on occasion of AACC.
- Major improvements have been implemented for both the IFCC eNewsletter and the eJournal. Publication formats as well as news/scientific content have been enhanced considerably over the past year.
- A new contract with Insoft has been signed for IFCC publications – eJIFCC and eNews, allowing to publish up to a total of 600 pages/year.
- The release of a new IFCC eNews Flash, a completely new editorial product, designed and launched.
- The release of a new innovative IFCC App fully designed and launched.
- IFCC social presence (FB, LinkedIn, Twitter) is lively and well managed, with a slow but constant increase in contacts.
- Promotion of Distance Learning Opportunities for Member Societies & their Membership via eAcademy continues.
- Increased communication with the Spanish speaking countries with pilot project participation into AMARA collaboration initiative.
- Enhancement of IFCC Organization's Public Relations/Visibility.



- 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.
- Focus on improvement of internal communications within IFCC and its Member Societies.
- Contribution to IFCC congresses with organization of CPD Sessions & Symposia in 2016 (and in 2017).
- The Electronic Journal of IFCC (eJIFCC) has been accepted for indexing by MEDLINE/PUBMED. Most recent issues of the journal are now available online on PubMed central.
- First communications to list eJIFCC into Google Scholar, Thomson Reuters, Scopus, and Web of Sciences, have been sent.

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

Committee Meeting: A C-PR meeting was held in Madrid, to which most members attended.

2016 Survey: A survey directed towards the individual members of the National Societies and Regional Federations proposed by the C-PR members was conducted and results presented at the GC.

Use of IFCC documents by National Society Members: Improvement of the traceability (downloads, dwell time, frequency) on the use of the documents produced by the different IFCC functional units by the members of the National Societies and Regional Federations has been identified as a must by the C-PR since this would allow increasing the visibility of IFCC.

Participation in the 1st International Congress on Personalized Health Care: This event was held in Montreal in June 2016. Prof. Delvin made a presentation on the added-value of laboratory medicine. This participation is part of the endeavour to promote the image of the IFCC to its individual members, to the biomedical industry and to the world-wide health care community at large.

Poster: In addition to the new posters created with Bruce Jordan's support, Magdalena Krintus developed a new standing poster for the promotion of IFCC. It was presented at EFLM meeting in Warsaw with an excellent feedback from public.

Labs Are Vital Consortium: The Board, chaired by Michael Oellerich, has held 2 regular conference calls for the Board Meeting, to which Prof. Delvin participated as Clinical Editor on behalf of the IFCC. The LRV program has been revitalized and has posted 30 or more Podcasts or videos since February 2016 at <http://www.labsarevital.com/>. El Microscopio provided a number of them.

Committee on Internet and e-Learning (C-leL) – Chair: Peter Vervaart

Committee Meeting: A C-leL meeting was held in Madrid, followed by one joint with C-DL. C-leL continues to work closely with the C-DL and Insoft in developing electronic/distance learning materials and access for IFCC members utilising the 'e-Academy'. A call for nominations has been issued to replace Dr Freggiaro.

Publications: Documents of Committees and Working Groups: the database (available on the website) continues to be updated as publications are forthcoming; **Silver Book** has been published in print (and as an eBook); **Conference proceedings.** Bergmeyer conference proceedings published in Scandinavian Journal of Clinical and Laboratory Investigation and on IFCC website; IFCC GC proceeding are available on IFCC website.

Website: The website continues to develop in 'real time' therefore there is no plan at this stage for a Phase II launch (other than the eAcademy). 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 done in 2016. Policy and Procedure for IFCC functional unit web pages have been prepared and final version will be ready for circulation in short.

Databases: The NPU, Register of Experts, and Publications databases are the active databases





currently on the website. An eAcademy membership database is being developed with the eAcademy.

Distance Learning Programs and eAcademy: The second phase of the eAcademy was launched in Madrid. Siemens has agreed sponsorship of live webinars. There is ongoing publication of content as approved by C-DL. The distance learning pages of the website continue to develop and we are now able to offer access to a significant amount of content, which has been reviewed by the C-DL. Jointly the C-IE. C-DL will continue to work on the development of the eAcademy. Total items published between June 2015 (launch) and Sept 2016: 46 webinars; 50 external links. Webinars in preparation include the following topics: A series on immunoassay; Uncertainty and traceability; BNP/NTProBNP, GH/IGF1; The R-A-A system; The first three of a comprehensive set of modules on serum proteins and immunology.

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

Major accomplishment: Officially published online by PubMed in October 2016

Next steps: Indexing in Google Scholar, Scopus, Web of Sciences-Thomson Reuters followed by IF attribution. The eJIFCC collection is available at: [http://www.ifcc.org/IFCC-COMMUNICATIONS-PUBLICATIONS-DIVISION-\(CPD\)/IFCC-PUBLICATIONS/EJIFCC-\(JOURNAL\)/E-JOURNAL-VOLUMES/](http://www.ifcc.org/IFCC-COMMUNICATIONS-PUBLICATIONS-DIVISION-(CPD)/IFCC-PUBLICATIONS/EJIFCC-(JOURNAL)/E-JOURNAL-VOLUMES/)

Membership

Dr. Rajiv Erasmus (ZA) discontinued his membership in the editorial board.

New editorial board members: Gary Myers (US), Jillian R. Tate (AU), Ronda Greaves (AU), János Kappelmayer (HU), Allan Jaffe (US).

- **VOLUME 27 no 1/2016:** The issue was dedicated to **Harmonization of Clinical Laboratory Results**. Guest Editors: Jillian R. Tate (AU), Gary L. Myers (US): <http://www.ifcc.org/ifcc-news/archive-2016/2016-02-09-ejifcc-vol-27-n%C2%B0-1/>
 - Foreword of the editor - Gábor L. Kovács
 - Harmonization of clinical laboratory test results Jillian R. Tate, Gary L. Myers
 - Harmonization of clinical laboratory information – current and future strategies Mario Plebani
 - Harmonization initiatives in Europe Ferruccio Ceriotti
 - The International Consortium for Harmonization of Clinical Laboratory Results (ICHCLR) – a pathway for harmonization Gary L. Myers, W. Greg Miller
 - Harmonization of clinical laboratory test results: the role of the IVD industry Dave Armbruster, James Donnelly
 - Deriving harmonised reference intervals – global activities Jillian R. Tate, Gus Koerbin, Khosrow Adeli
 - Critical risk results – an update on international initiatives Lam Q., Ajzner E., Campbell C.A., Young A.
 - Analytical challenges in the genetic diagnosis of Lynch syndrome – difficult detection of germ-line mutations in sequences surrounding homopolymers Castillejo M.I., Castillejo A., Barbera V.M., Soto J.L.
 - The first green diagnostic centre and laboratory building in Indonesia Joseph B. Lopez, Endang Hoyaranda, Ivan Priatman
- **VOLUME 2/2016:** The issue was dedicated to **Celebrate the 70th anniversary of the Hungarian Society of Laboratory Medicine**. Guest editor: Janos Kappelmayer (HU), president-elect of the Hungarian Society: <http://www.ifcc.org/ifcc-news/archive-2016/2016-04-20-ejifcc-vol-27-n%C2%B0-2/>
 - Foreword of the editor - Gábor L. Kovács
 - The Hungarian Society of Laboratory Medicine – serving patients for 70 years - János Kappelmayer



- Biochemical markers of myocardial damage - Geza S. Bodor
 - Non-invasive assessment of viability in human embryos fertilized in vitro - Gábor L. Kovács, Gergely Montskó, Zita Zrínyi, Nelli Farkas, Ákos Várnagy, József Bódis
 - The clinical value of suPAR levels in autoimmune connective tissue disorders - Barna Vasarhelyi, Gergely Toldi, Attila Balog
 - Deficiencies of the natural anticoagulants – novel clinical laboratory aspects of thrombophilia testing - Zsuzsanna Bereczky, Réka Gindele, Marianna Speker, Judit Kállai
 - Interpretation of blood microbiology results – function of the clinical microbiologist - Katalin Kristóf, Júlia Pongrácz
 - Clinical laboratories – production factories or specialized diagnostic centers - János Kappelmayer, Judit Tóth.
 - Adding value in the postanalytical phase - Éva Ajzner
 - Book review – “Patient safety” - Oswald Sonntag
- **VOLUME 3/2016:** The issue was focused around **New Markers of Cardiac Diseases**. Guest editor: Allan S. Jaffe (US): <http://www.ifcc.org/ifcc-news/archive-2016/2016-08-01-ejifcc-vol-27-n%C2%B03/>
 - Foreword of the editor - Gábor L. Kovács
 - The world is changing – are we ready? - Allan S. Jaffe
 - 3 Analytical issues with natriuretic peptides – has this been overly simplified? - Alexander G. Semenov, Alexey G. Katrukha
 - Can natriuretic peptides be used to guide therapy? - Antoni Bayes-Genis, Josep Lupón, Allan S. Jaffe
 - High sensitivity cardiac troponin assays – how to implement them successfully - Frederick K. Korley, Allan S. Jaffe
 - Soluble ST2 and galectin-3: what we know and don't know analytically - Thomas Mueller, Benjamin Dieplinger
 - ST2 and galectin-3: ready for prime time? - Wouter C. Meijers, A. Rogier van der Velde, Rudolf A. de Boer
 - Emerging and disruptive technologies - Larry J. Kricka
- **VOLUME 4/2016:** The issue was dedicated to **Recent Developments in the Clinical Application of Mass Spectrometry**. Guest editor: Ronda Greaves (AU): <http://www.ifcc.org/ifcc-news/archive-2016/2016-12-22-ejifcc-vol-27-n%C2%B04/>
 - Foreword of the editor - Gábor L. Kovács
 - Recent advances in the clinical application of mass spectrometry - Guest Editor: Ronda F. Greaves
 - Mass spectrometry applications for toxicology - Michael M. Mbughuni, Paul J. Jannetto, Loralie J. Langman
 - Mass spectrometry analysis of dried blood spots across the total testing process - Rosita Zakaria, Katrina J. Allen, Jennifer J. Koplin, Peter Roche, Ronda F. Greaves
 - Serum insulin-like growth factor I quantitation by mass spectrometry: insights for protein quantitation - Richard Kin Ting Kam, Chung Shun Ho, Michael Ho Ming Chan
 - Progress in metabolomics standardisation and its significance in future clinical laboratory medicine- Daniel A. Dias, Therese Koal National External Quality Assurance Program Pakistan – a milestone in proficiency testing - Muhammad Usman Munir, Aamir Ijaz
 - Letter to the editor – Successful ISO 15189 accreditation in Bethzatha Advanced Medical Laboratory in Ethiopia - Nardos Abebe
 - Book review – “Cardiovascular Disease and Laboratory Medicine” - Joseph B. Lopez
 - Book review – “Critical Care and Laboratory Medicine” - Joseph B. Lopez



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

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.

A working group meeting was last held in Paris on 22 June 2015. The next one is likely to take place during EuroMedLab 2017 in Athens.

The newsletter provides regular updates of the structure and strategy of the IFCC, Working groups, and Divisions and several of these have now appeared. In recent months, we have taken a decision to insert more hyperlinks to documents to limit the number of pages in each edition. Occasional articles have also been published in Spanish and French. The schedule of 6 issues per year has been maintained with good content.

The **eNews** collection is available at: [http://www.ifcc.org/ifcc-communications-publications-division-\(cpd\)/ifcc-publications/enewsletter/enewsletter-volumes/](http://www.ifcc.org/ifcc-communications-publications-division-(cpd)/ifcc-publications/enewsletter/enewsletter-volumes/)

New IFCC e-News FLASH was Launched in May

- o Provides quick updates on IFCC activities to keep open the communication channel
- o In 2016: 5 issues + a Special one - on occasion of President elect election
- o From 2017: 6 issues/year + special issues for breaking news!
- o 15.000 professional readers all over the world
- o Bi monthly email distribution
- o The **eNews Flash** collection is available at: [http://www.ifcc.org/ifcc-communications-publications-division-\(cpd\)/ifcc-publications/enewsletter/enews-flash-archive/](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 – Chair: Maria del Carmen Pasquel

Membership: new members are participating into the WG activities representing all Ibero American IFCC countries. The RIA section of IFCC website is continuously updated and a selection of presentations given at the IFCC GC in Madrid were translated into Spanish, and published on the website.

New programs and initiatives are planned, mainly focused on updating the RIA section of the website and on the next congress to be held in Punta del Este, UY, in 2017.

DiV, Diagnostico in Vitro has been renewed, restyling it in accordance with eNews. Three issues have been published in 2016. 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. Bruce Jordan

Bruce Jordan (Roche Diagnostics) has been a very active participant in the CPD EC and has provided great support for IFCC public relations. His recent activities have included:

- New IFCC posters that were displayed on occasion of the Madrid GC
- Supporting IFCC CPD meeting logistics at IFCC GC in Madrid
- Supporting the IFCC Specialized Conference on Biomarkers in Alzheimer Disease (Mexico City, 20th May 2016)

Khosrow Adeli, CPD Chair

Task Forces



Task Force on Ethics (TF-E)

Achievements during 2016:

Produced a chapter on Ethics for the IFCC Handbook, in final editing stages now. Was submitted to Leslie Lai January 2016 for online IFCC training/teaching handbook entitled “Essentials of Clinical Laboratory Management in Developing Regions”; Gronowski presented lecture entitled “Ethics in Laboratory Medicine:

Using “Pearls” as an innovative teaching method” which was presented at the General Conference meeting Madrid 2016; Created 3 ethics teaching modules “Pearls” for *Clinical Chemistry* Trainee Council website.

Plans for 2017:

Updating white paper on publications ethics on the IFCC website with more links to regional and local resources links still in process; Create Ethics “toolbox” for Member Societies (starting with example COI and code of ethics from member societies); Create Pearl on Ethical considerations of biobanking; Create Pearl on Ethical cases in laboratory medicine; Draft an IFCC newsletter article on TF accomplishments and future plans.

Ann Gronowski (Chair)

Task Force on Paediatric Laboratory Medicine (TF-PLM)

Achievements for 2016:

Planning for XIV ICPLM in Durban ZA: venue, Symposia topics, chairs and co-chairs determined. Financial support still difficult to find, mainly because there is little paediatric expertise in Africa with very few children’s hospitals. Industry support in Africa is sorely lacking. Attempts to generate financial support from aid organisations and the UN/WHO have not met with good response. The most common response is no response; Circulation of Survey Monkey regarding laboratory management of paediatric critical risk results. Report presented in Madrid 2016; Further discussion regarding Alkaline Phosphatase replacement therapy and ALP reference intervals; Discussion with Prof. Ichihara of Reference Intervals and Decision Limits (C-RIDL) regarding collaboration in regard to reference interval development held in Paris 2015; Discussion with Communications and Publications Division (CPD) regarding p(a)ediatric focused issue of eJIFCC; Four webinars regarding reference intervals in childhood are being prepared for eAcademy of the IFCC. Also, a curriculum for paediatric clinical chemistry is being prepared for the e-Academy with a September finish date.

Michael Metz (Chair)

Task Force on Pharmacogenomics (TF-PG)

Achievements in 2016:

Organisational:

Organizing Eu-PIC/IFCC/ESPT network meeting (Rotterdam (May 26-27); Further collaboration with the IFCC C-MD (chair: Debs Payne) on Expertcenters Pharmacogenetics and dissemination of knowledge; Investigating organization of a PGx seminar in Washington, involving/ accessible for US Congress members (with AACC PM Division); Extend the TF-PG with one young scientist; TF-PG meeting in Madrid during General Conference (March)



Education:

Organize a PGx Workshop at the IFCC 2016 Madrid meeting; Organizing speakers and topics for Athens 2017 EuroMedlab and Durban 2017 Worldlab for updating IFCC members on latest PGx developments Research; Investigate 2016 grant opportunities with IFCC as partner (EUPIC May 26)

Guideline development:

Publish guideline paper on CYP2D6/psychiatry in collaboration with EPA; Publish a guideline paper on standards for PGx testing; Investigate the feasibility of a guideline paper of CYP2D6/tamoxifen and with the European Society for Oncology; Reevaluate and update TPMT guideline for publication; Investigate the feasibility of a guideline paper as follow up to the ESC guidelines on clopidogrel/CYP2C19 testing recommendations; Investigating further collaborations with IUPHAR, Genomic medicine Alliance and IATDMCT (guidelines)

Expected publications 2016:

Comment EHJ on ESC guidelines involving CYP2C19 testing/ clopidogrel; Guideline for Capecitabine/DPYD testing with the European Soc Oncology; Guideline for TPMT/azathioprine testing; Guideline on PGx testing procedures Points for attention of IFCC Executive Board: Approval to extend the TF-PG with one additional member, being a young scientist, currently missing from this committee.

Publications

Pharmacogenetic Allele Nomenclature: International Workgroup Recommendations for Test Result Reporting. Various, Clin Pharmacol Ther. 2015 Oct 19. doi: 10.1002/cpt.280; *European Society Cardiology (ECS) Guidelines for management of ACS on clopidogrel: a conflict with FDA and EMA recommendations?* Various.

Ron van Schaik (Chair)

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

Achievements in 2016:

Meeting between Chair and EB liaison in Philadelphia, August 2016; TF meeting held in Philadelphia, August 2016 (Minutes available); Future programme of activities being discussed with Members; Need to update membership recognized; Two publications on national CKD guidelines arising from TF encouragement; Lecture in Lagos, Nigeria, October given based on TF past achievements; Symposium In APFCB Taipei, November 2016 organised by previous Chair

Plans for 2017:

TF meeting at EuroMedLab, Athens in June; Open meeting on CKD at EuroMedLab, Athens in June; Symposium on kidney diseases at EuroMedLab, Athens in June

Comment:


TF-CKD has had a quiet year following the change of Chair; Since August there has been activity and plans are in place for 2017; This is a joint TF with WASPaLM, although there is little or no contribution from WASPaLM; There are several Corresponding Members who are doing useful projects in their own countries and TF-CKD is the 'glue' that holds these together; TF-CKD is one of the longest established TF. 2017 will be an important year for it to see if it can regain momentum

Flavio F Alcantara (Chair)

Task Force for Young Scientists (TF-YS)

Achievements during 2016:

Update to membership of core group; Now 35 Corresponding Members and growing; Regular



meetings and discussions by social media; Publication of Research Guide in both text and webinar (e-Academy) format; TF meeting held during General Conference in Madrid in March 2016; Session on scientific writing in Harare, Zimbabwe in June 2016; Session in Lagos, Nigeria in October 2016; Open workshop on the YS workforce planned for Taipei in November 2016; Symposium planned at ACBICON in Mangaluru, India in December; Complimentary Educational Webinar: ISO Accreditation: New Trends and Global Differences – September 2016; Project Award from FEN to establish ‘Lab Surfing’ – see www.lab-surfing.com; Regular updates to the TF-YS pages on the IFCC website

Plans for 2017:

TF meeting and open session at EuroMedLab Athens, June 2017; Symposium at WorldLab Durban, October 2017; Collaboration with WASPaLM to support YS session at WASPaLM congress in Japan, November 2017, Further webinars (TBA); Promotion of ‘Lab Surfing’, Research Guide

Pradeep Kumar Dabla (Chair)

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

Prof. Jordi Ordoñez-LLanos, MD, PhD is completing his second term at the end of 2016. He proposed Dr Fred Apple as the new Chair among the TF-CB members and expressed his willingness to continue his service in the TF-CB as a consultant, to aid to the new Chair in his first service period. Dr Apple accepted to serve and IFCC EB approved him as the new chair of the TF-CB. A call for nominations has been issued to appoint four TF-CB members positions.

The Chair suggested to be given freedom to nominate as Consultants, clinicians and laboratorians, provided wide geographic distribution is respected. The TF-CB has several on-going projects that require both of the full work and complicity of the members. The complicity will be readily reached if the members to be appointed are well-experienced in the TF-CB topics.

The main aim of the TF-CB in the evaluated period (2011-2016) was to educate on cardiac biomarkers; during this period high sensitive cardiac troponin assays were introduced in the clinical practice. Given the characteristics of these assays, the TF-CB decided to devoid its efforts to educate on these assays. The results were the mentioned manuscripts as well as specific educational materials available at the IFCC website.

Jordi Ordoñez Llanos (Chair)

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

Achievements in 2016:

TF met in March on occasion of the IFCC General Conference and discussed a variety of issues, especially the potential to have a PoCT meeting in Durban attached to WorldLab and development/update of documents. Several teleconferences were held to develop an appropriate program and identify appropriate speakers.

The cost of satellite meetings was raised at discussion time with some countries reporting costs associated with going to a conference make it prohibitive; efforts have been considerable in order to raise sponsorship money to make the satellite PoCT Meeting possible in Durban; the program was developed in order to rest both local people and international participants. Talks will be predominantly given by TF members to reduce meeting overheads and make this possible.

Participants who register for the main meeting will receive free registration to the PoCT satellite meeting. TF acknowledge contribution of corporate members to make the satellite possible.

A meeting was held at AACC meeting in Philadelphia involving any members who were attending AACC. This group was particularly interested in developing a document on blood

gases, template should be available on IFCC website at the end of 2017.

The group chaired by Cynthia Bowman on “How Glucose Meters be evaluated for critical care” has been very active as well.

Rosy Tirimacco (Chair)



Task Force on Proficiency Testing (TF-PT)

Organization, history and previous achievements

The TF-PT is “a multidisciplinary effort in the analysis and the exploration of the Proficiency Testing issues. This could lead to the establishment of specialized schemes under the hospices and recommendations of the IFCC and could greatly enhance and help to the prevalence of the methods derived from the work of the federation and to the harmonization of laboratory results.” The **main project of the TF-PT** is the **creation of an online database - web application** accessible via web browsers but also via specific applications for the major mobile platforms with much more functionalities and ease of use. The roots of this database will be the analytes (tests, measurands) that will be filed with all possible synonyms (one of them will be the “official” as proposed from the Nomenclature, Properties and Units (C-NPU) committee of the IFCC C-SD) as also as the methods (assays, instruments, reagents etc) also with all possible synonyms. Another part of the DB, maintained with the cooperation of the IFCC committee for Analytical Quality (C-AQ) and of EQALM, will be the PT providers section containing all their contact information, their programs with the analytes, frequencies, type of statistics, commutability of control materials, their accreditation or certification status etc.

During 2014 the TF-PT had his *kick-off meeting* at the WorldLab 2014 in Istanbul, afterward the chair of the TF had a *meeting with the board of EQALM* in Toulouse at the end of October 2014 in order to request a close cooperation and the participation of EQALM to the TF-PT. Early October 2015, TF-PT and EQALM agreed to co-organize a symposium on EQA issues at the next EuroMedLab Athens 2017.

Moreover 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 analytically the 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 database - web application that was finalized during the meeting of the TF at the EuroMedLab 2015 in Paris, started the implementation of this project.

Achievements during 2016

During the first months of 2016 InSoft continued the development of the Database project and a **functional prototype** has been *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 **online database - web application**. The presentation can be found at: http://www.ifcc.org/media/412855/S6.12.Haliassos_WS_GC2016.pdf. Moreover, at the Madrid General Conference, the members of the TF-PT had their *third annual meeting*. Following this meeting the TF-PT chair **in cooperation with Amann Egon, chair of the Analytical Quality (C-AQ) committee**, prepared two mails, approved afterwards by the President of IFCC, to be sent automatically by the **database - web application** when this project will be rolled out, to the scientific community. These mails will invite the PT-EQA providers to cooperate for 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 **database - web application** 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. The final details of the scientific program for the co-organized symposium on “EQA-PT issues” at the next EuroMedLab Athens 2017 had been discussed during this meeting.

The roll out of the “P”roviders database by InSoft **was accomplished at the end of 2016**, and the database can be found at the URL: <http://ptdb.ifcc.org>.

During the last quarter of the year **another four (4) corresponding members**, *nominated either by National Societies (3) or by Corporate Members (1)*, had been added to the TF-PT.

Plans for 2017

After the implementation of the “P”roviders database by InSoft **the development of the “A”nalytes section will be started** adding all the common analytes *from the already registered EQA-PT providers*.

Also during the winter of 2017 the next meeting of the TF-PT members is planned by teleconference. The fourth **face to face annual meeting** of the TF-PT members will be organized during the EuroMedLab Athens 2017, as well as the **symposium** on EQA-PT issues **co-organized with the EQALM** and entitled: “*External quality assurance - just a necessary evil or a valuable tool in laboratory management?*”.

Alexander Haliassos (Chair)



FOUNDATION FOR EMERGING NATIONS - FEN

The Foundation for Emerging Nations (FEN) was established under Swiss law as a non-profit making charitable trust, registered on 15th February 2016. The FEN 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.

The **FEN Board of Directors** are: Dr GH Beastall (UK) Chair, Dr M Rossier (CH), Prof T Brinkmann (DE), Ms L Monaco (IT) and Prof T Ozben (TR). The current five Directors have a good geographical distribution and varying backgrounds in laboratory medicine, education and fundraising.

During 2016 the Board met (by Skype) on four occasions; achievements were reached on following topics: - entry on to the Handelsregister des Kantons Schwyz; - Approval of the Swiss Foundation Supervisory Authority granting of tax-free status; - Appointment of the Seedamm Business Center AG in Pfaffikon, Switzerland as the formal address for the FEN; - Appointment of Ametis Revision Sàrl, Geneva as formal auditor for the FEN; - Establishment of a bank account with Credit Suisse, Geneva using start-up funding provided by IFCC; - Approval of the FEN business plan and fundraising strategy; - Creation of the FEN website www.ifccfoundation.org; - Launch of the FEN at the IFCC General Conference in Madrid; - Promotion of the FEN through various IFCC media outlets and through Labmedica International (English and Spanish versions); - Publication and distribution of first FEN newsletter; - Two calls for project proposals followed by assessment of the received proposals; - Fundraising initiatives; - Funding approval for three projects, as follows:



✓ **Laboratory based surveillance for communicable disease in Malawi:**

The FEN approved an application from the Malawi Association of Medical Laboratory Scientists (MAMLS) to support two laboratory scientists to receive laboratory-based disease surveillance training at the ‘amref health Africa’ headquarters in Nairobi, Kenya. The training course aims to build capacity of laboratory staff in the implementation of laboratory-based surveillance and public health actions, based on the evidence from laboratory data. On completion of their training the two scientists will develop training materials, which will be promoted and made available to clinical laboratories throughout Malawi. This project is supported by the Ministry of Health in Malawi and is a good example of collaboration in the interests of improving public health.

✓ **‘Lab Surfing’: A resource to facilitate global exchange between young scientists**

‘Lab Surfing’ is a project designed by the IFCC Task Force for Young Scientists (TF-YS) and proposed by YS from Argentina, India and Nigeria. It will support the construction and launch of a website to connect YS from around the world, and especially from emerging nations. The specific aim of the Lab Surfing project is to facilitate self-organised exchange programmes between YS who are trainees in laboratory medicine. The outcome of ‘Lab Surfing’ will be measured in terms of the number of YS using the site, their countries of origin and the exchanges that derive from those contacts.

✓ **‘Adopt a Professional’: Collaboration to support the training of laboratory medicine specialists**

The ‘Adopt a Professional’ project is a collaboration between the FEN and the Società Italiana di Biochimica Clinica e Biologia Molecolare Clinica (SIBioC). The FEN and SIBioC have signed a memorandum of understanding to collaborate in providing training in laboratory medicine to scientists from designated emerging nations. Trainees will be selected on merit to spend time training in an Italian centre of excellence. Trainees will be supported after their visit through a mentorship scheme. Fundraising for the first trainees has been achieved and recruitment has commenced. The first trainees will enter the ‘Adopt a Professional’ project in 2017.

Finances:

Audited accounts for the year to 31st December 2016 are available on request. In summary:

Income:		Expenditure:	
Start-up donation from IFCC	50 000 CHF	Cost of establishing FEN	11 719 CHF
Fundraising	15 013 CHF	Project funded	9 054 CHF
		Operating costs	1 308 CHF
Total	65 013 CHF	Total	22 081 CHF
Balance at 31/12/16: 42 932 CHF			

Conclusion:

In presenting this first annual report the Board Of Directors confirms that the governance of the FEN is sound. The Board believes that the FEN has had a positive year of achievement, which it intends to develop further during 2017.

Graham Beastall, Chair

Federations



AFCC *African Federation of Clinical Chemistry*

Introduction: One important achievement with the creation of AFCC is that regular communication is taking place between the members at the board level which can serve as a foundation for collaborations and provision of platform for improvement of medical laboratory services in the member countries. Scientific meetings were successfully organized and held in Zimbabwe, South Africa and Nigeria. The meetings were able to attract good number of young scientists who benefited immensely from them. We are grateful for the support we received from IFCC. The scientific meeting in Nigeria was supported by IFCC with 6 resource persons which added great value to presentations and final outcome. There was molecular biology workshop component in which many young scientists participated. Also, there were elaborate presentations on quality management. The Nigerian society (ACCN) therefore decided to create national working committees to take forward the suggestions at this meeting.

Another important event worth mentioning is the internet radio which is ongoing in Nigeria, Zambia, Malawi and Zimbabwe. This has focussed mainly on spreading the information about the Worldlab Conference in Durban to increase awareness of Africans.

Major challenges: challenges facing AFCC can be summarised as follows; membership drive, funding, lack of strategic plan and mobilization for the forth coming Worldlab Durban 2017. These are interrelated, because more members, means more dues and ideas which may generate more fund and activities.

Membership drive: At present the membership comprises of the following countries namely: Kenya, Nigeria, South Africa, Zimbabwe, Zambia, Ethiopia and Malawi, all of which are full members of IFCC. Potential members which are not yet very active include Tanzania, Ghana, Rwanda, Egypt, Sudan, Tunisia and Morocco. Efforts are being made to bring on board the potential countries through contacts from those countries to identify existing national society or professionals in the field of laboratory medicine. The last four countries currently belong to the Arab Federation of Clinical Biochemistry. Since both federations are closely related with regard to our geographical locations, we need to work together to complement efforts of each other. I visited Egypt recently and was able to facilitate that Prof Egon Amman join them in their upcoming conference on quality Management. There are 52 countries in Africa and they all need support. We are therefore struggling hard to bring more countries on board. We hope that the Durban meeting will help to improve awareness of Africa Countries about the need to be part of IFCC through AFCC.

Funding: Currently our only and major source of funding is still IFCC. At one of our Board meetings, we agreed that each member country must contribute two hundred dollars (\$200) annually, however no country has been able to respond to this proposal. We have challenged members to bring forward ideas to improve the fund raising drives of the AFCC.

Strategic Plan: We are currently putting together a 4 year strategic plan to guide the AFCC and we hope to finalise this at Durban in October 2017. We hope that member countries will be guided by the strategic plan on the activities expected of them.



WorldLab Durban 2017: Substantial efforts had been put in place by the local Organizing Committee headed by Erasmus with regard to this conference. AFCC EB decided that since we shall mount a symposium at the Durban conference and also create opportunity to hold board meetings, there will be no need for a separate conference for AFCC this year. We are grateful to the organizers of Worldlab Durban for giving us the opportunity to carry our activities during this period. We have identified three speakers namely: Prof Eugene Sobingun from Yaoundé Cameroun, Prof Kunle Okesina from Nigeria, Prof Dinky Levity from Cape Town in South Africa.

AFCC Task Force Members

- a. Strategic Planning Development: RT Erasmus, H Lumano, MA Charles Davies, HTM Matarira.
- b. Shaping the future of Lab Medicine: AB Okesina, HTM Matarira, All AFCC Council members
- c. Fund Raising: A Amayo, V Steenkamp, AB Okesina, RT Erasmus HTM Matarira
- d. Educational Management Division: RT Erasmus, H Lumano, MA Charles Davies, HTM Matarira
- e. Scientific Division: V Steenkamp, AB Okesina, RT Erasmus, HTM Matarira.

Participation in IFCC Task Forces: There has been marked improvement in participation of our members in IFCC working group and task forces. We shall continue to encourage and educate our members to be more proactive in nominating members for these task forces whenever the positions are declared open. This will improve our participation in IFCC activities.

Management Courses and Continuous Education: Various courses on Laboratory Management had been organised in recent times and thanks to Rajiv Erasmus who had continued to shoulder this responsibility.

Young Scientists Programme: On the platform of AFCC, countries in Africa have been actively involved in the young scientists programme and some were selected for sponsorship and presentation of scientific papers at meetings. AFCC is grateful to IFCC for assisting the growth of our young scientists.

MoU between IFCC and ASLM:

Prof Rajiv Erasmus had useful interaction with some key members of ASLM recently. The renewal of the MOU will be pursued aggressively in Durban to actualize the signing of a new agreement. We hope to capture it in our strategic plan in order to make it perform this time around. I want to seize this opportunity to thank Prof Graham Beastall for providing the initial template.

Adekunle Bashiru Okesina, President



APFCB
**Asia-Pacific Federation of Clinical Biochemistry
and Laboratory Medicine**

1. Members

The APFCB has 18 Ordinary members, 6 Affiliate members and 18 Corporate members.

2. 14th Council Meeting

The 14th General Council meeting was held on Saturday, 26th November 2016 at the Taipei International Convention Centre, Taipei.

3. Memorandum of Understanding between APFCB and AACC

The MoU between APFCB and AACC was renewed on 11 November 2016 effective for three years from 1.1.2017.

4. Educational activities

i) IFCC Visiting Lecturer for 2015-2016: Prof Howard Morris (Australia)

Prof Morris was the IFCC Visiting Lecturer for 2015-2016 and in 2016 he delivered lectures South Korea, Malaysia and Australia.

ii) APFCB Travelling Lecturer 2015/2016: Dr Graham Jones (Australia)

The Travelling Lecturer, Dr Graham Jones spoke on the topic of Chronic Kidney Disease in the following countries: Singapore, Vietnam, India (AMBI), China and Hong Kong. Graham Jones also delivered a Plenary Lecture at the APFCB Congress in Taipei in November 2016.

iii) APFCB Travel Awards

Five APFCB-Siemens Travel Awards were awarded to five young scientists to participate at the 14th APFCB Congress in Taiwan sponsored by Siemens. First and second prizes were awarded based on the oral presentations in Taipei sponsored by Siemens. The APFCB also awarded ten travel awards of SGD 1,000 each to young scientists who were ranked the next highest in the scoring.

iv) Sessions at the 14th APFCB Congress in Taipei, 26 – 29 Nov 2016

- 1) Joint APFCB-WASPaLM Accreditation Workshop
- 2) APFCB Pre-analytical workshop
- 3) Roche-sponsored hypothetical entitled “Unlocking the value the diagnostics - Perspectives from across the healthcare chain” organised by the C-ELM in conjunction with Roche.

v) Interpretative comments programme

In 2016, the Committee continued to offer a programme which ran over the period of February to December and contained 7 cases.

vi) APFCB-Roche LEAN Clinical Laboratory Workshop

The first APFCB-Roche LEAN Clinical Laboratory Workshops, held in conjunction with the VACB, were conducted in June 2016 in Hanoi and Ho Chi Minh City, Vietnam. Initially, 15 Trainers in each centre were trained by Roche trainers. A second course was run in September in Ho Chi Minh City where a further 15 laboratory staff were trained by the trainers.

vii) APFCB-MACB Chemical Pathology Course

The first Chemical Pathology Course of the APFCB, based on the AACB course, was co-organised with the MACB from 19-21 September 2016, in Kuala Lumpur.

viii) 8th Chemical Pathology and POCT Courses in Ho Chi Minh City and Ha Noi, Vietnam

ix) APFCB Symposium at the AACC Annual Meeting in Philadelphia 2016: Addressing Pre- and Post-analytical Issues in Developing Countries

x) APFCB Paediatric / Endocrine Symposium at the EFLM-UEMS Conference, Warsaw, September 2016

xi) On-going development of material for self-directed learning for QA/QC/Lab accreditation on the webpage



The Committee has been involved with ongoing development of the APFCB Webpage. The focus has been on educational resources. The QA/QC tab of the webpage has added some material supplied from Randox.

xii) APFCB-SACB-Siemens Specialty Meeting on QC Management on 15 July 2016 in Singapore

A specialty meeting was held in Singapore which saw the involvement of multiple Corporate members in addition to the APFCB and SACB. The topic was around “QC Management”, where participants learnt about the fundamentals of QC Management and the tools available to aid in this process. Insights were also shared on the available External Quality Assurance Programmes in the market.

5. Scientific Activities

i) Three publications in 2016 on the Asian study for collaborative derivation of reference intervals

The following website has been set up to publicise the results: <http://c-sci-apfcb.net/eblm/index.html>

ii) Global multicentre study on reference values

Eight countries from Asia, all members of the APFCB, are contributing to the global study: Japan, China, India, Philippines, Pakistan, Nepal, Bangladesh and Malaysia,

iii) Three papers published in 2016 on the global study incorporating APFCB member countries.

iv) A new research project for building a clinical case bank

Development of a well-defined international clinical case bank for promoting the practice of evidence-based laboratory medicine (EBLM) targeting well-defined diagnostic categories of diseases.

v) Regional project for harmonisation of mass spectrometry-based steroid assays

In 2016, regional laboratories and individuals involved in this collaborative process stem from Australia, China, Hong Kong, Malaysia, New Zealand, Singapore, South Korea and Vietnam. A key challenge has been to engage with laboratory, clinical and industry experts in the harmonisation process. An important clinical link has been established with the European Cooperation in Science and Technology (COST) action BM1303, A Systematic Elucidation of Differences of Sex Development (DSDnet) Working Group 3; co-chaired by Professor Stefan Wudy. The outputs detailed below reflect the laboratory-clinical-industry collaborations for 2016. Six papers were published in 2016 by this working group.

vi) APFCB / WASPaLM Task Force on Chronic Kidney Disease (CKD)

A meeting was held for interested members of APFCB organisations in Taiwan on Tuesday 29th November 2016 during the APFCB congress. Twenty people attended the meeting which included participants from WASPaLM and APFCB member countries (in alphabetical order) of Australia, India, Indonesia, Malaysia, Nepal, Singapore, South Korea, Sri Lanka and Taiwan.

6. APFCB e-News

The APFCB e-News was published annually from 2013 to 2015. In 2015, it was decided by the EB that the APFCB e-News shall be published twice a year from 2016.



7. 14th APFCB Congress, Taipei, 26 – 29 November 2016

The 14th APFCB Congress was a great success. Congratulations to Prof Woei-Horng Fang and his Organising Committee.

8. Resolution on Compliance with Codes of Ethical Business Practice

A resolution for the APFCB as well to endorse the “MedTech Europe Code of Ethical Business Practice” was tabled and accepted at the Council Meeting.

Leslie Lai, President



COLABIOCLI

**COLABIOCLI
Latin-American Confederation of Clinical
Biochemistry**

The proposal of the “Asociación Bioquímica del Uruguay (ABU)”, society elected by COLABIOCLI General Assemble in 2015, and integrated by four executive members from the National Society of Uruguay was to work with all countries in parallel from January 2016 on, those activities involved:

IFCC WORLDLAB CONGRESS, all societies were invited to send proposals for Durban 2017. Two speakers were proposed to lecture on Zika, Dengue and Chikungunia; the lecturers are from Cuba, Paraguay and Dominican Republic.

COLABIOCLI-PAHO Collaboration, the on-line course on Quality Management for the clinical laboratories was initiated again, this course hold 78 participants from 19 countries. The Pan-American Health Organization sponsored 50 registrations.

WHO sent information about the new manual on Quality management systems for the laboratories, in collaboration with members of affiliated societies of COLABIOCLI www.who.int/ihr/publications.

COLABIOCLI legal status as a non-profit organization needed to be discussed and approved during the Extraordinary Assembly on December 1st, 2016. Later on submitted for approval by the Minister of Education and Culture in Uruguay.

SCIENTIFIC COMMITTEE of COLABIOCLI initiated activities with the participation of 12 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Spain, México, Paraguay, Republic Dominican, and Uruguay y Venezuela. This Committee is chaired by Prof. Cristina Servetto from Uruguay, and it will be involved in evaluating projects submitted by members of affiliated countries. This committee oversees the activities of Working Groups such as Latin-America Pre-Analytical Working Group on standardization of the pre-analytical phase. Also the Committee is reviewing and updating the bases of Wiener Lab Award.

CONGRESS PARTICIPATION: by COLABIOCLI president and executive members:

The XIII Caribbean and Central America meeting on Neonatal screening on October 21-22, 2016 in Panama city, Panama.

XVI International Congress of the National Association of Bacteriologists of Colombia on 4-7 November, 2016 with the topic Neonatal Screening in Latin America, and in a round table discussion about professional societies, how to improve the participation of young scientists. Congress attendees were 1.700.

COLABIOCLI participated at the CALILAB congress in Buenos Aires AR, the speakers were



BC Cecilia Queijo lecturing on Neonatal Screening, Stella Raymondo charring a Point of Care Symposium, and Rosa Sierra-Amor speaking on Global standardization of creatinine.

COLABIOCLI CONGRESS 2017. Laboratory exposition at the XXIII Latin American congress was organized with the DIV representatives at the Convention Center in Punta del Este. The road map showed the options for booth space, timelines, and authorities of the Congress Organizing Committee (COC). The scientific program of the XXIII Latin American congress of Clinical Biochemistry is being finalized.

EQAS: In order to have a data base of proficiency testing programs, a survey was sent to all countries to find out which had worked on creatinine standardization. Control material will be sent to laboratories with good quality management. And a course on-line is been planned about this topic.

COURSE ON LINE on neonatal screening was organized with the participation of speakers from Argentina, Brazil, Uruguay, México, Dominican Republic and the US. This course began on March at no cost for affiliated society's members, with 300 registered total.

BIOETHICS: a survey on Bioethics on research in laboratory medicine elaborated by Dr Nilda Fink was sent to all countries, responses were received from Argentina, Cuba, Nicaragua, and Uruguay to participate on this project.

COLABIOCLI EXTRAORDINARY ASSEMBLE took place in Buenos Aires, Argentina during the CALILAB 2016 Congress. There were 15 countries, the executive committee and observers that accompanied the delegation present at the assembly. The main topics to review were: a) COLABIOCLI status update, b) professional exchange program and scholarships procedures and rules.

OTHER ACTIVITIES: COLABIOCLI president was present at the 55th PAHO Conference in Washington, DC. Where a proposal on neonatal screening was presented in order to establish such program in countries that still don not have it available.

COLABIOCLI CONGRESS PARTICIPATION IN 2017:

44 Congresso Brasileiro de Análisis Clínico, 11 al 14 de Junio, 2017 en Joao Pessoa, Brasil

XXIII COLABIOCLI Congress in September 17-20, 2017 in Punta del Este, Uruguay,

XVII Congreso Internacional del Colegio nacional de Bacteriólogos in Calí, Colombia en Octubre 13 al 16 de 2017. This activity is in conjunction with the American Association for Clinical Chemistry (AACC) and the National Association of Bacteriologists (CNB)

XVIII Congreso Nacional de Profesionales de Laboratorio Punta Cana, República Dominicana, Octubre 26-29, 2107

14 Congreso Nacional de Bioquímica (CUBRAXIV) a realizarse en San Carlos de Bariloche, Argentina, Octubre 31 a Noviembre 4, 2017

Graciela Queiruga, President

Rosa Isabel Sierra-Amor, Executive Board Member

General Meeting

EFLM held its ninth General Meeting in conjunction with the IFCC General Conference on 21 March 2016 in Madrid, Spain, where 31 out of 40 EFLM Member Societies (NS), were represented. During the GM EFLM President, Mauro Panteghini (MP), gave a report of the recent EFLM activities since the last GM held in Paris. Also, in the absence of EFLM Treasurer (Huib Storm) MP gave a financial report (i.e. balance sheet report for 2015, internal budget report for 2015 and internal budget plan for 2016). EFLM GM approved the balance sheet for 2015 and and the internal budget report for 2015 and plan for 2016.

During the GM elections were held for EFLM President and Vice President. GM has unanimously confirmed the position of Mr. Sverre Sandberg, as the next EFLM President and his term of office 2016-2017. There were two candidates for Vice President: Mr. Damien GRUSON (Belgium) and Mr. Michael NEUMAIER (Germany). Michael NEUMAIER was confirmed by the majority (16/31) of the GM members as the EFLM Vice-President for the 2016-2018.

EFLM EB has already discussed rules for the election of the Regional Federation Representatives in 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 has 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 and approved by more than $\frac{3}{4}$ of the NSs.

Executive Board

Through the EFLM program entitled *EFLM Presence at NS meetings*, during 2016 EB members participated in four EFLM NS meetings hosted by Slovenia, Romania, Portugal and Sweden. The recently proposed amendments to the EFLM Articles of Association have been positively voted by EFLM Member Societies. These amendments allow aligning of EB roles to the new bylaws. Aligning of EB roles and elections for new EB members shall be held during the next GM, on Sunday 11 June 2017 (from h. 14.00 to h. 18.15) on occasion of the 22nd IFCC-EFLM EuroMedLab Congress.

In order to start the whole new EB on 1 January 2018, the GM in Athens will be asked to extend the positions of the present Secretary, Treasurer and Members until 31 December 2017 and to accept the Vice-President position to act as President from 1 January 2018. Originally these positions would stop their 2nd term of office at the date of the GM in 2017, so in Athens in June. At the same time the position of President, Vice-President and Past President would end some month before on 31 December 2017. Considering the appointment in March 2016, the mandate would be 21 months instead of 24. This was approved by the NSs with of more than $\frac{3}{4}$.

The next election of the Executive Board Members will follow the new EFLM Articles of Association and the transitional provision will be applied. EB has recently launched a call for nominations from National Societies for the following positions to serve for the term of office 2018-2019: President-Elect (to serve as President for 2020-2021), Secretary, Treasurer and 2

Members-at-Large.

The deadline to submit nominations is 31 March 2017. Voting for officers of the EFLM Executive Board 2018-2019 shall take place in Athens in June, at the tenth GM.

Committees

Committee – Communication (C-C)

During 2016, special effort was dedicated to support and promote the work of the EFLM Working Groups that is the backbone of the scientific and professional activities of the Federation. A specific space was created inside the EFLM website where all the WGs could post freely available documents and educational materials to substantiate their activities and projects. A similar effort was dedicated to consolidate the collaboration with the National Societies: the Guidelines issued by the EFLM NSs can now be posted in a dedicated subpage of the website with the aim to build in a near future joint European Guidelines on specific topics. Furthermore, to increase the quality of the EFLM surveys that are prepared and distributed to the NSs rather frequently, a workshop on survey methodology was organized during the EFLM-UEMS Congress in Warsaw. The presence of the EFLM in the social media has been greatly improved during this year: the Federation has now Facebook, Twitter and LinkedIn accounts and a LinkedIn Company page. EFLM has started sharing news using the social media of the EFLM National Societies, IFCC and AACC. In 2016, the EFLM started a project (to be completed in 2017) of restyling the EFLM image including a new website, a new logo and above all, the production and publication of its own NewsLetter: the bimonthly EuroLabNews.

Committee – Education and Training (C-ET)

C-ET has been involved in the organization of the 12th Symposium of the Balkan region and is involved in the Congress Organizing Committee for the 23rd Euromedlab in Barcelona and the 13th Symposium of the Balkan region. A new preliminary version of the former EC4 European Syllabus has been assigned to C-ET for finalization of an updated document of an EFLM European Syllabus in 2017. A Task and Finishing Group has been established with 18 members working on a continuing professional development (CPD) crediting system. A cooperation with UEMS is under initiation.

The development of a program for exchanging practice and practical training within EFLM countries is in progress in WG-CPE. WG-ET produced six e-seminars in 2016, recordings were subsequently posted on YouTube. Selected presentations were recorded from the EFLM-UEMS Congress to be presented later on an EFLM e-learning platform, which is also under development.

Committee – Profession (C-P) and EC4 Foundation

Towards the end of 2016, EC4's Board of Governors (the presidents of the EU-based national societies affiliated to EC4) voted for the dissolution of the EC4 foundation and transfer assets such as the EC4 Register of 'Specialists in Laboratory Medicine' to EFLM. More than $\frac{3}{4}$ of the EU-based NSs voted and among these more than $\frac{3}{4}$ was in favor. All members of the EC4 Board then voted to dissolve the EC4 Foundation. The change reflected the diminishing infrastructure in EC4 being mirrored by the rising profile and infrastructure in EFLM. This report takes the opportunity to acknowledge the notable building blocks achieved by key individuals in EC4 in pursuit of recognition of specialists under EU Directives such as 2013/55/EU (The Recognition of Professional Qualifications). A Common Training Framework has been proposed to the EU Commission, syllabuses for education/training in laboratory medicine and codes of conduct have been published, and the unifying term of 'Specialist in Laboratory Medicine' has been adopted.

The importance of continuing to pursue recognition was reflected in EFLM's Executive Board decision early December to preserve the function of EC4's Register Commission by establishing



a new 'Register Working Group' for whom a key remit will be to grow the Register. The Profession Committee continues to press the EU Commission for acceptance of a Common Training Framework, this in turn being the passport to free professional migration across EU borders as well as acting as a catalyst for raising awareness of laboratory medicine's contribution.

Committee – Quality and Regulations (C-QR)

WG A/ISO was able to achieve the inclusion of the requirement for IVD manufacturers to provide information to the customers on lot-to lot differences in the new IVD Regulation which will become mandatory in the European Union. C and its WG are working on developing publications in relation with ISO15189 on reference values, retention time, POCT and measurement uncertainty. Representatives of the WG and Committee were active in ISOTC212, CENTC140 and the Health care Committee of the EA (European cooperation on Accreditation).

Committee – Science (C-S)

The nine WGs under this Committee (Biological Variation, Cardiac Markers, Guidelines, Harmonisation of the Total Testing Process, Patient Focused Laboratory Medicine, Personalised Laboratory Medicine, Postanalytical Phase, Preanalytical Phase and Test Evaluation) and the two Task and Finish Groups (Laboratory Testing for Dyslipidaemia and Standardisation 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. Particular highlights include: developing a means of grading the quality of biological variation studies; the lipid guidelines developed collaboratively with the European Atherosclerosis Society; initiatives to establish test unit and blood container colour standardisation; involving scientists in advising patients directly on their laboratory results; and ensuring emerging technologies such as proteomics develop within existing laboratory medicine disciplines

Meetings

EFLM has organized three meetings during 2016:

1. 12th EFLM Symposium for Balkan Region, May 25–27, 2016; Belgrade (Serbia)
2. 4th EFLM -UEMS European Joint Congress "Laboratory Medicine at the Clinical Interface", 21-24 September 2016; Warsaw (Poland)
3. EFLM Test evaluation course, 9-11 November 2016; Leiden (The Netherlands)

Publications

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2. Carobene A, Strollo M, Jonker N, Barla G, Bartlett WA, Sandberg S, Sverresdotter Sylte M, Roraas T, Orvim Solvik U, Fernandez-Calle P, Díaz-Garzon J, Tosato F, Plebani M, Coskun A, Serteser M, Unsal I, Ceriotti F. Sample collections from healthy volunteers for biological variation estimates' update: a new project undertaken by the Working Group on Biological Variation established by the EFLM. CCLM 2016;54(10):1599-608
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4. Barth JH, Misra S, Aakre KM, Langlois MR, Watine J, Twomey PJ et al. by the EFLM-UEMS joint WG on Guidelines. Why are clinical practice guidelines not followed? CCLM 2016; 54(7):1133-9.



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7. Ceriotti F, Gligorovic Barhanovic N, Kostovska I, Karel Kotaska K, Perich Alsina MC on behalf of the EFLM Working Group on Harmonisation of Total Testing Process. Harmonisation of the laboratory testing process: need for a coordinated approach. *CCLM* 2016; 54(12):e361-e363.
8. Ceriotti F. Harmonization initiatives in Europe. *eJIFCC* 2016;27:023-9
9. Kristoffersen AH, Ajzner E, Rogic D, Sozmen EY, Carraro P, Faria AP, Watine J, Meijer P, Sandberg S; joint EFLM-EQALM Working Group on Postanalytical Phase (WG-POST). Is D-dimer used according to clinical algorithms in the diagnostic work-up of patients with suspicion of venous thromboembolism? A study in six European countries. *Thromb Res.* 2016;142:1-7.
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Sverre Sandberg, President

Prepared by Ana-Maria Simundic, Executive Board Secretary

The North American Federation for Clinical Chemistry and Laboratory Medicine (NAFCC) representing the American Association for Clinical Chemistry (AACC) and the Canadian Society of Clinical Chemists (CSCC) was formed in 2014 and was recognized as a Federation in 2015. The NAFCC was formed in response to changes to the procedure for election to the IFCC Executive Board and to allow for representation and participation from North America in the IFCC. The NAFCC also serves to formalize greater communication and cooperation between the AACC and CSCC at the executive level. Dr. David Kinniburgh is the NAFCC Representative to the IFCC EB for 2015-2017.

The AACC and CSCC were active in a number of initiatives in 2016, summarized below.

CSCC:

- 2016 CSCC Annual meeting, a joint meeting with Canadian College of Medical Genetics, was held in Edmonton, Alberta.
- Educational activities included the Education Roundtable webinars, Travelling Lectureship Series, Lectureship on Cardiovascular Disease, Lectureship on Critical Care Medicine, Trainee Review Course, and the first CACC/ACB International Visiting Lecture by Dr. Callum Fraser.
- The CSCC continues to supporting appropriate laboratory utilization through participation and support for Choosing Wisely Canada.
- Participation on the Canadian Leadership Council on Laboratory Medicine (CLCLM) 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 Working Group on Clinical Laboratory Test Harmonization.

AACC:

- 2016 AACC Annual Meeting & Clinical Lab Expo in Philadelphia, Pennsylvania, with nearly 20,000 delegates.
- Lab Tests Online continues to grow in terms of content and visits. 160 reviewed/updated articles and 26 new articles in 2016, and a 7% increase in visits over 2015.
- The new AACC journal, The Journal of Applied Laboratory Medicine was launched in July.
- There were 14 continuing education certificate programs, 26 online webinars, 7 additional national conferences and 3 international conferences.
- Building on the successful program in Latin America, a similar AACC Global Lab Quality Initiative was launched in the Asia-Pacific region, with the support of the APFCB.
- The universal sample bank sets were made commercially available.
- The Advocacy Program was active lobbying in support of Children's Health, Harmonization, Laboratory-Developed Tests, and Reimbursement and the Changing Healthcare Environment.
- The AACC and CSCC are completing preparations for a joint meeting to be held in San Diego, California in July of 2017, in conjunction with the Clinical Lab Expo.

David W Kinniburgh, Representative

Full Member Societies



ARGENTINA

CONFEDERACIÓN UNIFICADA BIOQUÍMICA DE LA REPÚBLICA ARGENTINA



Regional relations

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

International relations

COLABIOCLI (Confederación Latinoamericana de Bioquímica Clínica)
CLAPU (Confederación Latinoamericana de Profesionales Universitarios)

Additional information

Asociación Bioquímica Argentina - ABA
Fundación Bioquímica Argentina - FBA
Confederación General de Profesionales - CGP
Ente coordinador de unidades académicas de Bioquímica y Farmacia - ECUAFYB



BOLIVIA
SOCIEDAD BOLIVIANA
DE BIOQUÍMICA CLÍNICA

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Meeting with the Ministry of Health and Sports – CONALAB – Presidency of the Health Committee National Senate	La Paz, February 22 nd , 2016	Implementation of the program of external evaluation of quality by the Bolivian Society of Clinical Biochemistry
National Consultative of the Bolivian Society of Clinical Biochemistry	Tarija, June 10 th , 2016	Elaboration of the plan of the activities 2016-2017
National Meeting of the Bolivian Program for Continuing Education	Tarija, December 16 th , 2016	Evaluation and Elaboration of the 2017 Schedule of the Bolivian Continuing Education Program (PROBOECO)

Education		
Agreement with the Biochemistry Foundation Argentina 2016-2018 to develop activities of training and training of Biochemical Professionals in areas of interest common through the Bolivian continuous training program (PROBOECO)		
Agreement with the Company Management of Human Resources (GRH) Management 2015-2018 for the development of Academic, Scientific activities of training of biochemical professionals.		
Agreement with the Company Bolivian Institute of Quality in Health (IBSC) 2015-2018, for the development of Academic, Scientific activities of training of Biochemical Professionals		
<i>Place</i>	<i>Topic</i>	<i>Date - Speaker</i>
Santa Cruz	Clinical update, Immunological Diagnosis and Pathologies associated with celiac disease	August 24-25, 2016 Dra. Maria E. Lasta
Santa Cruz	Infections of the female genital tract and in the neonate - the Laboratory role	October 26-27, 2016 Dra. Susana Di Bartolomeo
La Paz	Advances in the Physiology of the testicular ovarian function and its assessment in the clinical Laboratory	August 26-27. 2016 Dr. Daniel R. Aquilano



La Paz	Infertility bacteriological, Immunological and Molecular aspects	November 23-24, 2016 Dra. Adriana S. Brufman
Cochabamba	Cancer, oncological markers	September 21-22, 2016 Dra Halina Grosman
Cochabamba	Advances in the Physiology of the testicular ovarian function and its assessment in the clinical Laboratory	August 24 – 25,2016 Dr. Daniel R. Aquilano
Tarija	Clinical update, Immunological Diagnosis and Pathologies associated with celiac disease	August 26-27, 2016 Dra. Maria E. Lasta
Sucre	Cancer, oncological markers	September 23-24, 2016 Dra Halina Grosman
Beni	Infections of the female genital tract and in the neonate - the Laboratory role	October 28-29, 2016 Dra. Susana Di Bartolomeo
Oruro	Infertility bacteriological, Immunological and Molecular aspects	November 25-26, 2016 Dra. Adriana S. Brufman

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Extraordinary Assembly of the Latin American Confederation of Clinical Biochemistry (COLABIOCLI)	Buenos Aires – Argentina, 29 November03 December 2016	Elaboration of the proposal for new statutes for COLABIOCLI
Speaker the Microscope Radio	According to schedule	Support for development in the 2016 management action plan
National meeting education of the "PROECO" of the Bioquímica Fundación Argentina	December – CALILAB 2016	Annual Report of the PROBOECO
Meeting of the Latin American Working Group IFCC (WG IANT)	December - CALILAB 2016	Action plan 2017

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

International relations

Participation of the Bolivian Society of Clinical Biochemistry in General Conference IFCC Madrid, Spain from 14 to 21 March 2016

Participation of the Bolivian Society of Clinical Biochemistry in meeting of the WG-IANT IFCC Madrid March 14 to 21 March 2016

Participation of the Bolivian Society of Clinical Biochemistry with the Spanish Society of Clinical Chemistry – Agreement of the Bolivian Partnership to diary entity.

Permanent realization with the International Federation of Clinical Chemistry (IFCC) and Spanish Society of Clinical Chemistry (SEQC)

Additional information

Publication of the report of the XVIII National Ordinary Congress of the Bolivian Society of Bioquímica Clínica of Oruro in Journal and News of IFCC.

Report on the functioning of the Bolivian program of continuous education (PROBOECO) and activities achieved, IFCC Journal and News publication



BRAZIL

SOCIEDADE BRASILEIRA
DE ANÁLISES CLÍNICAS (SBAC)

National relations

ABNT - ASSOCIAÇÃO BRASILEIRA DE NORMAS TÉCNICAS

AMN - ASOCIACION MERCOSUR DE NORMALIZACION

ONA - ORGANIZAÇÃO NACIONAL DE ACREDITAÇÃO

International relations

IFCC -INTERNATIONAL FEDERATION OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE

COLABIOCLI - CONFEDERACIÓN LATINOAMERICANA DE BIOQUÍMICA CLÍNICA

CLSI – CLINICAL AND LABORATORY STANDARDS INSTITUTE

ISQUA – INTERNATIONAL SOCIETY FOR QUALITY IN HEALTH CARE



BULGARIA

BULGARIAN SOCIETY
OF CLINICAL LABORATORY

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
X National Conference of BSCL	29 September – 1 October 2016	All fields of Clinical Laboratory

Education

One Workshop in June 2016



Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
BCLF Meeting in Tirana	5-7 October 2016	Oral presentations and posters

Regional relations
BCLF

International relations
EFLM



CANADA

CANADIAN SOCIETY OF CLINICAL CHEMISTS (CSCC)
SOCIÉTÉ CANADIENNE DE CLINICO-CHEMISTS

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Canadian Society of Clinical Chemists Annual Conference	June 18-22, 2016	Annual Meeting "Clinical Chemistry in Wild Rose Country"
Upcoming meeting in 2017: CSCC Annual Conference	July 30-August 3, 2017	CSCC Annual Meeting held jointly with the American Association for Clinical Chemistry (AACC)

Education
<p>2016 Travelling Lectureship Series Speaker: Dr. Pranesh Chakraborty Director, Newborn Screening Ontario Physician, Section of Metabolism and Newborn Screening, Department of Pediatrics, CHEO Medical Director, BORN Ontario Associate Professor, Department of Pediatrics, Faculty of Medicine, University of Ottawa Topic: Newborn Screening: The changing landscape Dr. Chakraborty gave presentations in Vancouver, Jasper, Toronto, Quebec City, Halifax, and St. John's in the period October 12 – November 15, 2016 The lectureship is sponsored by Bio-Rad Laboratories</p> <p>CSCC Webinar Lectureship on Cardiovascular Disease Speaker: Dr. Justin Ezekowitz, Associate Professor of Medicine, University of Alberta Topic: Canadian Perspective on Heart Failure: Multi-marker approach, economics and the practical approaches March 10, 2016 Lectureship sponsored by Alere</p> <p>CSCC Webinar Lectureship on Critical Care Medicine Speakers: Dr. Penny Colbourne, PhD, F-ABFT Clinical Toxicologist University of Alberta Hospital –Toxicology Laboratory Dr. Hakique Virani, MD, FRCP(C), ABAM Medical Director Metro City Medical Clinic,</p>

Topic: Fentanyl and Opioids

May 26, 2016

Lectureship sponsored by Instrumentation Laboratory

2015-16 Webinar Series

13 CSCC "Education Roundtable" in webinar format were held twice a month from October 2015 to May 2016. Besides single participants, many members formed groups at their institution to attend the webinars. Sessions averaged about 50 phone lines and 200-250 participants.

Working Group on Reference Interval Harmonization

This working group was established formally in early 2016. The working group decided to start with analytes that have primary reference methods and materials. In May 2016, a survey was sent to CSCC members inviting them to participate in a baseline assessment of reference intervals in-use as well as inter-lab variability with respect to measurement of a subgroup of analytes: ALP, ALT, calcium, creatinine, hemoglobin, sodium and free T4. Thirty-five laboratories agreed to participate in the baseline assessment, results of which document the platform-specific differences in analyte measurements due to calibration bias. Results also highlight the variability in reference intervals in-use across the country. Detailed reports from this assessment have been provided to each of the participating laboratories.

The working group presented a workshop at the 2016 Annual Conference in Edmonton, Alberta, and a presentation was also made at the Ontario Society of Clinical Chemists meeting in November 2016.

Anniversary Celebrations

2016 marked the 60th Anniversary of the Canadian Society of Clinical Chemists (CSCC) and the 30th Anniversary of the Canadian Academy of Clinical Biochemists (CACB). Special efforts were made throughout the year to promote the two anniversaries and a slide show of archived materials was presented at the annual conference. Special 25 year pins were given out to all members who have been members of the society for at least 25 years.

Regional relations

CSCC has 7 Provincial Sections – British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and Nova Scotia. Each Section holds its own meetings and small conferences. The Sections report annually to the Society Council. A Provincial Grant is available for each section to help fund their activities

International relations

CSCC paid the IFCC membership dues of the Cuban Society.

CSCC, with AACC, is a member of the North American Federation of Clinical Chemistry and Laboratory Medicine (NAFCC) of IFCC. The NAFCC was represented at the IFCC Executive Board meetings in Madrid and Philadelphia in 2016.

Dr. David Kinniburgh, Past-President of CSCC, is the current CSCC representative to NAFCC and also serves as the NAFCC representative to IFCC.





Additional information

CSCC had a number of interactions with other Canadian pathology and lab medicine groups including:

- Canadian Leadership Council on Laboratory Medicine & Laboratory Utilization Sub-Committee
- Participation in 'Choosing Wisely Canada' <http://www.choosingwiselycanada.org/>
- Participation in 'Lab Tests Online' with AACC <https://labtestsonline.org/>

CSCC supports MEDEC, the national association for the Canadian medical technology industry, in their efforts to promote the value of laboratory medicine.

CSCC has entered into a Memorandum of Understanding with the Association for Clinical Biochemistry and Laboratory Medicine (ACB). The two societies have established a reciprocal lectureship. Dr. Callum Fraser of ACB was the first Canada/UK International Visitor at the 2016 CSCC annual conference which took place June 19-22 in Edmonton Alberta.

CSCC held a Trainee Review Course to help trainees prepare for their final oral exam leading to certification and fellowship. CSCC also provides support and professional encouragement for Trainees and Young Scientists, such as a special reception at the annual conference, an increase to the number of grants available, and a recent survey to determine their needs.



CHILE

SOCIEDAD CHILENA DE QUÍMICA CLÍNICA (SCHQC)

Education

Latin American and Caribbean Regional Workshop: Interpretation of Critical Requirements of ISO 15189-2012 (PTB, INN, SCHQC and USACH), October 14th , 2016

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
IFCC General Conference 2016 Madrid	18-21 March 2016	Meeting of WG. Ibero-American Nomenclature and Translations (WG-IANT) (Participed: E. Aranda, Member)
IX Congreso Argentino de la Calidad en el Laboratorio Clinico, Buenos Aires	30 th November -2 nd December 2016	Meeting of WG. Ibero-American Nomenclature and Translations (WG-IANT) (Participed: E. Aranda, Member)
IX Congreso Argentino de la Calidad en el Laboratorio Clinico, Buenos Aires	30 th November -2 nd December 2016	Extraordinary assembly of COLABIOCLI (Participed: E. Aranda, representant)

Regional relations

SChQC has collaboration with several regional associations of medical laboratory.

- COLABIOCLI (Confederacion Latinoamericana de Bioquimica Clinica) as a full member.
- IAAC (Inter American Accreditation Cooperation) as a stakeholder member.
- APTM (Asociacion Panamericana de Tecnologos Medicos)
- INN (Instituto de Standarizacion Naciona); Chile
- Radio El Microscopio

International relations

- Participation in the International Scientific Advisory of World Lab Durban 2017
- SChQC is a Liaison member to the IFCC eNewsletter
- IFCC CDP WG. Ibero-American Nomenclature and Translations (WG-IANT) Member E. Aranda
- SChQC representatives
 - IFCC: E Aranda
 - IAAC: M Monari

Additional information

Member of the committee of experts, contributing to the modernization of the catalog of benefits of the Free Mode Election (MLE) FONASA Chile. Representative: X Lobos



CHINA –PEOPLE’S REPUBLIC OF CHINA (PRC) CHINESE SOCIETY OF LABORATORY MEDICINE (CSLM)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
2016 National Congress of CSLM	Sep21-24, 2016	Topic: <u>Best test-Better care</u> The conference was highlighted by various forms of academic exchange, including plenary lectures, keynote lectures, satellite meetings, oral presentation and post presentation. The academic committee of the conference received 2,821 abstract submissions. Ninety-three abstracts were selected for oral presentation, among which, thirteen submissions were delivered in forms of English speech contest. Meanwhile, 429 abstracts were presented in the form of posters. After a strict peer review process, the academic committee awarded 31 outstanding posters and 46 excellent research papers and gave three grades of prizes to the competitors in the English speech.



Education

1. The distance training project was co-hosted by Hunan Society for Laboratory Medicine, Hubei for Laboratory Medicine and Jiangxi for Laboratory Medicine on April 6th, 2016. It is estimated that more than 3000 people participated in the on-line training program.
2. Laboratory Medicine Branch of Provincial (Autonomous regional) Medical Association in western and northeast region co-hosted the remote training project in Yinchuan, September 2th, 2016. It is estimated that more than 3000 people participated in the on-line training program.
3. On November 18th, 2016, Laboratory Medicine Branch of Provincial Medical Association of Yunnan, Guizhou and Sichuan provinces co-hosted the remote training project in Kunming, Guiyang and Chengdu. It is estimated that more than 3000 people participated in the on-line training program.
4. Lab Tests Online CN offers education and information on laboratory tests to help patients better understand their health care. In 2016, CLSM have launched 4 tests and modified 2 conditions.

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
14th Asian Society of Clinical Pathology and Laboratory Medicine Congress (2016)	March 25- 27, 2016	CSLM sent a delegation to participate in 14th Asian Society of Clinical Pathology and Laboratory .

International relations

On Sep 23, 2016, at the 2016 National Congress of CSLM, AACC task force in Asia-Pacific region have given special reports on Sino-American clinical laboratory education/ training exchanges and quality management in medical laboratory, which offered opportunities for us to learn about the education, qualification certification, responsibilities and management of laboratorians in America, as well as their report model of clinical results and laboratorial risk management.

'The Best of AACC China' - the first joint forum of Chinese Society of Laboratory Medicine (CSLM) and American Association of clinical chemistry (AACC) was held on October 21st-22nd in Shanghai, China. The forum is sponsored by the China Medicine Education Association (CMEA), with the vision to augment the academic level of laboratory medicine in China and to promote the international communication between the specialists and scholars. Given the theme of "Rigorous Testing for Precision Medicine", the forum selected the best topics from the 68th AACC annual meeting (2016), featured with clinical molecular diagnostics and mass spectrometry technologies, clinical laboratory management, and trends in laboratory medicine. The conference will provide the experts from both China and United States with a great chance to cooperate and explore the latest research progress in the field of laboratory medicine.

Additional information

Chinese Medical Association experts have drafted the <Proposal for standardization of critical value reporting system of the department of clinical laboratory > and compiled an undergraduate textbook < clinical immunology testing > in 2015.



CROATIA

CROATIAN SOCIETY OF MEDICAL BIOCHEMISTRY AND LABORATORY MEDICINE

National meetings		
Name of the meeting	Date	Topic
Symposium LOKUS 2016	April 8-9, 2016	Financial management
27th CSMBLM symposium	September 10, 2016	Croatian Centre for Quality Assessment in Laboratory Medicine (CROQALM): from sample to assessment

Education

CSMBLM Committee for education provides free e-seminars for all CSMBLM members. Participants of e-seminars can earn credits granted by the Croatian chamber of medical biochemists (CCMB).

In 2016 CSMBLM provided 6 e-seminars granted by the CCMB:

1. NSGC guidelines in prenatal diagnostics of aneuploidy
2. CLSI guidelines for determination of ionized calcium – experience from laboratory perspective
3. Accreditation process in European countries - an EFLM survey
4. Sweat chloride guidelines – mercurimetric method and results of external quality assessment
5. Blood morphology in the digital area
6. Endocrinology functional tests

Committee for the scientific and professional development performed their activities through several working groups for the specific areas in the laboratory medicine.

- 1) WG for preanalytical phase conducted a multicentric study on verification of interference indices on clinical chemistry analyzers.
- 2) WG for blood gas testing has published National recommendation for blood gas testing (Dukić L, Milevoj Kopčinović L, Dorotić A, Baršić I. Blood gas testing and related measurements: National recommendations on behalf of the Croatian Society of Medical Biochemistry and Laboratory Medicine. *Biochem Med (Zagreb)* 2016;26(3):318-36.).
- 3) WG for extravascular body samples published an article on laboratory practices for pleural, pericardial, peritoneal, synovial, amniotic fluid, sweat and bronchoalveolar lavage (Milevoj Kopčinović L, Vogrinc Ž, Kocijan I, Culej J, Aralica M, et al. Laboratory testing of extravascular body fluids in Croatia: a survey of the Working group for extravascular body fluids of the Croatian Society of Medical Biochemistry and Laboratory Medicine. *Biochem Med (Zagreb)* 2016;26:395-407.).
- 4) WG for laboratory diagnosis of autoimmune diseases published an article on practices employed in the autoimmune disease testing (Tešija Kuna A, Đerek L, Kozmar A, Drvar V. Current practice in laboratory diagnostics of autoimmune diseases in Croatia. Survey of the Working group for laboratory diagnostics of autoimmune diseases of the Croatian Society of Medical Biochemistry and Laboratory Medicine. *Biochem Med (Zagreb)* 2016;26:376-94.).
- 5) After publishing National recommendation for capillary blood sampling, WG for capillary sampling has continued their efforts on implementation of the document in Croatian laboratories.



- 6) WG for harmonization of instructions for patients has finished work on the national recommendation for patient preparation for laboratory testing (submitted for publication).
- 7) WG of CSMBLM and CCMB for uncertainty of measurement has finished work on the national recommendation for uncertainty of measurement (submitted for publication).
- 8) WG of CSMBLM and CCMB for chronic renal disease has finished work on the national recommendation for laboratory diagnostics of chronic renal disease (submitted for publication).
- 9) WG for coagulation testing finished a nation-wide survey on practices in coagulation testing and has been working on drafting the manuscript.
- 10) WG for point of care testing finished a nation-wide survey on practices in point of care testing and has been working on drafting the manuscript.
- 11) A new WG for molecular diagnostics was formed. WG has conducted a nation-wide survey on practices in molecular diagnostics.

Regional relations

CSMBLM provided travel grants for members of regional laboratory medicine societies for best poster abstract authors at Symposium LOKUS. In 2016, 6 grants were granted to members of Association of Medical biochemists in Bosnia and Herzegovina (5) and Society of Medical Biochemists of Serbia (1).

International relations

IFCC & EFLM national representative: Daria Pasalic, PhD, Associate Professor

CSMBLM representative in EQALM: Jasna Lenicek-Krleža, PhD, specialist in laboratory medicine

CSMBLM representative EC4 Register of the European specialist in laboratory medicines: Ivana Rako, PhD, specialist in laboratory medicine

Representative CSMBLM in European Association of Science Editors (EASE), Council of Science Editors (CSE), Committee on Publication Ethics (COPE): Prof. Ana-Maria Simundic, PhD, specialist in laboratory medicine, Biochemia Medica-Editor-in-chief

Representative CSMBLM in European co-operation for accreditation (EA): Ines Vukasovic, PhD, specialist in laboratory medicine

During 2016 CSMBLM national representative in EFLM and IFCC, and Committee for information and public relations, with support of CSMBLM Executive board regularly informed the membership about and IFCC and EFLM activities and forwarded all calls for nominations in EFLM and IFCC working groups and committees.

CSMBLM representative and corresponding member of the IFCC and World Association of Societies of Pathology and Laboratory Medicine Task force for chronic renal diseases (TF-CKD): Vanja Radisic Biljak, PhD

Corresponding Member of the IFCC Task force for young scientist: Ivana Lapić

Additional information

Journal BIOCHEMIA MEDICA continues with activities for improving the quality and position of the journal among international scientific publications. Impact factor for 2015 was 3.051 and all articles published from 2016 will be cited in *Current Contents*.

Committee for information and public relations

Regularly cooperated and promoted CSMBLM in international associations with preparing newsletters and notifications for IFCC and EFLM bulletins.

Organised activities related to promotion of the CSMBLM activities in the public: promotion of the symposium LOKUS 2016 and 27th CSMBLM symposium at the web portals and in daily newspapers.

Croatian Centre for Quality Assessment in Laboratory Medicine (CROQALM)
 CROQALM, member of EQALM (CSMBLM representative in EQALM: Jasna Lenicek-Krleža, PhD, specialist in laboratory medicine).
 In 2016. CROQALM performed three cycles of external quality control (March, June, September).
 Working groups of CROQALM team working on the improvement of the quality of the sample (commutability of sample for biochemistry module and introduced fresh blood sample in haematology module in cooperation with Croatian Institute for transfusion medicine), improvement existing program of data processing, update existing website and intensive training (education members of tim and customers).
 CROQALM organise 27th Symposium of CSMBLM: “External Quality Assessment in Croatia: from sample to evaluation” (September 10, 2016) with sponsored lecture of RIQAS. All CROQALM activities CROQALM tim are presented and lecture abstracts are publish in *Biochemia Medica* and presentation are available on CROQALM web site
 Active participation in EQALM symposium and annual meeting EQALM (Vlasic Tanaskovic J) in Barcelona (Spain)..
 Publish original paper in Clinical Chemistry and Laboratory Medicine (September 2016 DOI: 10.1515/cclm-2016-0284)(Vlasic Tanskovic J, Couch W, Lenicek Krleza J, Vukovic Rodriguez J. Peer groups splitting in Croatian EQA scheme: a trade-off between homogeneity and sample size number”.
 Participated and prepared 4 article for Biochemia medica journal, Special issue of external quality assesment in laboratory medicine (publish in February 2017)
 Applications for national program for quality control in 2017 (three cycles) is opened from December 2th, 2016



CUBA
 CUBAN SOCIETY OF CLINICAL PATHOLOGISTS

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
IX National Meeting of Clinical Pathology CONAPAC2016.	March 9-11	General topics on Laboratory Medicine

Education
 We organized the AACC-CSCP Workshop: “Verifying Assay Performance: Steps To Follow To Verify Manufacturer’s Claims”, with the support of AACC Latin-American Working Group within CONAPAC2016

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Internacional Congress for Advances in Medicine. Civil Hospital of Guadalajara, MÉXICO.	February 25-27	Three persons, lectures delivered.



XXIII Congress ALAPAC/ML., Río de Janeiro, BRASIL.	September 27-30	One person, lecture delivered.
XIII National Congress of Clinical Laboratorians of Panamá and X Panamerican Meeting of Medical Technology 2016, PANAMÁ.	September 1-3	One person, lecture delivered.

International relations

The NR of the CSCP participated in the IFCC GC in Madrid, March 19-21.

Additional information

The CSCP received the support of IFCC VLP to bring to Cuba Dr. Carl Burtis and Dr. Robert Rej, both from US.



CZECH REPUBLIC

CZECH SOCIETY OF CLINICAL BIOCHEMISTRY (CSKB)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Menhir of prof. Masopust	28 January 2016, Prague	Metabolic syndrome
RANK 2016	3 – 4 February 2016, Pardubice	Routine analysis of nucleic acids by molecular biological methods
INDC 2016 – 16 th International Nutrition & Diagnostics Conference	3 - 6 October 2016, Prague	Nutrition and human health
BIOLAB 2016	8 – 10 May 2016, Srní	National meeting of laboratory technicians
Atherosclerosis 2016	9 - 10 September 2016, Prague	Atherosclerosis – diagnostics, treatment and prevention in adults and children
FONS 2016	11 - 13 September 2016, Pardubice	Advances in clinical chemistry and laboratory medicine
XV th Conference on Monoclonal Gammopathy	11 October 2016, 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 .

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>
9 th Central-Moravian Regional Days	21 – 22 January 2016, Kouty nad Desnou	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
Regional meeting of clinical biochemists – West Bohemia	20 April 2016, Klatovy	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
Working day of section of laboratory technicians	13 April 2016, Prague	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
Regional conference Nejedlý's Kladno	6 April 2016, 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)	2 – 3 June 2016, Ceske Budejovice	Interdisciplinary cooperation, Czech Society of Clinical Biochemistry was the principal guarantor
Regional meeting of Moravian-Silesian Region	6 – 7 June 2016, Zemanice	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
Working day of section of laboratory technicians	5 October 2016, Prague	Preanalytical phase, Czech Society of Clinical Biochemistry was the principal guarantor
35 th Regional conference of clinical biochemistry	7 – 9 December 2016, Karlova Studanka	Varia, Czech Society of Clinical Biochemistry was the principal guarantor
POCT conference	12 October 2016, Ostrava	Varia, Czech Society of Clinical Biochemistry was the principal guarantor

International relations

- Our representatives (Prof. Zima and Prof. Racek) participated at IFCC General Conference and EFLM General Assembly in Madrid
- Prof. Racek participated at the EC4 Register Commission
- Prof. Zima worked as Member-at-Large, EFLM Executive Board
- Prof. Zima, prof. Racek, prof. Jabor, prof. Prusa, Dr. Kocna, Dr. Kotaska, Dr. Cibicek, Dr. Rajdl, Dr. Franekova, Ing. Sprongl, prof. Palicka, Dr. Sebesta 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 2016.
 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.



EGYPT

THE EGYPTIAN SOCIETY OF CLINICAL CHEMISTRY AND LABORATORIES SCIENCES (ESCC)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
59th Scientific Congress	2-3 November,2016	Laboratory Medicine Update
Workshop 1	Managing Quality Challenges In Laboratoty Medicine,An Interactive Workshop	By Prof Graham Beastall
Workshop 2	Changes in the Harvest and Production of Stem Cells for The Treatment of Hematological Diseases and Regenerative Medicine	By Prof Mathias Freund,University of Rostok,Germany
Workshop 3	Current & Future Applications of POCT	By Prof Mohamed Shaarawy

Education

3 Workshops 2,3 November,2016 during the 59th Congress of the Egyptian Society of Clinical Chemistry,Le Meridien Heliopolis Hotel,Cairo,Egypt

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Laboratoty Medicine Update	2-3 November,2016	59 th Congress organized by Egyptian Society of Clinical Chemistry
		16 Lectures (oral presentation)
		22 Posters
		Number of Attendees 200
		Exhibition by Intenational and local Copanies

Regional relations

Arab Federation of Clinical Biology

International relations

IFCC
WHO EMRO

Additional information

The Most important Lectures were

1-Lipidomic Biomarkers in Vascular and Metabolic Diseases (Prof Gerd Schmitz,Regensburg,Germany)

2-Implementation of DNA Sequencing as a Method of second tier in Newborn Screening (Prof Shaheid

Shadeidy,Carolina,USA)

3-Pharmacogenomics of HCV Therapy (Prof Mohamed Shaarawy,Cairo,Egypt)

4-Future of Laboratory Medicine Worldwide (Prof Graham Beastall, Uiversity of Gasgow,UK, Past President IFCC)

Several Lectures on:

- New Cardiac Biomarkers in Acute Coronary Syndrome
- Role of Irisin in Diabetes Mellitus
- Metabolic Syndrome
- Gut Microbiota and Host Health.A New Clinical Frontier
- MicroRNA in Cancer
- Gene Polymorphism in Bronchial Asthma
- Towards Error vs Measurment Uncertainty,Sailing Against the Wind

The59th Congress was directed by Prof Mohamed Shaarawy, President of Egyptian Society of Clinical Chemistry.



FINLAND

FINNISH SOCIETY OF CLINICAL CHEMISTRY (SKKY)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Spring meeting	7.-8.4.2016	Service design, lean
Fall meeting	17.-18.11.2016	Internal quality assurance, Workshops on validation, Management of preanalytical errors, Quality indicators, Sample transportation

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
NFKK Board Meeting	22.4.2016	Tommi Vaskivuo was the national representative at the meeting held in Denmark



Regional relations

FSCC is a member society of the Nordic Federation of Clinical Chemistry (NFKK, Nordisk Forening for Klinisk Kemi). The Finnish members in the board of NFKK during year 2016 have been Tommi Vaskivuo and Petra Anttila.

Klinisk Biokemi i Norden is a scientific journal published by the NFKK. The journal published 4 issues in 2016 and it was freely distributed to all members of the NFKK member societies.

International relations

Päivi Laitinen was the national representative of FSCC in IFCC.



ESTONIA

ESTONIAN SOCIETY FOR LABORATORY MEDICINE

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
General meeting of the Society (ESLM)	March 31, 2016, Kohtla-Järve, East Viru County	Model of Quality Indicators (MQI), Activities of IFCC TF-POCT Working Group „How should Glucose Meters be Evaluated“, Report of ESLM LOINC Working Group, Why Microbiology Results Differ from Others?, How to Display Laboratory Results in Electronic Medical Health Record, Odor based Diagnostics, Air Decontamination in Laboratories, Vacuum Tubes from East Virumaa, Approval of the Annual Report 2015.
General meeting of the Society (ESLM) together with United Laboratories, Tartu University Clinics	October 20, 2016, Tartu	History of United Laboratories, 20 Years of Cardiac Markers – from ASAT to high sensitivity troponin, Glucometer in Measuring Ketones, Ketogenic Diet, Detection of Micro-organisms in United Laboratories, Screening of Inherited Metabolic Diseases in Newborn Babies, From Black and White to Colourful Chromosomes, 8 Years of Molecular Diagnostics of Cancers, Colorectal Cancer Screening in Estonia

Education

Katrin Reimand and Karel Tomberg participated as lecturers in GP's training course "Colorectal Cancer Screening"

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
XIII Baltic Congress in Laboratory Medicine (under the auspices of IFCC and EFLM)	May 12 – 14, 2016	ESLM organised the Congress, together with Latvian and Lithuanian societies (BALM). IFCC Visiting Lecturer Programme

International relations

ESLM is the member of the following international organisations: IFCC, EFLM, EC4 Register Commission, BALM, ESCMID (EUCAST)

Helle Järv participated in EUCAST subcommittee (AFST).

Marina Ivanova participated in EUCAST meeting and EUCAST AFST meeting in ECCMID 2016 (April, Amsterdam).

Agnes Ivanov participated as corresponding member in the IFCC Task Force "How should Glucose Meters be Evaluated for Critical Care" (TF-POCT)

Anna Velts participated as corresponding member in the IFCC Task Force „Young Scientists“ (TF-YS)

Additional information

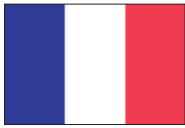
Together with Estonian Society of Bioanalysts ESLM published two issues of a new journal „Estonian Laboratory Medicine“ (in March and in November).

Working groups are working in the fields of

- Laboratory terminology,
- LOINC (Logical Observation Identifiers Names and Codes),
- Microbiology and EUCAST (Standardisation of Antibiotic Susceptibility Testing)
- Professional standard of Medical Laboratory Specialist,
- Quality of POCT in Family Medicine,
- Laboratory Quality,
- Kidney Biomarkers,
- Cardiac Markers
- Laboratory Hematology and

Diagnostics of Urogenital Infections

Colorectal cancer screening programme started in July 2016.



FRANCE

SOCIÉTÉ FRANÇAISE DE BIOLOGIE CLINIQUE (SFBC)



National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
National meetings with SFBC auspices:		
Paris HealthCare Week,	Paris May 26 th , 2016	Certification and accreditation of clinical laboratories
FHF / FNSPBHU / CNMBHU Symposium	Université Paris Descartes, Paris December 1 st , 2016	Position and role of Laboratory Medicine in Healthcare system
50 th Journées de Biologie Praticienne	Maison de la Chimie, Paris December 2 nd - 3 rd , 2016	Endocrinology / Haematology / Microbiology

Education
<ul style="list-style-type: none"> Educational Committee chaired by Dr C. Augereau and Dr F. Guerber <ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> National Agreement SFBC as Validating Society for "EPP" Relations with the Federation of Medical Specialities (FSM)

Regional meetings		
<i>Name of the meeting</i>	<i>Location and Date</i>	<i>Society's contribution for the meeting</i>
2016 AACC Annual Meeting	Philadelphia (PA, USA) July 31 st – August 4 th , 2016	Meetings with AACC and LTO
4 th Jordanian International Conference of the JSMLS	Amman (Jordan) April 7 th - 9 th , 2016	Session chairmanship
National Meeting of the STBC	Tunis (Tunisia) May 13 th - 15 th , 2016	Roundtable
4 th Joint EFLM-UEMS meeting	Warsaw (Poland) September 21 st – 24 th , 2016	Invited lectures
National Conference of the Bulgarian Society	Golden Sands (Bulgaria) September 29 th - 30 th , 2016	Plenary lecture
24 th BCLF Meeting	Tirana (Albania) October 5 th - 7 th , 2016	Invited lecture
3 rd FIFBCML Congress / 16 th Annual meeting of the Moroccan Society for Clinical Biology	Rabat (Morocco) October 13 th - 15 th , 2016	Session chairmanship
ACBICON 2016	Bengalore (India) December 13 th - 15 th , 2016	Invited lecture and session chairmanship



International relations

- Coordination by SFBC Committee on International Relations:
 - Prof.P. Gillery
 - Dr B. Gouget
 - Dr M. Vaubourdolle
- SFBC representatives:
 - IFCC: Prof. P. Gillery
 - EFLM: Dr M. Vaubourdolle
 - WASPaLM: Prof. J. Goudable
- Participation in the International Advisory Board of next IFCC/EFLM meetings:
 - IFCC General Conference Madrid 2016 (Dr B. Gouget)
 - EFLM / IFCC Athens 2017 (Dr B. Gouget (COC), 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)
- SFBC: founding member of the FIFBCML: Fédération Internationale Francophone de Biologie Clinique et de Médecine de Laboratoire.
Participation in 3 meetings in 2016:
 - 4th Jordanian International Conference of the Jordan Society for Medical Laboratory Sciences, Amman (Jordan), April 7th - 9th, 2016
 - Meeting of the Tunisian Society of Clinical Biology, Tunis (TU), May 13th - 15th, 2016
 - 3rd FIFBCML Congress and 16th Meeting of the Moroccan Society of Clinical Biology, Rabat (MO), October 13th - 15th, 2016

Additional information

Participation of SFBC members in IFCC Committees and Working Groups

- IFCC-SD EC P. Gillery, Vice-Chair, 2014-2016

- IFCC-SD

Committees

- Nomenclature, properties and units (C-NPU) F. Scherrer, Member, 2015-2017
(Silver book (WG)) (G. Féraud, Chair)
- Molecular diagnostic (C-MD) K. Peoc’h, corresp. Member
- Traceability in Laboratory Medicine (C-TLM) A. Vassault, corresp. Member
- Standardization of thyroid function tests (C-STFT) P. Carayon, corresp. Member

Working groups

- Clinical Quantitative Mass Spectrometry Proteomics (WG-cMSP) S. Lehmann, Chair, 2014-2016
- Standardization of Carbohydrate-Deficient-Transferrin (WG-CDT) F. Schellenberg, Member
- Parathyroid hormone (WG-PTH) J.C. Souberbielle, Member
- Commutability (WG-C) V. Delatour, Member
- Standardization of Troponin I (WG-TNI) G. Lefèvre, corresp. Member
- Harmonization of antibody tests (WG-HAT) P. Carayon, corresp. Member
- Standardisation of Hemoglobin A₂ (WG-HbA₂) M. Arock, corresp. Member



- Standardisation of Pregnancy-Associated Plasma Protein Member R. Garnotel, corresp. Member (WG-PAPPA)
- Standardisation of Albumin Assay in Urine (WG-SAU) E. Caussé, corresp. Member
- IFCC-EMD

Committees

- Committee on Evidence Based Laboratory Medicine (C-EBLM) J. Wils, Member
- Committee on Analytical Quality (C-AQ) A. Vassault, corresp. Member
- Committee on Education in the Use of Biomarkers of Diabetes (C-EUDB) M. Fonfrède, corresp. Member

Working groups

- Flow Cytometry (WG-FC) C. Lambert, Member
- Cancer Genomics (WG-CG) P.J. Lamy, Member
- IFCC-CPD
- IFCC News and WG-IFCC News D Gruson, Member
- IFCC-TF and IFCC-IP
- Task force for Young Scientists (TF-YS) G. Boursier, Member, 2014-2016
- Task force on Proficiency testing (TF-PT) A. Perret-Liaudet, Member, 2014-2016
- Task force on point of care testing (TF-POCT) P. Pernet, Member, 2014-2016
- Task force on chronic kidney disease (integrated project) (TF-CKD) J.P. Cristol, corresp. Member
- IFCC-CCC P. Carayon, corresp. Member
- IFCC-Nominations Committee (2015-2017) B. Gouget , chair
- IFCC Madrid General conference 2016B. Gouget , chair

Participation in Lab Test Online Project V. Ducros
J.P. Bali, B.Gouget

SFBC Board 2016

Executive Board:

- President Pr Marc DELPECH
- Vice-President Pr Vincent SAPIN
- Past-President Pr Joëlle GOUDABLE
- General Secretary Dr Véronique ANNAIX
- Assistant General Secretary Pr Bruno BAUDIN
- Treasurer Dr Philippe CHATRON

Scientific Committee: Pr Sylvain LEHMANN
Dr Katell PEOC'H

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Educational Committee:	Dr Christine AUGEREAU-VACHER Dr Fabrice GUERBER Dr Isabelle AIMONE-GASTIN
Lab Test Online:	Dr Véronique DUCROS Pr Jean-Pierre BALI
International Relations:	Pr Philippe GILLERY Dr Bernard GOUGET Dr Michel VAUBOURDOLLE
National Relations:	Dr Marie-Françoise GAUDEAU-TOUSSAINT Dr Carole POUPON
Meetings and Conferences:	Dr Michel VAUBOURDOLLE
E-learning:	Pr Damien GRUSON
Young Scientists:	Dr Guilaine BOURSIER



GERMANY

DEUTSCHE GESELLSCHAFT FÜR KLINISCHE CHEMIE
UND LABORATORIUMSMEDIZIN e. V. (DGKL)

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Annual Meeting of the DGKL, Mannheim	Sept 28-30, 2016	Entire range of Clinical Chemistry and Laboratory Medicine
Annual Meeting of the DGKL Division Molecular Diagnostics, Tutzing	May 7, 2016	Liquid Biopsy
Annual meeting of the DGKL Division Endocrinological Diagnostics, Berlin	Apr 22, 2016	Laboratory Diagnosis of Diabetes
Annual meeting of the DGKL Working Group LC-MS/MS, Bad Staffelstein	Nov 7-8, 2016	Therapeutic Drug Monitoring

Education
Several Short Courses in the context of the Annual Meeting of the DGKL. Revision course Clinical Chemistry, Hannover, Nov 21-25, 2016



International relations
Active participation in IFCC including Working Groups, Task Forces etc. Journal of Laboratory Medicine, Official Journal of the German Society of Clinical Chemistry and Laboratory Medicine Supporting Society of MSACL (Mass Spectrometry Application to the Clinical Laboratory)



GUATEMALA

ASOCIACIÓN DE QUÍMICOS BIÓLOGOS DE GUATEMALA

National meetings		
Name of the meeting	Date	Topic
Conference	29-01-2016	Food Safety and Quaality
Conference	12-02-2016	Tumorals Markers
Workshop	04-03-2016	BacteriologicalQuality of Water.
Conference	08-04-2016	Mycrobiological Drug Resistance
Conference	06-05-2016	Mycoplasma Sp and Clamydia Infections.
Conferencie	10-06-2016	Mody Diabetes
Conference	08-07-2017	Thyroid Hormones and its effect in the behavior
Conference	20-08-2016	Needs for the diagnostic of Zika, Dengue and Chikungunya virus and the prevention
Conference	02-09-2016	Ministerial Agreement and Guide for Environment Protectionfrom Medicine Laboratroy
Conference	07-10-2016	Mycotoxins in the diet and its effect in the health.
Conference	04-11-2016	Quality Indicators in Medicine Laboratory
Conference	11-11-2016	Paterity TestInterpretation.
Conference	02-12-2016	Corn Mycotoxin in the dietand the association with Neural Tube disease, in research.

Education
1. External Quality AssessmentProgram 2. External Quality Assessment Program after each assay , one activity for each month . 3. Medical Laboratory Technicians School 4. Continuous Educational Program (one activity for each month ; first Friday of each month)

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Forum: Interpretation of the critical requirement from ISO Guide 15189 for Medicine Laboratories	14-10-2016	opportunity to participate 40 colleagues from our Society.

Regional relations
Asociación de Químicos Biólogos (Clinical Chemist Society) member of COLABIOCLI Member of the Committee for Wiener Prize that give during the COLABIOCLILatin-American Congress of Clinical Chemistry Radio Microscopio Member.

International relations
IFCCNational Representative IFCCEMD member of the Committee IFCCWG IANTmember IFCCNominationCommittee member

Additional information
Our information: www.aqbg.org www.peecsystem.com



HUNGARY
HUNGARY SOCIETY OF LABORATORY MEDICINE
(MLDT)

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
QualiCont Forum	February 5, 2016, Budapest	<ul style="list-style-type: none"> • Quality Assurance • Celebration of the 20th anniversary of the foundation of the QualiCont Ltd.



58th National Congress of the Hungarian Society of Laboratory Medicine	August 25-27, 2016, Szeged	<ul style="list-style-type: none">• Celebration of 70th anniversary of the foundation of the Society• Routine Laboratory Diagnostics• Case presentations in laboratory medicine• The role of laboratory medicine in clinical research• Hematology and hemostasis• Clinical Microbiology• Endocrinology• Joint session of laboratory specialists with clinicians• Youth Forum - “You have the X factor” competition for young presenters
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Education

There was a postgraduate training course on the laboratory diagnostics of hemostasis disorders organized by the Department of Laboratory Medicine, University of Debrecen (May 30 - June 3, 2016, Debrecen).

Education in laboratory diagnostics of thyroid diseases and immune-mediated neurologic disorders was held on September 21, 2016, Budapest organized by the Hungarian Society of Immunology and our Society.

In additions, several one-day training courses were organized by in vitro diagnostic companies in different fields of laboratory medicine, such as cardiac biomarkers.

We have edited a special issue of IME (Journal of Hungarian Interdisciplinary Medicine) about public finances of the laboratory medicine in the Hungarian health care system:
http://www.imeonline.hu/article.php?article=2016._XV./98/a_laborkassza_elemzese_makrotrendek_es_szakmai_programok

Regional relations

Our Society was invited and represented at the National Congress of the Slovakian Society of Clinical Biochemistry in Kosice, May 29-31, 2016. We have prepared a new agreement to strengthen the relationship between our Society and the Slovakian Society. We agreed i) to collaborate more closely with each other, ii) to invite the members to the conferences organized by the other society, and iii) to consult regularly about the current prospects and daily problems in the field of laboratory medicine.

International relations

Prof. Gábor L. Kovács: eJIFCC Chief Editor, IFCC Communications and Publications Division Executive Committee,

Additional information

A special issue of the electric Journal of the International Federation of Clinical Chemistry and Laboratory Medicine (eJIFCC) has also been devoted to the 70-year-anniversary (<http://www.ifcc.org/media/415280/eJIFCC2016Vol27No2.pdf>).

Our Society renewed its official website (www.mldt.hu) via redesigning the outlook of the webpage and expanding all the information, which may be useful for the Members of our Society. The new version of the website was introduced on the opening day of the National Conference in August 2016.



ICELAND

THE ICELANDIC SOCIETY FOR LABORATORY MEDICINE

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Annual meeting of ISCBLM	11.05.2016	Cardiac troponins

Education

A few educational meetings were held.
ISCBLM does not organize specialist training programs.

International relations

The Nordic Society of Clinical Chemistry: Nordic cooperation is a regular aspect of the activities of The Icelandic Society for Clinical Biochemistry and Laboratory Medicine (ISCBLM) that gives an important professional support. Apart from participating in the various activities of The Nordic Society of Clinical Chemistry the Icelandic society has a member of the editorial board for a popular journal called Nordic Clinical Biochemistry (Klinisk Biokemi i Norden). The journal is issued four times a year and the current chief editor is Icelandic. The Nordic Congresses in Clinical Chemistry is held every second year and attracts a large number of participants, from a diversity of laboratory disciplines as well as numerous exhibitors of laboratory equipment. The congress will be arranged in Iceland in 2022.

ISCBLM is a member of The European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) and The International Federation of Clinical Chemistry and Laboratory Medicine.



INDIA

ASSOCIATION OF CLINICAL BIOCHEMISTS OF INDIA (ACBI)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
43 rd . Annual National conference of ACBI, Kasturba Medical College, Mangalore, Karnataka, India.	12 – 15 th . December 2016	



Education

ACBI National Conference – Mangalore

4 workshops were conducted as follows:

- 1st. workshop on “Hemoglobin variants –the fundamentals and challenges was addressed by Dr. Prashantha, Dr.Harsha Prasad L, Dr.Karuna Ramesh kumar, Mrs.Priyanka Upadhyai and Dr Urmila Khadilkar.
- 2nd Workshop was on “Advances in laboratory management and proficiency testing” was addressed by Dr Shrikala Baliga, Dr Jayesh Warade, Dr K Ashok Prabhu, Dr Avinash SS, Mr Sivasankar and Mr. Sten Westgard, Director of Client Services and Technology for Westgard Quality Control, USA.
- 3rd was a CME on” Framing clinically oriented MCQs and designing OSPE stations in Biochemistry–Ahands on approach” addressed by Dr. Minnie Faith, Dr.Pragna Rao, Dr.Ciraj, and Dr. Anand R.
- The 4th was the “The IFCC–TFYS, CME on Career Opportunities for Young Scientists” which was coordinated by Dr. Pradeep K Dabla, Chair, IFCC-TFYS and was also addressed by Dr.Ullas Kamath, Dr. Elizabeth Frank EB APFCB & IFCC , Dr.Anna Velts, Head of Laboratory at West Tallin and Central Hospital,Estonia, Dr. Praveen Sharma Chief Editor IJCB, Dr. Sandeep Sewlikar, Roche Diagnostics. Also a Webinar“IFCC Vision of Research and Career for Young Scientists” was conducted by Dr. Graham Beastall, Past President IFCC. Dr Bernard Gouget (IFCC-EB) and Dr. L M Shrivastava (ACBI-EB) were the chairpersons for the webinar.

Others who delivered lectures during the Annual National Conference were:

1. Mr.StenWestgard, Director of Client Services and Technology for Westgard Quality Control, USA (Assuring Quality from A(lbumin) to V(iral load): How High Quality Assays can drive operational efficiencies and assure good clinical outcomes),
2. Dr. D M Vasudevan (Inborn errors of metabolism; An overview and our experience),
3. Dr. K.S. Gopinath, Padmashree awardee, Surgical Oncologist, HCG Bangalore Institute of Oncology (Perspectives of tumor markers in clinical oncology in the era of personalized medicine),
4. Symposia on Cardiovascular **Diseases**, speakers Dr. Ashok Chandra Rao, Dr. Chandrika Meegamaand and Dr. Narasimha Pai
5. Symposia on **Cancer**, the speakers were Dr. Praveen Kumar Shetty,Dr.Rajamanickam Arivazhagan, Dr.Shyam Prakash and Dr.Satya Vati Rana .
7. Dr.Tony Badrick spoke on “Data mining Sigma metrics” and Dr.Abha Gupta on “Mass spectroscopy’
8. Lab Management were addressed by Dr.Shyamali Pal, and Dr.Shilpa Puthran.
9. A webinar on “High sensitive Trop-I” was addressed by Dr.Jaganathan Sickan and “Next gene sequencing in transforming oncology“ by Dr. Kahlil Lawless.
10. Dr. P. JayadevaBhat ,Professor, Dept. of Biosciences and Bioengineering, IIT, Mumbai on the topic “About Men, Mice and Yeast: Perspective from the Vantage point”

(2) The Department of Biochemistry, Sir Ganga Ram Hospital (SGRH), under the aegis of North Zone and Delhi Chapter of the Association of Clinical Biochemistry of India (ACBI), conducted the 5th annual CME titled “BIOMARKER GUIDED OPTIMIZATION OF PATIENT CARE” on Sunday, the 20th of March, 2016.

JAMMU & KASHMIR BRANCH

A one day National Seminar entitled “CLINBIO CME 2016” was hosted by the Department of Clinical Biochemistry at Sher-E-Kashmir Institute of Medical Sciences on 29th March 2016. The meeting was held under the aegis of Association of Clinical Biochemists of India (ACBI) J&K Branch and ACBI North Zone.

CHANDIGARH BRANCH

The Department of Biochemistry, PGIMER, Chandigarh along with the Chandigarh chapter of Association of Clinical Biochemists of India (ACBI), organized a one day symposium on “Intellectual Property Rights: Patenting in Medical Research” on November 4, 2016.

DELHI STATE BRANCH

(1) A CME on ‘Attaining & Maintaining Accreditation- The Challenges Along the Path’ was organized on 4th Feb 2016 ACBI North zone branch joint association with consortium of accredited health care organization (CAHO) and faculty of Biochemistry Department of Sir Ganga Ram Hospital.

(2) The Department of Biochemistry, Sir Ganga Ram Hospital (SGRH), under the aegis of North Zone and Delhi Chapter of the Association of Clinical Biochemistry of India (ACBI), conducted the 5th annual CME titled “BIOMARKER GUIDED OPTIMIZATION OF PATIENT CARE” on Sunday, the 20th of March, 2016.

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Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
14 th . Asian Pacific Congress of Clinical Biochemistry, Taipei, Taiwan	26– 29 November 2016	The society put up a symposium on “Neurodegenerative Disorders” in which 5 speakers spoke on various aspects. 5 young delegates from India received the Young Scientists Scholarship including the IFCC & APFCB Travel Award. to attend & present their work.

Regional relations

- (1) At the ACBI National Meet in Mangalore, India, delegates from Nepal, Bangladesh, Sri Lanka, Iran and many Middle East countries actively participated in this meet.
- (2) Many members of ACBI are actively participating in the affairs of APFCB. Dr Elizabeth Frank (Bangalore), Dr Praveen Sharma (Jaipur) , Dr MVR Reddy (Sewagram), as chairpersons/ members of various divisions & sub-committees.



International relations

The Association hosted “The IFCC–TFYS, CME on Career Opportunities for Young Scientists”. Dr. Pradeep K Dabla, Chair, IFCC-TFYS, spoke on “Career Opportunities for Young Scientists–which way to go”. The session on “Teaching skills for young scientists” was delivered by Dr. Ullas Kamath, Dean MMMC Manipal. Dr. Elizabeth Frank, EB APFCB & IFCC spoke on “Biotechnology Industry and Career for Young Scientists”. Dr. Anna Velts, Head of Laboratory at West Tallin and Central Hospital, Estonia, dealt with the topic “Laboratory Service Delivery for Young Scientists”. The session on “The Publishers & Medical Writing career for Young Scientists” was conducted by Dr. Praveen Sharma Chief Editor IJCB, EB – APFCB. “Career Avenues in IVD industry: Bright Light Ahead” by Dr. Sandeep Sewlikar Roche Diagnostics. The Webinar on “IFCC Vision of Research and Career for Young Scientists” was addressed by Dr. Graham Beastall, Past President IFCC. Dr. Bernard Gouget (IFCC-EB) and Dr. L M Srivastava were the chairpersons for the webinar.

Additional information

The 44th Annual National Conference of the association will be held in the state of Uttar Pradesh, in Lucknow from 3 – 6th December 2017.

The following were elected as office bearers of ACBI for the year 2017:

President: Dr. Poornima Manjrekar; *Vice President (I) & Organizing Secretary, ACBICON 2017:* Prof. Abbas Ali Mahdi; *Vice President (II):* Dr. Jairam Rawtani; *Advisor:* Prof. K.P. Sinha; *Secretary:* Dr. Rajiv Ranjan Sinha; *Treasurer:* Dr. Krishna Ranjan Prasad; *Joint Secretary:* 1. Dr. Anupama Hegde, 2. Dr. Ram Binay Sinha; *Zonal Council Members:* North Zone: Dr. Dharamveer Yadav; South Zone: Dr. Kanan Vaidyanathan; East Zone: Dr. A. N. Roy; West Zone: Dr. Sadanand Naik; Central Zone: Dr. Shivani Pandey



INDONESIA

INDONESIAN ASSOCIATION FOR CLINICAL CHEMISTRY (HKKI)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
National Congress of Indonesia Association of Clinical Chemistry	April 21-24, 2016	“In vitro diagnostic innovation for the enhancement of clinical laboratory quality”

Education

1. IACC held Quality Control Workshops and Seminar. Cooperates with Abbott Diagnostic IACC held Six Sigma Series with Dr. Sten Westgard from USA cooperated with Abbott Diagnostic. The topic of this Workshop and Seminar is Internal Quality Control Troubleshooting and Interpretation of External Quality Assurance.
2. IACC EB supported Seminar in Semarang Central Java province of Indonesia. Cooperated with Diponegoro University and Indonesian Association of Clinical Pathology Semarang branch, IACC Semarang branch held Seminar and Workshop on Urinalysis.
3. May I Help You Program is the pre analytic survey held by IACC in cooperation with BD. Through this program we share our knowledge to increase the quality of pre analytic phase in Laboratory Medicine in Indonesia. In 2016, there were 24 clinical labs and hospital labs that run this programmes. From 2011, we have made the pre-analytic survey in 70 outlets.
4. APFCB Travelling Lecture. Supported by APFCB, Dr. Graham Jones, PhD from New South Wales University Australia kindly visited Indonesia and spoke about Laboratory Management and Chronic Kidney Disease during 14th National Congress of IACC.

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
14th APFCB Congress	November 26-29, 2016	Speaker on about Pre analytic Improvement – Indonesia experience & the APFCB initiative Symposium



IRAN

BIOCHEMICAL SOCIETY OF ISLAMIC REPUBLIC OF IRAN

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
The 9 th International & 14 th National Congress on Quality Improvement in Clinical Laboratories	19-22 April 2016	
General Assembly	20 April 2016	Board of Directors elected by the General Assembly of IACLD
General Assembly	8 Dec 2016	Megalab Establishment, 2016-2017 Tariffs

Education
<ol style="list-style-type: none"> 1. Comprehensive supervisor training course in clinical laboratory, 24 Dec 2016, Tehran. 2. Clinical Laboratory Supervisors skills training course, 14 Dec 2016, Tehran. 3. Course on the theoretical and practical aspects of sampling in the clinical laboratory, 14 Nov 2016, Tehran. 4. Quality assurance in Clinical Biochemistry, 22 Oct 2016, Tehran. 5. Training Course for reception persons in clinical laboratory, 8 Oct 2016, Tehran. 6. Laboratory Economics One-day Seminar (costs and tariffs), 3 Mar 2016, Tehran 7. Introduction to laboratory quality management systems for lab directors, 7 Jan- 7Jun 2016, Tehran 8. Clinical Laboratory Errors, 7 Jan 2016, Tehran. 9. Workshop on Immunohematology and Blood Bank, 2-3 Feb 2016, Tehran 10. Challenges in the interpretation of clinical laboratory results, 3-5 Mar 2016, Tehran 11. Clinical and laboratory aspects of hirsutism, 4 Feb 2016, Tehran.

Regional relations
Starting the membership to Asian-Pacific Federation for Clinical Biochemistry And Laboratory Medicine (APFCB)

International relations
<p>IACLD is a member of the IFCC and APFCB.</p> <p>Taking part in the IFCC General Conference in Madrid, 2016</p> <p>Taking part in the APFCB General Assembly in Taiwan, 2017</p>



Additional information

- 1- Holding the 9th International & 14th National Congress on Quality Improvement in Clinical Laboratories, 20-23 April 2016, Tehran.
- 2- Executing the External Quality Assurance Program for laboratories across the country
- 3- Publication of a monthly printed Journal in persian called Laboratory & Diagnosis
- 4- Publication of two books related to Clinical Laboratories



IRELAND

ASSOCIATION OF CLINICAL BIOCHEMISTS IN IRELAND (ACBI)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
ACBI 39th annual conference, Dublin	November 2016	Direct Access to Patient Results Lipids 100X genomes project NGS CF Accreditation (ISO15189) Reflex, Reflective Testing and Incidental findings

Education

ACBI members attended national and regional meetings throughout the year

Tutorials were held for candidates preparing for Royal College of Pathologists examinations in Clinical Biochemistry and hosted by trainers from across the profession.

Annual training assessments were held in February 2017

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
ACB Republic of Ireland region annual scientific meeting, Dublin	29 th January 2016	Mary Stapleton (Senior Clinical Biochemist Coombe Women and Infants University Hospital, Dublin) presentation on Gestational Diabetes Derek McKillop (Consultant Clinical Biochemist, Southern Health and Social Care Trust, Craigavon) presentation on H-FABP Meeting report by Micheal Ryan (Senior Clinical Biochemist, St John's Hospital, Limerick) published in ACB news

Association for Clinical Biochemistry and Laboratory Medicine (ACB) Focus meeting	19 th to 21 st April 2016	Mary Stapleton (Coombe, Dublin) presentation on Gestational Diabetes
'Emerging Diagnostics in Modern Care Pathways' Endocrine Hypertension and Prostate Cancer	30 th Sept 2016	Co-organised by Dr Maria Fitzgibbon, Consultant Clinical Biochemist Mater Misericordiae University Hospital, Dublin Paula O'Shea (Consultant Clinical Biochemist, University College Hospital Galway, Galway) presentation on Advances in biochemical diagnosis of pheochromocytoma and primary aldosteronism

Regional relations

The ACBI liaised with other regional societies and were represented in meetings and educational events hosted by other organisations e.g. Royal College of Physicians in Ireland, Academy of Clinical Science and Laboratory Medicine, Irish Endocrine Society, National Cancer Control Programme, Irish national Accreditation Board, and the Irish External Quality Assurance Scheme).

International relations

ACBI members continued to support the activities of the IFCC through participation in various Working Groups e.g. POCT, CKD, Distance Education and e-learning



ITALY

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



National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
48° Congresso Nazionale SIBioC – Medicina di Laboratorio - The Patient's Central Role between Laboratory and Clinical Practice”	Turin, 18-20 October 2016	<ul style="list-style-type: none">• Health Technology Assessment and Laboratory Medicine• Platelets: morphology, technology and clinical• Diagnosis of acute meningoencephalitis• The Future of Laboratory Diagnostics in the NHS• The Diagnosis of Autoimmune Diseases: new biomarkers and diagnostic evaluation and treatment• New methodologies for Arteriosclerosis Study: clinical relevance and harmonization of results• circulating biomarkers: the key role of the Laboratory• diagnostic and therapeutic pathways in dependency management• The Laboratory changing: working proposal of the Piedmont Region• Neurodegenerative diseases• Clinical cases selected by Posters• Clinical Risk and Patient Safety in Laboratory Medicine• From basic research to clinical applications• Updates on Multiple Myeloma

Education

The "School for continuous education in Laboratory Medicine" (SPML, Scuola di formazione permanente in Medicina di Laboratorio) in 2015 organized 13 courses (practical and theoretical) on the following topics:

1. Point of care
2. Haematology
3. Mass spectrometry
4. Molecular biology
5. Thrombosis and haemostasis
6. Systematic Reviews: how to read a meta-analysis
7. Immunometric Technologies

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>
Percorso teorico pratico in biologia molecolare –III livello	Roma, 25-28 gennaio 2016
Percorso teorico pratico in biologia molecolare - III livello (TSLB)	Roma, 25-26 gennaio 2016
La medicina di laboratorio oltre: dal dato analitico all'analisi di processo	Sesto Fiorentino (FI), 11 febbraio 2016
La riorganizzazione della medicina di laboratorio quali esperienze e quali proposte dal sud Italia	Bari, 23 febbraio 2016
La statistica in laboratorio	Milano, 24-26 febbraio 2016
Aggiornamenti in coagulazione	Potenza, 1 aprile 2016
Applicazioni della determinazione delle catene leggere libere monoclonali	Perugia, 8 aprile 2016
Percorso teorico pratico in emostasi e trombosi – III livello	Milano, 9-12 maggio 2016
Le tecniche cromatografiche e la spettrometria di massa nel laboratorio di analisi cliniche – II edizione	Genova, 10 maggio 2016
Updates in autoimmunity 2016	Modena, 12 Maggio 2016
1° Convegno congiunto SIBioC- SIP – Pediatria e medicina di laboratorio dall'interazione all'integrazione	Palermo, 20-21 Maggio 2016
31° Convegno di studio: Il laboratorio clinico nelle indagini tossicologiche	Vicenza, 26 Maggio 2016
Reumatologia e appropriatezza della diagnostica di laboratorio	Roma, 30 Maggio 2016
Il ciclo di Lundberg e i POCT: nuovi modelli di organizzazione e di ri-organizzazione dei laboratori	Alessandria, 9 giugno 2016
Convegno regionale SIBioC Lombardia	Milano, 22 Giugno 2016
48° Congresso Nazionale SIBioC – Medicina di Laboratorio	Torino, 18-20 Ottobre 2016
XX Congresso regionale multidisciplinare di medicina di laboratorio	Chieti, ottobre 2016
Corso pregressuale "Anticoagulanti diretti orali non vitamina K dipendenti (DOAC): quale ruolo per il laboratorio?"	Torino, 18 ottobre 2016
Come si scrive un articolo scientifico (a cura degli editori di Biochimica Clinica)	Torino, 18 Ottobre 2016
Emocitometria a flusso: aspetti organizzativi e tecnici	Milano, 23 novembre 2016

Il ruolo del laboratorio clinico nell'epoca della medicina delle 4P (predittiva – preventiva – personalizzata – partecipata)	Sciacca, 25 novembre 2016
La rete dei laboratori clinici e la governance delle urgenze	Padova, 6 dicembre 2016

Regional relations	
SIBioC has a permanent contact with the Italian Regions by means of a network of 19 Regional delegates. The Regional delegates meet constantly with the Executive Board, at least twice a year.	

International relations	
Several speakers from all over the world attended the meeting in Turin in October, and gave oral presentations and took active parts to Educational Workshops.	

Additional information	
Besides the National Congress, SIBioC organized several regional or inter-regional events in Italy	



ISRAEL
ISRAEL SOCIETY FOR CLINICAL LABORATORY SCIENCE

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
“Enigma and surprises in clinical Microbiology” Dr Yoram Kenes, Orna Schwartz.	25.01.16	This seminar is dedicated to presentations by microbiologists of interesting and puzzling cases including discussion of the different cases. This model is running already for four years with significant success among our members
Annual meeting of the israely society of clinical Laboratories sciences. Dr Raoul Colodner, Dr Marielle Kaplan.	29-30.03.16	<ul style="list-style-type: none"> • Micro RNAs in Clinical Hematology • Dyslipidemias: New horizons for an old disease • An exciting journey to the Nano world: Nano biomedecine • Genetic revolution is already here • Laboratory and clinical use of thromboelastography • Academic panel: The academic future of Laboratory scientists • The Human Microbiome in health and diseases • Reproduction and infertility: Challenges and hopes





Recomendations for the use of enzymatic Creatinine. Dr Tamar Stam, Dr sandra Appleboim.	25.05.16	Methods for creatinine measurement: Challenges and opportunities IFCC Recommendations for creatinine measurement Validation of enzymatic method versus jaffe method. The forum led to recommendations by our society for the use of enzymatic creatinine
Research and Development in Clinical Laboratories during the research week symposium at the meir clinical center. Dr Tali Tohami, Dr Gloria Rashid, Dr Marielle Kaplan.	06.11.16	<ul style="list-style-type: none">• Tumor cells derived exosomes contain hTERT mRNA and transform nonmalignant fibroblasts into telomerase positive cells. Dr Orit Ouziel• Syndromic approach in the Microbiology Laboratory – the BioFire Film Array® system. Dr Yossi Paietan• A proof of concept: MALDI-TOF as a new tool in infection control. Dr Raoul Colodner• Introduction of a new in vitro diagnostic assay for distinguishing between acute bacterial and viral infections. Dr Maanit shapira• Endogenous plasminogen activators mediate progressive intracranial hemorrhage after traumatic brain injury. Prof Abd Al-Roof Higazi
Urine analysis: Recomendations for sandartizations and clinical use. Dr Anat Ben Dor, Dr Marielle Kaplan.	29.11.16	Standartization in urine analysis tests Presentation of the different technologies of digital microscopy in urine analysis Urine analyses tests in the view of nephrologists and urologists
Alkaline phosphatase, the lower the better? Dr Tamar Stam.	19.12.16	Alkaline phosphatase tests in the diagnosis of hypophosphatasia Recommendations for the definition of reference ranges for children by using the Caliper Database.



Education

We have developed an internet course regarding Blood smears interpretation in Hematology. The course is open to our members and represents an important learning tool for clinical laboratory haematologists. Although some courses are available on this subject in the web, we decided to set up a course in Hebrew dedicated to our needs.

We are interested in completing this course into a 40 hours course (part in English would be suitable as well) and we would be happy to collaborate on this issue.

Additional information

We have established beginning this year a forum dedicated to biochemistry issues. The goal is to issue specific recommendations following discussions among biochemists in Israel.

Recommendations were already issued regarding:

1. Troponin: change of units to IFCC standards, and recommendations when using high sensitive Troponin
2. Recommendations for the use of enzymatic creatinine.
3. Alkaline phosphatase reference range for children: use of the Caliper Database

We have just begin a new project regarding the establishment of a committee dealing with overuse of diagnostic tests. The committee includes De Yuval Gefen, Dr Anat Ben Dor, Dr Avi Peretz. The aim is to raise the importance of this issue within laboratory scientists and to organize brain storming sessions to finalize tools to deal with this issue.



JAPAN JAPAN SOCIETY OF CLINICAL CHEMISTRY (JSCC)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
The 56th Annual Meeting of Japan Society of Clinical Chemistry (JSCC)	2016/12/2-12/4	2 Special Lectures: Research for erythrocyte band 3 (Hamasaki N), tRNA modification (Tomizawa K)
		Foreign Invited Lecture: Brainshake's biomarker profiling platform based on NMR (Soininen P)
		Chairman's lecture: What have we done by clinical chemistry? (Ando Y)
		Society Award Lecture: Tm mapping for the detection of septic pathogen (Niimi H)
		5 Educational Lectures: Lipid research by MS, Genetic analysis by NGS, Newborn screening for hereditary metabolic disorders, Leukemia with 11q23 translocation, Gastric cancer and EB virus
		Project Reports from 8 Scientific Committees
		5 Symposia: Creative strength of clinical chemistry, Nerve and clinical chemistry, Clinical testing validation, Young investigators' symposium, Crosstalk between clinical chemistry and pharmacology

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 Kumamoto on Dec 4, 2016

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Hokkaido branch: The 26th branch regular meeting	2016/11/5	Each branch supervises the meeting of each region
Tohoku branch: The 27th branch general meeting	2016/7/9	
Kanto branch: The 33rd branch regular meeting	2016/11/12	
Koushinetsu branch: The 34rd branch general meeting	2016/6/11-12	
Tokai & Hokuriku branch: The 27th branch general meeting	2016/7/30	
Kinki branch: The 69th branch regular meeting	2016/7/9	
Chugoku & Shikoku branch: The 12th joint regional meeting	2016/2/13-14	
Kyushu branch: The 27th branch general meeting	2016/3/19	

Regional relations

Representative to APFCB

Council: Masato Maekawa

Scientific Committee: Kiyoshi Ichihara (Chairs of Committees)

Education Committee: Susumu Osawa (Corresponding Members)

Communications: Hitoshi Chiba (Corresponding Members)

Congress and Conferences: Yuzo Kayamori (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):
Masayuki Totani, corresp. Member
- Molecular Diagnostics (C-MD):
Masato Maekawa, Member



- Reference Systems of Enzymes (C-RSE):
Shigeru Ueda, Member
Shin-ichi Sakasegawa, corresp. Member
 - Traceability in Laboratory Medicine (C-TLM):
Takashi Miida, corresp. Member
 - Standardization of Thyroid Function Tests (C-STFT):
Akira Hishinuma, corresp. Member
- SD Working Groups
- Clinical Quantitative Mass Spectrometry Proteomics (WG-cMSP):
Yukio Ando, Member
 - C-NPU, Working group on the Silver Book revision:
Dongchon Kang, Member
 - Standardization of Albumin Assay in Urine (WG-SAU):
Yoshihisa Itho, corresp. Member
 - Standardization of Hemoglobin A2 (WG-HbA2):
Tadao Hoshino, corresp. Member
 - Standardization of Carbohydrate Deficient Transferrin (WG-CDT):
Fumio Nomura, corresp. Member
 - Standardization of Troponin I (WG-TNI):
Junichi Ishii, corresp. Member
 - Standardization of Insulin Assays, in collaboration with ADA/EASD(WG-SIA):
Syu Meguro, corresp. Member
 - Harmonisation of Autoantibody Tests (WG-HAT):
Naoya Inoue, corresp. Member
 - Parathyroid Hormone (WG-PTH):
Satoshi Hirayama, 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 Education Management Division (EMD) Committees
 - Clinical Molecular Biology Curriculum (C-CMBC):
Atsushi Watanabe, Member
 - 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-leL):
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, corresp. 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:

Katsuyuki Nakajima

Editorial Board of Clini Chimi Acta:

Nobuo Okumura, Masato Maekawa, Takashi Miida,
Minoru Tozuka, Katsuyuki Nakajima, Akihiro Inazu

Additional information

About 1,460 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

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



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 Kumamoto on Dec 4, 2016



KOREA

KOREAN SOCIETY OF CLINICAL CHEMISTRY (KSCC)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Annual Meeting of KSCC (I)	2016. 5. 12.	Symposium 1; Quality Improvements Related to Excellent Laboratory Accreditations
		Symposium 2; Research Highlights
		Symposium 3; Industry Workshop (New tests in the field of Clinical Chemistry)
		Symposium 4; Understanding and Application of Tests of Tumor Markers (II)
Annual Meeting of KSCC (II)	2016. 10.14.	Symposium 1; Laboratory Information System (LIS) Related to Excellent Laboratory Accreditations
		Symposium 2; From A to Z for the Tests of Lipid
		Symposium 3; Industry workshop (New tests in the field of Urinalysis and Urine Sediment Analysis)
		Symposium 4; Current status and Considerations on the Drug of Abuse Tests

Education

1. Procedure manuals of clinical chemistry laboratory
2. Tumor markers
3. LIS
4. The basic requirements of accredited laboratory
5. New tests in clinical chemistry
6. New tests in urinalysis and urine sediment analysis
7. The role of the laboratory medicine in nutritional support; emerging considerations
8. especially in vitamin D

Regional relations

In addition to the annual meeting of KSCC, several times of regional meetings were held. To facilitate the regional communications and to fasten the regional relationship, regular meetings of the following KSCC were held all over Korea.

- KSCC Council meetings: 3 times
- KSCC Standing committee meetings: 2 times
- KSCC Organizing committee meetings: 10 times

International relations

1. KSCC was delegated of logistics of authority from APFCB to facilitate participation in the APFCB 2016
2. KSCC attended 'APFCB 2016' as 6 KSCC members participated as the speakers in the symposia No. 3, 8, 10, and 21 of APFCB 2016 and more than 30 KSCC members attended the APFCB 2016 congress in Taiwan
3. Participation in the IFCC Visiting Lecturer Programs (VLP)
Speaker: Prof. Howard Morris
Title 1> Is vitamin D critical for improved health outcomes? When to assess vitamin D status
Title 2> Healthcare, laboratory medicine, patient care
4. Working APFCB committee members (2016)
 - Prof. Yong Hwa Lee for the education and laboratory management committee
 - Dr. Hwan Sub Lim for the communications committee
5. IFCC Network Laboratory for HbA1c in Korea (2012 - present)
6. Prof. Junghan Song was working as a member of the 'International Scientific Advisory Board of IFCC WorldLab Durban 2017'
7. Prof. Hyung-Doo Park was working as a member of the 'IFCC C-STFT (Standardization of FT4 and Harmonization of TSH Measurement)'
KSCC became to be admitted to be one of the National and Regional Members of JCTLM

Additional information

President: Prof. Jeong-Ho Kim (Yonsei University College of Medicine)
Secretary General: Prof. Sang-Hoon Song (Seoul National University College of Medicine)
Treasurer: Dr. Hwan Sub Lim (Seoul Clinical Laboratories)
International Committee: Dr. Sung Eun Cho (LabGenomics Clinical Laboratories)



LITHUANIA

LITHUANIAN SOCIETY OF LABORATORY MEDICINE

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
8 th Annual Conference of the Lithuanian Society of Laboratory Medicine	08-04-2016	Laboratory Diagnostics – important part of clinical practice



National LLMD Conference	10-03-2016	Microscopy of urinary sediment: automatization perspectives
International Conference	18-03-2016	Microbiota alterations of disease and health
National LLMD Conference	02-06-2016	Nowadays laboratory medicine – preanalytical, safety and technological aspects
International Conference	07-06-2016	Actualities in immunohaematology. The newest automatic immunohaematology platforms
National LLMD Conference	08-06-2016	Sensitivity to antimicrobial agents testing: from patient to antimicrobial resistance follow-up
International Conference	13-10-2016	What clinicians should know, and what laboratories should perform (dedicated to World Thrombosis Day)

Education

1. Training course “Understanding and practical application of international standard EN ISO 15189:2012 Medical laboratories - Requirements for quality and competence (ISO 15189:2012, Corrected version 2014-08-15)”; April 14, 2016 Vilnius, Lithuania (35 participants)
2. Training course “Management of documents and records using international standards EN ISO 15189:2012 and EN 15224:2012”, April 28, 2016 Vilnius, Lithuania (32 participants)
3. Training course “Internal Audits and management of nonconformities according to the requirements of EN ISO 15189 and EN ISO 19011”; October 7-8, 2016 Klaipeda, Lithuania (28 participants)

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
13th Baltic Congress of Laboratory Medicine	May 12-14, 2016	Co-organizer of the Congress

Regional relations

Lithuanian Society of Laboratory Medicine (LLMD) is member of Baltic Association of Laboratory Medicine (BALM). Other 2 members of BALM are: Latvian Society of Laboratory Specialists and Estonian Society of Laboratory Medicine. The main task of the Association – organization of Baltic Congresses of Laboratory Medicine held every second year in one of the Baltic Countries.

International relations

LLMD is the member of IFCC, EFLM and Clinical and Laboratory Standards Institute (CLSI); partner of The Global World Thrombosis Day Movement.



MACEDONIA

MACEDONIAN SOCIETY OF MEDICAL BIOCHEMISTRY AND LABORATORY MEDICINE (MSMBLM)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
New technology for separation of plasma sample for analysis aiming to improve the quality of the sample, to increase the efficiency and to reduce the total around time (TAT) in laboratory	13.05.2016	<ul style="list-style-type: none">• The latest technologies for separating the plasma sample-BD Barricor and BD Eclipse signal
Challenges in biochemical and molecular diagnosis in rare diseases	16.09.2016	<ul style="list-style-type: none">• Biochemical screening for molecular genetic diseases in newborns• Genetic screening methods• Introduction to genetic testing for the Pompe disease, LSD, Alström syndrome , autism



MALAYSIA

MALAYSIAN ASSOCIATION OF CLINICAL BIOCHEMISTS (MACB)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
26 th MACB conference and AGM	17 th - 19 th July	<p>Theme "Advancing Laboratory Medicine for a Healthy Nation"</p> <ul style="list-style-type: none">• current topics in the areas of diabetes management, point of care testing, quality, new technologies and impact of race and ethnicity on laboratory tests.• 5 plenary lectures,• 1 symposium• 5 educational workshops.• poster and oral presentations.• Trade exhibition



National Occupational Skills Standard(NOSS)in Clinical Biochemistry Level 5	5 th – 9 th September 19 th – 23 rd October 8 th – 12 th November	Develop a curriculum in skills training for Clinical Biochemists
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Education
<p><u>Workshops</u></p> <ul style="list-style-type: none"> • Risk Management: 22 – 23 February 2016 • Safety and Health in Medical Laboratories: 30 – 31 May 2016 • APFCB-MACB Course: 19-21 September 2016 <p><u>Seminars</u></p> <ul style="list-style-type: none"> • CAP Accreditation and Best Practices in Laboratory Quality Improvement: 10 December 2015. • Impact of Point of Care Testing (POCT) on Patient Flow: 3 March 2016 • Managing Quality in the Medical Laboratory – Quality Strategic Planning and Digital Management of QC: 21 April 2016 • Understanding the Science behind Tumour Marker Assay Design and How This Impacts Patient Sample Handling and Results: 22 April 2016 • Risk Management and IQCP for POCT Management in BGA: 19th May 2016 • Serum Versus Plasma: 4 October 2016 • Diabetes CPG Updates: 26 September 2016

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
APFCB Congress and APFCB General Meeting	26 -29 Nov 2016	Attended the council meeting on 26 November 2016 in Taipei as a council member Bid for the 16 th APFCB Congress 2021
APFCB Scientific Committee (C-Csi)	28 November 2016	Attended the meeting as a committee member to discuss the current and future projects: <ul style="list-style-type: none"> • Asian Global Study on Reference Values • Bulding Clinical Case Bank for EBLM
APFCB Task Force on CKD	29 November 2016	Attended meeting to discuss the planning to establish a task force

Regional relations
<p>Affiliate member of the APFCB</p> <p>Active participation in the following committees</p> <ul style="list-style-type: none"> • APFCB Scientific Committee - member • APFCB Education Committee -member • APFCB Congresses and Conferences Committee - member <p>Organised the APFCB-MACB Course in Kuala Lumpur</p> <p>Participate in the Asian Global Study on Reference Values</p>

International relations

Affiliate member of the IFCC

Participated in joint meetings with IFCC Committee on Reference Interval and Decision Limits



MEXICO

MEXICAN ASSOCIATION OF CLINICAL LABORATORY SCIENCES

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
1st Pont of Care Testing (POCT)	April 12, 2016	POCT and its Importance and diagnosis application and accreditation
2nd. Meeting of Molecular Biology in Clinical Diagnosis	October 21-22, 2016	Molecular diagnosis in the Laboratory

Education

Diplomate

Clinical Bacteriology (Series of Advanced Courses, a 160 total accent hours)

Courses:

Specialized Courses on Quality Control (from IQ, PT and Statistical tools)

Real Time PCR and its application in Clinical Diagnosis. Theory and Practice

Quality control for the best analytical performance for industry and laboratory professionals

Coagulation, Hematology and Serology testing.

Parasitology testing.

Quality management system for blood banks laboratories.

Workshops:

Physiology of the hemostasis

Hemophilia and Von Willebrand diseases in the Laboratory.

Lupus anticoagulant, antiphospholipid syndrome and related disorders

Plasma coagulation disorders

Challenges in the hemostasis laboratory. Resolving clinical cases.

Laboratory study of fibrinolysis and thrombophilia.

Quality control in the coagulation laboratory

Conferences:

Post analytical phase of accreditation

Pediatric laboratory medicine

Blood bank policies and regulations based on national standards.

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
11o Regional Meeting of Quality Control and Advances in Nutrigenetic, Nutrigenomics and Immunology. UNSL MX	March 25-27, 2016	Auspices provided to improve awareness on nutrigenetics, nutrigenomics and immunology.



Regional Workshop on laboratory accreditation and trazability organized by the Chilean Society of Clinical Chemistry SChQC, Santiago de CH	October 14-15, 2016	Assesors on laboratory accreditation involved in the discussion and presentation of ISO 15189 requirements
CALILAB Cogress, Buenos Aires AR	November 30 – December 2 nd , 2016	Lecturers on Global Cr Standardization, POCT update, and PT programs in Mexico

Regional relations

NORTH AMERCA:

Chair, Latin American Working Group, GlobalLaboratory 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 projects: Pre-Analytical, Creatinine Standardization and Neonatal Screening e-course.

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 awarness.

Blood bank WG and National panel of technical Experts in Clinical Labororyof the Mexican Accreditation Entity

ISOCT 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 of the “Universidad Veracruzana” and Members Chapter from Guerrerostate

Universities Faculty of Chemistries advisory activities for postgraduate studies



NETHERLANDS

NEDERLANDSE VERENIGING VOOR KLINISCHE CHEMIE
EN LABORATORIUMGENEESKUNDE (NVKC)

National meetings		
Name of the meeting	Date	Topic
Annual Conference	13-15 April 2016	Research Projects in the Netherlands: <ul style="list-style-type: none"> - Anti-Platelet therapy - DNA passport - Cardiac Troponine Disruptive Medicine: <ul style="list-style-type: none"> - Reading cancer from platelets - Biomarkers in personalised healthcare

Education
National continuous education courses: Pediatric heamatology, 14 January 2016 Metabolic diseases, 3 March 2016 Reflex testing, 8 April 2016 Fertility, 4 October 2016 Co-operation between Laboratory and Pharmacy, 7 December 2016 International course: EFLM course on test evaluation, 9-11 November 2016



PARAGUAY

ASOCIACIÓN DE BIOQUÍMICOS DEL PARAGUAY (ABP)

National meetings		
Name of the meeting	Date	Topic
“Virtual Workshop USACH-PTB 2016 on critical points of ISO 15189” in Santiago de Chile.	14 October, 2016	Pre-examination processes. Selection, verification and validation. Uncertainty and traceability. Biological reference intervals. QA. Reference material. Inter-laboratory comparison. Post-examination processes



<p>Biochemical Update Working Days. Filial CDE-ABP. Ciudad del Este.</p>	<p>4 & 5 November, 2016</p>	<p>Diagnostic algorithm in HIV, HIV legal implication informed consent. Pre analytical phase in the study of Blood and Electrolyte gases. Analytical management in the lab. Clinical Internal and External Control. Advantage of automated systems in Microbiology ATB's Clinical impact . Role of Microbiology in prevention of infections. Paracoccidioidomycosis & Laboratorial diagnosis of micosis.</p>
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<p>Education</p>
<p>The “Continuing Education Program” and Educational activities were focus in Quality Management, and Legal & Civil Responsibility in the Exercise of the Biochemical Profession under the support of two Attorneys advisors. We focus also in current topics of Microbiology, Haematology and Genetics.</p> <p>The following educational activities were undertaken:</p> <ol style="list-style-type: none"> 1. February 23, 2016. Dengue, Chikungunya, Zika-relevant data in the laboratory. Epidemiology: Diseases of Mandatory Notification, Protocols. 2. March 16, 2016 in Asuncion, March 17 in Encarnacion and March 18 in Ciudad del Este. Use report and interpretation of results. 3. April 4 and 5, 2016. Internal, external control, 3rd. Opinion. Dr. Migliarino (ARG). 4. April 11, 2016. Penal Responsibility in the exercise of the Biochemical Profession. 5. April 18, 19 and 20, 2016. RIQAS- Quality Control. Training for continuous improvement. H. Domicich 6. May 17, 2016. HIV. Legal Implication. Informed consent. Protocols to follow 7. June 6, 2016. Civil Responsibility in the exercise of the Biochemical Profession. 8. June 29, 2016. Respiratoru virus, Current Diagnostic Methods. 9. August 26, 2016. Anemia normocytic/Hemolytic, Myeloid chronic Leukemia. 10. October 31, 2016. Progress in genetic and specialized studies. <p>National Speakers: Cynthia Vazquez, Mario Martinez, Victor Llano, Joel Melgarejo, Gladys Lopez, Loida Duarte, Natalia Duarte, Natasha Díaz Meyer, Pablo Pratts, Fermin Sosa, Idalina Dalles, Zulma Gonzalez, Patricia Araujo, Jose Pereira.</p> <p>International Speakers: Rolando Soloaga (ARG), Gabriel Migliarino (ARG), H. Domicihc.(ARG).</p> <p>I was possible by international speakers from the Industry, Centres and Universities in countries with which the ABP maintains close relations of cooperation and national speakers from Faculties, Central LCSP, IPS and the PronaSIDA.</p>

<p>Regional meetings</p>		
<p><i>Name of the meeting</i></p>	<p><i>Date</i></p>	<p><i>Society's contribution for the meeting</i></p>
<p>Latin American and Argentine Congress of Microbiology 2016</p>	<p>September 26-30, 2016</p>	<p>One Mentor at Educational Workshop</p>

X Argentine Congress of Quality in the Clinical Laboratory (CALILAB)	November 30 and December 1-2, 2016	Many members of the ABP Director Board assisted to COLABIOCL and RIA Meeting.
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Regional relations

We are supporting the next Latin American Congress that will be in Uruguay. We are doing dissemination of this information and we have one representation for this congress.

We appreciate the support of foundations, scientific societies and companies related to our profession for the implementation of activities, like the virtual Workshop from PTB, USACH, REUNA, INN, SCHQC, IFCC & COLABIOCLI. The participation at the virtual Workshop was possible with the fund from the CONACYT, ONA and ABP with the National Moderators: María Yrene Caballero, Director of Laboratory Accreditation -ONA and Juana Ortellado -Canese, Director Relations Department Representative to IFCC and COLABIOCLI -ABP. Both moderators are the national representative for PTB.

International relations

*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, Member first and second term
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. Glucose Meters How Should be Evaluated in Critical Care (WG GMECC) and Task Force on Point of Care Testing (POCT-TF). - E. Guillen Barua, Member first term and second.
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

There was a ceremony in May for the National Day of the Chemist and in December, 2016 the National Congress for Biochemistry was launched with a celebration at the Excelsior Hotel. The Chemistry of Science National Congress will be held in Asuncion from 4 -7 October 2017.





POLAND

POLISH SOCIETY FOR LABORATORY DIAGNOSTICS (PTDL)



National meetings		
Name of the meeting	Date	Topic
Białystok	13 th May 2016	Lyme disease, IBD diagnostics, POCT
Bydgoszcz	9 th -10 th June 2016	50th Anniversary of the division
Gdańsk	14 th -15 th April 2016	Pomeranian-Masovian meetings with diagnostics.
Katowice	7 th -8 th October 2016	Developments in laboratory diagnostics
Kielce	23 rd April 2016	Swietokrzyskie meetings with diagnostics
Kraków	13 th -14 th May 2016	Infectious diseases, new technologies
Lubuskie	7 th -8 th April 2016	5th Lubuska diagnostic conference
Opole	17 th -18 th June 2016	8 th conference – Known laboratory markers in the new view
Poznań	27 th -28 th October 2016	Motor organs problems – laboratory aspects
Rzeszów	6 th -7 th October 2016	Quality control - workshop
Szczecin	2 nd -3 rd June 2016	Infection – only microbiological diagnostics?

Regional meetings		
Name of the meeting	Date	Society's contribution for the meeting
4 th Joint EFLM-UEMS Congress	21-24 September 2016	Host Society- organization of the Congress- G.Sypniewska, chair of the Organizing Committee, contribution to the Scientific Committee- B.Solnica-member of the Scientific Committee

International relations
G.Sypniewska – member of COC for Euromedlab Athens 2017



National meetings		
Name of the meeting	Date	Topic
1st RALM Conference with international participation	May 18-21 2016 Cluj Napoca	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, AMLR has preferential conference fees for residents and is also offering conference sponsorship for few residents every year.

The Romanian Association of Laboratory Medicine benefited from the C-CMBC, 6 Days Beginners' Course in Molecular Diagnostics organized by the IFCC Education & Management Division, Committee on Clinical Molecular Biology Curriculum (C-CMBC). The course was held between 05.12-10.12 2016 at the University of Medicine and Pharmacy Tirgu Mures. The University was an excellent partner for the National Society, by providing an excellent location for the course, and by generously supporting the accomodation of the training team. The course was attended by 17 participants from all over the country, and represented a great opportunity of training in molecular biology for our young colleagues.

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 (Dr. Janet Smith, Prof. Eva Ajzner, Prof. Tomas Zima) as well as other invited speakers from abroad - Prof. Laszlo Muszbek (University of Debrecen, Hungary), Prof. William Au (Shantou University Medical College, China) attended our conference and gave lectures and workshops which were appreciated by the participants.

Additional information

- 1st RALM Conference abstracts were published in a supplement of the Romanian Journal of Laboratory Medicine (RJLabM).





RUSSIA

RUSSIAN SCIENTIFICALLY-PRACTICAL SOCIETY OF SPECIALISTS IN LABORATORY MEDICINE (RSPSSLM)



National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Second Gathering of Specialists of Laboratory Service, Kaliningrad	June 28 – July 2	The scientific program of the first day of the Meeting experts considered problematic issues of laboratory services in the regions, special attention was paid to the centralization of laboratory research and laboratory providing medical care in remote areas. In particular, it was presented the experience of Moscow, Yaroslavl Region, the Omsk region, the Rostov region, Krasnodar region, the Murmansk region, Yamalo-Nenets Autonomous District, Khanty-Mansiysk.
Second Russian Congress of Laboratory Medicine, Moscow	October 12 - 14	The organization, economics and legal aspects of laboratory services. Fundamental questions of Clinical and Laboratory Medicine. Etiology, early diagnosis and laboratory monitoring of infectious diseases. The latest and advanced technologies in the field of laboratory diagnostics. Round tables with the participation of public health leaders and representatives of the firms on the centralization of laboratory testing and procurement of equipment and reagents
All-Russian scientific-practical conference “Laboratory diagnosis - clinical medicine: traditions and innovations”, dedicated to the 115th anniversary of academician G.E. Vladimirov	December 6 - 7	Clinical laboratory diagnostics. Innovations, modern trends. The development of information technology in clinical laboratory diagnostics. Biochemistry of extreme conditions and adaptation. Medical-genetic and pharmacogenetic research methods. Promising high-tech laboratory methods. Promising areas of biomedical research. Program, standards, modern technology advanced training of specialists in the field of laboratory medicine.

Second Gathering of Specialists of Laboratory Service, Kaliningrad	June 28 – July 2	The scientific program of the first day of the Meeting experts considered problematic issues of laboratory services in the regions, special attention was paid to the centralization of laboratory research and laboratory providing medical care in remote areas. In particular, it was presented the experience of Moscow, Yaroslavl Region, the Omsk region, the Rostov region, Krasnodar region, the Murmansk region, Yamalo-Nenets Autonomous District, Khanty-Mansiysk.
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Education

The Second Russian Congress of Laboratory Medicine was included in programme of Continuing Medical Education and provided of educational credits in the field: “Clinical Laboratory” and “Bacteriology”. Congress participants were awarded 18 credits on one of these areas.

Additionally almost all regional meetings was included in programme of Continuing Medical Education and provided of educational credits in the field: “Clinical Laboratory” and “Bacteriology”.

A.M. Ivanov is Member of Flow Cytometry Working Group (WG-FC) that will promote and encourage applications of flow cytometry in diagnostics and clinical research through publication of educational material and the organisation of courses and symposia.

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society’s contribution for the meeting</i>
36 th Head Specialist’s School on Clinical Laboratory Diagnostic, Voronezh	February 26	Full organization of the meeting
37 th Head Specialist’s School on Clinical Laboratory Diagnostic, Tver	March 4	Full organization of the meeting
38 th Head Specialist’s School on Clinical Laboratory Diagnostic, Perm	March 18	Full organization of the meeting
39 th Head Specialist’s School on Clinical Laboratory Diagnostic, Arkhangelsk	March 31	Full organization of the meeting
40 th Head Specialist’s School on Clinical Laboratory Diagnostic, Omsk	April 15	Full organization of the meeting



41 st Head Specialist's School on Clinical Laboratory Diagnostic, Chita	April 28	Full organization of the meeting
42 nd Head Specialist's School on Clinical Laboratory Diagnostic, Orenburg	June 24	Full organization of the meeting
43 rd Head Specialist's School on Clinical Laboratory Diagnostic, Kemerovo	September 16	Full organization of the meeting
44 th Head Specialist's School on Clinical Laboratory Diagnostic, Ufa	October 7	Full organization of the meeting
45 th Head Specialist's School on Clinical Laboratory Diagnostic, Murmansk	November 3	Full organization of the meeting
46 th Head Specialist's School on Clinical Laboratory Diagnostic, Tyumen	November 25	Full organization of the meeting
47 th Head Specialist's School on Clinical Laboratory Diagnostic, Stavropol	December 2	Full organization of the meeting
48 th Head Specialist's School on Clinical Laboratory Diagnostic, Ryazan	December 16	Full organization of the meeting

Regional relations

Association of laboratory specialists and organizations "Federation of laboratory medicine" (FLM) created the 9 regional offices in the Russian regions, including St. Petersburg and the Leningrad region, Krasnoyarsk, Perm Region, the Chechen Republic, the Irkutsk region, Yaroslavl region, the Trans-Baikal Territory, North Ossetia, the Khanty-Mansi Autonomous Area in 2016 year.

International relations

Speakers from Belarus, Ukraine, Armenia, Italy, and Germany made presentations at the Second Congress of Laboratory Medicine.

Russia was visited by the President of IFCC Maurizio Ferrari. Prof. Ferrari visited Saint-Petersburg and Moscow with his presentation for Russian specialists of laboratory medicine. In December 2016 Association of laboratory specialists and organizations "Federation of laboratory medicine" (FLM) applied for membership of International federation of biomedical laboratory science, Medical Laboratory Technologists, Medical Laboratory scientists, medical laboratory (IFBLS).

FLM planned educational section "Laboratory Service in Reforming Stage" in frame of the 22nd IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine "EuroMedLab Athens 2017".

Additional information

In 2016 all committees of the Association of laboratory specialists and organizations “Federation of laboratory medicine” (Occupational Safety and Health Committee, Immunohematology Committee, Professional Development Committee, Pre-Analytical Phase Committee, Analytical and Forensic Toxicology Committee, Standardization and Quality Assurance of Clinical Laboratory Tests Committee, Chromatographic Methods Committee, Personnel Committee, Clinical Cytology Committee, Hemostaseology Committee, Committee of Contracting Activity in the Field of Laboratory Services, Microbiology Committee, Immunology and Allergology Committee, Committee on Development and Implementation of Innovative and High Microbiological Practice, Public-Private Partnership Committee, Committee of the Medical Industry and the Manufacture Localization, Committee on Cellular Technologies, Committee on Molecular Biological and Genetic Research, Committee of Standardization of Laboratory Tests for Autoimmune Diseases) have made annual reports on their areas of laboratory medicine.



SAUDI ARABIA SAUDI ASSOCIATION FOR CLINICAL CHEMISTRY

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
2nd Annual conference for the society	21-23 November 2016, Riyadh, Saudi Arabia,	Lectures and workshops (attached)

Education

The organizing committee of the SSCC had different meetings during 2016:

1. Saudi Conference for Clinical Laboratory Sciences, Riyadh, 20-21 April
2. AACC, Philadelphia Aug 31 – 3 September
3. Saudi Lab Expo Riyadh, 21-23 November

Regional relations

The local “preanalytical working group” with partnership of BD company was met regularly which include 15 members from different regions of Saudi Arabia. One of the outcome of these meeting is the draft for the preanalytical guide for local hospitals which will be approved and released in mid of 2017

Additional information

The society participated in the 2nd Saudi Lab Expo 21-23 November 2016, Riyadh, Saudi Arabia with booth and stand.



SERBIA

SOCIETY OF MEDICAL BIOCHEMISTS OF SERBIA (DMBS)



National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
XX Congres of medical biochemistry and laboratory medicine with international participations	May 25-27, 2016, Belgrade	New biomarkers in laboratory medicine; Contemporary methodological approaches in laboratory medicine; Oxidative stress and disease of modern man; Molecular biomarkers of diagnosis and monitoring therapeutic response in immune diseases (www.dmbj.org.rs)
12th EFLM Symposium for Balkan Region	May 25-26, 2016, Belgrade	Symposium is organised together with EFLM under IFCC Auspices under the title: Harmonization of total process: Influence of the extra-laboratory phase (www.dmbj.org.rs)

Education
<p>Society of Medical Biochemists of Serbia in 2016 organized four CME educational seminars for the members on the following topics:</p> <ol style="list-style-type: none"> 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

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
24 rd Meeting of Balkan Clinical Laboratory Federation	Tirana, October 7-9, 2016	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 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 (SZKK)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Ljubljana, 10 th March 2016	Laboratory hematology
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Maribor, 2 nd June 2016	The influence of drugs and interventions on laboratory tests
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Maribor, 5 th November 2016	Basics of biostatistics in laboratory biomedicine
Symposium Slovenian Association for Clinical Chemistry and Laboratory Medicine	Ljubljana, 8 th December 2016	Lymphoma
5 th Slovenian Congress of Clinical Chemistry and Laboratory Medicine with International Participation.	September 30 - October 1, 2016	Personalized laboratory medicine, Laboratory diagnostics of autoimmune rheumatic diseases, and Laboratory diagnostics of cardiovascular diseases.
8th Scientific Symposium dedicated to Prof. Niko Jesenovec.	September 30 - October 1, 2016	Implementation of new paradigms and technologies of laboratory medicine in the healthcare environment of the 21 st century

5 th Slovenian Congress of the Laboratory Medicine Technicians	September 30 - October 1, 2016	Microscopic examinations in laboratory medicine Examples of good laboratory practices
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Education		
1. May 2016; Continuous Education Courses for the Medical Laboratory Technicians with four (4) different topics. <ul style="list-style-type: none"> • Biological materials for laboratory examination • The effectiveness of erythropoiesis • Determining reference intervals • Lymphoma 		
2. 18 th November 2016; Workshop: Peripheral Blood: Differential Leukocyte count/ Peripheral Differential White Blood Cell Morphology; For Specialist in Laboratory Medicine		



SLOVAK REPUBLIC
SLOVAK SOCIETY OF CLINICAL BIOCHEMISTRY (SSKB)

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
XII th Congress SSKB	29-31.5.2016	Biochemical assays in hepatology, hematology and urology General topics

Education
2 issues of "Laboratórna diagnostika" (Vol XXI)
Blažíček P: Vyšetrenie moču (Urine analysis) Study material for postgradual education. Published in "Laboratórna medicína pre ambulantnú prax Nakladateľstvo Dr. Josef Raabe Slovensko, s.r.o., Bratislava, ZD 06/2016, F1.1.; 30 pp
Balla J: POCT – Laboratórna diagnostika na mieste zdravotnej starostlivosti (POCT). Published in „Laboratórna medicína pre ambulantnú prax“. Nakladateľstvo Dr. Josef Raabe Slovensko, s.r.o., Bratislava, ZD 06/2016, F1.1, pp45 pp

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Symposium of Laboratory Medicine	29-30.11.2016, Trenčín	Organized by Roche under the auspices of SSKB
Athero-prevent	5.12.2016, Košice	Organized by the Atherosclerosis Section of SSKB



New aspects of urinary sediment assay	19.9.2016, Košice	Regional workshop organized by Gtrade and SSKB
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International relations

Agreement of cooperation with then Hungarian Society of Laboratory Diagnostics (MLDT)
 Prof. Rácz, President, member of editorial board of eJIFCC
 Prof. Rácz, President, attendance at the General Conference, Madrid



SPAIN

SOCIEDAD ESPAÑOLA DE BIOQUÍMICA CLÍNICA Y
 PATOLOGÍA MOLECULAR (SEQC^{ML})

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Web Seminar	March 30 th	Rapid identification (1h) of acute coronary syndromes with high sensitivity Troponin T: The TRAPID-AMI study and its substudies
Course, Madrid	April 7 th	Innovation in the Pre-analytic Phase and accreditation experiences
Course, Madrid	April 19 th	Circulating DNA technology and its application in clinical practice
Web Seminar	May 5 th	Mass Sequencing (NGS) in the clinical setting
XIV Meeting of Scientific Committees, Madrid	May 12-13 th	<ul style="list-style-type: none"> - Advances in the diagnosis and monitoring of thyroid dysfunction - POINT-OF-CARE Testing Network Experience - Advances in Monoclonal Gammopathies - Oligozoospermia, Azoospermia and Anejaculation - Genetic tests in assisted reproduction
Course, Barcelona	June 13 th	Circulating DNA: Present and future as a genomic marker
Course, Barcelona	June 16 th	Emergency laboratory update



Web Seminar	June 30 th	Heart failure organizational models: Assist devices, clinical pathways and health care continuity
X National Congress of Clinical Laboratory	October 19-21 th	
Web Seminar	December 1 th	National consensus for the rational use of natriuretic peptides

Education

Annual Educational Programme 2015-2016:

XIX General Educational Programme 2015-2016 723 participants

I Clinical Cases General Educational Programme 2015-2016 440 participants

II Clinical Cases in Haematology Programme 2015-2016 274 participants

III Genetics Educational Programme 2015-2016 375 participants

Relevance of Trace Elements in human health 2015-2016 223 participants

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
EQALM Symposium 2016: The Road to Perfect EQA	October 13-14 th	SEQC ^{ML} together with the Spanish Society of Hematology and Hemotherapy (SEHH) have participated in the organization of this Symposium 2016 that annually holds the European Organization for External Quality Assurance Providers in Laboratory Medicine (EQALM).

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 Ibero-American Working Group WG IAN through "Radio Microscopio"

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.

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

Avedis Donabedian SEQC Award. This award recognizes the Best Spanish Scientific Society of Quality Excellence 2016



SOUTH AFRICA

SOUTH AFRICAN ASSOCIATION OF CLINICAL
BIOCHEMISTRY (SAACB)

Regional relations

SAACB is a member of the African Federation of Clinical Chemistry and a daughter society of the Federation of South African Societies of Pathology (FSASP).

International relations

SAACB is a member of the IFCC

Additional information

At the end of 2016, elections were held for the position of President and Treasurer. With effect from 2017, Prof Tahir Pillay was elected President and Dr Fierdoz Omar was elected as Treasurer. The last educational meeting was held by the SAACB in 2014. Annual activities are usually held in conjunction with the FSASP but since there were no annual meetings held in 2015 and 2016, there were no SAACB activities or meetings arranged.



National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Molecular Diagnostics	March 3–4, 2016	CRISP/CAS System in Gene Therapy, Personalized Medicine for Cystic Fibrosis, Differential Diagnosis of Epilepsies, Genetics in Coagulation Disorders, PCSK7 as a Host Risk Factor of Liver Cirrhosis in Hereditary Haemochromatosis, Update on the Management and Treatment of Hepatitis C Virus Infection, Human and Viral Genetic Factors Influencing HIV Infection and Therapy, Revision of the Law on Human Genetic Testing, Swiss Guidelines for Next Generation Sequencing (NGS), Personalized Genomics in Molecular Diagnostics, Nanopore Sequencing, Transgenerational Epigenetic Inheritance.
Swiss MedLab 2016	June 14–16, 2016	Gesundheitspolitische Tagung der SULM: Nutzen der Labormedizin, Labordiagnostik – wichtige regulatorische Aspekte, Big Data im Gesundheitswesen: Hoffnung und Herausforderung, Der informierte Patient, Hormon-Biomarker zur Outcome Verbesserung, Nutzen von Biobanken für die moderne Labordiagnostik, Anwendung von POCT in der Mikrobiologie, Laboratory Medicine and Endocrine Systems, Symbionts, Epigenetics, Vermessung des Ich und die Rolle der Labordiagnostik in der Zukunft, The Impact of Diagnostic Tests in Sepsis, Update externe Qualitätskontrolle, Update Rechtsmedizin, Labormedizin in der Pflege, Update IHE Schweiz/Suisse, Braucht es einen POCT-Koordinator im Spital?, Big Data in Genomik und Krebsbehandlung, Labormedizin und Hämostase, Curriculum BMA & FAMH – Wohin geht die Reise?, Hometesting / Patienten-Selbstmanagement, Patientensicherheit und POCT, Companion Diagnostics, Immunhämatologie, Humangenetik, Morphologie-Workshop: Lymphozytenmorphologie, Labormedizin und Kardiologie, Flowzytometrie, Laboratory Medicine and Malignant Hematology, Microbe-host Interaction, Microbe Evolution, Host Responses to Microbes, Clinical Virology, Systems Microbiology, Antibiotics and antibiotic resistance, Education and Outreach on Microbiology

Education

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

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).



SRI LANKA

ASSOCIATION FOR CLINICAL BIOCHEMISTRY, SRI LANKA

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
ACBSL committee meeting	20/04/2016	Committee meeting to discuss the progress and future activities of the association.

Education

1. Lectures were conducted by ACBSL members Dr I D Siriwardhene and Prof S Wijeratne for the Training on Medical Laboratory Accreditation based on ISO 15189:2012 conducted by Sri Lanka Accreditation Board during 26th-27th January, 2017.
2. Special lectures have been conducted by Dr BKPT Dayanath and Dr Manjula on pre analytical errors for Medical Laboratory Technologists in CKD affected areas.
3. Special lecture series has been conducted by Dr BKPT Dayanath and Dr Manjula for recently commenced Degree programme in Medical Laboratory Science in Jaffna University.
4. Mr H Weerawarna is continuing as a visiting academic in this year, too for the course unit in Laboratory Technics for Open University Degree programme in Medical Laboratory Science.
5. Mr Sarath Kamburapolage is continuing as a visiting academics to University of Jayawardenepura, Kotalawala Defence Academy and Open University of Sri Lanka. He has prepared lesson materials on Immuno histochemistry for the Open University.
6. Dr Deepani Siriwardene and Prof Sumedha Wijeratne contributed as resource person for the Training on Accreditation of Medical Laboratories based on ISO 15189:2012 conducted by Sri Lanka Accreditation Board.

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine Congress, Taiwan	Nov 2016	Dr B K P T Dayanath represented the meeting and presented two posters as a co author.



International relations
Mr Lakminda Thilakarathne has participated in IFCC General Conference in Spain as the representative of ACBSL

Additional information
Mr Lakminda Thilakarathna has been working as a corresponding member and Providing analysed TSH and FT4 data to the standardization of thyroid function tests (C-STFT) program which is working under the scientific division of IFCC. Some of our members are functioning as Assessors for Sri Lanka Accreditation Board in ISO 15189 medical laboratory accreditation. Mr H Weerawarna continues as the coordinator of Asqualab, France External Quality Control Programme for 130 private and state sector laboratories in Sri Lanka.



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

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
2016 The 31st Joint Annual Conference of Biomedical Science	26-27 March 2016, Taipei, Taiwan	The Utility of Big Data in Laboratory Medicine

Education
<p>2016 The 31st Joint Annual Conference of Biomedical Science Keynote: Big Data meets biomedicine:opportunities and challenges by Dr. Jen-Hsiang Chuang, Deputy Director-General, Center for Disease Control, Taiwan Symposium: The Utility of Big Data in Laboratory Medicine</p> <ol style="list-style-type: none"> 1. Metabolomics-based approaches in diabetes and diabetic complications by Ming-Shi Shiao 2. Data mining as a tool of research for acute myeloid leukemia by Wen-Chien Chou 3. A novel business intelligence model for monitoring nosocomial infection by Chuan-Po Lee <p>With 100 members attend the annual meeting.</p> <p>On 13 Aug 2016 CACB had a Workshop of R-statistic language in data management and application in laboratory medicine</p> <ol style="list-style-type: none"> 1. R-language, variable and Data Types 2. Matrices, Dataframes and Lists 3. How to transfer excel file into R-statistic for calculation and plotting <p>With 20 members attended workshop.</p>

Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
14 th APFCB Congress 2016	26-29 November 2016, TAIPEI, Taiwan.	CACB hosted the congress

International relations

CACB hosted 14th APFCB Congress



14th APFCB Congress, Taipei, Taiwan, 26-29 November 2016

by Woei-horng Fang,
Congress Organization Committee Chair

Attendees: Congress Participants: 768 from 52 countries.

- a. Satellite meeting in Chinese (26-27 November, Taiwan Society of Laboratory Medicine Annual Conference): 2620
- b. Exhibition: 200+ exhibitors

Programme:

- *3 pre-Congress Workshop and one Author workshop (Elsevier):*
 - Workshop 1: R-statistical Programming Language for Clinical Laboratory
 - Workshop 2: WASPaLM-APFCB Accreditation
 - Workshop 3: Hands-on Course to Learn Skills Essential for Analyzing Reference Values
- *Roche-APFCB Value of Diagnostics Panel Discussion:*
 - Unlocking the Value of Diagnostics - Perspectives from Across the Healthcare Chain
- *1 Key note: Laboratory Medicine and the NHI-MediCloud*
- *4 Plenary lectures:*
 - “A New Era of Lung Cancer Therapy: From Precision to Cure?”; “The Future of Molecular Biology in the Diagnostic Laboratories”; “Getting the Right Answer-The Importance of Traceability”; “Clinical Applications of Mass Spectrometry”
- *29 Symposia (92 titles)*
- *Free papers: 22 oral presentations; 184 posters*
- *7 Industry Workshops and 10 Industry Lunch Symposia*
- *Satellite Meeting in Chinese (TSLM Annual Conference):*
 - 2 symposia (12 titles); 6 Industry Workshops; 7 Award Speeches; 8 Oral Presentations; 304 Poster Presentations
- *Awards and Scholarships:*
 - APFCB - Siemens Young Scientist Award Competition 4:
 - 1st prize: Swarup AV Shah; 2nd prize: Rojeet Shrestha
 - Travel grants: Hanah Kim, Chailendra Dwivedi
 - APFCB Travel Award 10:
 - Menglan Zhou, Dwi Astuti Handayani, Sudhasini Panda, Louisa Enestina, Apilak Worachartcheewan, Wei-Ling Lin, Kang-Yi Su, Elizabeth Santoso, Prasenjit Mitra, Lopamudra Ray.
 - APFCB Congress 2016 Student Travel Award:
 - International 10: Tong Liu, Chranjit Ghosh, Hayato Ikoma, Asmita Sapkota, Haipeng Xian, Manickam Paulpandi, Akira Yoshimoto, Xiumei Jiang, Eri Ohta, Rina Nakamura
 - Domestic 4: Shao-Jui Lai, Hui-Yu Ho, Wei-Yi Chen, Hsin-Ying Lin
- IFCC-Roche Scholarships 4:
 - Purvi Purhoit, Anak Agung Wiradewi Lestari, Rajesh Kumar Gupta, Sibtain Ahmed
- NACCCA – Beckmen-Coulter Travel Grant 5:
 - Xuejiao Hu, Guoju Luo, Weili Duan, Yue Ru Tian, Yufei Wang



➤ *Trade and exhibition:*

120 booths, 45 companies and 6 associations namely CACB, APFCB Congress 2019, IFCC, AACCC, and WASPaLM.



To attract Congress participants visiting exhibitions, Prof Fang invited his mother, a famous brush painting artist, to paint hundreds of fans as souvenir for exhibition point collection activity on 28-29 November 2016.

➤ *Social events:*

- Opening ceremony on 26 November 2016: the congress was opened with a Folk Drum Show followed with welcome address by APFCB President, Dr. Leslie C Lai; CACB President, Prof. Woei-Horng Fang; IFCC President, Prof. Maurizio Ferrari; and Director-General, Taiwan National Health Insurance Administration, Dr. Po-Chang Lee. The reception was at TICC immediately after the key note speech and first plenary lecture.
- Cultural night at Grand Hyatt on 28 November with the theme of Taiwan aboriginal cultural dance, and group Karaoke Initiated by Dr. Woei-horng Fang followed by many country groups.



Presidents opening of Culture Night (IFCC, APFCB, and CACB presidents)

- Closing by Dr. Leslie Lai, President of APFCB and hand-over ceremony to the next host (India) on 29 November 2016.



Event Organizer: CACB as the host and contracted with Enjoy Professional Conference Organizer Corp. for the consulting and operations.

Executive and council members of APFCB at 14th APFCB Congress on 26th November 2016, Taipei



IFCC Executive Board Meeting, 24-25 November, Pacific Business Center Hotel, Taipei

APFCB Congress 2016 Organizing Committee also arranged the venue and meeting facilities for IFCC Executive Board Meeting, IFCC Scientific Division Meeting, APFCB Council Meeting, and all the APFCB Standing Committee Meetings.



Congress Organizing Committee
member group photo after closing ceremony.



TUNISIA

SOCIÉTÉ TUNISIENNE DE BIOLOGIE CLINIQUE (STBC)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Journées Nationales de Biologie Clinique National Meeting of Clinical Biology (JNBC)	Mai 13 th -14 th & 15 th 2016	

Education

Date	Place	Theme
11-03-2016	Tunis	Microbiological Diagnosis of Gastrointestinal Infections
12-04-2016	Gabès	Transfusion safety
15-04-2016	Tunis	Biology of pregnancies at risk
16-04-2016	Nabeul	Surveillance of anticoagulant therapy: Cases presentation
29-04-2016	Kairouan	Leishmaniasis
15-06-2016	Tunis	Platelets, leukocytes and inflammation
23-09-2016	Gafsa	Monitoring of anticoagulant therapy: Cases presentation
07-10-2016	Tunis	Tumor markers
14-10-2016	Tunis	Biological diagnosis of intestinal protozoa
20-10-2016	Tabarka	Interpretation and validation of immuno-hematologicals tests
11-11-2016	Tunis	Diagnostic of Urinary Tract Infections
01-12-2016	Tunis	World AIDS Day
09-12-2016	Tunis	Biological diagnosis of thrombocytopenia

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
3 rd Molecular Biology Arabic Course "PCR - RFLP"	Mai 10 th & 11 th , 2016	Arab federation of Clinical Biology "AFCB"

Regional relations

Arab Federation of Clinical Biology (AFCB)
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TURKEY

TURKISH BIOCHEMICAL SOCIETY (TBS)



National meetings		
Name of the meeting	Date	Topic
In vitro diagnostic symposium	February 18-20, 2016, Izmir	
Thalasemia symposium	April 7-9, 2016, Kahramanmaraş	<i>Hemoglobin Disorders</i>
Symposium on "Bone Metabolism: Clinical and Laboratory"	May 9, 2016, Ankara	<ul style="list-style-type: none">- Vitamin D In All Aspects: Molecular Effects And Measurement Methods In Laboratory <i>Mustafa Serteser,</i>- Laboratory Approach on Metabolic Bone Disease <i>Aylin Sepici Dinçel</i>- Siemens Advia Centaur System and Bone Markers <i>Murat Tosun,</i>- Source of errors in immunochemical analysis <i>Taner Özgürtaş</i>- Clinical Approach To The Metabolic Bone Disease <i>Mustafa Altay</i>
Symposium on "Preanalytical Phase "	May 19-20, 2016, Adana	
Quality Controls In Clinical Laboratories: Problems And Solutions	June 2, 2016, Ankara	<ul style="list-style-type: none">- ISO 15189QC Requirements: The Bio-Rad Solutions <i>Jean-Baptiste Raimbourg</i>- A different approach to internal QC: Efficacy, Limitations, Effect on Results <i>Muhittin A. Serdar</i>- Bio-Rad QC Data Management: Consolidated Solution <i>Mohamad Abdel-Karim</i>- The internal QC Applications in Ankara 2. District Laboratories <i>Çiğdem Sönmez</i>



Symposium on "Tumor Markers And Clinical Uses"	September 2016, Ankara	<ul style="list-style-type: none">- Clinical Use Of Tumor Markers <i>Ömer Dizdar</i>- Tumor markers: Biochemical approach <i>Erdoğan Devrim</i>- Approach To Epithelial Over Cancer Diagnosis <i>Agim Beshiri,</i>- Approaches to Atrophic Gastritis and Helicobacter Infection <i>Jaganathan Sikan</i>- The Importance of Pepsinogen I and II in Gastric Cancer Screening <i>Necati Örmeci</i>- Diagnostic Efficiency of HE4 in Genital System Tumors and Lung Cancer <i>Z. Günnur Dikmen,</i>
Biochemistry Days-Sivas	November 3-6, 2016, Sivas	
Urine Analysis Symposium	December 7, 2016, Ankara	<p>The History of Urine Analysis <i>-D. Yücel,</i> Urine Sediment Analysis and Microscopy <i>-A. Kösem</i> Preanalytical Phase of Urine Analysis <i>-C. Topcuoğlu</i> Automation of Urine Analysis <i>-D. Kayaalp</i> Needs of Quality and Quality Assessment <i>-M. Serdar</i> Urine Protein: Analysis and Clinical Interpretation <i>-F. Uçar</i> Special Tests for Urine Samples <i>-M. Öktem</i> Toxic Chemical Analysis of Urine Samples <i>-H. Kayadibi</i></p>
TBD-IVD Diagnostic Evening Dinner	December, 2016, İstanbul	



Education

1. Phlebotomy guide prepared by TBD "Preanalytical Stage Working Group" was introduced within scope of "Patient and Health Worker Security Platform". 30 November 2016, Ankara
2. A Guideline on "Chronic Kidney Disease" prepared by TBD "Chronic Kidney Disease Working Group" published on EFLM Web page. November, 2016
3. A "Consensus Report" for the patient glucose meters used in hospitals based on patient safety prepared by TBD "Patient Glucose Measurement Working Group" was started to be distributed. May, 2016
4. Course on "Biological Variation, May 19, 2016, Adan.
5. Phlebotomy Course, May 19th, 2016, Adana
6. Electrophoresis Course, April 7th, 2016, Kahramanmaraş
7. Biostatistical Analysis with R, November 1-2nd, 2016, Sivas
8. Primary and Secondary Hemostasis Tests and Clinical Significance, November 2nd, 2016, Sivas
9. Molecular Diagnostics Course, November 2nd, 2016, Sivas

International relations

1. TBS participates in studies of working groups and task forces of IFCC and EFLM committees.
2. TBS represents other scientific or professional bodies in Turkey such as EFLM, BCLF, IUBMB, FEBS, and WASPaLM.



UK

THE ASSOCIATION FOR CLINICAL BIOCHEMISTRY & LABORATORY MEDICINE (ACB)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Frontiers in Laboratory Medicine (FiLM) in Birmingham	26-27 January 2016	Leading edge innovations in the delivery of laboratory medicine services
FOCUS in Warwick	18 – 21 April 2016	Scientific and Clinical presentations on leading topics by international experts

Education

In addition to the above, training courses for trainees and a training day prior to the FOCUS meeting

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
All nine regions hold scientific and clinical meetings at least twice a year on a wide variety of topics	Multiple	All organised by the ACB

Regional relations

While the ACB represents the UK, the country is divided into four administrations and the ACB is engaged with the devolved governments. There is also national collaboration with other laboratory organisations on a variety of political issues.

International relations

The ACB has engagement in a variety of positions. As an organisation we have formal relations with other Laboratory Medicine associations, particularly in the area of publication of our journal and discounted rates for our publications to them and theirs to us. We also have reciprocal arrangements for presenting prestigious lectures at our National Meetings.



URUGUAY

ASOCIACIÓN BIOQUÍMICA URUGUAY (ABU)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
“Mass spectrophotometry in Clinical Chemistry.”	8, 9 and 22 of April,	Clinical Methods
“Quality Management and Good Laboratory Practices.”	Annual	Quality Management
Toxoplasmosis	July 22 and 23	Parasitology

Education

. “Mass spectrophotometry in Clinical Chemistry.” Course taught by Dr. Alejandra Rodríguez. 8, 9 and 22 of April, Polo Tecnológico de Pando. Organizes Faculty of Chemistry of University of the Republic (UDELAR) Uruguay
“Quality Management and Good Laboratory Practices.” Annual Online Course given by teachers Dr. Juan Pablo Grammatico and Dr. Laureano Cuevas (Argentine). Organized by COLABIOCLI
“Toxoplasmosis”. Course taught by the Professors Dr. Hortensia Magaro, Dr. Alicia Frade. (Argentina) Organized by the Wiener Foundation July 22 and 23, 2016,
“Advanced Practices of Analytical Quality”. Course-workshop given by Dr. Gabriel Migliarino. (Argentina) Organized by the Coulter Foundation. Hotel Radisson Victoria. Montevideo. Uruguay.



Regional meetings		
Name of the meeting	Date	Society's contribution for the meeting
<p>CALILAB BUE2016. Hotel Sheraton Buenos Aires Organized by Fundación Bioquímica Argentina (FBA) Symposium collaboration of Uruguayan Biochemical Association (ABU)</p>	<p>November 30 to December 2, 2016.</p>	<p>“Point of Care Testing. (POCT). “ 1. “New Technologies: Patient Care Testing (POCT) Conference Dr. Rosa Isabl Sierra-Amor. México</p> <p><i>Current Status of Patient Care Tests (POCT) in Different Countries (Part II) Coordinate: Dra. Nilda Fink (Argentina) and Dr. Stella Raymondo (Uruguay).</i></p> <p>I)“POCT and Haemostasis”.</p> <p>1) Experience in Uruguay. Dra. Ana Lena (Uruguay)</p> <p>2) Experience in Argentina. Dr. Cristina Duboscq (British Hospital)(Argentina).</p> <p>II)“Regulatory Aspects of POCT in Uruguay” .. Dr. Carlos Lacava (Uruguay).</p> <p>III)“Diagnosis of POCT situation in Uruguay” Dra. Stella Raymondo (Uruguay).</p>

Regional relations
<p>“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 presential participation of Dr. Rosa I. Sierra Amor (IFCC) and Dr. Stella Raymondo (COLABIOCLI)</p> <p>ABU has participated through QF BC Ana Piana leading a group of Uruguayan colleagues who have participated from aVideo conference room in the Uruguayan Organism. of Accreditation. (OUA)Montevideo. Uruguay</p>

International relations
<p>To have acceded to the Presidency of the Colabiocli, has increased notoriously the International relationships of Uruguay.</p>

Additional information

FEBRUARY 2016

1. Designation of BC Luciana Oliviere to write an article for the Journal of the Biochemical Residents Committee of Argentina (COREBIO) representing the young people of the Career of Clinical Biochemistry in Uruguay.
2. The Uruguayan Biochemical Association (ABU) presents its condolences to Argentine colleagues and disseminates among its members the news of the death of two dear and prestigious Argentine colleagues who have contributed so much to the progress of the knowledge of Quality and Accreditation in our country , Dr. Daniel Mazziotta and Dr. Norberto Cabutti.
3. Negotiations of the ABU with the Medical Union of Uruguay (SMU) in relation to the Salary Council.
4. Review of ABU agreements with other institutions or companies that provide services to their partners.

MARCH 2016

1. Closing the call for applicants for *ABU Training Scholarships*. The Scholarship Commission is formed and the merits of the applicants are studied.

APRIL 2016

According to the report of the ABU Scholarship Evaluation Committee on April 26, 2016, the following training grants are awarded in the following order of priority:

- I. BC Jimena Blanco. Parasitology Area- Strongiloides Stercoralis-Malbrán Institute, Buenos Aires. Argentina).
- ii. BC Fabiana Luzardo. Clinical Microbiology Area (Online course organized by Argentine Biochemical Association).
- iii. BC Micaela Cipriani. Area Endocrinology and Metabolism (Online course dictated by the Argentine Society of Endocrinology and Metabolism).

JUNE 2016.

Electoral Act. (June 7)New Board of Directors June 14

- President: BC Fabiana Luzardo
 - Vice President: QF Fernando Antúnez
 - Secretary: BC María Eugenia Morell
 - Pro-Secretary: BC Mariana Testuri
 - Treasurer: BC. Natalia Love
 - Pro-Treasurer: QF. BC. Laura Yametti
 - Secretary of Records and National Representative to the IFCC: Dr. QF BC Stella Raymondo
- Vowels:
- Dra.QF BC Cristina Servetto
 - QF BC Beatriz Varela
 - Dr. QF BC Ana Lena
 - BC Jimena Blanco



PROJECTED TASKS

1. Elaboration of a bank of National Professional Experts on various topics of interest to ABU and its partners.
2. Professional Certification
3. To continue with the project “Strengthening and re-dimensioning of the Clinical Biochemical Professional in the Uruguayan Society of the XXI Century” Accompanying the work of equalization and salary improvements of the profession.
4. Promote access to specialized Bibliography by the partners.
5. Promote the linkage of partners with national and international research areas.
6. Increase services to partners. Ex. Legal Advice, Travel Agencies, etc.

AUGUST 2016

- Selection of the Corresponding Members for the Working Groups of the IFCC.

OCTOBER 2016

Initiation of contacts with the Uruguayan Technological Laboratory (LATU Sistemas) LSQA to begin advancing the Professional Certification Project

NOVEMBER 2016

Report from QF BC Ana Piana on “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. Montevideo

DECEMBER 2016

- On December 21, Professor Daniel Ottado of the Chair of Organizational Communication of the Faculty of Social Sciences is contacted to initiate the project “Strengthening and resizing of the Clinical Biochemist in the Uruguayan Society of the 21st Century”



USA

AMERICAN ASSOCIATION FOR CLINICAL CHEMISTRY (AACC)

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
Leading the Way to Positive Outcomes: The Role of POCT in Patient-Centered Care – Virtual Meeting	4/28/2016	Point of care testing topics
DACC Conference-Biomarkers in Drug Induced Vascular Injury: Clinical and pre-Clinical Advancements – Ridgefield, CT	5/6/2016	Biomarkers for vascular injury
The Laboratory’s Role in Drug Monitoring for Pain Management – Virtual Meeting	6/15/2016	TDM and toxicology lab testing for pain management drugs
2016 AACC Annual Scientific Meeting & Clinical Lab Expo – Philadelphia, PA	7/31/2016 – 8/4/2016	Multiple topics in laboratory medicine
Transforming Molecular Testing Through Automation: New Insights and Possibilities - Philadelphia, PA	8/2/2016	Molecular diagnostics
Point-of-Care Forum: Talking the Talk: Overcoming the Barriers of Productive Communication - Philadelphia, PA	8/4/2016	Point of care testing communications

The Benefits and Challenges of Point-of-Care Testing Across the Clinical Spectrum – Copenhagen, Denmark	9/21/2016 – 9/24/2016	Point of care testing topics
Mass Spectrometry and Separation Sciences for Laboratory Medicine – Chicago, IL	10/5/2016 - 10/6/2016	Mass spectrometry technology/methodology

Education

Online Education

1/1/2016 – 12/31/2016:

- o Basic Principles and Architecture of Laboratory Information Systems Certificate Program
- o Clinical Laboratory Leadership and Management Certificate Program
- o Laboratory Operational Management Certificate Program
- o Patient Safety Essentials for Laboratory Professionals Certificate Program
- o Practical Approaches to Quality Control in the Clinical Laboratory Certificate Program
- o Regulatory Affairs for Laboratory Compliance Certificate Program
- o Statistical Methods for Clinical Laboratorians Certificate Program
- o Fundamentals of Molecular Pathology Certificate Program
- o Point-of-Care Specialist Certificate Program
- o Improving Outcomes Through Point of Care Testing Certificate Program
- o Principles of Clinical Toxicology Certificate Program
- o Basic Concepts and Clinical Applications of Flow Cytometry Certificate Program
- o Intro. Liquid Chromatography Mass Spectrometry for the Clinical Laboratory Certificate Program
- o LC-MS/MS Troubleshooting for the Clinical Laboratory Certificate Program

ONLINE WEBINARS

1/6/2016

New Year's Resolutions to Help Lab Leaders Improve Quality

2/29/2016

Stratification for Pre-eclampsia: Lessons Learned from Translation of a Metabolomics Discovery to a Robust LC-MS/MS Test (CSW #6)

3/2/2016

Cultivating a Culture of Quality in the Laboratory

4/21/2016

Addressing challenges in the laboratory diagnosis of *C. difficile*

4/27/2016

Software Tools to Facilitate the Processing of Mass Spectrometry Data: Overcoming Bottlenecks to Productivity in the Clinical Laboratory

5/4/2016

Accountable Care and the Laboratory Value Proposition

5/5/2016

Biomarkers of CKD– How ACR, GFR and Cystatin C Work Together in Disease Screening, Diagnosis, and Monitoring



5/13/2016

The Puzzling Case of a Patient with a Low Free T4 Concentration

5/11/2016

Utilizing Rapid Molecular Diagnostics to Improve Patient Treatment and Antibiotic Stewardship

6/24/2016

A Diabetic Patient with No HbA1c

7/6/2016

Integrating Clinical Decision Support and Patient Engagement in Value-Based Lab Services

7/12/2016

Why IVD Product Development Needs to Become Agile

7/14/2015

PSA Testing: To Screen or Not to Screen?

7/20/2016

What the New PAMA Rule Means for Your Laboratory

8/3/2016

Behind the Scenes at the AACCC/LabLeaders.com Population Health and ACO Roundtable

9/7/2016

A Healthy Outlook

9/22/2016

Intelligent Design of the Mass Spectrometry Universe: The Right Tools for the Right Jobs

10/7/2016

What is the Relevance of Hemolysis in the Development of Renal Failure

11/2/2016

Unveiling the Future of Laboratory Medicine: A Series of High-Impact Talks from Lab Leaders on the Leading Edge

11/10/2016

POCT HbA1c for diabetes dx

11/18/2016

A Prolonged Partial Thromboplastin Test in a Patient Who Was Not Bleeding

11/30/2016

The Changing Laboratory Fee Schedule...What You Need to Know

12/1/2016

Mastering the 3 P's of Body Fluid Testing: Philosophy, Practicality, and Proficiency

12/8/2016

Towards Standardization in Protein Quantification Workflows



Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
Global Lab Quality Initiative Workshop: Verifying Assay Performance: Steps To Follow To Verify Manufacturer's Claims - Havana, Cuba	3/10/2016 -3/11/2016	Partnered with Sociedad Cubana de Patología Clínica
Global Lab Quality Initiative Workshop: Laboratory Medicine from Education to Practice: West Meets East - Chongqing, China	9/21/2016-9/22/2016	Partnered with Chinese Society of Laboratory Medicine and the Chinese Association for Clinical Laboratory Management
Best of AACC Brazil – Rio de Janeiro	9/28/2016	In conjunction with Sociedade Brasileira de Patologia Clínica/Medicina Laboratorial (SBPC/ML)
Global Lab Quality Initiative Workshop: Verifying Assay Performance: Steps To Follow To Verify Manufacturer's Claims – Cordoba, Argentina	10/4/2016 – 10/5/2016	Partnered with Colegio de Bioquímicos de Córdoba
Best of AACC China (Shanghai, China)	10/21/2016 – 10/22/2016	In conjunction with Chinese Medical Education Association
Best of AACC Southeast Asia (Shenzhen, China)	12/3/2016	Not applicable for this event

Regional relations

Member of the North American Federation of Clinical Chemistry and Laboratory Medicine

International relations

AACC maintains memoranda of understanding with several national societies for the purposes of mutually beneficial education exchanges.



VIETNAM

VIETNAMESE ASSOCIATION OF CLINICAL BIOCHEMISTS (VACB)

National meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
11 th National Congress of the VACB and 21 st Scientific Conference of the VACB	26-27/8/2016	Clinical Biochemistry, Molecular Biology, Oncology, QA&QC, Immunology, Diabetes, Endocrinology, Pediatrics



Education
1/ APFCB-VACB-Roche Workshop on LEAN: 4-7/4/2016 in Hanoi; 11-14/4/2016 in HoChiMinh-City
2/ Workshop on “ Improvement of quality of POCT ” of VACB-Roche, 8/5/2016 in HoChiMinh-City
3/ 8 th Vietnam Chemical Pathology Course: Improvement of effectiveness and quality of the laboratories, 7/7/2016 in Hanoi; 9/7/2016 in HoChiMinh-City
4/ Workshop on “Improvement of quality of laboratory” of VACB-Siemens Health Care, 15/9/2016 in Hanoi,

Regional meetings		
Name of the meeting	Date	Society’s contribution for the meeting
14 th APFCB Congress in Taipei, Taiwan	26-29/11/2016	Scientific presentation

Regional relations
Frequent relations with some Associations in the region, such as: Australia, Singapore, Thailand, Malaysia, Korea.

International relations
Good relations with IFCC. The VACB has contributed to the IFCC eNews, presented 1 candidate to the IFCC Executive Scientific Division for the new term, 3 corresponding members of the Committees of the Scientific Division and 1 corresponding member of 1 Committee of the Communications and Publications Division. The informations of the IFCC have been frequently informed to the VACB members. 1 VACB young member received the IFCC grant for the Scientific Exchange Programme in Korea in 3 months.



ZIMBABWE

ZIMBABWE ASSOCIATION OF CLINICAL BIOCHEMISTS (ZACB)

National meetings		
Name of the meeting	Date	Topic
Zimbabwe Medical Association (ZiMA)	5 th March 2016	ZIKA Virus
14 th ZACB Annual Workshop	16-17 th June 2016	Organised and made paper presentation
ZINQAP Annual Scientific Conference	24-25 th /11/2016	Organised & presented papers
Zimbabwe Medical Research Day	24/10/2016	Organised and adjudication
Health Professions Conference	27/11/2016	Annual presentations and discussion of all health professions

Intergrating Maternal, Mental, Infant Reproductive and Nutrition Health in EB P4 Medicine	10/12/2016	Organised and made paper presentation
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Education

Established AFCC Africa Internet Radio and broadcasts. Ms S Namasasu, Mr A Makura, E Chipodyaand H T M Matarira were interviewed. ZACB is mentoring through AfricaLabMed Internet Radio broadcast with YSs co-ordinating and interviewing throughout Africa and worldwide.

ZACB members have participated in providing lectures on Primary Liver Cancer, HIV Encephalopathy, Drug Resistances in Malaria and Maternal, Infant, Reproductive and Nutritional Health, Zika virus on national, regional and international websites and regional and rural communities. Research results have been widely published in international Journals. National workshops, seminars and symposia were held actively throughout the year. Successfully supervised 13 MSc postgraduate researches. 7 Young Scientists who qualified with MSc in Chemical Pathology have embarked on Doctorate studies. 6 DPhil students are nearing completion. A postgraduate Diploma in Medical Laboratory training was developed to convert holders of BSc Biochemistry qualification and advanced state certified Medical Laboratory certificate holders. 3 members in MLCSC education Committee. IFCC PEP Scholarship was granted to ZACB YS Raylton Chikwati to visit Witwatersrand University in South Africa. Two other Young Scientists are processing their applications at present for South Africa and Germany.

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
SACORE Annual Scientific	17-18 th March 2016	Conference paper
IFCC General Conference	19-22 nd March 2016	Participated in discussions
Epidemiologic Transition	7-8 th July 2016	Presented papers
ASLM	3-9/12/16	Participated in discussions
ACPharm Australia Symposium	16/6/16	Facilitated Chairing
IFCC WORLDLab Durban October 2017	To be held	Planning and Advisory

Regional relations

IFCC PEP Scholarship was granted to ZACB YS Raylton Chikwati to visit Witwatersrand University in South Africa.

International relations

Held a symposium on 10th December 2016 on Integrating Maternal Mental Infant and Nutrition Health in P4 Medicine.

Collaborating with COLIBIOCLI's IFCC supported El Microscopio to schedule and conduct Internet Radio Broadcasting.





Mentoring through AfricaLabMed Internet Radio broadcast with Ys, co-ordinating and interviewing throughout Africa and worldwide. Radio content in place. Finances being mobilised in IFCC and FEN

Broadcasted together with AACB our strong S-S Partner Pre International Conference of Paediatrics from 20th-22nd October 2016.

Additional information

ZACB NATIONAL JOURNAL CLUB

3/03/2016

Iron intake, body iron stores and the risk of type 2 diabetes, a systematic review and meta-analysis. Vitamin D content in human breast milk: a 9-months follow-up study.

7/04/2016

Apo genotyping in Egyptian diabetic nephropathy patients.

Identification of sequence polymorphism in the D-Loop region of mitochondrial DNA as a risk factor for hepatocellular carcinoma with distinct etiology.

5/05/2016

Host iron redistribution as a risk factor for incident tuberculosis in HIV infection: an 11 year retrospective cohort study.

12/05/2016

KIM-1 as an early marker of proximal tubular damage.

Soluble CD163. A novel marker of activated macrophages, is elevated and associated with non-calcified coronary plaque in HIV infected patients

26/05/2016

Thyroid function in HIV patients treated with HAART, a longitudinal study

16/06/2016

Extended use of Prostate Health Index and percentage of [-2]pro-prostate-specific antigen in Chinese men with prostate specific antigen 10–20 ng/mL and normal digital rectal examination

23/06/2016

Discordance of Low Density Lipoprotein (LDL) Cholesterol with alternative LDL-Related measures and future coronary events.

07/07/16

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.

11/08/2016

Cryptococcus and cryptococcosis in Zimbabwe

22/09/2016

Association between the TCFTL2 rs 12255372 (G/T) gene polymorphism and type 2 diabetes mellitus in a Cameroonian population: a pilot study

Affiliate Member Societies



INDIA

ASSOCIATION OF MEDICAL BIOCHEMISTS OF INDIA (AMBI)

National meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Topic</i>
24 th Annual Conference AMBICON, held at Guwahati, Assam	16 th November 2016 - Workshops 17 th to 19 th Conference	Theme: "Upcoming Youth Brigade" 6 workshops 1. DNA Isolation & amplification 2. Molecular diagnosis in cancer 3. Ensuring laboratory excellence – Lean sigma way 4. Pre-analytical best practices 5. Indirect Immunofluorescence Goal standard approach towards autoimmunity 6. Team based learning among biochemists – an essential need of the hour 6 orations Post graduate and Undergraduate Quiz Plenary lectures Symposia – 3



Southern Zone TF-YS AMBI	July 2016, Hyderabad Chaired by TF- YS Chairman Dr.Pradeep Dabla	Symposia
		Hands on workshops: 2 sessions each (1) Plagiarism – Free writing; Dos AND Don't Plagiarism – Free writing; Dos AND Don't
		(2) <ul style="list-style-type: none"> • Mathematical Computations in in Medical Biochemistry – Part I • Mathematical Computations in Medical Biochemistry – Part II
		Plenary lectures <ul style="list-style-type: none"> • Knowledge criteria in a Clinical Laboratory • Diagnostics of Iron Metabolism • Method Validation • Laboratory Service – as in A small town • Quality Assurance & Medical Laboratories • Micro documentation requirements to get a clinical laboratory accredited • Immunoassays: the Good, Bad and the Ugly • Lipids and Lipoproteins – Advanced testing • New Diagnostic Tests Evaluation • Publications - Some Guidelines • Understanding IQC AND EQA • Laboratory approach to Paraproteinemia • A Biochemist Perceptive of ABG and Ph • Use of Tumour markers in the Clinic

Education
<ol style="list-style-type: none"> 1. Conducted CME for young scientists – where laboratory mathematics, plagiarism and immunoassays were highlighted 2. State and annual meets had “hands on training” in certain technologies with more focus on molecular biology protocols and procedures. 3. Workshops (1) 3 days workshop conducted at CARE Hospital, Hyderabad in Haemostasis sponsored by STAGO (and local dealer). (2) 4 days workshop sponsored by NNHF(Novo Nordisk Haemophilia Foundation)-IL, WERFEN Haemophilia Workshop under the leadership of Dr.Shanthi Naidu K of CARE Hospital 4. Third year medical students who have completed biochemistry appear for a zonal quiz and the winner from each zone attends the annual conference as an invitee. This programme has been conducted over the past three years with a wish that medical doctors would want to take up the speciality of clinical chemistry as a profession.



Regional meetings		
<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
State Chapter – Mumbai, Maharashtra	27th & 28th February	Post graduate students and young consultants needs specialised in clinical chemistry topics were addressed,
State Chapter – Kolkata, West Bengal	23rd & 24th February	Post graduate students and young consultants needs specialised in clinical chemistry topics were addressed,
State Chapter – Hyderabad, Telangana	4th June	Preventive cardiology and advanced lipid testing
State Chapter – Vijayawada, Andhra Pradesh	10th September	Familiarity with stem cell medicine and conduct of research in medial biochemistry and medical genetics
State Chapter – Orissa	9th January	Medical genetics & Molecular biology
State Chapter – Bengaluru, Karnataka	22nd to 24th September	Quality Management & Diabetic monitoring
Coagulation – Stago workshop	3 days	Hands on training on basic screening for coagulation tests.
NNHF-IL, WERFEN (Novo Nordisk Haemophilia Foundation)Haemophilia Workshop	4 days	Hands on training on basic screening for coagulation tests. Advanced training Factor assays and Inhibitors

Regional relations

State chapters conducting annual meets have a mixture of both senior faculty and junior faculty learning from one another and training post graduate students as a whole.

Members of different states are invited in their field of specialty to deliver talks and conduct workshops.

Discussions on academics and taking the association forward is done and sent to the executive body of the association for further improvements when and if necessary.

The state chapters are strengthened by the presence of an executive member of the association (AMBI) to keep a strong link among all states and the association.

Various programmes are conducted at the teaching institutions and private hospitals on laboratory medicine, quality systems. This is an ongoing process.



International relations

AMBI is an affiliate member of both IFCC and APFCB.

Regularly members attend international conferences and their exposure enriches not only the individuals who attended but the entire association as a whole, as on their return they spread this experience.

At the annual conference this year, we had Dr.Udayan Ray from Tasmania, Australia delivering two plenary talks.

Many members have been included as corresponding members in the various committees when the invite has been put forward by IFCC.

Corresponding member IFCC –

EMD division - Dr.Rachita Nanda – 2016

C-CLM - Dr.Jasbinder Kaur – 2016

TF-CKD - Dr.Shanthi Naidu K (has also requested to be a member of TF-CKD of APFCB)

TF-YS – Dr.Shanmuga Priya

APFCB – Education committee – Dr.Jasbinder Kaur

APFCB C-CC committee – Dr.Animesh Bardoli

We thank IFCC for giving us these opportunities.

Additional information

The association is celebrating its silver jubilee year this year. The conference is being held at Mysuru in November 2017.

We would like to celebrate the same under the auspices of IFCC and will be sending the application shortly for permission.

We would also like to bring to the notice that though we have nominated corresponding members the communication to them has been very limited or not at all as in previous years to one or two members. I request that these corresponding members be kept in the loop of activities which would enable enrichment of the association as a whole.



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 13 th Annual Convention	September 28 - 30, 2016	Investing in Quality, Caring for the Future

Education

The PCQACL Committee on Continuing Education, Training & Research has conducted the following Seminar – Workshops:

1. Seminar-Workshop on National External Quality Assessment Scheme (NEQAS) in Clinical Chemistry and Hematology
Date: 21 – 22 March 2016 Venue: Seorabeol Grand Leisure Hotel, Waterfront Road, Subic Freeport
2. Seminar-Workshop on Basic Method Validation in Healthcare Laboratories
Date: 15 April 2016 Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City
3. Seminar-Workshop on National External Quality Assessment Scheme (NEQAS) in Clinical Chemistry and Hematology
Date: 25 - 26 April 2016 Venue: Cebu Parklane Hotel, Cebu City
4. Seminar-Workshop on National External Quality Assessment Scheme (NEQAS) in Clinical Chemistry and Hematology
Date: 17 - 18 August 2016 Venue: Tagaytay One Place Hotel, Tagaytay City
5. Pre-Convention Seminar- Workshop on Laboratory Informatics and Antibiotic Stewardship Program
Date: 27 September 2016 Venue: Crowne Plaza Galleria, Ortigas Avenue, Quezon City

Regional meetings

<i>Name of the meeting</i>	<i>Date</i>	<i>Society's contribution for the meeting</i>
IFCC General Conference	March 18, 2016 in Madrid, Spain	Attendance in business meeting.
15th ANCLS Congress	April 21-23, 2016 in Seoul Olympic Parktel, Seoul, Korea	Dr. Januario D. Veloso gave a lecture on the topic "Complete Blood Count NEQAS Implementation for Clinical Laboratories in the Phils."
APFCB Council meeting	November 26, 2016 held at Rm. 401 - Taipei International Convention Center	Attendance in business meeting: assistance in COMELEC (election)



14th APFCB Congress	November 26-29, 2016 at Taipei International Convention Center	<p>Prof. Elizabeth Y. Arcellana – Nuqui gave a lecture on the topic ” High SensitiveTroponin (hs Tnl) Assay among Filipino Adults”.</p> <p>Dr. Anacleta P. Valdez attended the meeting of the IFCC (C – RIDL) as a Corresponding Member representing the Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL).</p>
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Regional relations
<p>Member of Asian Network for Clinical Laboratory Standardization and Harmonization (ANCLS)</p> <p>Member of Clinical and Laboratory Standards Institute (CLSI)</p> <p>Member of International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)</p> <p>Member of Asian - PacificFederation of Clinical Biochemistry and Laboratory Medicine (APFCB)</p>

International relations
<p>IFCC Affiliation Membership</p> <p>Digital PTInternational EQA Collaboration Membership</p> <p>Appointment of Dr. Elizabeth Y. Arcellana - Nuqui as a Member of the IFCC Task Force on Ethics (TF-E) for 3 - year period (April 2014 to December 31, 2016).</p> <p>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.</p> <p>PCQACL, as a member organization of CLSI, may nominate qualified persons as members, advisors and reviewers for CLSI Standards development committees.</p> <p>CLSI will be invited by PCQACL to provide a Speaker(s) at plenary sessions and other scientific sessions hosted by PCQACL.</p> <p>IFCC-Visiting Lecturer Program will be invited to provide Speakers at plenary lectures, seminar-workshops and other scientific sessions to be hosted by PCQACL.</p>

Additional information

PCQACL joined Asian-Pacific Federation of Clinical Biochemistry and Laboratory Medicine (APFCB) in 2016.

Prof. Elizabeth Y. Arcellana-Nuqui gave a lecture on High Sensitive Troponin High Sensitive Troponin (hs Tnl) Assay among Adult Filipino Adults” in the 14th APFCB Congress last November 2016 held in Taipei.

Dr. Annie P. Valdez, PCQACL Vice President, has been designated as a Corresponding Member of IFCC Committee on Reference Intervals (C-RIDL).

Dr. Elizabeth Y. Arcellana-Nuqui had her liaison meetings with Dr. Maurice Ferrari, Dr. Catharine Margaret Sturgeon, and Prof. Trefor Norman Higgins in Madrid to be PCQACL convention plenary speakers in 2016 – 2017.

PCQACL has been privileged to have the following IFCC – Visiting Lecturer Program (IFCC-VLP) plenary Speakers on the following topics in its 13th Annual Convention held last September 28 -30, 2016:

Prof. Trefor Norman Higgins

Topic Date

- a. What to do when the QC is Good but the Results are Wrong -September 28, 2016
- b. Ethics in Laboratory Medicine-September 30, 2016

Dr. Catharine Margaret Sturgeon

Topic Date

- a. Standardization of Immunoassay & Proficiency Testing-September 29, 2016
- b. Issues on QA of Diagnostic Tests -September 29, 2016
- c. QA in Tumor Markers -September 30, 2016



UKRAINE

Association of Clinical Chemistry and Laboratory Medicine of Ukraine - ACCLMU

National meetings

Name of the meeting	Date	Topic
Annual Scientific Conference “Prospects for the diagnosis and treatment of hematological diseases”	Kyiv, April 14-15, 2016	The Conference was devoted to modern approaches to the diagnosis and treatment of hematological diseases
Scientific & Practical Conference with International Participation «Building of dialogue between clinicians and specialists in clinical laboratory diagnostics, modern methods for laboratory diagnostics of diseases presenting public health hazard»	Kyiv, April 19-20, 2016	The Conference was devoted to actual problems of laboratory handling especially dangerous infections including HIV and TB. PEPFAR experience in preparation of medical labs to accreditation and the WHO End TB Strategy were presented as well. In addition, within the Conference framework, ACCLMU Extraordinary General Meeting was held.



<p>Scientific & Practical Conference with International Participation «DSTU EN ISO 15189:2015 – Roadmap to Quality of Laboratory tests»</p>	<p>Kyiv, October 19-20, 2016</p>	<p>The Conference was devoted to presentation of experience of implementation of the requirements of DSTU EN ISO 15189:2015 “Medical laboratories. Requirements for quality and competence” both in Ukraine and abroad, particularly in Germany and Poland. The National Representative of the Centers for Disease Control and Prevention (CDC) shared experience of provision of help in preparation of medical laboratories for accreditation in countries with limited resources. Special attention was given to the metrological aspects, including measurement accuracy and precision. Attention was also paid to the use of audits to improve laboratories activities and to contradictions between the requirements of existing legislation and of international standards. In addition, within the Conference framework, ACCLMU Extraordinary General Meeting was held. In general, the objective of this Conference is to highlight the main points to look at when implementing medical laboratory tests quality assurance system and to suggest the optimal sequence of stages during implementation of requirements of DSTU EN ISO 15189:2015 as a way of improving medical laboratories practice.</p>
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<p>Education</p>
<p>ACCLMU Coordinator of young professionals Kheylomska T.O. made a working meeting with interns on the professional development of young professionals, using the experience of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) and the ACCLMU (Kyiv, 17 May 2016).</p>

<p>Regional meetings</p>		
<p>Name of the meeting</p>	<p>Date</p>	<p>Society’s contribution for the meeting</p>
<p>Scientific & practical conference dedicated to the diagnosis of melanoma, to genomic diagnostics, and to issues of resistance to antibiotics</p>	<p>Lviv, April 13, 2016</p>	<p>Organization of the meeting</p>

Memorial Evening devoted to the 90th anniversary of the prominent specialist in the field of clinical laboratory diagnostics, Prof., D.Sc., MD K. A. Zakhariya.	Lviv, September 23, 2016	Organization of the meeting
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Regional relations

Merging of the ACCLMU with the USCLD.

International relations

Participation in the General Conference of the International Federation of Clinical Chemistry and Laboratory Medicine (Madrid, 18-23 March 2016).

A meeting with the Associate Director of the Euro-Asia region, Head of the International department of laboratories for AIDS of the Institute for Global Health, Problems of AIDS and tuberculosis, D.Sc., MD Favorov M.O. concerning the ACCLMU cooperation with the US Centers of Disease Control and Prevention (CDC) was held (Kyiv, 29 September 2016).

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.



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