APFCB News

The Newsletter of the Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine for circulation among APFCB and IFCC members

2016

Issue 2

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APFCB Membership

Members

Australasian Association of Clinical Biochemists (AACB)
Association of Clinical Biochemists of India (ACBI)
Association for Clinical Biochemistry, Sri Lanka (ACBSL)
Chinese Society of Laboratory Medicine (CSLM)
Chinese Association for Clinical Biochemistry, Taiwan (CACB)
Hong Kong Society of Clinical Chemistry (HKSCC)
Indonesian Association for Clinical Chemistry (IACC)
Iranian Association of Clinical Laboratory Doctors (IACLD)
Japan Society of Clinical Chemistry (JSCC)
Korean Society of Clinical Chemistry (KSCC)
Malaysian Association of Clinical Biochemistry (MACB)
Mongolian Association of Health Laboratories (MAHL)
Nepal Association for Medical Laboratory Sciences (NAMLS)
Pakistan Society of Chemical Pathologists (PSCP)
Philippine Association of Medical Technologists (PAMET)
Singapore Association of Clinical Biochemistry (SACB)
Thailand Association of Clinical Biochemists (TACB)
Vietnamese Association of Clinical Biochemistry (VACB)

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Affiliate Members

Association of Medical Biochemists of India (AMBI)
College of Community Physicians of Sri Lanka (CCPSL)
Chinese Association of Clinical Laboratory Management (CACLM)
Macao Laboratory Medicine Association (MLMA)
Nepalese association of Clinical Chemistry (NACC)
Philippine Council for Quality Assurance in Clinical- Laboratories (PCQACL)

APFCB Executive Board and Chairman of Committees, Elected October, 2013

Executive Board

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Immediate Past President	Joseph B Lopez MAHSA University College Kuala Lumpur, Malaysia jblopez2611@gmail.com
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Treasurer	Elizabeth Frank Biochem Diagnostic Laboratory, Mysore, India
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Submissions

The APFCB News welcomes suitable contributions for publication. These should be sent electronically to the Chief Editor. Statements of opinions are those of the contributors and are not to be construed as official statements, evaluations or endorsements by the APFCB or its official bodies.

Cover page: " Lupine – A Souvenir from Birmingham".
Contributed by Tan It Koon
Founding and Past President APFCB

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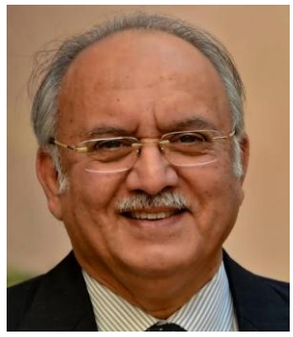

From the desk of Chief Editor...

Dear Colleagues,

Greetings!

It is with a deep sense of satisfaction and fulfillment that I am before you with this annual issue of APFCB News. It is my pleasure to come back to you with the new issue of APFCB news 2015.

This issue is special in a way since it is the last annual issue of APFCB news; henceforth the APFCB news shall be published biannually. It is due to the constant and unfailing efforts of al the member societies and the corporate that the APFCB news has become a successful and much awaited annual publication of APFCB.

I very much look forward to your sustained support in future to maintain APFCB website as a very interactive and well updated representing the active picture of APFCB and reflecting its activities. So friends, please use this forum effectively to share your progress, achievements and your thoughts and contributions on different issues related to the clinical biochemistry and laboratory medicine disciplines. My team shall be extremely pleased to hear from you and this shall make the APFCB community well communicated.

This issue features a special article on Tan It Koon, the founding president of APFCB, who has been a constant source of inspiration and has been actively involved in all the issues of APFCB news till date by contributing his marvelous art work as cover page. Once again the cover page of the current issue is an exemplary piece of art by Dr Koon, symbolizing the blending of creative spirits and science.

Endeavoring further to fulfill of my commitments as chief editor. I shall steadfastly continue my dedicated efforts to raise APFCB news to further heights.

Praveen Sharma
Chief Editor

Message from APFCB President...

Greetings to one and all.

This will be my very last message to you as President of the APFCB. The new Executive Board begins its term of office on 1st January 2017 for a term of three years.

The new Executive Board is as follows:

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

I would like to express my sincere thanks to the outgoing APFCB Executive Board members, Chairs of Standing Committees and working groups, all committee and working group members for your commitment and dedication to the APFCB which has led to the marked growth in activities of the APFCB during the six years that I was President of the APFCB. All these activities are detailed in the annual reports available on the APFCB website. I would also like to thank all Ordinary and Affiliate member societies and our Corporate members for your support to the APFCB which has contributed substantially to the growth of the APFCB and helped us to realize our goals of improving the practice of clinical biochemistry and laboratory medicine in the Asia-Pacific region.

Congratulations to Professor Woei- Horng Fang, Chair of the Congress Organising Committee for the 14th APFCB Congress and his committee members for having done such an excellent job. The APFCB congress held in Taipei from 26th till 29th November 2016 was a resounding success and will remain in our memories for many years to come.

The 15th APFCB Congress will be in Jaipur, India and the Chair of the Organising Committee is Professor Praveen Sharma. I am certain that the 15th APFCB Congress will be an excellent congress since Professor Praveen Sharma is at the helm. He and his committee members have already begun work planning for the 15th APFCB Congress. The 16th APFCB Congress will be in Sydney, Australia in 2022. Thereafter, the APFCB Congress will be held every two years and the term of the Executive Board will be two years.

From 1st January 2018 there will be a regional federation representative from each regional federation on the IFCC Executive Board. The call for nominations will be made later in 2017 to all IFCC member societies who must also be members of regional federations if they are to be allowed to nominate and vote for the regional federation representative to the IFCC. The regional federation representatives should hopefully be elected by the end of September 2017.

The AACC has begun a Quality Initiative Programme within the Asia-Pacific Region. AACC plans to conduct three workshops on quality in 2018 in Vietnam, Nepal and Sri Lanka and will also conduct a pre-congress workshop at the 15th APFCB Congress in Jaipur in 2019.

It certainly has been an honor for me to have served the APFCB for the past 12 years, first as Chair of the Education Committee from 1998 till 2004, then as Vice President from 2004 till 2010 and as President from 2010 till the end of 2016. I would like to wish the new Executive Board members all the very best.
I am convinced that under your leadership the APFCB will continue to grow from strength to strength.

Best wishes

Dr Leslie Charles Lai
President, APFCB

Message by In-coming President - Sunil Sethi

The Asia Pacific Federation for Clinical Biochemistry and Laboratory Medicine (APFCB) in 2017

The Asia Pacific Federation for Clinical Biochemistry and Laboratory Medicine (APFCB) had its humble beginnings in the late 1970s. Today in 2017, after forty years of growth and development, the APFCB is a massive regional federation with 18 full Ordinary Members, 6 Affiliate Members and 18 Corporate Members.

The member societies of the APFCB practice laboratory medicine in a wide and diverse range. Supporting the needs of our member societies requires significant numbers of laboratory professionals skilled and committed to help raise the standard of laboratory practice in this part of the world. An important area for the APFCB to develop is the culture of self-help within the region. Member societies will be urged to self-reflection areas which are important in their development journey, so that effective training and education can be provided. These activities also need to be efficiently conducted so that as many countries as possible can benefit.

The APFCB has a good history of collaboration with other international federations, and further goodwill and partnerships will be developed especially with the IFCC, AACC and WASPaLM.

This year in 2017, the APFCB EB and Working Committees have put together an ambitious plan for a variety of activity. Details of our ongoing scientific and educational activities will be highlighted to our members and the APFCB website will carry a calendar of our events for the year and will feature a rich array of articles, reports and interesting information. I strongly encourage you to visit all the sections of our website at www.apfcb.org.
A particular area of interest that I wish to initiate is the development of an accuracy based EQA/PT programme for the region. Anchoring our common laboratory test analytes onto a metro logically validated and traceable target value, will be the first step towards standardization, harmonization and formation of uniform laboratory protocols for the APFCB.

I would like all members to be actively engaged in the programmes organized by the APFCB. There will be focused meetings, education courses, mini-conferences and similar such activities over the next few years. Our next major APFCB Congress will our 15th and this will take place in Jaipur, India from 17-20 November 2019. I urge all to mark this date.
I look forward to a productive year and wish everyone a happy and healthy 2017!

Dr. Sunil Sethi, President APFCB
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ASIA-PACIFIC FEDERATION FOR CLINICAL BIOCHEMISTRY AND LABORATORY MEDICINE

Annual Report for 2016

I. APFCB Matters

Ordinary Members

The following National Societies are members of the APFCB:

1. Australasian Association of Clinical Biochemists (AACB)
2. Chinese Society of Laboratory Medicine (CSLM)
3. Hong Kong Society of Clinical Chemistry (HKSCC)
4. Association of Clinical Biochemists of India (ACBI)
5. Indonesian Association of Clinical Chemistry (IACC)
6. Japan Society of Clinical Chemistry (JSCC)
7. Korean Society of Clinical Chemistry (KSCC)
8. Malaysian Association of Clinical Biochemists (MACB)
9. Nepal Association for Medical Laboratory Sciences (NAMLS)
10. Pakistan Society of Chemical Pathologists (PSCP)
11. Philippine Association of Medical Technologists (PAMET)
12. Singapore Association of Clinical Biochemists (SACB)
13. Association for Clinical Biochemistry, Sri Lanka (ACBSL)
14. Chinese Association for Clinical Biochemistry, Taiwan (CACB)
15. Thailand Association of Clinical Biochemists (TACB)
16. Vietnamese Association of Clinical Biochemistry (VACB)
17. Mongolian Association of Health Laboratories (MAHL)
18. Vietnamese Association of Clinical Biochemistry (VACB)

Corporate Members

1. Abbott Diagnostics
2. BD Diagnostics
3. Beckman Coulter
4. Bio-Rad
5. Diasorin Ltd
6. Diasys Diagnostic Systems, GmbH
7. Guangzhou Wondfo Biotech Co
8. Kopran Laboratories Ltd
9. Ortho-Clinical Diagnostics
10. PM Separations
11. Randox Laboratories
12. Roche Diagnostics
13. Sekisui Chemical Co
14. Shenzen Mindray Bio-Medical Electronics Co Ltd
15. Siemens
16. SNIBE (Shenzhen New Industries Biomedical Engineering Co Ltd)
17. Sukraa Software Solution Pvt Ltd
18. Sysmex
19. Technidata Medical Software

PM Separations rescinded its membership of the APFCB in 2016

Affiliate Members

1. Association of Medical Biochemists of India (AMBI)
2. Chinese Association of Clinical Laboratory Management (CACLM)
3. College of Pathologists of Sri Lanka (CCPSL)
4. Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL)
5. Macao Laboratory Medicine Association (MLMA)
6. Nepalese Association for Clinical Chemistry (NACC)

	Name of Association	Country	Ordinary Member Affiliate Member Corporate Member	Joining Date
1	Iranian Association of Clinical Laboratory Doctors (IACLD)	Iran	Ordinary Member	August 2016
2	College of Pathologists of Sri Lanka (CCPSL)	Sri Lanka	Affiliate Member	February 2016
3	Philippine Council for Quality Assurance in Clinical Laboratories (PCQACL)	Philippines	Affiliate Member	August 2016

New Members

Office Bearers and Chairs of Standing Committees

Executive Board

President	Leslie Lai (Malaysia)
Immediate Past President	Joseph Lopez(Malaysia)
Vice-President	Sunil Sethi (Singapore)
Secretary	Endang Hoyaranda (Indonesia)
Treasurer	Elizabeth Frank (India)
Corporate Representative	Alexander Wong (Siemens)

Chairs of Standing Committees

Communications(C-Comm)	Praveen Sharma (India)
Congress and Conferences (C-CC)	Joseph Lopez (Malaysia)
Education &Laboratory Management (C-ELM)	Tony Badrick (Australia)
Scientific (C-Sci)	Kiyoshi Ichihara (Japan)

New Executive Board (1 January 2017 till 31 December 2019)

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

14th General Council Meeting

The 14th General Council meeting was held on Saturday, 26th November 2016 at the Taipei International Convention Centre, Taipei. The minutes of the Council meeting will be circulated in due course.

Annual IFCC grant

The IFCC gives the APFCB CHF 10,000 per year which is paid into the Philanthropic Fund. This grant funds travel awards for young scientists to attend conferences to present their research.

Memorandum of Understanding between APFCB and AACC

A memorandum of understanding (MoU) between APFCB and AACC was signed on 11 December 2014 between Dr Leslie Lai, President of APFCB and the CEO of AACC, Dr Janet Kreizman. The MOU was effective for a period of two years from 1.1.2015 till 31.12.2016. A new MoU was signed on 11 November 2016 effective for three years from 1.1.2017.

I. Education and Laboratory Management Committee

Chair: Dr. Tony Badrick (Australia)

Committee Members

Chair	Tony Badrick (Australia)
Ex-officio	Leslie Lai
Secretary	July Kumalawati (Indonesia) DM Vasudevan (India)
Members	Yong Hwa Lee (Korea)

Corresponding Members

CSLM (China)	Wang Zhiguo
CACLM (China) - Affiliate member	Jinming
HKSCC (Hong Kong)	Joseph Lee
AMBI (India)	Jasbindrer Kaur
JSCC (Japan)	Susumu Osawa
MAML (Macau-China) - affiliate member	Henry Tong Hoi Yee
MACB (Malaysia)	Joseph Lopez
NAMLS (Nepal)	Ram Vinod Mahato
PSCP (Pakistan)	Rizawan Hashim
PAMET (Philippines)	Mary Georgene Jimenez
SACB (Singapore)	Sharon Saw
ACBSL (Sri Lanka)	H Weerawarna
CACB (Taiwan)	Hsiao-Chen Ning
TACB Thailand)	Saravut Saichanma
VACB (Vietnam)	Pham Thien Ngoc

A. IFCC Visiting Lecturer for 2015–2016: Prof Howard Morris (Australia)

Prof Morris was the IFCC Visiting Lecturer for 2015-2016 and he delivered the following lectures in 2016:

- Korea - LMCE2016 (KSCC) "Healthcare, laboratory medicine and patient care" and a symposium presentation title "Is vitamin D critical for health outcomes? When to assess vitamin D status". October 2016
- Malaysia (MACB) - 'Is Vitamin D Critical for Improved Health Outcomes?' and 'When to Assess Vitamin D Status'. July 2016
- Australia (AACB) – "Vitamin D and bone disease" Sydney, Sep 2015

B. 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.

C. APFCB–Siemens Young Scientist Awards

Five APFCB-Siemens Travel Awards were awarded to five young scientists to participate at the 14th APFCB Congress in Taiwan based on their abstracts. These awards were hotly contested with forty-eight applications. Each awardee received SGD 2,000 at the congress. Unfortunately, due to unforeseen circumstances one awardee withdrew. Hence, only four APFCB-Siemens Travel Awards were given.

On the basis of their oral presentations at the APFCB congress in Taipei Dr. Rojeet Shrestha (Nepal) was awarded the second prize of SGD 500 and Dr Swarup AV Shah (India) was awarded the first prize of SGD 1,000. These travel awards and prizes were generously sponsored by Siemens Healthineers

The APFCB also awarded ten travel awards of SGD 1,000 each to young scientists who were ranked the next highest in the scoring.

D. APFCB Congress Workshops

Workshops at the 14th APFCB Congress in Taipei

1) Joint APFCB-WASPaLM Accreditation Workshop with the following topics covered by APFCB and WASPaLM speakers:
   - Quality Systems Approach to Improvement Badrick
   - Introduction to ISO 15189 Elizabeth Frank
   - Ethical Practice/Governance Lai-Meng Looi
   - Staff training and competence
   - Jagdish Butany

2) APFCB Pre-analytical workshop
   - Pre-analytical errors and quality improvement
   - Phlebotomy competence – solutions! Endang Hoyaranda
   - Haemolysis, an ongoing problem Tony Badrick

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. The aim of this activity is to raise awareness of the importance of Pathology testing.

   Chair: Leslie Lai
   Facilitator: Ms Jenny Brockie, Journalist and host of Insight, SBS TV, Australia

   Panelists:
   Dr Maurizio Ferrari
   Full Professor of Clinical Pathology, Vita-Salute San Raffaele University, Milan, Italy

   Mr David Lu
   Deputy Regional Chief Medical Officer & Vice President, Life & Health Products, Swiss Reinsurance Company Ltd, Hong Kong

   Prof. Howard Morris
   Professor of Medical Sciences at the University of South Australia and Clinical Scientist in Chemical Pathology at SA Pathology, Adelaide, South Australia.

   Dr. Aw Tar Choon
   Senior Consultant, Laboratory Medicine, Changi General Hospital, Singapore

   Dr Raphael Twerenbold
   MD, Department of Cardiology, University Hospital Basel, Switzerland

   Mr. Lance Little
   Managing Director of Roche Diagnostics Asia Pacific

E. 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. The purpose of these cases and suggested responses is to provide some clinical cases for continuing education. There was wide range of responses with between 15 and 45 participants.

F. 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. The course content is constructed using three principles of learning:

Lean Simulation
Hands-on simulation exercises to enable participants to apply the Lean principles and tools in a fun and interactive way

Process Mapping
Visually illustrate and convey the essential details of lab processes for better understanding of lab operations

Problem Solving
Brainstorm solutions based on Lean principles to address impending lab challenges and plan for implementation
The aim of this training is to cascade the concepts of Lean across Vietnam. The APFCB and VACB are part of the Governance Board who, together with Roche, will oversee the quality of the courses and monitor the success of the project.

Planning began in 2015 with Roche Diagnostics to develop a series of **workshops/courses** dealing with Lean- Six Sigma. These workshops will be jointly organized by the local APFCB-affiliated society, the APFCB and Roche Diagnostics. The first of these was run in Vietnam in 2016.

G. APFCB–MACB Chemical Pathology Course

The first Chemical Pathology Course of the APFCB was co-organised with the MACB from 19-21 September 2016, in Kuala Lumpur.
The selection of the MACB was an appropriate choice since it plans to hold professional examinations for clinical biochemists. The MACB is currently working towards government recognition of such examinations.

The course ran over 3 days with content based on the AACB Chemical Pathology Course and is a pilot for this type of Course in the Region. This was the first of these APFCB-sponsored courses which are designed to prepare candidates for professional exams as well as provide general education for laboratory staff. The topics cover fairly basic aspects of chemical pathology to refresh basic knowledge in the principles of measurement and basic pathological processes. There is also a case study component to allow some analysis, interaction and team building.
The course was attended by about 65 registrants who included pathologists, scientists and technologists. The faculty included Dr Tony Badrick, Dr Louise Weinholt from the RCPAQAP, Dr Raja Elina Aziddin (MACB President) and Dr Loh Tze Ping of Singapore.

The course was well received by the registrants and the venue and facilities were appropriate for this inaugural course. The course notes were particularly good and will be a valuable resource for those studying.

The following Chemical Pathology courses and workshops have been organised and delivered in association with Roche Diagnostics:

1) The 8th Vietnam Chemical Pathology Course (Ho Chi Minh City) was conducted at the New World Hotel by Dr Ronda Greaves and local Vietnamese Quality experts. This one day programme on Saturday 9th July 2016 attracted approximately 350 participants and included a delegation from Myanmar.
2) The 8th Vietnam Chemical Pathology Course (Ha Noi) was conducted at the Intercontinental Westlake by Dr Ronda Greaves and local Vietnamese Quality experts. This one day programme on Thursday 7th July 2016 attracted approximately 200 participants.

H. Chemical Pathology and POCT Courses Vietnam – Ronda Greaves

The Chemical Pathology Courses organised by Ronda Greaves are now under the structure of the C-ELM. These courses are run each year in Hanoi and Ho Chi Minh City. The topics covered in 2016 are shown below:

- APAC Lab Bench-marking survey
  Mr. Mah Sam Yew,
  Consulting Manager, Lab Workflow Solutions
  Roche Diagnostics Asia Pacific Pte Ltd
- IFCC e-Academy
  Dr. Ronda Greaves MAACB, PhD, FFSc (RCPA)
- Current situation and Government plan to drive better quality of Clinical Laboratory in Vietnam
  Dr. Nguyen Trong Khoa,
  Vice Director of Medical Services Administration, MoH
- Laboratory Accreditation - the Australian Experience
  Dr. Ronda Greaves MAACB, PhD, FFSc (RCPA)
- Activities for laboratory quality from 2006 - 2016 and the plan of Central Government for quality improvement to 2025
  Dr. Tran Huu Tam,
  Director of Center for Standardization and Quality Control in Medical Laboratory of HCMC
- The importance of Internal QC
  Dr. Ronda Greaves MAACB, PhD, FFSc (RCPA)

I. APFCB Symposium at the AACC Annual Meeting in Philadelphia 2016

Addressing Pre- and Post-analytical Issues in Developing Countries conducted Wednesday, 3 August 2016, 2.30-5.00 pm at the AACC Annual Scientific Meeting in Philadelphia.

The symposium by APFCB was scheduled on the 4th day of the conference. Each speaker presented his/her presentation for 40 minutes after a 5 minute presentation on the APFCB by the moderator, Tony Badrick, followed by Q&A sessions right after each speaker. The symposium was attended by around 60 persons which was common throughout the conference, except for the plenary sessions and some sessions which had well-known, popular, and excellent speakers. The lectures were well received which was apparent from the many questions raised.

- Driving Change in the Pre-analytical Phase Endang Hoyaranda
- Ethnic and regional differences in common laboratory tests: their implications for the globalization of medical practice Kiyoshi Ichihara
- The APFCB Interpretative Comments Program Tony Badrick

J. APFCB Paediatric / Endocrine Symposium at the EFLM–UEMS Conference Warsaw 2016

The APFCB sponsored a symposium entitled "Pediatric Endocrine" at the 4th Joint EFLM-UEMS Congress, which was held from 21 till 24 September 2016 in Warsaw, Poland. The congress hosted more than 700 delegates with over 200 proffered abstracts presented as posters and orals over the four days. Importantly, the structure of this congress brought together clinical and laboratory professionals as part of the important clinical interface.

The four speakers representing the Federation, Dr. Tze Ping Loh (Chemical Pathologist, Singapore), Dr Chung Shun Ho (Scientist, Hong Kong), Prof. Wudy Stefan (Paediatric Endocrinologist, Germany) and Dr Ronda Greaves (Paediatric Clinical Biochemist, Australia), together complemented this clinical interface theme. This APFCB Symposium incorporated the following presentations:

- Dr. Tze Ping Loh - National Hospital Singapore “Clinical Utility of Steroid Analysis”
- Dr. CS Ho - Prince of Wales Hospital Hong Kong “Mass Spectrometry Analysis of Serum Steroids”
- Prof Stefan Wudy – Giessen University Germany “Interpreting Mass Spectrometry Data for the Diagnosis of Disorders of Sex Development”
- Dr. Ronda Greaves – RMIT “Mass Spectrometry Reference Intervals for Serum Steroids”.

K. 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.

II. Scientific Committee (C–Sc)

Chair: Prof Kiyoshi Ichihara (Japan)

Committee Members

Chair	Kiyoshi Ichihara (Japan)
Ex-officio	Leslie Lai
Secratary	Binod Yadav (Nepal)
Members	Ronda Greaves (Australia) Graham Jones (Australia) Dilshad A Khan (Pakistan) Raja Elina Raja Aziddin (Malaysia)

Corresponding Members

CSLM (China)	Chen Wen Xiang
CACLM (China) - Affiliate member	Chen Wen Xiang
HKSCC (Hong Kong)	Allen K Chan
ACBI (India)	Tester Ashavaid
IACC (Indonesia)	Miswar Fattah
KSCC (Korea)	Jung Han Song
MAML (Macau-China) - Affiliate member	Hoo Chai
NAMLS (Nepal)	Binod Yadav
PAMET (Philippines)	Leila M Florento
SACB (Singapore)	Sharon Saw
ACBSL (Sri Lanka)	Dr Gaya Katulanda
CACB (Taiwan)	Shu Chu Shiesh
TACB (Thailand)	Prabhop Dansethakul
VACB (Vietnam)	Nguyen Bao Toan

A. Reports and development of web–site on the 2009 Asian study for collaborative derivation of reference intervals (RIs)

The Asian study conducted as a collaborative work of APFCB with the IFCC Committee on the Reference Intervals and Decision Limits (C-RIDL) was completed in 2009.Two keynote papers were published in 2013 (Clin Chem Lab Med 2013; 51:1429–42, and Clin Chem Lab Med 2013; 51:1443–57). The large dataset from 3500 healthy individuals living in 7 APFCB countries are composed of test results for 72 major analytes and detailed information from health-status questionnaire. The dataset is an invaluable source data for exploring biological sources of variation (SV) of laboratory tests. Therefore, secondary analyses of the dataset were performed. In 2016, the following APFCB papers were published:

1. Ichihara K, Yamamoto Y, Hotta T, Hosogaya S, Miyachi H, Itoh Y, Ishibashi M, Kang D on behalf of the Committee on Common Reference Intervals, Japan Society of Clinical Chemistry. Collaborative derivation of reference intervals for major clinical laboratory tests in Japan. Ann Clin Biochem 2016; 53:347–56.

2. Masuda S, Ichihara K, Yamanishi H, Hirano Y, Tanaka Y, Kamisako T on behalf of the Scientific Committee for the Asia-Pacific Federation of Clinical Biochemistry. Evaluation of menstrual cycle-related changes in 85 clinical laboratory analytes. Ann Clin Biochem 2016; 53:365–76.
3. Jono H, Su Y, Obayashi K, et al, on behalf of the Scientific Committee for the Asia-Pacific Federation of Clinical Biochemistry. Sources of variation of transthyretin in healthy subjects in East and Southeast Asia: Clinical and experimental evidence for the effect of alcohol on transthyretin metabolism. Clin Chim Acta 2016; 458:5–11.

In June 2015, the following web-site was set up to publicize the results: http://c-sci-apfcb.net/eblm/index.html

It allows interactive viewing of RVs for EBLM by specifying sources of variation (sex, age, country, BMI, ABO blood groups, level of alcohol drinking, smoking, and exercise) or by specifying any two laboratory tests for analysis of correlation.

B. Collaboration to the global multicentre study on reference values (RVs)

The study, planned and coordinated by C-RIDL (IFCC) was launched in December of 2011. As of now, 19 countries around the world joined the study, and 7 reports including two intermediary reports were published (see below). Among the 19, 8 countries are from Asia, all are members of the APFCB, and are contributing greatly to the global study. At the time of previous report by the Scientific Committee for the period 2010–2013, only the status of Japan, China, India, and Philippine was described. After 2014, Pakistan, Nepal, Bangladesh, and Malaysia joined. The progress in each country is described briefly below:

China: Led by Dr. Ling Qiu of Beijing Union Medical College Hospital, a total of 3,148 volunteers were recruited by 2013 from 7 provinces nationwide. More than 50 analytes were measured with support from Beckman-Coulter (BC) China. The investigators recently published two reports on China-specific RIs and SVs of RVs, and writing more papers base on the results.

Japan: Recruitment of 655 healthy volunteers and measurements for 56 analytes was completed by 2012 with support from BC Japan. Ichihara Research Laboratory in Yamaguchi University has been acting as the data center and provides services for each country that requires data analysis of RVs and for derivation of RIs by use of up-to-date methodologies. Since Japanese RIs have been established from the 2009 Asian study, the newly obtained RVs from Japan have been dedicated for investigating an optimal protocol and statistical methods for derivation of RIs and comparison of SVs of RVs across the countries.

The analytical results are to be published but their results were included in the IFCC interim reports on the global study together with those from China, Japan, Philippines, and Pakistan.

Philippines: A team of laboratory technicians in Iloilo city launched the study in 2013 under the auspices of the Philippine Association of Medical Technologists (PAMET) and San Agustin University. 757 volunteers were recruited by PAMET, but PAMET experienced problems with the analytical platform which they originally planned to use. Therefore, in 2015, all the specimens were brought to Japan and 31 analytes were measured using BC reagents. Their country-specific RIs remain to be published from the results, but their study results have been included in the interim reports

Nepal: The study led by Dr. Binod Yadav of Tribhuvan University Teaching Hospital, Kathmandu, started in 2013. However, a problem was noted with the assay system as in Philippines, especially in measuring the panel of sera which is essential for standardisation and comparison of results with other countries. Then, Mr. Ram Vinod of the same university made efforts to recruit volunteers again. The test results for 22 biochemistry analytes from 630 healthy volunteers were completed in April 2016. Data analysis remains to be completed, but the results will be reported in the final reports of the global study.

Bangladesh: A team led by Dr. Firoz Ahmed in International Center on Diarrheal Disease Research joined the study in 2015 with support from BC and Abbott. Recruitment of 580 volunteers and measurements of 61 analytes, including CBC, were completed by July 2016. The data analysis remains incomplete, but will be reported in the final C-RIDL report.

Pakistan: Two institutions (Aga Khan University in Karachi and Armed Forces Institute of Pathology in Rawalpindi) joined the study in 2014 independently, respectively led by Dr. Farooq Ghani and Prof. Dilshad Khan with recruitment of 607 and 560 volunteers, targeting 52 and 42 analytes using Siemens and Abbott reagents, respectively. There were no appreciable differences in RVs between the two studies in any analyte. However, there were problems encountered in the measurement of the serum panel in the former institution. Therefore, in the interim reports on global comparison of RVs, only those from the latter institution were used.

Malaysia: A nationwide study was launched in July 2016, and is currently under way by setting up three central labs within Malaysia. A total of 1000 healthy volunteers are to be recruited for measurement of 50 analytes using Siemens and Abbott reagents depending on the location. Between assay-platform differences are to be harmonized based on common measurements of the serum panel by all three central labs. Therefore, RIs for analytes measured by immunoassays are to be derived for each reagent

The interim reports on the global study were just published in two parts based on results from 12 countries, including 5 from Asia. Part I focused on (1) assessment of statistical methods which are most suitable for the harmonised implementation of the RI study and (2) exploration of between-country differences in RVs after alignment of them based on the panel test results. For the latter aspect, it is notable that RVs of many analytes (Albumin, Creatinine, uric acid, TG, AST, ALT, etc) showed no differences among the Asian countries. In contrast, the RVs of TP, Urea, LDL-C, HDL-C, CRP, IgG, etc. differed greatly among Asian countries. Part II of the report dealt with SVs of RVs. Alcohol, smoking, exercise-related changes in RVs were similar among the countries. However, BMI-related changes of RVs for TG, HDL-C, AST, and ALT differed greatly among Asian countries. These findings are to be confirmed with the addition of results from three more Asian countries.

Papers published in 2016 on the global study incorporating APFCB member countries are as follows:

Xia L, Qiu L Cheng X, Chen M, Tao Z, Li S, Liu M, Wang L, Qin X, Han J, Li P, Hou L, Yu S, Ichihara K. Nationwide multicenter reference interval study for 28 common biochemical analytes in China. Medicine 2016; 95 (9): e2915.

1. Ichihara K, Ozarda Y, Barth JH, et al. on behalf of the Committee on Reference Intervals and Decision Limits, IFCC and Scientific Committee, APFCB. A global multicenter study on reference values: 1. Assessment of methods for derivation and comparison of reference intervals. Clin Chim Acta (in press)doi.org/10.1016/j.cca.2016.09.016

2. Ichihara K, Ozarda Y, Barth JH, et al. on behalf of the Committee on Reference Intervals and Decision Limits, IFCC and Scientific Committee, APFCB. A global multicenter study on reference values: 2. Exploration of sources of variation across the countries. Clin Chim Acta (in press) doi.org/10.1016/j.cca.2016.09.015

The following presentations regarding the above research were made between 2014 and 2016:

1. Ichihara K. “The Utility of Big Data in Laboratory Medicine”, the 13th Asian Society of Clinical Pathology and Laboratory Medicine (ASCPaLM) 2016, March 26, 2016, Taipei, Taiwan. (Plenary Lecture).

2. Ichihara K. “Understanding the Impact of Race and Rationality on Common Tests”. The 26h Malaysia Association of Clinical Biochemistry Conference. July 18, 2016, Kuala Lumpur, Malaysia. (Plenary Lecture)

3. Ichihara K. "Ethnic and Regional Differences in Common Laboratory Tests: Their Implications for the Globalization of Medical Practice" In APFCB sponsored symposium: Addressing pre- and post-analytical issues in developing countries". 2016 AACC Annual meeting, August 3, 2016 in Philadelphia, USA. (Symposium)

4. Ichihara K. "Clinical Chemistry and Laboratory Medicine for Better Patient Care". 2016 Nepali Association of Clinical Chemistry General Conference, August 20-21, 2016, Kathmandu, Nepal. (Plenary Lecture)

5. Mahato RV. "Reference Intervals for common biochemical parameters in healthy adult Nepalese population aged (18-65). 2016 Nepali Association of Clinical Chemistry General Conference, August 20-21, 2016,Kathmandu, Nepal.(Poster Presentation)

6. Cheng X. Analysis of anti-Müllerian hormone levels in adult Chinese women: A multicenter reference intervals study. The 14th Asia–Pacific Federation for Clinical Biochemistry and Laboratory Medicine Congress (APFCB 2016), November 26-29, 2016 (oral session)

7. Yu S. Hypovitaminosis D is more prevalent in younger adults than elder ones in China: vitamin D status survey based on a multicenter study. The 14th Asia–Pacific Federation for Clinical Biochemistry and Laboratory Medicine Congress (APFCB 2016), November 26-29, 2016 (oral session)

C. A new research project for building a clinical case bank

As a new research project coordinated by Scientific Committee of APFCB, in 2015, the Chair of the Scientific Committee proposed to the Executive Board that he would like to develop a well-defined international clinical case bank for promoting the practice of evidence-based laboratory medicine (EBLM). The background of the proposal was the success of the large scale multicentre global study on RVs, which features standardised / harmonised accumulation of RVs around the world through common measurement of the serum panel. The study not only allowed derivation of RIs in harmony among the countries using up-to-date methods, but also provided detailed information on biological SVs of RVs which is useful in the practice of laboratory diagnosis. A similar multicentre study is now possible targeting well-defined diagnostic categories of diseases, rather than targeting healthy individuals, using the same strategy of the serum panel-based recalibration/alignment of laboratory test results.

As an initial attempt, hematological malignancy (multiple myeloma, malignant lymphoma), and major endocrine and collagen diseases are in target for collecting well-defined cases of each diagnostic category with recording of lab test results at onset (before therapy) together with clinical findings and prognostic information to be obtained afterwards. For standardised analytes, their test results are to be standardised/ recalibrated based on assigned values on the serum panel. For non-standardised analytes, the values measured by any assay platform will be aligned at the time of combining results from multiple institutions, again based on the panel test results. By analysing lab data from the clinical case bank in reference to clinical stages and subtype of each case, the project seeks to determine "disease-specific RIs" of major lab tests stratified by stages and subtypes of each disease.

After exploring and publishing new diagnostic knowledge for the practice of EBLM, the clinical case bank will be made available from the above-mentioned web-site for the Asian RI study (to be merged with the RVs from the global RI study).Currently, laboratory scientists and clinicians from core medical institutions in Japan, Bangladesh, Nepal, India, and Pakistan, South Africa, Kenya, and Nigeria have expressed their willingness to take part in the study. Explanatory meetings were held in Kathmandu on Apr 4 and Aug 15, Cape Town on July 5, Dhaka on July 21-22, Niigata on Aug 24, Maebashi on Aug 25, and Ube on Sep 20. The protocol will be evaluated in details during the Scientific Committee meetings in Taipei on Nov 27−28, 2016 before launching the project from 2017.

D. Regional project for harmonisation of mass spectrometry–based steroid assays.

Chair: Dr. Ronda Greaves (Australia)

The **Mass Spectrometry Harmonisation Working Group** (MSHWG) was proposed as an outcome of the 2010 Asian Pacific Mass Spectrometry Conference in Hong Kong. The goal of the MSHWG is to promote harmonisation, and where practicable, standardisation of mass spectrometry methods through a consensus approach with laboratories; principally in the Asia and Pacific area. A decision was made to initially focus attention on steroids due to the common interest of members in this area. In a collaborative process, the MSHWG has incorporated studies relating to steroids currently reported in the RCPAQAP endocrine programme; particularly serum testosterone, dihydrotestosterone, and 17-hydroxyprogesterone (17OHP). In addition, work has continued to support the establishment of a urine steroid metabolome method (for the investigation of adrenal cortex disorders) at the National Hospital of Pediatrics in Ha Noi Vietnam to establish a regional reference service and also to establish harmonisation of this procedure in the Asia Pacific region. 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.

Publications

1. Greaves RF, Jolly L, Hartmann M, Ho CS, Kam R, Joseph J, Boyder C, Wudy S. Harmonisation of Serum Dihydrotestosterone Analysis: Establishment of an External Quality Assurance Program. Clin Chem Lab Med 2017; (published online 14th October 2016).

2. Greaves RF, Ho CS, Hoad KE, Joseph J, McWhinney B, Gill JP, Koal T, Fouracre C, Iu Y, Cooke B, Boyder C, Pham H, Jolly L. Achievements and future directions of the APFCB mass spectrometry harmonisation project on serum testosterone. Clin Biochem Rev 2016;37:63-84.

3. A Kulle A, Krone N, Holterhus PM, Schuler G, Greaves RF, Juul A, de Rijke YB, Hartmann MF, Saba A, Hiort O, Wudy SA. Steroid Hormone Analysis in Diagnosis and Treatment of DSD: - Position Paper of EU COST Action BM 1303 "DSDnet. European Journal of Endocrinology. Submitted.

4. Greaves, RF. External Quality Assurance – Its central role in supporting harmonisation in laboratory medicine. Clin Chem Lab Med 2017; (Invited Editorial, published online 14th October 2016).

5. Greaves, RF. Recent advances in the clinical application of mass spectrometry. eJIFCC. 2016;27:264-271.

6. Tran MTC, Trung KH, Greaves RF. Practical application of biological variation and Sigma metrics quality models to evaluate 20 chemistry analytes. Clinical Biochemistry 49 (16), 1259-1266.

Conference Abstracts

1. Loh TP. Clinical utility of steroid analysis. Session 13: Pediatric endocrine symposium – 4th EFLM-UEMS Congress Poland 2016, 21-24 Sept 2016. Clin Chem Lab Med 2016; 54 (10): eA248-9.
2. Ho CS. Routine steroid hormones service by mass spectrometry for pediatric endocrinology. Session 13: Pediatric endocrine symposium – 4th EFLM-UEMS Congress Poland 2016, 21-24 Sept 2016. Clin Chem Lab Med 2016; 54 (10): eA249.

3. Wudy SA. Interpreting mass spectrometry data for the diagnosis of disorders of sexual development. Session 13: Pediatric endocrine symposium – 4th EFLM-UEMS Congress Poland 2016, 21-24 Sept 2016. Clin Chem Lab Med 2016; 54 (10): eA249.
4. Greaves, RF. Mass spectrometry reference intervals for serum steroids. Session 13: Pediatric endocrine symposium – 4th EFLM-UEMS Congress Poland 2016, 21-24 Sept 2016. Clin Chem Lab Med 2016; 54 (10): eA249-50.
5. Greaves, RF, Wudy S, Hartmann M, Ho CS, Kam R, Joseph J, Boyder C, Jolly L. Harmonisation of Serum Dihydrotestosterone Analysis: Establishment of an External Quality Assurance Program. European Society for Pediatric Endocrinology (ESPE). Rapid Communication Presentation. Paris France Sept 2016.
6. Tavita N, Greaves RF. Systematic Review of Serum Steroid Reference Intervals developed using Mass Spectrometry. 54th AACB Annual Scientific Conference 2016.

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

Chair: Associate Prof Dr Graham Jones (Australia)

This project was proposed by Dr Graham Jones in 2013 and accepted by the APFCB EB at that time. The project was aimed at emphasizing the following points:

1. Quality, traceable assays for Creatinine, urine albumin, and possibly cystatin C
2. Standardise reporting (units, eGFR formula, Reference Intervals, decision points)
3. Education of users
4. Produce the following guidelines: Who and when to test, which tests to use, how to interpret, how to manage
5. Reporting issues

It was proposed to include AFCKDI (Asian Forum of Chronic Kidney Disease Initiative) to give three contributing parties to the project: APFCB, WASPaLM and AFCKDI.

Dr Jones has spoken on CKD as the APFCB Travelling Lecturer and AACB Roman Lecturer (with additional financial support from host organizations; St Vincent's Hospital Sydney; and from Roche Diagnostics for Vietnam) in India, Vietnam, China, Australia, Singapore, New Zealand, Hong Kong and Mexico (WASPaLM World Congress November 2015). Additionally, he has spoken at the Vietnam Association of Urology and Nephrology (VUNA) on the topic and also at the APFCB Congress in Taipei as a plenary lecturer.

A meeting was held for interested members of APFCB organizations 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.

The following personnel were proposed for the task force (TF):

1. Chair: Dr Graham Jones (APFCB)
2. Vice Chair: Dr Leslie Lai (WASPaLM)
3. Vice Chair: Dr Tsukamoto (or other nominee) (AFCKDI)
4. Secretary: Dr Ronda Greaves (APFCB)
5. Members: Dr Sunil Sethi (Singapore), Dr Praveen Sharma (India), Dr Arleen Suryatenggara (Indonesia)

The aim is to model the TF on the IFCC TF-CKD. This TF consists of a number of members, and also corresponding members. All members of either class are nominated by their parent professional organization and are invited to fully participate in the activities of the TF. The IFCC-TF is basing current activities on supporting national organizations in working with national nephrology organizations, particularly with regard to consideration of the KDIGO Guidelines on diagnosis of CKD.

III. Communications Committee (C-Comm)

Chair: Prof Praveen Sharma (India)

Committee Members

Chair	Praveen Sharma (India)
Ex-officio	Leslie Lai
Secretary	MVR Reddy (India)
Members	Hwan Sub Lim (Korea)
	Marivic Baniqued (Philippines)

Corresponding Members

AACB (Australasia)	Sandra Klingberg
CSLM (China)	Guan Ming
CACLM (China) - Affiliate member	Mingting Peng
HKSCC (Hong Kong)	Karen KT Law
IACC (Indonesia)	Krist Haksa
JSCC (Japan)	Hitoshi Chiba
MAML (Macau-China) - Affiliate member	Terry Wan Chi Chung
NAMLS (Nepal)	Pramod Prasat Raut
PSCP (Pakistan)	Samina Ghayur
SACB (Singapore)	Sharon Saw
ACBSL (Sri Lanka)	BKTP Dayanath
CACB (Taiwan)	Ya-Wen Chang
TACB (Thailand)	Busaba Matrakool
VACB (Vietnam)	Hoang Thu Ha

The C-Comm has been actively promoting the activities of APFCB at national level with member societies as well as at international level. The various activities of member societies are disseminated through the APFCB website.

APFCB e-News

One of the major activities of C-Comm has been the regular publication of APFCB news. The publishing team comprises:

Editor-in-Chief	Praveen Sharma
General and Case Studies Editors	Leslie Charles Lai
	Tester Ashivaid
	Aysha Habib
Web Editor	MVR Reddy
Assistant Editor	Purvi Purohit

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

- APFCB activities
- Activities of member societies
- Features (including special mention of any outstanding work)
- Scientific article by members
- Scientific articles by corporate members

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 in a year as Issue -1 and 2 in an effort to cover more regional activities and provide more up-to-date news. The APFCB e-News 2016 (Issue-1) is already online covering the activities of member societies in the first half of this year.

APFCB Website

The Chair of the Communications Committee was charged with the responsibility of launching the APFCB website and its coordination, maintenance and improvement (www.apfcb.org). Dr MVR Reddy (India) has been assigned the responsibility of being the web editor. The site was successfully launched on 1 Nov 2011. Since then, it is regularly updated with comprehensive information on the organization and activities of APFCB and its member societies. Access is made available through the website to the ongoing Scientific, Education and Laboratory Management Committee programmes of APFCB as well as the activities of the Communications and Congress Committee.

The APFCB website hosted the first ever live broadcasting of the Vietnam Chemical Pathology Course in the year 2015 which was viewed by more than 200 participants.
There is also a photo gallery of relevant events. The website is also a source of information on the APFCB Congress and regional meetings, APFCB Travelling Lecturer programme and future events. The APFCB e-News and annual reports are conveniently published online on this platform, making them readily available to all members. The website also gives access to the APFCB webinars.

Public Relations

A power point presentation on the APFCB, its members and its activities was developed by Mr. Martin Fuhrer, Corporate Representative to the EB and is now being updated regularly by the Corporate member, Dr Alexander Wong. This power point presentation is ready for use at member society conferences and at regional and international meetings to promote the APFCB.

IV. Congress and Conferences Committee (C-CC)

Chair: Joseph Lopez (Malaysia)

Committee Members

Chair	Joseph Lopez
Ex-officio	Leslie Lai
Secretary	Peter Graham
Members	Yap Tjin Shing
	Joycelynn Aman

Corresponding Members

CSLM (China)	Cui Wei
CACLM (China) - Affiliate Member	Chuanbao Zhang
HKSCC (Hong Kong)	Cybil TY Wong
ACBI (India)	Rajiv R Sinha
AMBI (India)	Animesh Bordoloi
IACC (Indonesia)	Eric Martoyo
JSCC (Japan)	Yuzo Kayamori
KSCC (Korea)	Sung Eun Cho
MAML (Macau-China) - Affiliate Member	Antonio Joaquim Noronha
MACB (Malaysia)	Chen Bee Chin

NAMLS (Nepal)	Mithlesh Raut
PSCP (Pakistan)	Khalil-ur-rehman
SACB (Singapore)	Sharon Saw
ACBSL (Sri Lanka)	Mrs. Sriyani Amarasinghe
TACB (Thailand)	Phannee Pidetcha
VACB (Vietnam)	Tran Hoai Nam

Background

The APFCB C-CC began its existence as the Congress Committee which was a standing committee of the APFCB. It was responsible to the APFCB Council. The role of the Congress Committee was to provide assistance with the organisation and the scientific programme of the Asian and Pacific Congress of Clinical Biochemistry or APCCB, as the APFCB Congress was then called.

With the Strategic Plan of 2010 that was approved by the APFCB Council at its meeting in Seoul, the Congress Committee became the APFCB C-CC.

The Plan stated that the membership would consist of a Chair appointed by the APFCB Executive Board, a Secretary and one other member. The APFCB President would be an ex-officio member.
The functions of the C-CC are as follows:

1) Role in APFCB Congresses

- Oversee the organisation of the APFCB Congress.
- Help raise sponsorship for meetings.
- Appoint members to be on the Scientific Committee of the APFCB Congress to ensure the international nature of the scientific content.

2) Specialty meetings

To organise one specialty meeting/workshop each year, as proposed by other Committees and conducted in conjunction with committees.
Prior to the 2010 Strategic Plan, the Immediate Past President was the ex –officio Chair of the Congress Committee. However, the Strategic Plan stated that the Chair of C-CC was to be appointed by EB, as with other standing Committee Chairs.

Activities

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

The C-CC worked closely with Congress Organising Committee (COC) of the 14th APFCB Congress and especially with the Chair, Professor Woei-Horng Fang. The COC furnished regular reports with budget and details of the progress of preparation. Reports were also submitted to the IFCC C-CC through Mr. Joe Lopez who is a member of this committee as well.

The Chair and APFCB President met with the COC in Taipei on 24th Oct 2015 to discuss the progress of preparations. The meeting was attended by Professor Fang, Professor Shu-Chu Shiesh, Chair of the Scientific Organizing Committee and other colleagues from the COC. Also present were representatives from the professional conference organiser (PCO). Professor Fang presented the progress report while Professor Shiesh presented the draft scientific programme. A report of the visit was prepared by Joe Lopez and submitted to the Executive Board and the C-CC.

A. Amendments to the APFCB Congress Guidelines

The present APFCB Congress guidelines were prepared by Past President Dr. Tan It Koon when he was Chairman of the APFCB Congress Committee from 1988-1991 and have been used until the present. Since these guidelines are more than 25 years old, the current C-CC Chair has undertaken an extensive revision of these guidelines.

The proposed revised guidelines are more comprehensive and take into account the changes that have been approved by Council over the past several years. The revised guidelines were approved by the C-CC and then by the EB in early 2016. It was subsequently sent to Council for comment. The final draft of the revised guidelines will be presented to the Council Meeting for approval, taking into account issues relating to the code for ethical business practices that came up in the IFCC in the second half of 2016.

B. Auspices

One of the functions of the APFCB C-CC is the award of auspices of the APFCB for scientific meetings. The provision of auspices is mutually beneficial: the APFCB lends its prestige to a meeting which should help it attract greater participation and in return the APFCB benefits from greater name recognition among the participating laboratory scientists.

All applications for APFCB auspices are vetted by the C-CC and treated on a case-by-case basis. The C-CC is careful to award auspices only to scientific meetings that are organised by learned bodies and vendors such as its corporate members where the content is of educational value and non-commercial in nature.

Meetings by vendors that purely promote their products or those organised for profit by individuals or commercial bodies will receive auspices only in exceptional cases. This policy was approved by the EB at its meeting in Jakarta in February 2016 and a policy statement written Joe Lopez on this was submitted to the APFCB e-News for publication.

In 2016, APFCB auspices were provided for the following meetings:

1. College of Chemical Pathologists, Sri Lanka, Annual Academic Session, 3-5 March 2016
2. The Korean Society for Laboratory Medicine, 10th International Conference of Clinical Laboratory Automation (Cherry Blossom Symposium 2016), Seoul, South Korea, 20–22 April 2016
3. Association of Practicing Pathologists, India, 3rd Annual Conference, 11-12 June 2016
4. Nepalese Association for Clinical Chemistry (NACC), Annual Conference, 20-21 August 2016
5. AACB-AIMS Combined Scientific Meeting and Chromatography Mass Spectrometry Satellite Meeting, 13-15 September 2016
6. The Korean Society for Laboratory Medicine for LMCE 2016 (Laboratory Medicine Congress & Exhibition) & KSLM 57th Annual Meeting, 26–28 October 2016
7. Roche Efficiency Days (RED) 2016, Beijing 5-6 December 2016
8. Euro MedLab, Athens, Greece 11-15 June 2017
9. IFCC WorldLab, Durban, South Africa, 22-25 October 2017.

The C-CC declined to provide auspices to a meeting on metabolomics as it appeared to be organised by a professional conference organiser and thus deemed to be a “for profit” meeting.

C. Resolution on Compliance with Codes of Ethical Business Practice

Various national and international agencies have in recent years established codes of ethical business practices. Ethical business practices are also applicable to in vitro diagnostics (IVD) industry, in particular for third party educational event organizers such as the IFCC and national societies.

The IFCC has decided in principle to endorse these codes of ethical business practices for all educational events developed and/or supported by the IFCC. The IFCC has endorsed the "Med Tech Europe Code of Ethical Business Practice". The code is potentially applicable to the APFCB Congresses as well as it affects potential sponsors. A resolution for the APFCB as well to endorse the "Med Tech Europe Code of Ethical Business Practice" will be tabled at the Council Meeting.

Corporate Member's Report by the Corporate Representative

Dr. Alexander Wong (Siemens Healthineers)

Summary of Corporate Membership

Year	New Corporate Members Added	Corporate Members Rescinded
2016	Nil	PM Separations

Unfortunately, PM Separations decided to rescind their membership in 2016. The Corporate Representative had followed up with Mr. Michael Rennie of PM Separations who shared that the main reason was that of declining resources and PM Separations took the decision to support two other regional associations that were closer to their core business needs.

A. Corporate Members Survey (Conducted in 2015)

A Corporate Members Survey was conducted on behalf of the Executive Board. The objectives were to better understand the needs of corporate members, and find greater alignment of activities between the members and APFCB committees. A total of 7 responses were received, representing the major vendors. The survey concludes the following observations on corporate member priorities:

1) Promoting the Value of IVD

From a broader market perspective, pricing is taking a greater precedence over quality and clinical value, with budget cuts hitting hard on visible targets such as the LMD.

Overall, Corporate members would like to see the APFCB forge collaborations with regional medical societies in order to promote the value of IVD, and increase the standing of laboratory medicine.

2) Improving the Quality of Laboratory Medicine

Corporate members would like to see greater leadership from APFCB to improve the quality of laboratory medicine. The current mode of engagement is through jointly organised educational workshops on topics such as pre-analytical / QC / LEAN / Six-Sigma. Some members have expressed a willingness to open up such programmes to other corporate members, although others prefer to keep this as a value-adding exercise for their own customers. There may be a need for C-ELM to establish a set curriculum of topics that are adaptable to individual corporate members' needs.

3) Disease State Education and Scientific Studies

Disease state education and specialty meetings may be tied in with a travel lectureship, based on corporate members' needs. Corporate members would like to seek greater transparency with proposed studies before being able to commit to these activities. Some areas of interests include reference range values for Asia-Pacific populations, and health economic studies / patient-related outcomes as a means to promote the overall value of IVD.

4) Cost–Effective Opportunities for Branding and Promotion

Most Corporate members are open to alternative forms of branding and marketing, e.g. e-newsletters, APFCB website and webinars, as long as they are cost-effective.

B. APFCB–SACB–Siemens Specially Meeting on QC Management

Date: 15 Jul 2016 (Friday), 1200 – 1715hrs

Venue: Mandarin Orchard 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. A/Prof Sunil Sethi acted in his capacity as APFCB Vice-President as well as SACB President to grace the event with a Welcome Speech to over 120 laboratory participants.

Dr. Tony Badrick, Chief Executive Officer RCPAQAP and Chair of C-ELM spoke on topics relating to QC Fundamentals and Rules, offering a comprehensive overview of QC know-how. This was followed by Ms. Vani Sugumaran, Group Product Marketing Manager, Lab Segment, Bio-Rad. Ms. Vani shared with the participants on Bio-Rad Data Management Solutions which can aid laboratories in the ISO 15189 accreditation for quality assurance.

Siemens Centralink Data Management System was shared right after by Ms. Tan Ai Lee, Regional Marketing Manager (Automation System & Solution), ASEAN. The Centra Link Data Management System acted as a middleware solution to manage patient results and daily QC management. It also works in sync with the Bio-Rad Data Management Solution in the aspects of real-time QC data transmission for peer group comparison, thereby defining the collaboration between Siemens Healthineers and Bio-Rad.

Mr. Poh Wee Koh, Regional Product Manager (Point-of-Care), ASEAN, wrapped up the afternoon with a discussion around how the requirements of Quality Management at a Point-of-Care setting. It was an afternoon of valuable knowledge and experience sharing from the esteemed speakers. More importantly, it was also a wonderful event for networking amongst SACB laboratory participants and APFCB Corporate Members

C. IFCC–APFCB–Abbott "Turning Science into Caring" Scientific Symposia (TSIC Scientific Symposia)

Background

The purpose of the annual TSIC meetings in the Asia-Pacific region is to bring laboratory and other healthcare professionals together to exchange information on trends in laboratory medicine and to elevate the standard of care. The APFCB initially signed an agreement with Abbott Laboratories on 22 July 2013 while the IFCC had signed a similar agreement with Abbott Laboratories earlier. The IFCC and APFCB are both actively involved with Abbott Laboratories in determining the scientific content and speakers for the annual TSIC Scientific Symposium. The APFCB signed an amendment to this agreement in May 2016 whereby the agreement period was extended to eight years from July 2013. The TSIC Scientific Symposium will now be held in the Asia-Pacific region once every two years instead of annually. Hence, the TSIC Scientific Symposium will not be held in 2016.

Report prepared by Leslie Lai (President), Sunil Sethi (Vice President), Endang Hoyaranda (Secretary), Alexander Wong (Corporate Representative), Tony Badrick (Chair C-ELM), Kiyoshi Ichihara (Chair C-Sci), Praveen Sharma (Chair C-Comm), Joseph Lopez (Immediate Past President and Chair C-CC), Ronda Greaves (Chair of Working Groups, C-Sci) and Graham Jones (Chair of Task Force on CKD).
30 December 2016

APFCB Congress 2016 report

Interim Report on 14th APFCB Congress, TAIPEI, Taiwan, 26-29 November 2016.

Congress Chair Prof Fang, Executive Secretary Prof Wu and Secretariat staff welcome Congress participants at the lobby of TICC (26 November 2016)

14th APFCB CONGRESS 2016, TAIPEI VENUE:

Congress: Taipei International Convention Center Exhibition and posters: Taipei World Trade Center Exhibition Hall Attendees:

a) Congress Participants: 768 from 52 countries.

No	Country	Participants
1	Argentina	1
2	Australia	16
3	Bangladesh	5
4	Belgium	4
5	Canada	13
6	China	77
7	Croatia	1
8	Czech Republic	2
9	Egypt	2
10	Finland	1
11	France	5
12	Germany	5
13	Ghana	1
14	Greece	1
15	Hong Kong	26
16	Hungary	1
17	India	39
18	Indonesia	60
19	Iran	2
20	Ireland	1
21	Italy	7
22	Japan	60
23	Korea	44
24	Macao	3
25	Malaysia	29
26	Mexico	1
20	Ireland	1

21	Italy	7
22	Japan	60
23	Korea	44
24	Macao	3
25	Malaysia	29
26	Mexico	1
27	Mongolia	1
28	Myanmar	24
29	Nepal	10
30	Netherlands	2
31	New Zealand	1
32	Nigeria	1
33	Pakistan	2
34	Philippines	23
35	Portugal	3
36	Romania	1
37	Russian Federation	1
38	Serbia	1
39	Singapore	31
40	Slovenia	1
41	South Africa	5
42	Spain	2
43	Sri Lanka	2
44	Sweden	2
45	Switzerland	2
46	Taiwan	119
47	Thailand	40
48	Turkey	7
49	United Arab Emirates	1
50	UK	16
51	USA	35
52	Vietnam	26

b) Satellite meeting in Chinese (26-27 November, Taiwan Society of Laboratory Medicine Annual Conference): 2620
c) Exhibition: 200+ exhibitors

Programme:

a) 3 pre-Congress Workshop and one Author workshop (Elsevier)
Workshop 1: R-statistical Programming Language for Clinical Laboratory
Attendees: 31

Workshop 2: WASPaLM-APFCB Accreditation
Attendees: 30

Workshop 3: Hands-on Course to Learn Skills Essential for Analyzing Reference Values
Attendees: 20

b) Roche-APFCB Value of Diagnostics Panel Discussion : Unlocking the Value of Diagnostics - Perspectives from Across the Healthcare Chain

c) 1 Key note: Laboratory Medicine and the NHI-MediCloud

d) 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

e) 29 Symposia (92 titles)

f) Free papers:
- 22 oral presentations
- 184 posters

g) 7 Industry Workshops and 10 Industry Lunch Symposia

h) Satellite Meeting in Chinese (TSLM Annual Conference)
-2 symposia (12 titles)
-6 Industry Workshops
-7 Award Speeches
-8 Oral Presentations
-304 Poster Presentations

i) Awards and Scholarships:
APFCB - Seimens Young Scientist Award Competition 4:
1st prize: Swarup AV Shah
2nd prize: Rojeet Shrestha
Travel grants: Hanah Kim, Shailendra Dwivedi


APFCB - Seimens Young Scientist Award Competition First and Second Prizes presentation at Closing Ceremony.

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, CHIRANJIT 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

Diamond Sponsors
Roche Diagnostics Asia Pacific Pte. Ltd
Siemens Healthcare Limited

Platinum Sponsors
Shenzhen New Industries Biomedical Engineering Co., Ltd. (SNIBE Co., Ltd.)
Abbott Laboratories
Beckman Coulter Inc.
Bio-Rad Laboratories (S) Pte. Ltd.
Shenzhen Mindray Bio-Medical Electronics Co., Ltd.

Gold Sponsors
Alere Inc.
The Binding Site Group Ltd.
EUROIMMUN (South East Asia) PTE. LTD.
Randox Laboratories Ltd.
Ortho Clinical Diagnostics
Waters Asia Ltd.

Silver Sponsors
DiaSorin Ltd.
DiaSys Diagnostic Systems GmbH
Mayo Clinic/Mayo Medical Laboratories
Singular Sponsors
AB Sciex Pte. Ltd.
Abbott Laboratories (Singapore) Pte. Ltd.
AllBio Science
JUUNE-SHINE INT'L CORP.
PerkinElmer Taiwan Corporation
Reininghün Diagnostics Biomedical Corp. (RND)
Sekisui Diagnostics (UK) Ltd.
The SCL Healthcare Group
Local Exhibitor
Amesdata Biotech Co., Ltd.
Amesdata Technology Co., Ltd.
Beam International Inc.
Becton Dickinson Holding. Pte. Ltd. Taiwan Branch
Bio-Check Laboratories Ltd.
bioMérieux China Ltd. Taiwan Branch
Creative Microbiologicals, Ltd.
DOUBLE EAGLE ENTERPRISE CO., LTD.
Genetech Biotech Co., Ltd.
Grand Marquis Co.,Ltd.
Hui-Sheng International Corp.
Infung Co., Ltd.
Lihpao Life Science Corp.
Medicare Products Inc.
Radiometer Medical
R-Biopharm AG
Rui An International Co. Ltd.
San Tung Instruments Co., Ltd.
TBG Biotechnology Corp.
Thermo Fisher Scientific
TUNYEN Enterprise Corporation
Werfen Hong Kong Limited

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. The reception began with String Trio performance. Several booths showcased Chinese/Taiwanese traditional culture including: Portrait by Chinese Brush Painting; Paper-Cut Silhouette; Dough Figurine Sculpture; Traditional Sugar-Blown Toy; Translate English Name into Chinese in Calligraphy; Traditional Chinese Painting.

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.

Aboriginal dancer invited guests on stage to join dance.

Presidents opening of Culture Night (IFCC, APFCB, and CACB presidents)

Taiwan group Karaoke to entertain all the oversea guests.

c) Closing by Dr. Leslie Lai, President of APFCB and hand-over ceremony to the next host (India) on 29 November 2016.

Handing over flag ceremony from CACB to ACBI

d) 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. 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

(Report prepared and submitted by Woei-horng Fang, Congress Organizing Committee Chair)

APFCB and MACB Collaborate for First Regional Chemical Pathology Course

Joseph Lopez, Immediate Past President, APFCB

The APFCB organizes a variety of educational activities for its members within the Asia-Pacific region. Among these is the APFCB Travelling Lectureship, the IFCC Visiting Lectureship programme which it coordinates, specialty meetings andad hoc courses and workshops. Sensing the need for basic courses for young clinical biochemists, the APFCB agreed at its *Council meeting in Bali in 2013 to hold courses in chemical pathology within the region, along the lines of the successful annual chemical pathology course of the Australasian Association of Clinical Biochemists (AACB).*
In response to the APFCB's invitation, the Malaysian Association of Clinical Biochemistry

(MACB) agreed to co-host the first such course in Kuala Lumpur. It was held from 19th to 21stSeptember 2016 and was attended by more than 50 participants comprising chemical pathologists, laboratory scientists, medical doctors and medical laboratory technologists both from public and private hospitals laboratories from all over Malaysia. The course also had 2 participants from Hong Kong and another 2 representatives from the local diagnostics industry.

The programme was coordinated by Dr. Tony Badrick, Chair of the APFCB Committee of Education and Laboratory Medicine. It contained an eclectic mix of laboratory quality, endocrinology, instrumentation and laboratory techniques, organ disease and interactive case studies. Besides Dr. Badrick, others making up the faculty were Dr. Louise Weinholt (Australia), Dr. Raja Elina Aziddin (MACB President) and Dr. Tze Ping Loh (Singapore).

The feedback from 44 of the participants was positive. They commented that the content was useful and relevant to their work. Many indicated that they would have liked to see more case studies and group activity in the programme. Participants were of the view that speakers were knowledge able and they rated the delivery of the topics with an average score that was between good and excellent. Most participants requested the course be continued. The APFCB hopes to hold it annually in the future if there is enough interest.

(The author wishes to thank Dr. Badrick and Dr. Raja Elina for their input.)

Scientific Collaborations in APFCB so far and way forward

Kiyoshi Ichihara
Chair, Scientific Committee, APFCB
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This article was written to overview the past, current and future scientific collaborations among Asian countries belonging to the APFCB, in which this author has been actively involved especially as a chair of APFCB Scientific Committee since 2008.

1. Asian projects for collaborative derivation of reference intervals

1) The first and second Asian Study on derivation of reference intervals (RIs) for common use.

The global standardization of major laboratory tests has been achieved by the efforts of IFCC and its member organizations. However, reference intervals (RIs) remain discordant between laboratories (labs). This situation reflects insufficient number of subjects and inappropriate statistical procedure for derivation of reliable RIs.
In order to overcome the problem, the multicenter study for derivation of common RIs from a large number of healthy subjects was conducted in 2000 and 2005 in Asian cities by the IFCC Committee on Plasma Proteins (C-PP).

(i) The first study in 2000 [1]

1294 healthy volunteers from 6 cites (Tokyo, Seoul, Shanghai, Taipei, Hong Kong, Kuala Lumpur)
Total of 22 analytes were tested: chemistry (AST, ALT, GGT, Cre, Alb, TC, and HDL-C); proteins (CRP, IgG,A,M, C3, C4, transferrin [Tf], retinol-binding protein [RBP], prealbumin [TTR], hepaplastin, ceruloplasmin, α_1-antitripsin, α_1-acid glycoprotein, α_2-macroglobulin, and cystatin C[CysC])
By the scheme of collective measurements in a single laboratory in Tokyo, the study revealed large between-country variationsinRVs of many analytes which belong to inflammatory markers, such as IgG, C3, C4, Tf, TTR, and CRP. This unexpected finding led to the following second study with application of harmonized stricter criteria of "healthiness" for recruitment.

(ii) The second study in 2005 [2]

550well-defined healthy volunteers were recruited from clinical labs in 6 cites (Asahikawa, Yamaguchi, Seoul, Taipei, Hong Kong, Jakarta). A total of 32 analytes were tested: chemistry (AST, ALT, ALP, LD, GGT, CK, AMY, TG, TC, HDL-C, Na, K, Cl, Ca, IP, TP, Alb, Cre, UN, UA, Glu;) and proteins (CRP, IgG,A,M, C3, C4, Tf, RBP, TTR, and CysC). By use of the same measurement scheme, it again revealed a large between-region variation in RVs of many inflammatory markers (IgG, C3, Tf, TTR, and CRP) as well as in those of HDL-C, LDH, and K.The intriguing results arouse strong scientific interest to expand the study by recruitinga much larger number of well-defined healthy individuals and also by targeting more analytes.

2. The third Asian Study for derivation of common RIs with exploration of regional differences in RVs

(1) To explore regional differences in RVs by use of centralized collective measurement scheme.

(2) To derive universal RIs by ensuring traceability of reference values (RVs) to the reference measurement procedures (RMPs) for the standardizabe analytes.

(3) To transfer RIs of non-standardized analytes by cross-checking the same set of specimens between the central labs and local labs.

A total of 3,541 well-defined healthy individuals (20~65 yo) were recruited from 8 countries (2,084 from Japan, 130~340 each from other countries) at 62 clinical labs (46 from Japan, 15 from other countries). The study targeted 72 major laboratory tests. They consisted of standardized analytes (lipid, enzymes, small biochemical substances), and non-standardized analytes (tumor markers, hormones, vitamins).All the serum specimens were brought to Tokyo using a foam box packed with dry ice(Fig 1) so that they were measured collectively in Tokyo mainly using Beckman Coulter analyzers and reagents [3, 4]. However, a few serum aliquots per person were left behind in the local labs for cross-check testing (see below).

The study revealed the followings:

1) By use of an index called SD ratio (SDR) [2,5], SD for factor dependent variation over SD for between-individual variation, prominent between-country differences were observed in one third of the 72 analytes examined using a criterion of SDR>0.3 as critical. They included TP, CRP, IgG, C3, C4, Tf, HDL-C, PTH, folate, adiponectin, etc. However, for the rest of analytes, the RVs were found comparable.
2) In Japan, volunteers were recruited from 7 regions nationwide, but no regional differences were observed in RVs for none of 72 analytes.
3) RIs were derived by use of parametric method with/without partition by region/country according to the SDR criterion.
4) Application of latent abnormal values exclusion (LAVE) method [2, 5,6] was required for AST. ALT, GGT, TG, and CRP with high prevalence of nutritional disorders (i.e., metabolic syndrome) and for AST, LDH, and CK for individuals with muscular damage after strenuous exercises.
5) Transference of established RIs was achieved through cross-checking of serum aliquots between the central lab and each of the local labs:

After publishing the key note papers for the study [3,4] in 2013, five more reports were published using the datasets from the study by additional investigations and analyses. They include topics on (1) regional differences in eGFR [7]; (2) RV variation factors of serum isozymes for LDH, ALP, and AMY [8], (3) derivation of common RIs for Japanese population after merging data from two other large studies [9]; (4) menstrual cycle-related changes in RVs of 85 analytes [10]; (5) alcohol-related changes in RVs of TTR (prealbuin)with investigation of its mechanism by animal experiments [11]. More papers are expected to come out soon.

Fig 1: Transportation of serum specimens from collaborating labs during the third Asian study.

3. Web-based provision of full RV dataset for the practice of EBLM.

Since detailed questionnaire regarding health status had been taken from each individual, we can analyze biological sources of variation of RVs accumulated in the study. In another words, the dataset from the third study can be used as knowledge base for the practice of evidence-based laboratory medicine (EBLM). Therefore, we set up a web-site to allow exploration of factors associated with RVs for any analyte. Please visit the following URL (http://c-sci-apfcb.net/eblm/index.html)to find out how RVs changes by biological factors such as sex, age, ethnicity, BMI, ABO blood groups, level of alcohol drinking, smoking, and exercise. It is also possible to evaluate correlations of RVs between any two analytes: AST vs. ALT, Alb vs. Ca, Na vs. Cl, etc. laboratory tests for analysis of correlation. The database in the web will be expanded to include the results of the global study to be described below.

Collaborations to IFCC Global projects on reference values from APFCB

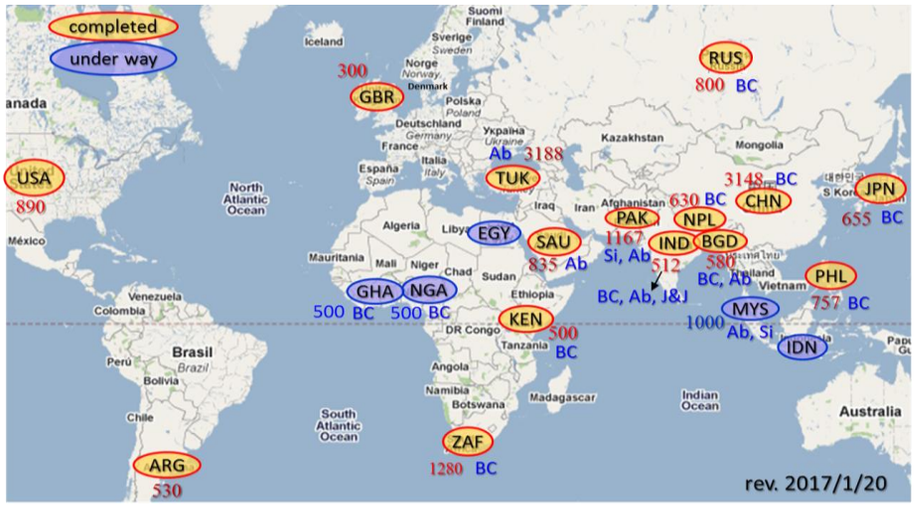
The third Asian study developed into the global-scale multicenter study of RVs planned and coordinated by IFCC C-RIDL, which was chaired by this author for the period of 2009-2015. It was launched in December of 2011 [12]. The objectives of the study were.

(1) To conduct the multicenter study for derivation of RIs country by country using an agreed-upon common protocol.

(2) To makeRIs traceable to the RMPs for the standardizable analytes through common measurements of value-assigned panel of sera [6, 13].

(3) To evaluate between-country differences in RVs after alignment of the values based the panel test results.

(4) To explore biological sources of variation of aligned RVs in a global scale.



Supported by BC: Beckman Coulter; Ab: Abbott; Si: Siemens; J&J: Jonson and Johnson

Fig 2 Collaborating countries and reagent manufacturers for the IFCC global study on reference values

As of now, 20 countries around the world joined the study(Fig 2). Nine countries are from Asia belonging to the APFCB (Fig 3): they include China, Japan, India, Philippine, Pakistan, Nepal, Bangladesh, Malaysia, and Indonesia. The progress in each country is as described briefly below,

China: Led by Dr. Ling Qiu of Beijing Union Medical College Hospital, a total of 3,148 volunteers were recruited by 2013 from 7 provinces nationwide. More than 50 analytics were measured with support from Beckman-Coulter (BC) China. They found no practically significant regional differences in RVs of any analyte. The investigators recently published two reports on China-specific RIs and SVs of RVs [14, 15], and writing more papers base on the results.

Japan: Recruitment of 655 healthy volunteers and measurements for 56 analytes was completed by 2012 with support from BC Japan. Ichihara Research Laboratory in Yamaguchi University has been acting as the data center and provides services for each country required for data analyses of RVs and for derivation of RIs by use of up-to-date methodologies. Since Japanese RIs have been already established from the 2009 Asian study, the newly obtained RVs from Japan have been dedicated for investigating an optimal protocol and statistical methods for derivation of RIs and comparison of SVs of RVs across the countries.

India: The study led by Dr. Tester Ashavaid and coordinated by Dr. Swarup A. V. Shah of P. D. Hinduja National Hospital and Medical Research Centre, Mumbai was completed by 2013 with recruitment of 512 volunteers and measurements of 57 analytes. With support from BC India, Abbott, and Johnson & Johnson, the investigators also evaluated between platform differences in test results for both routine biochemical and immunologically measured analytes. Their findings are to be published soon.

Philippines: A team of laboratory technicians in Iloilo city launched the study in 2013 under the auspices of the Philippine Association of Medical Technologists (PAMET) and San Agustin University. They recruited 757 volunteers, but experienced problems in the analytical platform which they originally planned to use. Therefore, in 2015, all the specimens were brought to Japan and measured for 31 analytes using BC reagents.

Nepal: The study led by Dr. Binod Yadav of Tribhuvan University Teaching Hospital, Kathmandu, started in 2013. However, they noted a problem in their assay system as in Philippines especially in measuring the panel of sera which were essential for standardization and comparison of results with other countries. Then, Mr. Ram Vinod of the same university made efforts to recruit volunteers again. The test results for 22 biochemistry analytes from 630 healthy volunteers were completed in Apr 2016. Data analyses are currently under way for publication of the results.

Bangladesh: A team led by Dr. Firoz Ahmed in International Center on Diarrheal Disease Research (icddr, b) joined the study in 2015 with support from BC and Abbott. Recruitment of 580 volunteers and measurements of 61 analytes including CBC were completed by July 2016. The data analyses are currently under way for publication of the results.

Pakistan: Two institutions (Aga Khan University in Karachi and Armed Forces Institute of Pathology in Rawalpindi) joined the study in 2014 independently, respectively led by Dr. Farooq Ghani and Prof. Dilshad Khan with recruitment of 607 and 560 volunteers, targeting 52 and 42 analytes by use of Siemens and Abbott reagents. There were no appreciable differences in RVs between the two studies in any analyte. However, there were unknown trouble in measuring the serum panel in the former institution. Therefore, in the interim reports on global comparison of RVs, only those from the latter institution were possible.

Malaysia: A nationwide study was launched in July 2016 led by Dr. Elina Raja, the president of MACB, and is currently under way by setting up three central labs within Malaysia. A total of 1000 healthy volunteers are to be recruited for measurements of 50 analytes by use of Siemens and Abbott reagents depending on the location. Between assay-platform differences are to be harmonized based on common measurements of the serum panel by all three central labs. Therefore, RIs for analytes measured by immunoassays are to be derived for each reagent.

Indonesia: A nationwide study with recruitment from 4 big cities is currently being planned by Committee on Reference Intervals and Decision Limits of IACC, chaired by Mr. Miswar Fattah. Details of their study remain to be disclosed.

Interim reports of the global study in two parts based on results from 12 countries (CHN, JPN, IND, PHL, PAK, TUR, SAU, RUS, GBR, ZAF, USA, ARG)were just published. Their contents are as follows

The part 1 [16] described the objectives and scheme: (1) exploration of optimal conditions for conducting the RI study in a harmonized way, (2) comparison of various statistical methods by use of real-world datasets, (3) assessing the validity of serum panel based standardization and harmonization of test results across the countries. The paper concluded that (1) highly prevalent latent diseases such as metabolic syndrome consistently affect test results of some analytes (i.e., AST, ALT, GGT, CRP, TG, etc), but LAVE method was effective in reducing their influences. (2) The parametric (P) method almost invariably gave RIs with narrower confidence intervals of their limits than the nonparametric (NP) method. Besides, the NP method was easily influenced by the presence of outlying points, which can be excluded the P method in the process of Gaussian transformation of the values.(3) The panel test results were very effective in aligning RVs and exploring between-country or between-ethnicity differences in RVs. (4) Among 50 analytes evaluated, nearly a half of them showed obvious between-country differences: notably in RVs for Alb, urea, HDL-C, ALT, CRP, IgG, C3, and PTH. While no practically significant between-country differences were observed for uric acid, TG, LDH, etc.

The part 2 [17] described the sources of variation (SVs) of RVs among 12 countries. Sex difference and peculiar age-related changes in females were observed in many analytes and were consistent regardless of the countries. On the other hand, BMI-related changes were observed also in many analytes, but the slope between RV and BMI differs greatly from one country to another. The finding was of great clinical relevance in consideration of a large change in BMI among the countries.

With expectation of results from 8 more countries by the next year, final reports on the global project will be made to confirm the current findings from 12 countries and to establish globally applicable common RSs for the analytes without any between-ethnicity differences in RVs.

I would like to express my sincere gratitude to the fact that the project owes a great deal to the warm collaborations of the countries from APFCB.

Fig3.Collaborations from APFCB to the IFCC global multicenter study on RVs.

A new project on development of clinical case bank for the practice of EBLM

With the success of the standardized/ harmonizable accumulation of RVs in a global scale by the scheme of common measurements of value-assigned serum panel, this author proposed a collaborative accumulation of clinical laboratory data for diagnostic use as a new project by the Scientific Committee of APFCB. The objectives are:

(1) To create a well-defined clinical case bank (CCB) by standardized or harmonized recording of laboratory test results together with clinical findings (symptoms, signs, pathological features, therapy, and prognosis) by internationally collaborative efforts.
(2) To standardize the data bank for universal use by means of common measurements of the serum panel among the collaborating institutions, the same strategy used in the IFCC global study on RVs.
(3) To merge the data from CCB, which provides evidence on the pathological sources of variation of lab tests, with a large number of RVs obtained from the IFCC global study, which provides evidence on the biological sources of variation among healthy individuals.
(4) To develop an information environment (web-site) to make the CCB available on demand through a user-friendly interface. It allows dynamic acquisition of evidence relevant for the practice of EBLM.
In short, the IFCC global multicenter study sought for accumulation of RVs (test results from well-defined healthy individuals) to establish "health-related" RIs and to analyze biological sources of variation of RVs, while the new APFCB project sought for accumulation of laboratory and clinical data from well-defined patients diagnosed to have a target disease and to derive" disease-related" RIs specific for its stage and subclass.
As the first phase of the study, target diseases were set as hematological malignancies (multiple myeloma, lymphoma), endocrine diseases (thyrotoxicosis, hypothyroidism, Cushing syndrome, etc), and collagen diseases (SLE, scleroderma, dermatomyocitis/ polymyocitis, micorangiopathy syndrome). The accumulation of clinical cases is to be made by use of common case record foam (CRF) specific to each diagnostic categories. Electronic case record foam (eCRF) matched to the paper CRF will be made available on a web-site for collaborative accumulation of the clinical records. For standardization and harmonization of clinical lab data, common serum panel are to be measured in each medical institution. The CRF will be recorded retrospectively for the past five years and prospectively for the next 3 years. A large number of cases (600～12,000 cases per disease) are expected to be accumulated over the 8-year period. The study is funded by Japan Society for the Promotion of Science.

This CCB project was launched during the Scientific Committee meeting held in Taipei on the occasion of 14thAPFCB congress (Fig 4). Currently, from the APFCB region, Japan, Bangladesh, India, Nepal, and Pakistan joined the project. Besides, colleagues from Malaysia, Taiwan, and Singapore expressed their interest for joining the study.

Outside Asia, an offer of collaboration was expressed by a research team in South Africa headed by Prof. Rajiv Erasmus. With his earnest support of the project, additional collaboration is expected from Kenya, Nigeria, and Egypt. Therefore, the project is now regarded as an Asia-African joint study for building the knowledge base and web-environment for promotion of EBLM. This author would like to express sincere appreciation to all the colleagues for the warm support for the new project.

Fig 4: Attendees to a APFCB Scientific Committee meeting in Taipei held for discussion on the CCB

Project
(4 colleagues each from South Africa, Bangladesh, and Nepal; 2 each from India and Japan, 1 each from Pakistan, Malaysia, and Turkey).

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APFCB-Roche LEAN Clinical Laboratory Workshops

Tony Badrick, Chair C-ELM and Daniel Munloong Chin, Roche Diagnostics

The first APFCB-Roche LEAN Clinical Laboratory Workshops held in conjunction with the VACB were conducted in April 2016 in Hanoi and HCMC, Vietnam.
The aim of this training is to cascade the concepts of Lean across Vietnam. The APFCB and VACB are part of the Governance Board who, together with Roche, will oversee the quality of the courses and monitor the success of the project.

- Understand LEAN concepts and the outcome of a LEAN Workshop
- Design, prepare and conduct the 2-day LEAN Workshop
- Develop and improve facilitation skills

16 trainers from Hanoi and 15 trainers from HCMC were trained by a Roche trainer with 16 years of experience in LEAN Six Sigma. After which, the trainers will have to conduct 2 LEAN workshops each in order to be certified.

Program Background:
Asian and Pacific Federation of Clinical Biochemistry (APFCB), The Vietnamese Association of Clinical Biochemists (VACB), Hanoi Medical University (QCC), University Medical Center (UMC) Ho Chi Minh and Roche Diagnostics would like to initiate an educational program in Vietnam with a purpose to improve standard of laboratory practice in Vietnam.

The program will cover LEAN education to the laboratories across Vietnam, whereby Roche as a content contributor will initiate "Train the Trainer" course at two quality centers in Vietnam: QCC Hanoi and UMC Ho Chi Minh, which will act as main educational institutes and training sites to roll out the program to laboratories across the Vietnam. APFCB and VACB will act as main partners of the program, endorsing the program and monitoring the quality and implementation.

Within the initial roll-out Field Expert sites will be trained, which will act as Centers of Excellence (CoE). With such concept local trainers will be developed, who will execute courses in local language and rapidly expand LEAN practices across Vietnam. Courses will be available for any laboratory that aims to improve laboratory practice and standards with LEAN practice. Participating laboratories will be implementing and applying standards in their daily routine and benefit from improved efficiency in their laboratory processes. The course will be certified by Quality Control Centers in Vietnam: QCC, UMC, VACB and APFCB.

The initial courses will took place in April 2016:

- in Hanoi organized by Quality Control Center for Medical Laboratory - Hanoi Medical University (QCC)
- in Ho Chi Minh organized by University Medical Center (UMC)
- The aims of the workshop were as follows:
- Understand the history, application and benefits of LEAN in the healthcare industry
- Provide a step-by-step guides and all necessary materials to conduct a 2-day LEAN Workshop
- Practice on how to facilitate certain games and activities of a 1-day LEAN Workshop
- Receive tips on how to be an effective facilitator

Lean Simulation:
Hands-on simulation exercises to enable participants to apply the Lean principles and tools in a fun and interactive way

Process Mapping:
Visually illustrate and convey the essential details of lab processes for better understanding of lab operations

Problem Solving:
Brainstorm solutions based on Lean principles to address impending lab challenges and plan for implementation

Day 1:

- Overview of the LEAN Train-the-Trainers Program
- Introduction to the LEAN concept
- How to identify and prioritize problems
- How to construct process mapping and measure process complexity

Day 2:

- How to conduct Root Cause Analysis
- How to explain LEAN Improvement Tools
- How to lead teams to brainstorm solutions
- How to quantify improvements with Current vs Future process maps
- How to document implementation plan

Day 3:

- LEAN games facilitation practice sessions
- How to be an effective facilitator

Day 4:

- What is Plan-Do-Check-Act (PDCA)
- How to document a LEAN improvement project

Latest update:
Number of local trainers trained (May 2016): **31 from 13 Healthcare Institutions in Vietnam**

Number of local trainers who have conducted at least 1 workshop since May 2016: **10 Trainers**

Number of local trainers who are certified (completed 2 Lean Workshops): **5 Trainers**

Number of laboratory staff trained as of 10 Mar 2017: **103 from 16 laboratories in Vietnam**

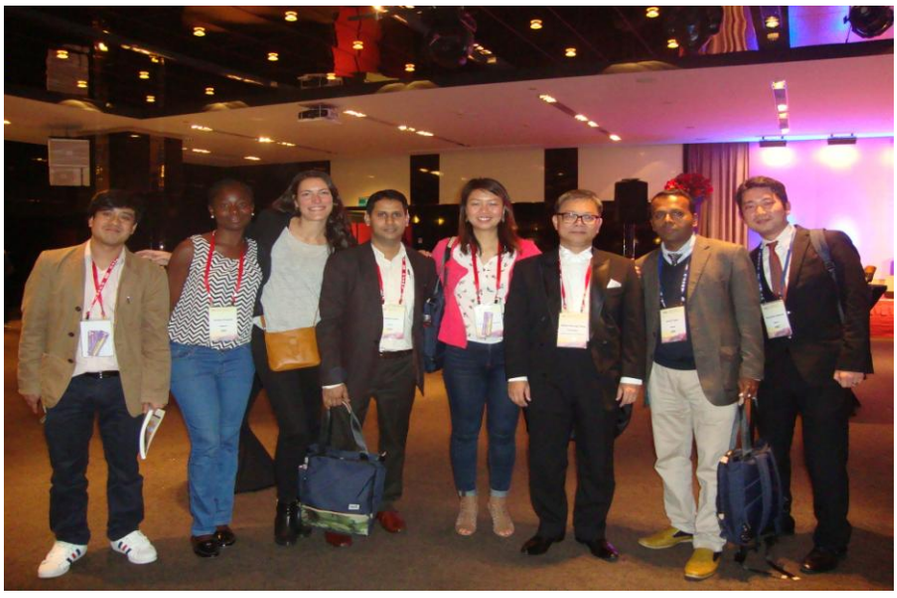
IFCC - Task Force Young Scientists (TFYS) At APFCB 2016, Taipei Taiwan 27th Nov 2016

Theme: "Preparing Young Scientists Workforce"

14th Asia–Pacific Federation for Clinical Biochemistry and Laboratory Medicine Congress was successfully conducted in Taiwan in 2016 and hosted by the Chinese Association for Clinical Biochemistry (CACB) in Taiwan. Taipei is one of the most vibrant cities in Asia and ultimate tourist destination. The congress was chaired by Dr. Woei-horng Fang, who is also President, CACB. International Federation of Clinical Chemistry & Laboratory Medicine (IFCC) recognized the need for a support group to help young scientists. Thus Task Force - Young Scientists (TFYS) was built in 2010. The aim of TF-YS is to ensure that young scientists make a significant and growing contribution to the activities of IFCC and other National programmes. By now, IFCC-TFYS is able to cross the barrier and created a strong young scientists support group involving more than 30 global IFCC member countries supported by the senior members. We also have our additional larger online network of young scientists covering global regions.

This joint session of APFCB & IFCC-TFYS was conducted on 27th Nov 2016 and moderated by TFYS core members Dr. Lara Omolara Popoola. The purpose of session was to summarise and share the current status and activities of TFYS till date to bring networking at next level. First talk was initiated by Dr. Pradeep Kumar Dabla, Chair IFCC-TFYS titled "Introduction to Workforce & TFYS-Webinars". He gave details of current status of TFYS, members, programmes conducted, various initiatives and then he focused on last two "Webinars" conducted by TFYS.

Webinar gives us the opportunity to continue to reach wider target group whereas connecting in different time zone together as per convenience. It also enables to broadcast the recording with questionnaires. **Dr. Danni Li,** member TFYS explained the "Mentorship Program and Future Plans". By now we were able to conduct two interviews of Mentor & Mente. The mentoring relationship is built on mutual trust, respect and communication, and thus helps mentee for personal and professional development. "Lab-Surfing.com", a tool developed by **Dr. Santiago Fares Taie,** member TFYS to connect YS, improve communication and make exchange programmes easier all around the globe.



"Global Survey Young Scientists" was conducted by **Dr Guilaine Boursier**, member TFYS to understand the geographical difference in education, jobs requirements, availability, opportunities. This was to develop the need based programmes for young scientists. **Dr Damien Gruson,** Consultant TFYS & Past Chair explained about "IFCC-e academy-A Powerful Tool for Distance Learning". This new educational tool is being developed by the IFCC C-DL and C-lel where it is serving as an open educational resource containing distance learning material created and/or reviewed by IFCC experts.The session was concluded by **Dr Graham Beastall,** Past President IFCC providing details of "Research Booklet for Young Scientists". The aim of this publication is to provide insight into the research process and an overview of the strengths and weaknesses of different research methods to young scientists. The total ten chapters of guide are available as pdf content and a series of webinars. The session was successful in contributing to the understanding of the objectives and various ongoing projects of TFYS developed for networking, education & training of young scientists to build the future of Laboratory Medicine.

Report By:

Dr Pradeep Kumar Dabla
Chair IFCC-TFYS
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IFCC - Task Force Young Scientists (TFYS) ACBICON-2016, Manipal University, Mangaluru, India, 12-15 December 2016

IFCC-TFYS has organized **Pre-Conference CME**, at 43rd National Conference ACBICON-2016, Kasturba Medical College, Manipal University, Mangaluru, India. The theme of session was designed as "**Career Opportunities for Young Scientists**" to bring orientation of different career perspectives for Young Clinical Biochemists. Further, TFYS has also conducted **"ACBI-IFCC TFYS Young Scientist Award 2016"** successfully. The programme was fully supported by Organizing Committee and led by members IFCC & ACBI.

Since 2010, IFCC-TFYS is putting efforts for the education and training of young scientists and conducting sessions in various National & International meetings. A biochemistry degree opens up a range of highly-skilled careers that incorporate aspects of both biology and medicine. Although many biochemists work in traditional laboratory and research environments, others find career opportunities in fields ranging from business and sales to consultation and law. The session was opened with welcome address by **Dr Poornima Manjrekar,** Secretary Organising Committee followed by IFCC-TFYS Chair, **Dr Pradeep Kumar Dabla.** The session was chaired by **Prof Praveen Sharma,** EB-APFCB **& Dr Elizabeth Frank,** EB-APFCB. **Dr Bernard Gouget**, EB-IFCC was also present to support the session. **Dr Pradeep Kumar Dabla** gave the first talk of the programme titled "**Exploring research opportunities for young scientists**" where he explained what it takes to fits your goal if you look at various research positions that may differ widely with respect to requirements. The next talk was delivered by **Prof. Ullas Kamath,** Dean Manipal University, Prof Biochemistry titled **"Teaching and Academics Opportunities for Young Scientists"** followed by **Prof. Praveen Sharma** titled **"Publishers & Medical writing Career"** stating these jobs are in demand and they have to write protocols, clinical trials reports, and patient information for the pharmaceutical industry, regulatory authorities etc. **"Biotechnology Industry & Career"** was taken by **Dr Elizabeth Frank** whereas **"Laboratory Service Delivery"** by **Dr Anna Velts,** Head Lab, West Tallinn Central Hospital explaining advances in biotechnology & Laboratories followed by **"IVD Industry & Career"** from **Dr Sandeep Sewlikar**, Head- Medical and Scientific Affairs, Roche Diagnostics India. In end, the live webinar was conducted by **Dr Graham**

Past President IFCC for **"IFCC Vision of Research & Career for Young Scientists"** explaining initiatives & opportunities created for young scientists by IFCC and further future prospects. This was moderated by **Dr Bernard Gouget**. Young scientists were excited to exchange and solve their queries live with experts. Vote of thanks & Closing remarks were added by Dr Elizabeth Frank & Dr Pradeep Kumar Dabla.

"ACBI–IFCC TFYS" Young Scientist Award– 2016, 14th Dec 2016

The **"ACBI-IFCC TFYS" Young Scientist Award-2016** were novel idea of Asia Pacific Federation of Clinical Biochemistry (APFCB)-EB. So, this 2nd mini award competition is choosen to provide young researchers an opportunity to focus on and develop interest in «Research». The ultimate aim of this program is to foster and secure excellent young researchers since ACBI-IFCC TFYS Awards-2015.

The 5 young scientists from pan India covering all zones of ACBI were selected. The selection was done by senior members committee ACBI & IFCC from number of requests received on the basis of their research work. Awardee young scientists presented their papers and were given full registration, travel and 3 night accommodation supported by organising committee, ACBICON-2016. The session was chaired by **Dr Jayashree Bhattacharjee,** Dir Prof, Biochemistry, LHMC, Delhi & **Dr Pradeep Kumar Dabla,** Chair, IFCC-TFYS. Five awardee young scientists presented their research work in row namely: **Prasenjith Mitra, G Revathy, Chiranjith Gosh, Namita Mahale, Angel Mercy Sylus** representing 5 zones ACBI. IFCC-TFYS is thankful to all our senior members ACBI & IFCC for conducting TFYS sessions successfully.

The Young Scientists experience of "ACBI–IFCC TFYS" Young Scientist Award– 2016 is given below:

Dr Prasenjith Mitra
AIIMS, Jodhpur

I would like to sincerely thank IFCC and ACBI for awarding me the prestigious ACBI-IFCC TFYS 2016 award at ACBICON-2016 for paper entitled 'Isolation and characterization of a compound from Ageratum conyzoides Linn. responsible for anti-gastric ulcer activity in albino rats'. It is a tremendous honor to be acknowledged by such an esteemed, prestigious organization. It was an amazing, memorable experience. I am grateful for this opportunity and I am sure this will add tremendously to my research career. The TFYS award is a great recognition for young scientists aiming high for a research career and it surely is a motivation for the entire fraternity. Thank you IFCC and ACBI once.

Dr. G. Revathy
JIPMER, Puduchery

I, Dr. G. Revathy, feel immensely grateful for being awarded the prestigious IFCC-Task Force Young Scientist award 2016 at Mangalore ACBICON 2106 conference and for providing me an opportunity to present my work entitled 'Does methotrexate monotherapy ameliorate systemic inflammation and endothelial dysfunction in psoriasis' in the august gathering of eminent faculties and researchers. I wish to express my sincere thanks to IFCC and ACBI for providing me with this special opportunityin this early stage of my career. It has been a real motivation and drives me further into research activities. It has been a highly beneficial and a very informative session to take my work forward. I appreciate ACBI and IFCC for encouraging the young researchers and for providing us with such an informative opportunity.

Chiranjit Ghosh
Satyendra Nath Bose National Centre for Basic Sciences, Kolkata

It is my great pleasure to write my experience over the ACBI-IFCC TFYS Award in 2016. I would like to thank the entire IFCC team for selecting me for the ACBI-IFCC TFYS Award and also ACBI for providing me a prestigious platform to present my work in their annual conference. I presented my research work entitled 'Monitoring of blood glucose profile from exhaled breath analysis for the diagnosis of pre-diabetes and type 2 diabetes'. Here, I demonstrated a new method to estimate the blood glucose levels of a subject from the exhaled breath carbon dioxide isotopes analysis. From my opinion, TFYS is a very good platform to all young researchers who pursue their research works in some innovative fields in order to improve the public health in better way. I do believe that it is a very inspiring award to the young researchers like me to motivate in cutting-edge researches in future days. Therefore, I am really grateful to IFCC for recognizing me through this award.

Dr. Namita Mahalle
Deenanath Mangeshkar Hospital, Pune

I, Dr. Namita Mahalle, Deenanath Mangeshkar Hospital, Pune-India, was awarded the prestigious ACBI-IFCC Task Force Young Scientist Award-2016 for my research on "Oral administration of cyanocobalamin causes higher increase in circulating holotranscobalamin than hydroxocobalamin: An Indo-Danish study with different doses of cobalamin". I am thankful to ACBI-IFCC for giving me opportunity to present my work at ACBICON 2016 at Mangaluru. ACBI-IFCC has created a great platform for sharing our respective experiences in research, discussing current trends and latest technologies. I appreciate team of ACBICON 2016 for the efforts taken to conduct a very well organized and informative conference which enriched my knowledge. Recognition to my research work, by this prestigious award has given me confidence and motivated me to work hard in my research area. I would like to offer my sincere gratitude to ACBI and IFCC.

Dr. Angel Mercy Sylus
JIPMER, Pondicherry

Firstly, thank you for organizing such an inspiring and successful conference. This was my first experience at the ACBI conference and I am very grateful for having the opportunity to interact with the ACBI team. I presented my research work entitled "Effect of Clomiphene Citrate on IL-10, Nitric Oxide and MMP-9 in Women with Polycystic Ovary Syndrome." It was a good learning experience and I'm glad that my paper was awarded the ACBI-IFCC TFYS 2016. I received many enlightening comments and suggestions from participants of the conference. I am especially thankful to the IFCC team for giving me such a prestigious award and an unique platform to present my research work, thus inspiring and motivating me to do more research in future. The conference was an excellent occasion for researchers to come together and share their research work and I was fortunate to have the opportunity to meet and learn directly from many great and experienced researchers. I deeply appreciate the efforts of the team for putting up such a stimulating and fruitful conference. I had a great time and learned a lot, and was very touched by your warm hospitality despite all the demands on your time. Overall ACBI 2016 was an enriching experience for me and my heartfelt congratulations to the organizing committee for making it a huge success.

Thank you.

Report By:
Dr Pradeep Kumar Dabla
Chair IFCC-TFYS
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Association of Clinical Biochemists of India Annual Report 2016

The year started with the newly elected office bearers elected at the General Body meeting of the Association of Clinical Biochemists of India held in Chandigarh on December 14, 2015, taking up their office. The office bearers elected for 2016 were :

PRESIDENT:	Dr. Rajendra Prasad
VICE PRESIDENT:	Dr. Dharam veer Yadav
	Dr. Poorniam Manjrekar
ADVISOR:	Prof. K.P. Sinha,
IMMEDIATE PAST PRESIDENT:	Dr. Praveen Sharma
GENERAL SECRETARY:	Dr. Rajiv Ranjan Sinha,
IMMEDIATE PAST SECRETARY:	Dr. M. V. R. Reddy
TREASURER:	Dr. Krishna Ranjan Prasad
JOINT SECRETARY:	Dr. Thungapatra M
	Dr. Ram Binay Sinha
ZONAL COUNCIL MEMBERS:	
North Zone	Dr. Seema Bhargava
South Zone	Dr. T. Vijayakumar
East Zone	Dr. Abhijit Pratap
West Zone	Dr. T. F. Ashavaid
Central Zone	Dr. Sanjeev Singh
EDITOR-IN-CHIEF, IJCB:	Dr. Praveen Sharma
NATIONAL REPRESENTATIVE TO APFCB:	Dr Rajiv R. Sinha, General Secretary, ACBI

ACTIVITIES IN 2016

REGIONAL MEETINGS

During this year many scientific activities were organized by State / Regional chapters of ACBI in different parts of the country.

UTTAR PRADESH BRANCH

One day CME on "Best Practices in Laboratory Management" was held on 31st March 2016 at Era's Lucknow Medical College & Hospital, Lucknow. It was organised by the Uttar Pradesh ACBI representative Dr. Brijesh Rathore in collaboration with North Zone ACBI representative Dr. Seema Bhargava.

TAMIL NADU BRANCH

A CME meeting was arranged on 26th November 2016 at Cancer Institute, Adayar, Chennai by Tamil Nadu State Representative, Dr. R. Arivazhagan, Head, Clinical Bio Chemistry Dept. Cancer Institute, Adayar , Chennai.

2016 South Zone

A two day South Zone meet was organized by the Department of Clinical Biochemistry, Christian Medical College, Vellore & the Tamil Nadu chapter of the ACBI at the CMC Vellore. The 2 day meet covered various topics under "Total Quality Management of Clinical Labs" & "Usefulness of serum tumour markers."

WEST BENGAL CHAPTER

ACBI West Bengal Chapter organized three day "Hands on Workshop on Molecular Biology Techniques" at IIMSAR, Haldia on 9-11 September, 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 accreditated 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.

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.

ACBI ANNUAL NATIONAL CONFERENCE – 2016

The 43rd. Annual National conference of the Association was held from 12th. To 15th December at Kasturba Medical College, Mangalore, Karnataka. The following activities took place in the conference;

Day 1– 12th December 2016

The Pre-conference workshops and CME programmes of ACBICON-2016 were held at the Centre for Basic Sciences, Kasturba Medical College, Mangaluru and the event was inaugurated by the Pro vice chancellor Dr. Surendra Shetty, Manipal University, Mangaluru Campus. The Organising Secretary Dr. Poornima Manjrekar welcomed the participants of the workshops and the CME s as well as the members of ACBI. The Dean and Chairperson Dr. M. Venkataraya Prabhu addressed the gathering. Dr. Anupama Hegde, Treasurer, proposed the vote of thanks.

L-R Office bearers of ACBICON 2016 Dr. Beena Shetty, Joint Secretary, Dr. Anupama Hegde Treasurer Dr. Poornima Manjrekar, Organising Secretary, Dr. M. Venkatraya Prabhu, Dean and Organising Chairperson and Dr. Surendra Shetty, Pro - Vice Chancellor, Manipal University Mangalore Campus.

The workshop on **"Hemoglobin variants –the fundamentals and challenges** "had 40 participants. The Oncohematologists and Associate Professors at KMC, Mangaluru, Dr. Prashantha and Dr. Harsha Prasad L spoke on "Introduction to Hemoglobinopathies" and "Challenges in clinical diagnosis of Hemoglobin variants, respectively. The "Challenges in pathological diagnosis" were discussed at length by Dr. Karuna Ramesh Kumar ,Professor, Consultant Pathologist, Head of laboratory services, Rainbow Hospital, Bangalore. "Hemoglobinopathies: A genetic perspective "was dealt by Mrs. Priyanka Upadhyai Assistant Professor, Department of Medical Genetics, Kasturba Medical College, Manipal &. Panel Discussion followed by Industrial talk -Agar gel electrophoresis in variant analysis: Bio-Rad. A demonstration and hands on experience with the equipment D-10 Capillary electrophoresis in variant analysis by SEBIA was held in the afternoon Chair persons were Dr Urmila Khadilkar, Professor, Dept. of Pathology and Director, Central Lab, KMC, Mangaluru and Dr. Harsha Prasada L., on co-hematologist KMCH.

The workshop on **"Advances in laboratory management and proficiency testing** "had 50 participants. Dr. Shrikala Baliga, Professor of Microbiology & NABL Assessor, KMC, Mangaluruspoke on "Role of accreditation in advanced lab management". The session on " Lean and Process optimization in clinical lab " was dealt by Dr. Jayesh Warade, Consultant Biochemist, Molecular Biology, Quality Manager, Meenakshi Mission Hospital & Research Center, Madurai. The topic "Auto verification of Laboratory reports" was discussed by Dr. K Ashok Prabhu, Quality Manager, Associate Professor, KMC, Mangaluru. Dr. Avinash SS, Consultant Biochemist, Father Muller Medical College, Mangaluru spoke on "Developing risk matrix: Risk management in the lab ".Mr. Sivasankar, Product specialist-Quality systems Division, BIORAD laboratories (India) Pvt Ltd, spoke on "EQA/ PT: A quality improvement tool".Mr. Sten Westgard, Director of Client Services and Technology for Westgard Quality Control, USA. spoke on" Six Sigma QC Management". "Problem solving and Panel discussion" was arranged in the post lunch session Bright Light Ahead" by Dr. Sandeep Sewlikar Roche Diagnostics. The Webinar on" IFCC Vision of Research and Career for Young Scientists" by Dr. Graham Beastall, Past President IFCC was arranged in the afternoon session. Dr Bernard Gouget (IFCC-EB) and Dr. L M Shrivastava (ACBI-EB) were the chairpersons for the webinar.

The CME on**" Framing clinically oriented MCQs and designing OSPE stations in Biochemistry-A hands on approach**" had 35 participants. Dr. Minnie Faith, Professor of Biochemistry, Coordinator, Medical Education Department, Convener, MCI Nodal Centre for National Faculty Development, CMC, Vellore, conducted the sessions on 1. MCQ - as an assessment tool 2. "OSPE - where are we? Current scenario and 3. Designing OSPE templates. Dr. Pragna Rao, Associate Dean and Professor of Biochemistry and also the HOD of Medical Education, KMC Manipal conducted session on "Framing clinically oriented MCQ". The chair persons were Dr. Ciraj, Deputy Director, MCPD and Director MUFILIPE and Dr. Anand R Associate Dean and Professor of Pulmonary Medicine, and Convener of Medical Education Unit, KMC Mangaluru. The afternoon session on Designing OSPE stations/templates - OSPE development for I MBBS students of Biochemistry" was conducted by Dr. Minnie Faith.

"The IFCC–TFYS, CME on Career Opportunities for Young Scientists" was attended by 45 participants. 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 –ACBI APFCB. Career Avenues in IVD industry:

Dr. Pradeep Dabla delivering on "Career Opportunities for Young Scientists- which way to go"

Dr. Ullas Kamath, Dean MMMC Manipal spoke on "Teaching skills for young scientists"

Dr. Elizabeth Frank EB APFCB & IFCC spoke on "Biotechnology Industry and Career for Young Scientists "

Dr. Praveen Sharma, Chief Editor IJCB, EB –ACBI, APFCB spoke on "The Publishers & Medical Writing career for Young Scientists

Day 2 of Conference– 13th December 2016

The second day of the ACBICON 2016 at Dr. TMA Pai International Convention Centre, started with the plenary session 9.00 AM by **Mr. Sten Westgard,** Director of Client Services and Technology for Westgard Quality Control, USA. The topic was **Assuring Quality from A (lbumin) to V (iral load): How High Quality Assays can drive operational efficiencies and assure good clinical outcomes.**

The Awadesh Saran Memorial Oration on the topic **Inborn errors of metabolism; An overview and our experience** was delivered by **Dr. D M Vasudevan.** The chair persons were Dr. Praveen Sharma & Dr. Rajendra Prasad. The next session **Seth G.S. Medical College &K.E.M. Hospital Oration** was delivered by **Dr. H Vinod Bhat** Vice Chancellor, Manipal University. The chair persons were Dr. Elizabeth Frank & Dr. Bernard Gouget**. The K.L. Gupta Memorial Oration** on the topic **Perspectives of tumor markers in clinical oncology in the era of personalized medicine** was delivered by **Dr. K.S. Gopinath,** Padmashree awardee, Surgical Oncologist, HCG Bangalore Institute of Oncology. The chair persons were Dr. Jayashree Bhattacharjee & Dr. T Malathi. The inauguration of the industrial exhibition was done by Dr. Praveen Sharma President, Corporate wing of ACBI and Dr. Poornima Manjrekar, Organising Secretary ACBICON 2016

The SYMPOSIA 1 on **Cardio vascular Diseases,** SYMPOSIA 2 on **Cancer** and SYMPOSIA 3 on **Lab Management** started simultaneously at Auditorium, Hall A and Hall B after the tea break at 11.15 A.M. In the symposia on **Cardiovascular Diseases**, the speakers Dr. Ashok Chandra Rao, Dr. Chandrika Meegama and Dr. Narasimha Pai delivered talks on interesting special sessions and was chaired by Dr. M V Prabhu and Dr. Damodar Shenoy. This was followed by the industrial talk by Beckman Coulter In the symposia on **Cancer**, the speakers Dr. Praveen Kumar Shetty and Dr. Rajamanickam Arivazhagan delivered important topics and the sessions were chaired by Dr. T Ramasarma and Dr. Taruna Madan. Next sessions in Cancer were delivered by Dr. Shyam prakash and Dr. Satya Vati Rana. In the symposia on **Lab Management**, Dr. Tony Badrick spoke on "Data mining Sigma metrics" and Dr. Abha Gupta on "Mass spectroscopy'. The chair persons were Sten Westgard & Dr. A K Mukhyopadhay. Next sessions in lab Management were by Dr. Shyamali Pal, and Dr. Shilpa Puthran, and the chair persons were Dr. Chakrapani M and Dr. T. Malathi.

The poster sessions were arranged during lunch break. The webinar on "**High sensitive Trop-I"** by Dr. Jaganathan Sickan and "**Next gene sequencing in transforming oncology**" by Dr. Kahlil Lawless were arranged at Auditorium. The oral presentations for young speakers to showcase their research, were held at three halls simultaneously between 4-5PM In the evening, the keynote address by the esteemed chief guest Dr**. P. Jayadeva Bhat** ,Professor, Dept. of Biosciences and Bioengineering, IIT, Mumbai on the topic **"About Men, Mice and Yeast : Perspective from the Vantage point"** was lucid and relevant with anecdotes and was well appreciated by the delegates. This was followed by the inauguration ceremony. The inauguration ceremony began with Invocation by Mrs. Aradhana Marathe. The welcome address was delivered by Dr. M.V. Prabhu, the Dean and Organising Chairperson of ACBICON 2016. The formal inauguration by lighting the lamp was done by all the dignitaries. The presidential address was delivered by Dr. Rajendra Prasad. The annual report was briefed by Dr. R.R. Sinha General Secretary. This was followed by the speech by Guest of Honour - Dr. H.S. Ballal, Pro chancellor, Manipal University. The release of Souvenir was done by Pro vice chancellor Dr. Surendra Shetty, Manipal University, Mangaluru Campus. The various fellowships and awards were granted and followed by the felicitation to the awardees. The chief guest Dr. P. Jayadeva Bhat addressed the gathering and shared his experiences. This was followed by the installation of the new President. Dr. Poornima A. Manjrekar took over as the President for the ACBICON 2017 from the immediate past president Dr. Rajendra Prasad, Professor and Head of the department of Biochemistry, PGI Chandigarh. Dr. Poornima A. Manjrekar, proposed the vote of thanks.

The cultural extravaganza organized by the postgraduates of Biochemistry dept and MBBS students of KMC Mangaluru, was appreciated and applauded by the delegates.

Day 3– 14th December 2016

The third day of the ACBICON 2016,started with the plenary session at9.00 AM by **Dr. Bernard Gouget**, Chair, IFCC Nominations Committee on**" POCT Emerging applications for improving clinical outcomes and a new pathway to better patient care". The G.P. Talwar Memorial Oration** on the topic **Human Surfactant Protein D: A ray of hope against HIV** was delivered by **Dr. Taruna Madan,** from National Institute for Research in Reproductive Health, Innate Immunity, and Mumbai. The chair persons were Dr Kodliwadmath & Dr. D M Vasudevan. The next session **Dr**. **Taranath Shetty Memorial Oration** was delivered by **Dr. Dr. G G.Laxman Prabhu,** Professor & Head, Dept. of Urology, KMC, and Mangaluru. He spoke on "**Biochemical Fascinations".** The chair persons were Dr. Rajiv Ranjan Sinha & Dr. P S Shukla**. The Dr. T.N. Pattabhiraman oration** on the topic **"Role of Biomarkers for Aneuploidy as predictors of adverse obstretic outcome",** was delivered by **Dr. Jayashree Bhattacharjee,** Director Professor, Lady Hardinge Medical College, New Delhi. The chair persons were Dr. Arun Raizada & Dr. Praveen Sharma.
The **SYMPOSIA 4** on **Diabetes Mellitus , SYMPOSIA 5** on **Oxidative stress** and **SYMPOSIA 6 on Neurological Disorders** started simultaneously at Hall A, Hall B and Hall C after the tea break at 11.15 A.M. In the symposia on **Diabetes Mellitus**, the speakers **Dr. Sivasankaran S** and **Dr. R Dhananjayan** delivered talks on interesting special sessions and was chaired by Dr. Chakrapani M and Dr. R. L .Kamath .Next two sessions were by **Dr. PVLN Srinivasa Rao** and **Dr. Manorama Swain.** The chair persons were Dr. Krishnaranjan Prasad & Dr. B Unnikrishnan. In the symposia on **Oxidative stress** the speakers **Dr. Tangirala Rama Sarma** and **Dr. Prasunpriya Nayak** delivered important sessions were chaired by **Dr. Abbas Ali Mahdi & Dr. Balakrishna Agarwal.** Next sessions were delivered by **Dr. Subir Kumar Das** and **Dr. Akila Prashant.** The chair persons were Dr. Tapadia and Dr. Rachel Jacob.In the symposia on **Neurological Disorders**, Dr. A. K Mukhopadhyay, Dr. B S Shankaranarayana Rao and Dr. Prakash Mungli. The chair persons were Dr. Anjali Rao and Dr. Vivian D'Souza. The poster sessions were arranged during lunch break. The **SYMPOSIA 7** on **Special Talks, SYMPOSIA 8** on **Infectious Diseases** and **SYMPOSIA 9 on Trace minerals** started simultaneously at Hall A, Hall B and Hall C after lunch at 2.00 PM.

Under symposia on **Special Talks**, Dr. Kannan Vaidyanathan, Dr. Pradeep Kumar Dabla, and Dr. Sudeep K, delivered interesting talks. The chair persons were Dr. PVLN Srinivasa Rao and Dr. Molly Jacob Symposia 8 on **Infectious Diseases** had interesting sessions by **Dr. Seema Bhargava** and **Dr. Sukhes Mukherjee**. The chair persons were Dr. Urmila Khadilkar and Dr. Anand R. In the symposia 9 on **Trace Minerals, Dr. Abbas Ali Mahdi, Dr Anjali Manocha, and Dr. Molly Jacob** delivered their topics of interest**.** The chair persons were Dr. Tony Badrick and Dr. Virupaksha.

This was followed by Industrial talk by Kopran and the oral presentations for young speakers to showcase their research were held at three halls simultaneously between 4-5PM. The **AFMC Quiz** was conducted by **Dr. Shiva Shankara and Dr. Shailaja,** Associate professors of Biochemistry FMMC, Mangaluru. The postgraduates from various colleges participated.

The **general body meeting** was held from 6 PM and new office bearers were elected at the same venue. The **Banquet Dinner** was arranged at the seaside "**CITY BEACH**", Boloor

Day 4– 15th December 2016

The fourth day of the ACBICON 2016, started with the oral presentations for young speaker's .The next session was plenary session at10 AM by **Dr. Satyamoorthy K.** Professor & Director, School of Life Sciences, Manipal University. He spoke on "**Impact of epigenetic modifications on cervical cancer progression.**

The poster sessions were arranged during tea break**.** The **SYMPOSIA 10** on **Biomarkers, SYMPOSIA 11 on Molecular Biology and Genetics** started simultaneously at Hall A and Hall B from 11 AM. Oral presentations started at Hall C after tea break

Under symposia on **Biomarkers, Dr. Anna Velts and Dr. M K Unnikrishnan and Dr. Sadanand Naik** delivered interesting talks.

Symposia 11 on **Molecular Biology and Genetics** had interesting sessions by **Dr. Radhakrishnan Nair, Dr**. **Anirban Chakraborty and Dr. Medha Rajappa.** The chair persons were Dr. Satyamoorthy K and Dr. Ullas Kamath.

Award session & faculty oral presentations were held from 11.45 AM onwards simultaneously at Hall A, Hall B and Hall C. Industrial Talk by Transasia was arranged at Hall B at 1 PM.

This was followed by the valedictory function bringing the curtain down on 4 days of intense, high level scientific sessions. The Organizing Secretary, Dr. Poornima Manjrekar thanked all the delegates and volunteers for making the conference a grand success. The Chancellor, Manipal University congratulated Dr. Poornima Manjrekar and her team for the successful organization of the conference. After this Awards, Certificates and cash prizes were distributed to all the award winners. The General Secretary, ACBI, Dr. Rajiv Ranjan Sinha in his valedictory address heartily congratulated all the organizing committee members and volunteers for their untiring efforts in making the ACBICON 2016, national conference a great success. In the General Body held during the conference, the members elected the following as Executive committee members for the year 2017. Dr. Poornima Manjrekar as **PRESIDENT**. , Dr. Abaas A. Mahdi **Vice President (I) & Organising Secretary ACBICON 2017**. Dr. Jairam Rawtani as **Vice President (II)**, Prof. K. P. Sinha as **Advisor ACBI** and Dr. Rajiv Ranjan Sinha as **General Secretary**. The **Joint secretaries** elected were Dr. Anupama Hegde & Dr. Ram Binay Sinha. Dr. Krishna Ranjan Prasad was elected as **Treasurer**. The **Zonal Council members** elected were Dr. Dharamveer Yadav (North Zone), Dr Kanan Vaidyanathan (South Zone), Dr. A. N. Roy (East Zone), Dr. Sadanand Naik (West Zone) & Shivani Pandey (Central Zone).

AWARDS:

ACBI FELLOWSHIP AWARD (FACBI)

1. Dr. Bal Krishna Agarawal, Indore

ACBI- A. J. THAKUR DISTINGUISHED CLINICAL BIOCHEMISTS AWARD

Dr. Arun Raizada, Senior Consultant – Biochemistry, Department of Pathology & Lab Medicine, Medanta , Gurgaon.

ACBI ORATION AWARDS, 2016

AWADHESH SARAN MEMORIAL ORATION

Dr. D. M. Vasudevan, Head, PG Programs and Research, Amrita Institute of Medical Sciences, Kochi

SETH G. S. MEDICAL COLLEGE & KEM HOSPITAL ORATION

Dr. H. Vinod Bhat, Vice-Chancellor, Manipal University, Manipal, Karnataka

DR T. N. PATTABIRAMAN ORATION AWARD

Dr. Jayshree Bhattacharjee, Professor, Department Of Biochemistry, Lady Hardinge

K. L. GUPTA MEMORIAL ORATION
Dr. K. S. Gopinath, Padmashree, Surgical oncologist, HCG hospitals, Bengaluru

MRS. & DR G. P. TALWAR ORATION AWARD
Dr Taruna Madan Gupta

DR. TARANATH SHETTY MEMORIAL ORATION AWARD POPULAR LECTURE SERIES
Dr. G. G. Lakshman Prabhu, Prof. & Head, Dept of Urology, Kasturba Medical College, Mangaluru

OTHER AWARDS

K.P. SINHA - P.S. KRISHNAN AWARD FOR BEST PAPER PUBLISHED IN IJCB (2016):
Ankit Verma and N.C. Chandra
Differential Expressions of p53, p53R2, hRRM2 and PBR in Chronic Lymphocytic Leukemia: A Correlation with Intracellular Cholesterol, Vol. - 31, No.-3, Year 2016.

PITABUS – JAMUNA BURMA MEMORIAL AWARD
Anurag Yadav, Father Mullers Medical college, Mangalore - Comparative Assessment of Neutrophil Gelatinase-Associated Lipocalin (NGAL) and Cystatin C as Early Biomarkers for Early Detection of Renal Failure in Patients with Hypertension

DR. P. S. MURTHY AWARD

1. PS Murthy Award in CVD – Srilatha K, SRMC, Chennai
2. PS Murthy Award in Diabetes - Balakrishna Pai, Sri Manakula Vinayagar Medical College & Hospital, Pondicherry
Study of SNP s of RAGE and its association with micro and macro vascular complications of type 2 DM

3. PS Murthy Award in Drug Development from plant sources- Amith Kumar, KMC, Mangalore
Antioxidant ,anti-inflammatory and radiation mitigating effects of hydro alcoholic leaf extracts of p.americana in albino wistar rats.

4. PS Murthy Award in Infectious Diseases- Suprabha Nayak
Apoptosis and pattern of CD4 cells in intestinal tuberculosis and Crohn's disease – Diagnostic implications.

DR SITA DEVI AWARD
Sriram Naresh, VIMS Tirupathi- *Utility of saliva in measurement of thyroid hormones.*

NIMS BEST POSTER AWARD
In the Field of CANCER:
Sarvari G. -*Study of adiponectin and leptin levels in postmenopausal obese breast cancer*
In the Field of NON-CANCER: S. Banerjee

A pilot study to determine the differential methylation pattern in Indian population with coronary artery disease.

MGIMS (SEWAGRAM) AWARD
Daisy Maria Samadanami - *p-Selectin, a possible predictor of disease progression in severe Dengue infection*

Dr. P. Usha Sarma Best Poster Award in Genomic Proteonomic sciences – Clinical Application:
Salma Taj S A - *Mangiferin, a C-glucosylxanthone, ameliorates the arsenic induced cytotoxicity in IEC-6 cell line*

AFMC QUIZ AWARD
FIRST PRIZE: Shruthi Rai
SECOND PRIZE: Kajalakshmi

ACBI YOUNG SCIENTIST BURSARY
Full Bursary: C Raghavi, JIPMER, Pondicherry
Partial Bursary: K. Srinivasulu, JIPMER, Pondicherry

ACBI TRAVEL AWARD
Sriram Naresh, VIMS, and Tirupathi

IFCC AWARDS
Dr Angel Mercy Sylus (Effect of clomiphene citrate on nitric oxide IL- 10 and MMP-9 in women with polycystic ovary syndrome)

1. Dr. Chiranjit Ghosh (Monitoring of blood glucose profile from extended breath analysis for the diagnosis of pre-diabetes and type II diabetes)
2. Dr. Namita Mahalle (Oral administration of cyanocobalamin causes higher increase in circulating holotranscobalamin than hydroxocobalamin: An Indo-Danish study with different doses of cobalamin)
3. Dr. Prasenjit Mitra (Isolation and charecterisation of a compound from the leaves of Ageratum Conyzoides Linn. Responsible for antigastriculcer activity in albino rats)
4. Dr. G. Revathy (Does Methotrexate monotherapy ameliorate systemic inflammation and endothelial dysfunction in Psoriasis)

The next Annual conference of Association of Clinical Biochemists of India will be held at Lucknow (UP, India) from 4th to 6th December 2017 with Dr. Abbas A. Mahdi, Professor & Head, Department of Biochemistry, King George's Medical University as the Organizing secretary. More news would appear on website: www.acbindia.org.

The Office Bearers elected for the year 2017 are:

PRESIDENT	Dr. Poornima Manjrekar (Mangalore)
VICE PRESIDENT	(1) Dr. Abbas A. Mahdi (Lucknow)
	(2) Dr. Jairam Rawtani (Jodhpur)
GENERAL SECRETARY	Dr. Rajiv R. Sinha (Patna, Bihar)
ADVISOR	Dr. K P. Sinha (Patna, Bihar)
TREASURER	Dr. K R. Prasad (Patna, Bihar)
JOINT SECRETARY	(1) Dr. Anupama Hegde (Mangalore)
	(2) Dr. Ram Binay Sinha Patna)

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
North Zone	Dr. Dharamveer Yadav

Immediate past president: Dr. Rajendra Prasad (Chandigarh)

Hong Kong Society of Clinical Chemistry (HKSCC)

HKSCC HALF-YEAR REPORT OF 2016

The year started with the newly elected office bearers elected at the Annual General Meeting (AGM) of the Hong Kong Society of Clinical Chemistry held on 23 January 2016, taking up their office. The office bearers elected were:

President	Dr Doris CK CHING
Vice President	Mr Yun Chuen LO
Immediate Past President	Ms Judy PS LAI
Secretary	Dr Iris HS CHAN
Treasurer	Ms Cybil TY WONG
Council Members	Prof YM Dennis LO
	Prof Allen CK CHAN
	Prof Joseph LEE
	Dr Liz YP YUEN
	Dr Lydia CW LIT
	Dr Eric LK LAW
	Dr Jeffery SS KWOK
	Mr Michael HK LEE
	Ms Karen KT LAW
	Mr Eric WK WONG

National Representative to IFCC	Prof Allen CK CHAN
National Representative to APFCB	Dr Doris CK CHING
Representative to FMSHK	Prof Joseph LEE

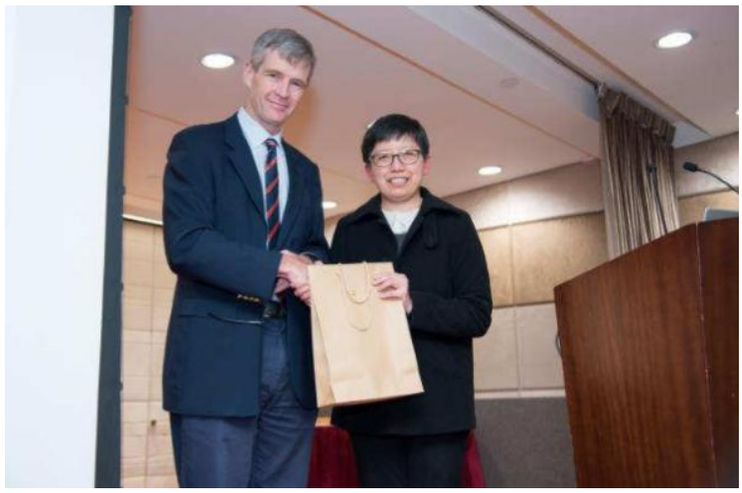
Dr. Graham Jones of St Vincent's Hospital, Sydney, Australia was the APFCB Travelling Lecturer. He was invited to deliver two APFCB lectures entitled: "Chronic Kidney Disease – the Role of the Routine Laboratory" and "HbA1c –Measurement and Interpretation" in the 2016 Annual Scientific Meeting (ASM).There were also 5 presentations from the industries (Roche, Abbott, Thermo-Fisher, Beckman-Coulter and AB Sciex).The 14 industrial booth exhibitions and lectures were well attended by over 190 members and guests.

Education activities for the year carried on with presentations by distinguished academia and scientists. Two scientific meetings were organized in the first half year of 2016:

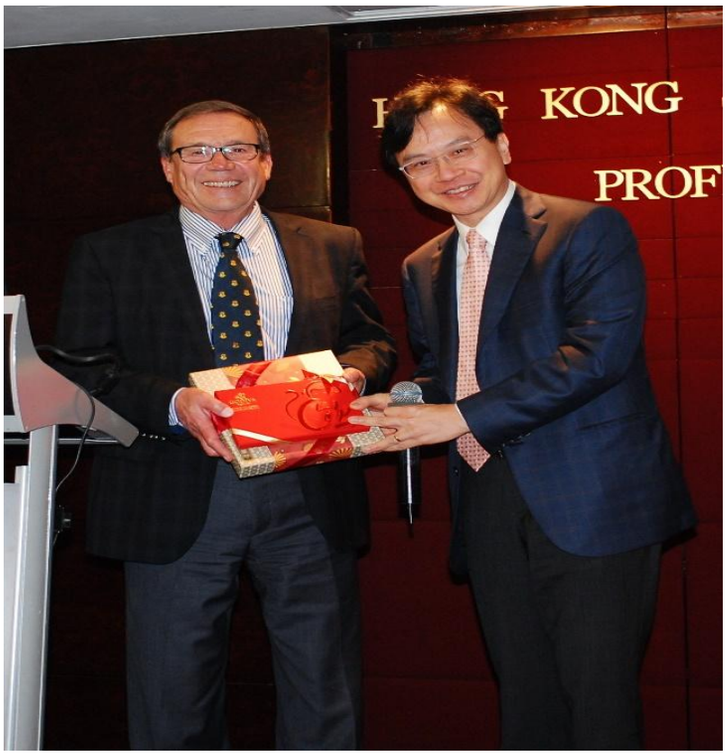
1. Professor Mitchell G. Scott, External Examiner for Chemical Pathology, Chinese University of Hong Kong delivered a dinner lecture at the Cordis Hong Kong Hotel on 12 April 2016. The title of his talk was 'Laboratory Testing for Growth Hormone Abuse in Sports Perspective'. The event was attended by 110 members and guests.
2. A joint afternoon seminar with Hong Kong College of Pathology (HKCPath) was held at Queen Elizabeth Hospital on 7June. Dr John Christopher Coakley, Specialist in paediatric/ neonatal chemical pathology, has been appointed the RCPA Visiting Lecturer 2016 and he delivered two lectures on "Investigation of Jaundice in Infants and Children" and "Lipid Problems in Children". To keep abreast of the recent advances and service developments of Clinical Chemistry in Hong Kong locality, presentations were followed and delivered by two distinguished members: Dr Chloe Mak and Dr Felix Wong. Dr Mak introduced "Pilot Study of Newborn Screening for Inborn Errors of Metabolism in collaboration with Department of Health and Hospital Authority" and Dr Wong highlighted "Inborn Errors of Carbohydrate Metabolism: two recent cases in Hong Kong". The event was attended by about 100 members and guests.

Council 2016 – 2017

ASM 2016 (23 Jan 2016) APFCB Travelling Lecture: Dr Graham Jones



Dinner lecture (12 April 2016): Professor Mitchell G. Scott



Joint seminar (07 June 2016): Dr John Christopher Coakley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Korean Society of Clinical Chemistry Annual Report of 2016 (KSCC)

Annual Reports of Korean Society of Clinical Chemistry (KSCC) 2016

National Meetings		
Name of the Meeting	**Date**	**Topic**
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

1. Education
    1. Procedure manuals of clinical chemistry laboratory
    2. Tumour 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 especially in vitamin D

2. 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) S
       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 World Lab 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)
8. KSCC became to be admitted to be one of the National and Regional Members of JCTLM

2. Additional Information : The Change of the Council Members of KSCC; New Officer bearer of KSCC (2017–2018)

1. President : Pf. Jeong-Ho Kim (Yonsei University College of Medicine)
2. Secretary General : Pf. Sang-Hoon Song (Seoul National University College of Medicine)
3. Treasurer : Dr. Hwan Sub Lim (Seoul Clinical Laboratories)
4. International Committee : Dr. Sung Eun Cho (Lab Genomics Clinical Laboratories)

Indonesian Association for Clinical Chemistry (IACC)

IACC Activities 2016 for APFCB News second semester

1. **Workshop and Seminar**
   IACC held Quality Control Workshops and Seminar. Cooperates with Abbott Diagnostic IACC held Six Sigma Series with Dr. Sten Westgard from USA. The topic of this Workshop and Seminar is Internal Quality Control Troubleshooting and Interpretation of External Quality Assurance. This seminar held in Borobudur Hotel Jakarta on Saturday, 27th October 2016 and attended by 150 participants of Clinical Pathologist, Laboratory Scientist and Medical Technologist from some cities of Indonesia.

President IACC, dr. July Kumalawati, DMM., SpPK(K) opened IACC Six Sigma Series Seminar with Dr. Sten Westgard

Right after opened the Seminar, Dr. July Kumalawati, SpPK DMM delightedly announce the Executive Board Member of IACC period 2016-2019 to all of participants.

Some of IACC Executive Board Member 2016-2019 taken picture with Dr. Sten Westgard after the Workshop and Seminar.

2. **IACC – Semarang Branch**

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. The workshop and seminar was attended by 250 participants.

Dr. Indranila, SpPK the head of IACC Semarang Branch opened the Scientific Seminar during Dies Natalis of Medical Faculty of Diponegoro University Semarang.

Dr. Purwanto, SpPK the head of IACP Semarang had opening speech in the Scientific Seminar during Dies Natalis of Medical Faculty of Diponegoro University Semarang.

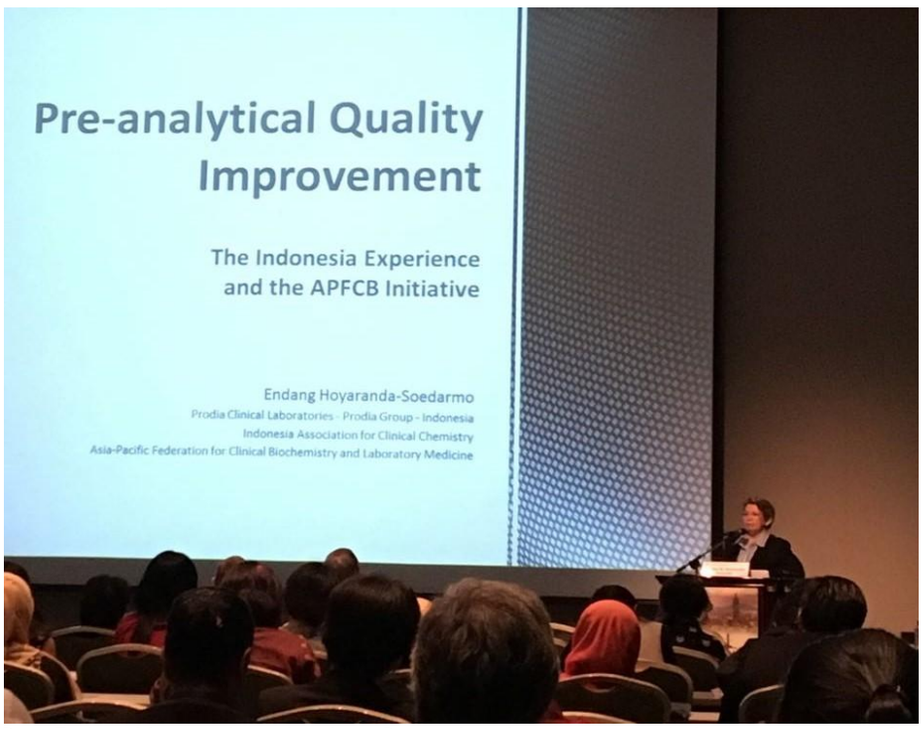
Workshop Update in Urinalysis in Diagnostic held by IACC Semarang Branch.

3. **MIHY Program**

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.

IACC proudly share the MIHYC program in IFCC Congress 2016, AACC Congress 2016 and APFCB Congress 2016 through Dra. Endang Hoyaranda.

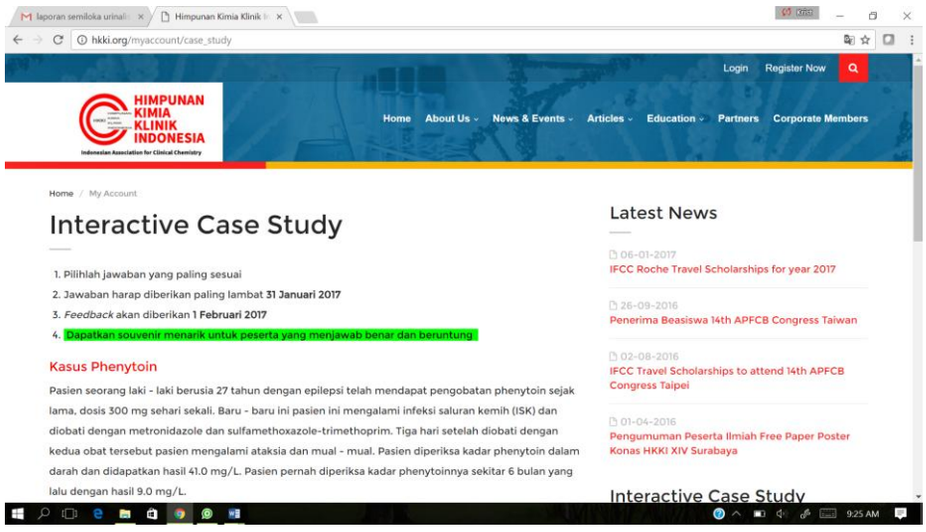
In 2016, there were 24 clinical labs and hospital labs that run this programmes. From 2011, we have made the pre-analytic survey in 70 outlets.



Dra. Endang Hoyaranda spoke about Pre analytic Improvement – Indonesia experience & the APFCB initiative during 14th APFCB Congress 2016 in Taipei Taiwan

4. **PROJECT OF INDONESIA PEDIATRIC REFERENCE INTERVAL (PIPER Study)**
   IACC and new Board of Indonesian Association of Pediatrics (IDAI) have a meeting to draft the MOU to hold the study for set up the reference range for Indonesian child population.

5. **Result Interpretation And Commenting Program**
   IACC launched the online training on result interpretation and commenting through IACC website namely www.hkki.org . We called this program by Interactive Case Study. Every three month we update the case study and result.



Japan Society of Clinical Chemistry (JSCC)

The 56th annual meeting of the Japan Society of Clinical Chemistry

Japan Society of Clinical Chemistry (JSCC) holds a general and scientific meeting annually. In 2016, it was held in Kumamoto and achieved a great success. Kumamoto was attacked by the huge earthquake in April, but it revived. We are very sorry to hear the earthquake, but we all celebrated the great success for the annual meeting in Kumamoto. The following result was obtained from the chairman of the annual meeting, Prof. Ando.

56th annual meeting of Japan Society of Clinical Chemistry (JSCC) was held in Kumamoto, Japan from December 2-4, 2016. President and Vice president of the meeting were Professor Ando Y, Professor of Department of Neurology, and Department of Diagnostic Medicine, Professor Matsui H, Graduate School of Medical Sciences, Kumamoto University, respectively. Approximately 700 participants gathered to the meeting from all over Japan. Two special lectures, 5 educational programs, 6 symposiums, and 9 luncheon seminars were planned, and 92 oral presentations were performed. As a foreign invited lecture, Dr. Soininen P was invited to the meeting.

The attached photograph is a snap shot of the annual meeting in Kumamoto.
In 2016 JSCC sponsored a symposium in the 14th APFCB congress in Taiwan. Congratulations for a great success, Dr. Fang.

(Written by Maekawa M, President of JSCC)

MALAYSIAN ASSOCIATION OF CLINICAL BIOCHEMISTS (MACB)

President	Raja Dr. Elina Raja Aziddin
Vice President	Tunku Marinah Ashraf Tunku Abdullah
Secretary	MohdJokha Yahya
Treasurer	Chen Bee Chin
Council members	Dr. Badrul Amin iAbd Rashid
	Sivasangkari Supremaniam
	Vani A/P Munusamy
	Shawal Maradona Abdul Wahab

Chair of Scientific Sub Committee	Raja Dr Elina Raja Aziddin
Chair of Education Sub Committee	Tunku Marinah Ashraf Tunku Abdullah
Chair of Publication & Publicity Sub Committee	JaleezahIdris
Chair of Corporate Affairs Sub Committee	Norhazwati Mokhtar
Chair of MACB Conference Organising Committee	Chen Bee Chin

EDUCATION SUBCOMMITEE REPORT

In 2016 MACB Education Sub Committee organised the following programs:

1. **Workshops**
   - Risk Management on 22 – 23 February 2016 and attended by 56 people. Raja Dr Elina conducted the workshop.
   - Safty and Health in Medical Laboratories on 30 – 31 May 2016 and attended by 41 people. The workshop was coordinated by Chen Bee Chin and conducted by herself, Dr. Gogilan and Mr. Seah
2. **APFCB-MACB Course**

   The MACB organised the APFCB-MACB Chemical Pathology Course for the first time in Kuala Lumpur with assistance from the APFCB. The course was held at the Grand Seasons Hotel on 19 – 21 September 2016. The course was officiated by Mr. Joseph Lopez, past-president of APFCB.

Speakers were Dr LohTze Ping (Singapore), Dr Louse Wienholt(Australia), Professor Dr. Tony Badrick (Australia) Raja Dr Elina(Malaysia).

The course was attended by more than 50 participants comprising of Chemical Pathologists, Biochemists, Laboratory Scientists, Medical Doctors, Medical and Laboratory Technologists both from public and private hospitals and laboratories from all over Malaysia. The course also had 2 participants from Hong Kong. There were also attended by 2 representatives from the diagnostic industry.

The course aims to help participants prepare for a professional examination which is expected to be carried out in 2018.

3. **Curriculum for skills training for Clinical Biochemists**
   MACB collaborated with the Department of Skills Development, Ministry of Human Resources Malaysia Ministry to develop the curriculum for skills training for Clinical Biochemists. This National Occupational Skills Standard (Clinical Biochemistry, Level 5) document was successfully completed in December 2016.

pan dari kiri : Rozita Abdullah,Siti Balkis Budin,Hj Zaharudin Abdul Latif (Fasilitator),Raja Dr. Elina Raja Azidin, Marinah Ash
ang dari kiri : Zarlyantey Abd Hamid,Norhaswati Mokhtar,Kala Devi Nadarajan,Low Yoke Lee,Mohd Jokha Yah

MACB SCIENTIFIC SUBCOMMITEE REPORT

1. The MACB Scientific Sub Committee organized the following seminars and workshops:

1. "CAP Accreditation and Best Practices in Laboratory Quality Improvement" by Ms. Noel Adachi, Vice President, College of American Pathologists, Northfield, Illinois USA and Dr. Maria Borges, Director Qual Assure Diagnostica Mumbai, India was attended by 41 participants. This seminar was jointly organized with Beckman Coulter and College of American Pathologists and was held at Specialist Complex and Ambulatory Care Centre (SCACC), Hospital Kuala Lumpur on 10 December 2015.
2. "Impact of Point of Care Testing (POCT) on Patient Flow" by Philip Weihser, Project Manager and POCT Coordinator from James Paget University Hospital was attended by 86 participants. This seminar was jointly organized with Transmedic Healthcare SdnBhd and was held at Dermatology Auditorium, Hospital Kuala Lumpur on 3 March 2016.
3. "Managing Quality in the Medical Laboratory – Quality Strategic Planning and Digital Management of QC" by Nico Vandepoele, member of CLSI GP 27 'Using Proficiency Testing and Alternative Assessment to Improve Medical Laboratory Quality; Third Edition' was attended by 134 participants. The seminar was jointly organized with Chemopharm SdnBhd and was held at Medical Academies of Malaysia on 21 April 2016

4. "Understanding the Science behind Tumour Marker Assay Design and How This Impacts Patient Sample Handling and Results" by Mikki Koo, PhD, Product Manager, SWA Reagents, Professional Diagnostics, Regional Business Development, Asia Pacific was attended by 48 participants. This seminar was jointly organized with Roche Diagnostics (M) SdnBhd and was held at Specialist Complex and Ambulatory Care Centre (SCACC), Hospital Kuala Lumpur on 22 April 2016.

5. "Risk Management and IQCP for POCT Management in BGA" by Prof J. Nicols, CLSI POCT Subcommittee. This seminar was jointly organised with Straits Scientific (M) SdnBhd and was held at Pullman City Centre Hotel, Kuala Lumpur on 19th May 2016.

6. C-RIDL GLOBAL Multi-Center Study On Reference Values
   The MACB is also participating in the C-RIDL study on reference values in Malaysia. The committee held two meetings in 4meetings in 2016 and decided that the population size of the study will be and subjects will be from the four main ethnic groups and will be from West Malaysia. The testing laboratories chosen are UMMC, PPUKM and Pantai Premier Pathology. The study is currently ongoing.

MACB 26TH CONFERENCE 2016

The 26thMACB conference was held from 18th -19th July in Berjaya Time Square Hotel, Kuala Lumpur with 230 participants attending the conference. The participants were from the whole country, including government and private hospitals, Universities and laboratories, as well as several foreign delegates.

The theme for this year conference is 'Advancing Laboratory Medicine for a Healthy Nation' which featured current topics in the areas of diabetes management, point of care testing and the impact of race and ethnicity on laboratory tests. Conference program included 5 plenary lectures, 1 symposium and 5 educational workshops. Current research in the fields of clinical biochemistry was presented through posters and oral presentations. A scientific exhibition was also held alongside with the conference to provide participants the latest cutting-edge technologies and innovations in the field of laboratory medicine. The exhibitors were from Siemens (M) SdnBhd, Roche Diagnostics, Abbott Laboratories, All Eights (M), Diagnostic care, Sysmex and few other companies who gave continuous support and contribution to the association.

PARTICIPATION IN THE APFCB CONGRESS 2016 IN TAIPEI, TAIWAN

The MACB sent a delegation of 7 people to attend the APFCB Conference 2016 in Taipei. The APFCB General Meeting was represented by the MACB president. At the meeting the MACB also made a bid to host the APFCB Congress in 2021 but lost to Australia.

The president also attended the APFCB Scientific Committee meeting chaired by Professor Kiyoshi Ichihara and the CKD meeting chaired by Dr Graham Jones.

Performance of Maglumi hs-cTnI (CLIA method)

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1. Background:

High-sensitivity Troponin (hs-cTnI) assays, in the guidelines of ACC and ESC, should have a coefficient of variation (CV) less than 10% at the 99th percentile value in the population of interest. To be classified as high-sensitivity assays, concentrations below the 99th percentile should be detectable above the assay's limit of detection for >50% of healthy individuals in the population of interest. hs-cTnI could have several distinct roles in clinical practice:(1)Earlier diagnosis and rule out of myocardial infarction (MI);(2) risk stratification in acute cardiac conditions and prognostic information in stable disease states. In this study, we verify the 99th percentile, sensitivity and system comparison of Maglumi hs-cTnI (CLIA) in Chinese population on fully-auto chemiluminescence immunoassay analyzer (Maglumi 4000).

2. Methods and Materials

2.1 Methods

99th percentile of Healthy population: By using our laboratory information system, we identified and collected 212 clinical healthy sample bases on EP28-A3c.

2.2 Materials

We currently perform the hs-cTnI were determined with chemiluminescent automated method on Maglumi 4000 analyzer (SNIBE, China) and STAT hs-cTnI were tested by Architect i4000SR (Abbott, USA).

Table 1 hs-cTnI Specimens Concentration distribution

Con. (pg/mL)	≤10	10-26	27-500	≥500
Proportion	10%	60%	20%	10%

2.3 Statistical analysis

Statistical analyses were performed by SPSS 19.0 (SPSS Inc.USA)

3. Results

3.1 99th percentile of Healthy population: During the study period, a total of 212 serial specimens were analyzed for hs-cTnI. The performance of 99th percentile is 7.987pg/mL, CV<10% was achieved (***Fig 1,2***.)

3.2 Performance of sensitivity: (1) LOB: hs-cTnI-free human serum were tested 60 times in 3 consecutive days, LOB=1.368 pg/mL. (2)LOD: the difference of SD 1, SD2, SD 3 and SD 4 were not statistically significant ($P > 0.05$), SD_L was 1.017 pg/mL, LOD=3.040 pg/mL. (3) Limit of Quantification (LOQ, CV=10%) and CV at 99th percentile: curve of CV-Con were fitted, $y = 0.8865x^{-0.933}$. When y=7.987 pg/mL, x=9.4%,

CV of 99th percentile was 9.4%; when x=10%, y=7.597 pg/mL, LOQ is 7.597 pg/mL *(Fig 2)*.

3.3 System Comparison: 169 serum samples from hospitalized patients were collected and tested on both systems, results comparison shown in *Fig 3*.

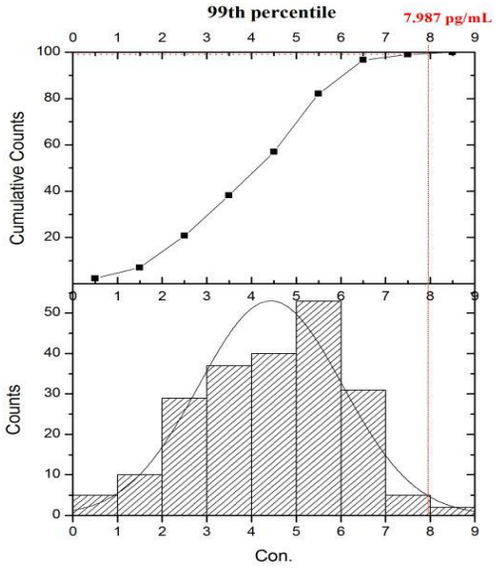


Fig 1 The performance of 99th percentile

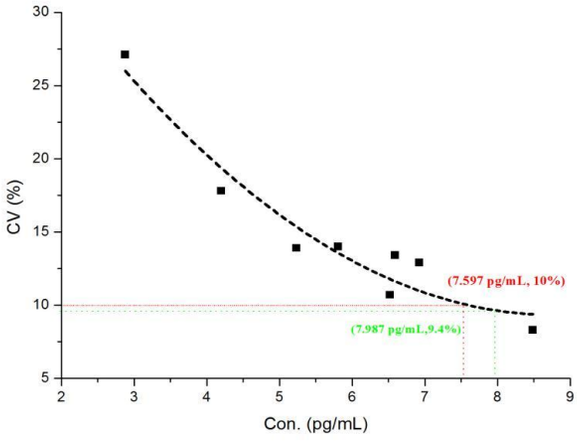


Fig 2 CV of 99th percentile and LOQ

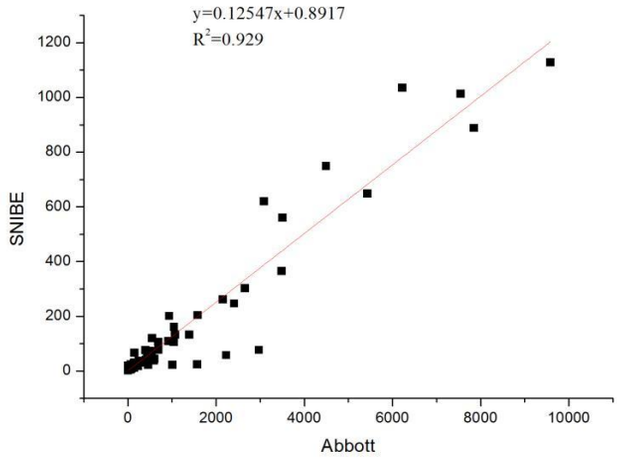


Fig3 System comparison between Maglumi 4000 and Architect i4000SR

Table 1 Analytical characteristics of commercial cardiac troponin I and T assays declared by the manufacturer

Company/platform/ assay	99th % (ng/L)	%CV at 99th %	10 % CV (ng/L)	LOB (ng/L)	LOD (ng/L)	Acceptance designation	Ass
Roche E 2010/cobas e 411 hs-TnT	14	10.0	13	--	5	guideline acceptable	
Beckman Coulter Access AccuTnI+3	40	10	40	<10	10	guideline acceptable	
Tosoh ST AIA-PACK cTnI(3rd gen)	40	10	35		8	guideline acceptable	
Siemens ADVIA Centaur® TnI-Ultra™	40	8.8	30	6	--	guideline acceptable	
Abbott Architect STAT hs-cTnI	26.2	4.0	4.7	0.7-1.3	1.1-1.9	guideline acceptable	
Snibe, Maglumi hs-cTnI	7.987	9.4	7.597	1.368	3.040	guideline acceptable	

Conclusions:

In this study, we verified the 99th percentile, detection Capability of Maglumi hs-cTnI base on Chinese population, and conducted System Comparison with Abbott Architect STAT hs-cTnI. The 99th percentile of Maglumi hs-cTnI is 7.987 pg/mL, with CV 9.4% (<10%)[2], meanwhile 167 cases out of 212 serums samples from healthy person give results higher than LOD (3.040 pg/mL), accounting for 78.7% of healthy person, according to Apple F S cTn assay scorecard standard[3], Maglumi hs-cTnI can be defined as **"guideline acceptable"** on acceptance designation and **Level 3 (second generation, hs)** regarding assay designation. While the comparison in 169 hospitalized patients' shows that Maglumi hs-cTnI has a good correlation with Abbott Architect STAT hs-cTnI, 0.9296 for R^2. Take the Troponin related assay performances of other company (*Table 1*) into consideration; it can be conclude that Maglumi hs-cTnI is comparable with top players in the market.

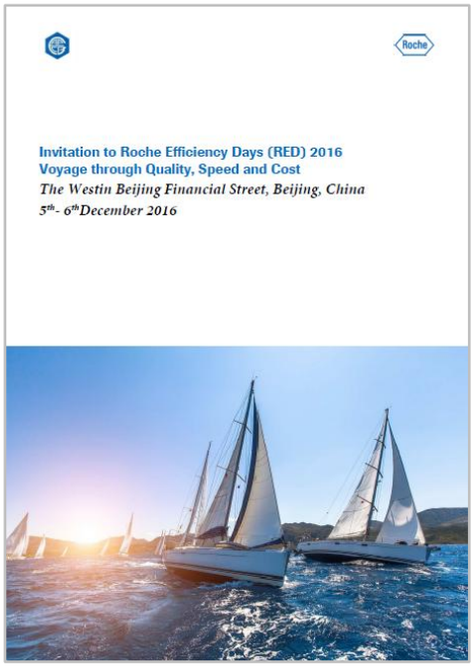
References:

1. Clinical and Laboratory Standards InstituteEP17-A2: Evaluation of detection Capability for Clinical Laboratory Measurement Procedures; Approved Guideline—Second Edition (2012)

2. Apple F S. A new season for cardiac troponin assays: it's time to keep a scorecard [J]. Clinical chemistry, 2009, 55(7): 1303-1306

3. Apple FS. Parvin C A, Buechler K F, et al. Validation of the 99th percentile cutoff independent of assay imprecision (CV) for cardiac troponin monitoring for ruling out myocardial infarction[J]. Clinical Chemistry, 2005, 51(11): 2198-2200.

Roche Efficiency Day (RED) 2016: Voyage through Quality, Speed and Cost



The inaugural Roche Efficiency Days (RED) was held successfully from December 5th to 6th in Beijing, China's massive capital and city that has history stretching back 3,000 years. This conference was organized by Roche Diagnostics Asia Pacific in collaboration with Roche Diagnostics China and Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine (APFCB). With an impressive participation of around 300 healthcare professionals from across the region, this conference was not only a unique opportunity to gain insights from the speakers from across the globe, but also a wonderful meeting for networking and exchanging knowledge among participants.

Achieving laboratory's efficiency is of great interest to many laboratory managers. Nevertheless, it is important to ensure that the clinicians have greater confidence in the result quality while the laboratories are able to work at the greatest level of efficiency with optimized cost. Hence, with the key focus on testing efficiency excellence, the conference addressed various topics relevant in helping laboratories achieving balances in quality of result accuracy, speed of result delivery, cost-effectiveness of laboratory management and operations.

On 5th December, Mr. Lance Little, Managing Director of Roche Diagnostics Asia Pacific kicked off the day by giving his opening remarks and followed by a welcome speech delivered by Mr. Wong Fatt-Heng, General Manager of Roche Diagnostics China. Seven highly engaging presentations were given by Dr. Ronda Greaves (Senior Lecturer, Laboratory Medicine, School of Health and Biomedical Sciences RMIT University, Australia), Ms. Naiyana Wattanasri (Chairman, Thai Medical Council, Thailand), Mr. Mah Sam Yew (Consulting Team Manager, Lab Workflow Solutions, Roche Diagnostics Asia Pacific), Prof. Guo Wei (Clinical Lab Director, Fudan University Affiliated Zhongshan Hospital, China), Dr. Chu Fang Yeh (Chief, Department of Clinical Pathology, Far Eastern Memorial Hospital, Taiwan), Prof. Hong Jiang (Lab Director, West China Hospital, SCU, China), Dr. Patricia M. Jones (Director, Chemistry and Metabolic Disease Lab, Children's Medical Center Dallas, University of Texas Southwestern Medical Center, United States of America), to provide up-to-date insights on their respective journeys of continuous and relentless pursuits into testing efficiency excellence.

Mr. Lance Little delivered opening remarks.

Mr. Wong Fatt-Heng welcomed all the participants.

The first day session also included two panel discussions with the active participation of the attendees. Ideas, opinions and thoughts were exchanged between speakers and participants under the moderation of Dr. Patricia M. Jones and Prof. Boshen Pan, Clinical Lab Director of Zhongshan Hospital Fudan University, China. The day was closed with the heartwarming gala dinner despite the cold winter in Beijing. Roche Diagnostics took the opportunity to celebrate the 20th anniversary of Elecsys with the theme of "You are writing history every day, continuous evolution with Elecsys". During the dinner, Roche leadership team – Mr. Lance Little, Managing Director, Roche Diagnostics Asia Pacific, Mr. Anton Gutscher, Head of Business Development, Roche Diagnostics Asia Pacific, Mr. Wong Fatt-Heng, General Manager of Roche Diagnostics China, Mr. Jeffrey Chin Head of CPS, Roche Diagnostics China and Mr. Lim Hong Yew, Business Leader, Lab Workflow Solutions, Roche Diagnostics Asia Pacific were invited to stage for the celebration and toasting to all the guests.

Healthcare professionals at the RED 2016.

Panel discussion that moderated by Prof. Bo

On the second day, there were 4 presentations from the invited speakers from China, they are Prof. Liping Zhang (Clinical Lab Director, The First Affiliated Hospital of Cong Qing Medical University), Prof. Prof. Jun Qi (Clinical Lab Director, Cancer Hospital Chinese Academy of Medical Sciences, China), Prof. Tieying Huo (Clinical Lab Director, Guangdong General Hospital, China), Prof. Lieying Fan (Clinical Lab Director, Tongji University Affiliated Oriental Hospital, China). They presented the initiatives that have been implemented in their laboratories that have brought great improvement in productivity and turnaround time.


Presentation by Dr. Patricia M. Jones.


Presentation by Prof. Guo Wei.

The conference was officially closed by an inspiring speech delivered by Ms. Sophia Chao, Marketing Director, IVD Professional, and Roche Diagnostics China. This was followed by arrangements to visit the Cancer Hospital, Chinese Academy of Medical Sciences and Xiyuan Hospital, China Academy of Traditional Chinese Medicine. The laboratory visits gave opportunities for invited participants to learn and understand the workflow of Beijing's laboratories.

In conclusion, the conference was an overwhelming success. The results from the survey showed that the expectations were exceeded by excellent presentations and organization. We hope this congress has inspired participants to works toward achieving excellence in laboratory testing efficiency. Finally, on behalf of the Roche Diagnostics Asia Pacific, I would like to forward my sincere thanks to APFCB for their kind support and Roche Diagnostics China for providing their tremendous efforts to the success of the Roche Efficiency Days (RED) 2016!

Celebration of 20th anniversary of Elecsys during gala dinner.


Laboratory visits.

Written by SeeSee Kwo, Product Manager, Lab Workflow Solutions, Regional Business Development, Roche Diagnostics Asia Pacific.

Lupine - A Souvenir from Birmingham

Dr Tan It Koon

My first overseas study trip covered 3 medical centers best known for their excellence in facilities and training for Clinical Biochemistry in the United Kingdom. The Department of Clinical Biochemistry was headed by the three prominent "W"s: IDP Wootton of the Royal Postgraduate Medical School in London, TP Whitehead in Birmingham, and LG Whit by in the Edinburgh Royal Infirmary in Scotland.

In the springtime of 1968, I moved from London to Birmingham, the second destination of my postdoctoral fellowship program, where I met Professor Whitehead, Head of Clinical Chemistry Department at the Queen Elizabeth Medical Centre of the University of Birmingham. I shared an office at the Wolfson Research Laboratories with Dr Peter Wilding who subsequently moved to the USA and became a President of the American Association for Clinical Chemistry.

At that time, in addition to being well-known for his work on laboratory automation which led to highly efficient testing for large panel of tests as well as data handling using on-line computers, Professor whitehead was a pioneer in internal and external quality assessment of laboratory analyses which evolved into the United Kingdom National External Quality Assessment Service (UK NEQAS), a network of programs that now covers many disciplines within laboratory medicine. Professor Whitehead was an enthusiastic and readily approachable mentor who had a profound influence on my work when I returned to Singapore.

We collaborated in the promotion of quality assurance through WHO and APFCB educational programs for the South-East Asian Region. The efficiency, reliability, and turn-around-time of analyses and reporting of test results to clinical colleagues were greatly improved by my introduction of automated analysers, use of computer system, and implementation of quality assurance programs in the Clinical Biochemistry Laboratories, Department of Pathology, of the Singapore General Hospital and Ministry of Health. During my stay in Birmingham and long-weekend trips to the countryside organised by the British Council, an unusually beautiful and captivating flowering plant caught my attention.

From a distance, it appeared as long stalks of flower in a variety of colours. They were about a meter tall and usually planted as a group on open meadows or a patch in private home gardens. They looked lovely swaying in the same direction in the wind. I was told that the name of this flowering plant is "Lupine". As I usually saw them unexpectedly while travelling on a bus or car, I could not take a closer look and was curious about the structure of the flower. The opportunity came when Professor Whitehead invited me to his home at Leamington Spa, a spa town in Warwickshire, England. He and I shared a common passion for flowers and gardening. He was nationally renowned for cultivating and exhibiting a variety of sweet pea flowers which won him many top floral awards in Britain. While I enjoyed his garden, I spent more time admiring the large patches of lupines (also belonging to the pea family) in his neighbours' gardens. The flowers were seen in the full range of colours of the rainbow, in different shades of the same colour or combinations of different colours. Each stalk of flower consisted of multiple small blossoms attached by short pedicelsin vertical rows along an elongated axis and each leaf had five or more leaflets radiating outward from a single point on the stalk.

As my accommodation in Birmingham was a short walking distance from the city's Botanic Garden, I was able to make this colour sketch of the lupine flower in the style of a botanic painting at my leisure in the garden. This has served as a souvenir for my time in Birmingham and long-lasting memory of a pea-flower loving professor who had made outstanding contributions to the practice of Clinical Chemistry worldwide.