



**ASIA-PACIFIC FEDERATION FOR CLINICAL BIOCHEMISTRY
AND LABORATORY MEDICINE**

APFCB 2021 ANNUAL REPORT

The pandemic of Covid-19 which started in 2019 and still continuing, has shocked the world and paralysed economies. The only sector becoming more active was the healthcare sector. Specific on laboratory medicine, an increased awareness in the public has emerged due to the role that laboratory medicine is playing in the diagnosis and treatment of Covid-19. This will likely continue in the future. The pivotal position of laboratory medicine in the diagnosis, monitoring, tracking and tracing of Covid-19, and certainly if similar situations occur in the future, will remain the spotlight.

With the unprecedented situation the world had to face and live with, professional organisations like APFCB and all its member societies have suffered for not being able to conduct physical meetings, let alone congresses. The APFCB Congress which was planned for 2022 in Sydney, had to be moved to 2024 as the Worldlab which was supposed to be held in Seoul in 2020 could not be conducted and is postponed to June 2022.

The disruptions for holding physical meetings, however, did subsequently raise the use of digital technology to conduct meetings. Hence, during 2021 many scientific and educational activities could be realised, as shown in this report.

The APFCB Executive Board consists of : Dr Sunil Sethi (SACB), President; Dr Leslie Lai (MACB), Immediate Past-President; Dra Endang Hoyaranda (IACC), Vice-President; Dr Helen Martin (AACB), Secretary; Dr Leila Florento (PAMET), Treasurer; Mr Alexander Wong (Siemens), Corporate Representative.

A. Members of APFCB:

As for end 2021, celebrating its 39th anniversary, the members of APFCB are as follows.

Full/ordinary Members, Affiliate Members and Corporate Members status 2021

The following National Societies are full/ordinary 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. Iranian Society of Clinical Laboratory Doctors (IACLD)
7. Japan Society of Clinical Chemistry (JSCC)
8. Korean Society of Clinical Chemistry (KSCC)
9. Malaysian Association of Clinical Biochemists (MACB)

10. Mongolian Association of Health Laboratorians (MAHL)
11. Nepal Association for Medical Laboratory Sciences (NAMLS)
12. Pakistan Society of Chemical Pathologists (PSCP)
13. Philippine Association of Medical Technologists (PAMET)
14. Singapore Association of Clinical Biochemists (SACB)
15. Association for Clinical Biochemistry, Sri Lanka (ACBSL)
16. Chinese Association for Clinical Biochemistry, Taiwan (CACB)
17. Thailand Association of Clinical Biochemists (TACB)
18. Vietnamese Association of Clinical Biochemistry (VACB)

The following are the Affiliate Members of APFCB:

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

No new members were admitted during the year 2021, and no member rescinded their membership.

The following are the Corporate Members of APFCB 2021:

1. Abbott Diagnostics
2. Becton Dickinson Diagnostics
3. Beckman Coulter
4. Bio-Rad
5. Diasorin Ltd
6. DiaSys Diagnostic Systems GmbH
7. Kopran Laboratories Ltd
8. Mindray Bio-Medical Electronics Co Ltd
9. Ortho-Clinical Diagnostics
10. PM Separations
11. RCPAQAP
12. Randox
13. Roche Diagnostics
14. Sekisui Chemical Co (Japan)
15. Siemens Healthineers
16. Snibe Diagnostics
17. Sukraa Software Solution Pvt Ltd
18. Sysmex
19. Thermo Fisher Scientific
20. Waters Corporation
21. Wondfo Biotech

No new corporate members were admitted during the year 2021, and no corporate member rescinded their membership either.

B. Scientific Committee report of activities for 2021

The Scientific Committee is chaired by Dr Sam Vasikaran (Australia). Activities of the Scientific Committee for the year 2021 consist of new activities and carry-over activities from previous years.

1. Working Group on Diabetes Testing Harmonisation in APFCB Region

The Diabetes Testing Harmonisation WG chaired by Dr Mithu Banerjee has conducted surveys of diabetes testing and reporting practices in four countries in the AP region. Results of the survey conducted in India was presented at the APFCB Congress in 2019 since been published.¹ The results of the survey in the Philippines were presented previously at the PAMET conference in 2018. Survey results for Sri Lanka were presented at the Annual Academic Sessions of the College of Chemical Pathologists of Sri Lanka (July 2021). A survey has also been conducted in Singapore.

The survey uncovered some issues that the laboratory profession as a whole and the professional Clinical Chemistry association in each country needs to address. For example, the units for reporting of blood glucose concentration is not uniformly followed in most countries. Even though the recommended standard international units for reporting blood glucose is mmol/L, a significant proportion, in fact a majority, of laboratories in the AP region report blood glucose in mg/dL. Hence, this practice can lead to confusion amongst clinicians as well as patients when interpreting blood glucose results and monitoring over time especially when different laboratories are used for serial measurements.

The reporting of HbA1c units is similarly non uniform. The situation with HbA1c, however, is somewhat different in that the traditional % units are used by the vast majority of laboratories, with a significant proportion of laboratories reporting in mmol/mol, the IFCC units also. This is considered a transitional phase, and once clinicians (and patients) become familiar with the IFCC units, the latter would be used exclusively. However, the profession needs to work towards this actively together with educating our customers.

The survey identified a need to harmonize the provision of testing for gestational diabetes mellitus. Glucose challenge test is no longer recommended. Oral glucose tolerance test with appropriate cut-offs for the diagnosis of gestational DM is now recommended and should be followed by all laboratories.

Urine albumin testing should be performed on spot urine samples collected in the morning and reported as a ratio to creatinine. The use of 24-hour collection or timed collection is not recommended. The variation in reporting units for creatinine was also found to lead to reporting of spot urine albumin as mg/mol

creatinine or mg/g creatinine, another potential area of confusion and needing harmonization.

Finally, the organisers also encourage the exclusive use of certified methods in clinical laboratories and participation in proficiency testing programs (external Quality Assurance) for all tests offered. These results from the region are being written up for publication as a follow up to previous publication of the survey conducted in India.

Publication:

Trends in laboratory testing practice for diabetes mellitus. Banerjee M, Vasikaran S. *eJIFCC* 2020;31:(3):231-41.

Measures to harmonize practice according to recognized recommendations should be locally driven, led by each national professional body, but APFCB would strongly support national organisations to take forward plans to harmonise testing and reporting practices in every jurisdiction within the AP region.

2. Masterclass in Interpretative Commenting on Clinical Chemistry Reports – Webinars

Since August 2020, the APFCB Scientific Committee has organized a monthly webinar series on Interpretative Commenting. In this series, chemical pathology experts discuss the interpretation of laboratory test results and recommend comments that may be suitable to provide in the laboratory report. The format of the webinars is generally a discussion of case reports for 45 minutes followed by a question and answer session for about 15 minutes.

Despite some recent gaps due to scheduling difficulties and COVID-19, the series continues to enjoy excellent support from invited experts and the APFCB community.

The list of 2021 webinars and upcoming topics for early 2022 are as follows:

Month	Topic	Speaker
January 2021	Calcium and parathyroid	Dr Sam Vasikaran
February 2021	Endocrine Dynamic Function Tests-Adult	Dr Cherie Chiang
March 2021	Lipid testing	A/Prof. Ken Sikaris
April 2021	Cardiac troponin	A/Prof. Chris Florkowski
May 2021	Diabetes testing	A/Prof. Ken Sikaris

June 2021	Dynamic Function Tests Part 2	Dr Cherie Chiang
July 2021	Anti-Mullerian Hormone	Dr Melissa Gillett
August 2021	Serum Protein Electrophoresis (SPEP)	Dr. Nilika Wijeratne
September 2021	Essentials of Porphyrias	A/Prof. Chris Florkowski
December 2021	Tumor Markers	A/Prof. Ken Sikaris
February 2022	Hyperandrogenism in Females	Dr. Melissa Gillett
March 2022	SPEP Part 2 & Free Light Chains	Dr. Nilika Wijeratne

Special acknowledgement is expressed towards the efficient organisational support of Dr Pearline Teo of Siemens Healthcare Pte Ltd for this activity. Recordings and slides of past webinars are available via the APFCB website and youtube channel, while registration links for future webinars are posted on Eventbrite.

<https://www.apfcb.org/webinars.html>
<https://www.youtube.com/channel/UCoiicTsnVX-COjklgZHQ54Q/videos>
<http://APFCB.eventbrite.com>

Appreciation goes to the speakers for volunteering their time and effort to support this educational initiative. Their depth of knowledge and experience are clearly appreciated by our webinar participants. Participant feedback continue to be overwhelmingly positive: >95% of responders “agree” or “strongly agree” that the session had been useful to them, and that they would recommend it to others.

Appreciation goes also to the participants for their attendance and lively discussion during the Q&A sessions. Many participants are consistent supporters of the series and have provided valuable suggestions and feedback.

Appreciation also goes to the APFCB Communications team, for their support in publicizing each event, and making the slides and recordings available online.

3. Task Force on APFCB-WASPaLM TF-CKD

APFCB / WASPaLM Task Force on Chronic Kidney Disease which is chaired by Dr Pavai Sthaneswar has undertaken a survey of testing and reporting practices for CKD related laboratory indices in India in order to ascertain concordance of reporting practices with current guidelines and industry standards as well as the

degree of harmonisation of practice between laboratories. It is hoped that the results of the survey would help harmonize practice according to current recommendations in that country and throughout the region.

4. Working Group on Mass Spectrometry Harmonisation

The Mass Spectrometry Harmonisation WG which is Chaired by Dr Ronda Greaves has undertaken a multicentre study of the influence of internal standard on the analysis of 17-hydroxyprogesterone by LCMSMS, in association with RCPAQAP – AACB and IFCC Emerging Technologies Division Paediatric Hormonics Working Group.

Publication:

Influence of isotopically labeled internal standards on quantification of serum/plasma 17 α -hydroxyprogesterone (17OHP) by liquid chromatography mass spectrometry. Loh TP, Ho CS, Hartmann MF, Zakaria R, Lo CWS, van den Berg S, de Rijke YB, Cooke BR, Hoad K, Graham P, Davies SR, Mackay LG, Wudy SA, Greaves RF. *Clin Chem Lab Med* 2020;58(10):1731-9.

5. Working Group on the Harmonization of Reference Intervals

Chaired by Dr Tze Ping Loh, this working group have plans to derive and compare indirect reference intervals from paediatric to geriatric subjects from laboratories within the Asia-Pacific region. The output of this study would be returned to the participating laboratories to help inform their practices. It is hoped that the results of this study may contribute towards regionally relevant paediatric to geriatric reference intervals for patient care, as well as provide insights into biological variation within the region.

6. Working Group to Analyse Laboratory Data for Improving Diagnostics.

Mohamed Saleem is chairing a Results of benchmarking surveys in the region which will be used to support healthcare goals for improved disease management. The support of Roche Diagnostics for this activity is acknowledged.

C. Education and Laboratory Management Committee report of activities for 2021

The Education and Laboratory Management Committee (C-ELM) is chaired by Dr Tony Badrick (Australia) with the following members: Dr Lia Gardenia Partakusuma (Indonesia); Dr Tze Ping Loh (Singapore); Dr Ronda Greaves (Australia); Dr Raja Elina (Malaysia); Dr July Kumalawati (Indonesia); Dra Endang Hoyaranda (Indonesia); Dr Jozi Habijanac (Roche Corporate); Dr Amit Manjure (Siemens Corporate); Dr Rojeet Shrestha (Japan); Dr Hong-yew Lim (Roche Corporate). The role of the C-ELM is to provide support for member organisations in education. This

usually involves the organisation of visiting lecturers, seminars, and training activities. However, the impact of the ongoing global pandemic has restricted many of the activities of the C-ELM. Nevertheless, the committee has continued with existing projects as well as some new initiatives.

1. APFCB Travelling Lecturer

The APFCB Visiting Lecturer for 2021/22 is Dr Helen Martin from Australia. Whilst there are travel restrictions on this key role, virtual lectures will continue. On the 26th November 2020, Helen was a Plenary Lecturer at the MACB meeting and delivered a lecture entitled ‘Adding value with patient report commenting.’

2. APFCB - Roche – 12th Chemical Pathology Course – Vietnam

This is an ongoing annual event organised by Roche in collaboration with Rhonda Greaves from Australia. In 2020, the virtual event attracted approximately 400 participants and consisted of a mixture of invited and local speakers presenting on routine chemical pathology topics. The course is supported and endorsed by many prestigious local and international medical organizations and associations, such as International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine (APFCB), Australasian Association of Clinical Biochemists (AACB), Vietnamese Association of Clinical Biochemists (VACB), Ho Chi Minh City Association of Clinical Biochemists (HACB), Ho Chi Minh City Association of Medical Laboratory Technologists (HAMLТ), Bach Mai Hospital, Cho Ray Hospital and other medical organizations and Associations

3. APFCB Becton Dickinson Pre-Analytical Improvement Project

The collaboration of APFCB with BD to provide our members with a digital guideline for pre-analytical procedures has now been finalised (ppt, in English) and presented as a series of fortnightly webinars during 12 weeks in September through November 2021, with the following topics:

Introduction to Pre-analytical Issues (Dr Sunil Sethi and Dra Endang Hoyaranda)

Module A1 - Phlebotomist Attributes (Ms Constance Mak)

Module A2 - Specimen Collection via Venipuncture (Dr Tjan Sian Hwa and Dr Tester Ashavaid)

Module A3 - Specimen Collection via Vascular Access Devices (Dr Brian Smith)

Module A4 - Specimen Transportation (Dr Leila Florento)

The next Modules will be conducted in 2022:

Module B1 - Continuous Improvement

Module B2 - Troubleshooting

The webinars were very successful, attended by hundreds of participants from the Asia-Pacific region, mainly ASEAN, but also from outside the region. It is intended that there will be an annual pre-analytic webinar series.

4. APFCB-AACC Workshops

The APFCB has been collaborating with the AACC with their Global Lab Quality Initiative (GLQI) as part of the Asia Pacific Working Group (APWG). It was not possible to run any workshop in 2020, however it is planned to run the next program in Mongolia in 2022.

5. Workshop on Laboratory Testing of Covid-19

As the information of laboratory diagnosis and monitoring of COVID-19 was rapidly evolving with new information arising in daily basis, laboratory professionals needed a constant update on the developments. Furthermore, many developing countries were struggling to meet requirements of appropriate testing not only because of lack of resources but also due to lack of well-trained laboratory professionals on the molecular assays. To help lab professionals with appropriate guide in COVID-19 testing, APFCB committee for Education and Laboratory Management organised a two-day virtual workshop that contained a series of lectures from experts as a complete guide on Laboratory Testing of COVID-19.

There are two other significant projects which have been put on hold until travel is possible. The APFCB / VACB / Roche Lean Project has been running for five years now and is developing skills with the implementation of Lean laboratories.

The APFCB has also developed a three-year Chemical Pathology Course which was piloted with the assistance of the MACB. We were hopeful of running this course in a new site in 2020 but this was not possible. We hope to offer this course in 2022.

6. Joint Corporate Member Symposia

The APFCB worked together with some of the Corporate Members to produce webinars.

MindRay – Laboratory Management and ISO 15189

ThermoFisher – Measurement Uncertainty

Beckman-Coulter – Sepsis Diagnosis and Management

Snibe – to be organised in 2022

Roche – Patient Based Real Time Quality Control

D. Communications and Publications Committee report of activities for 2021

The Communications and Publications Committee (C-CP) chaired by Dr. Raja Elina Raja Aziddin with the following members: Dr. Purvi Purohit (Web Editor), Dr. Rojeet Shrestha (Media Coordinator), Dr. Pradeep Dabla, Will Greene (Corporate -Roche) and Lim Ai Tin (Corporate-Siemens). The C-CP is responsible for communicating and promoting the activities of the APFCB to medical laboratory personnel, clinicians and health care policy makers in the Asia Pacific region and the rest of the world.

1. Website development.

The C-CP is responsible for the APFCB website development and management. The APFCB website is frequently updated with the latest information on webinars, online courses, virtual conferences of the APFCB, its member societies and international professional bodies. Also available are scientific publications, guidelines, recorded and live webinars on various topics of interest.

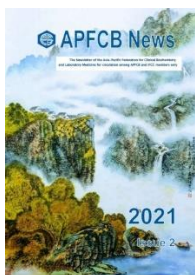
2. Publication of online activities

The application of the virtual platform for educational and training purposes accelerated with the onset of the Covid-19 pandemic. The C-CP team collaborates with other committees and the corporate sector to coordinate these online activities. These events are promoted by sending out announcements to members and are also made available on the homepage of the APFCB website <https://www.apfcb.org/index.html>. Also on the homepage is the APFCB virtual workshop on Complete Guide on Laboratory Testing of COVID-19. To date, recordings and slides of the APFCB Masterclass Webinars on Interpretative Commenting have been uploaded on the webinars page of the APFCB website at <https://www.apfcb.org/webinars.html>. Also available on the webinars page are the IFCC webinars. Links to past webinars organised by the APFCB corporate members under the auspices of the APFCB are listed under the Congress and Conferences Committee page at <https://www.apfcb.org/conferences.html>. Links to these events have also been made available on APFCB social media which are listed at the footnote on the APFCB website homepage. Understanding the need to support more virtual events in future, the C-CP is currently looking into further upgrading the capability of the APFCB website.

3. Publication of APFCB News

The C-CP is also responsible for the online publication of APFCB News. The newsletter is published twice yearly and contain reports on the activities of the APFCB and IFCC as well as reports from member societies. The newsletter also has sections for educational articles, advertisement and reports from the industry. Advertisement rates in the APFCB News was revised in 2021 to make it more attractive to corporate members. This year the C-CP team also drew up a Guideline for the submission of reports, articles and advertisements to the APFCB News. This guideline is now available on the APFCB website homepage via this link: <https://www.apfcb.org/Submission%20Guidelines%20APFCB%20News%20050721.pdf>.

The C-CP successfully published two issues of the APFCB News in 2021.



<https://www.apfcb.org/APFCB%20News%202021%20issue%202.pdf>



<https://www.apfcb.org/APFCB%20News%202021%20Issue%201.pdf>

E. Congresses and Conferences Committee report of activities for 2021

The APFCB Congresses and Conferences Committee is Chaired by Dr Praveen Sharma (India) with the following members: Woei Horng Fang (Taiwan), Ronaldo Puno (Philippines), Prasenjit Mitra (India), Will Greene (Roche), Ai Tin Lim (Siemens).

The mandate of the committee is to streamline the process of granting APFCB auspices to various scientific events like conferences, congresses, events organised by regional society members and corporate member events. With the COVID-19 situation affecting the global scientific community, there was no applications for physical conferences. Rather, there was a surge in the events based on virtual platforms. The committee received a number of applications for grant of APFCB auspices. During 2021, the committee members evaluated and granted APFCB auspices to the following scientific events.

1. Conferences: Member Societies' events

Event name	Organised by	Event Start Date	Event End Date
15 th IACC Working Conference	IACC	25/06/21	27/06/21
CCPSL AAS 2021	CCPSL	26/07/21	27/07/21
LMCE 2021	KSLM	30/09/21	02/10/21

2. Corporate Member Events/ Webinars

Event name	Organised by	Event Date
Roche Experience Days (RED) 2021 Virtual Event	Roche	16/11/21
Webinar on “Managing the Covid-19 pandemic in 2021: The Henry Ford Experience”	Beckman Coulter	15/06/21
Webinar on “Digital webinar on Observability in healthcare”	Roche	16/06/21
Series of educational webinars focused on the Asia Pacific region related to Prenatal & Pre-eclampsia Screening, Clinical Biochemistry, Toxicology and 3rd party QC	Thermo Scientific	
Leveraging the latest trends in the digital healthcare revolution	Lab workflow solutions (Roche Digital Webinar)	15/09/21

The committee is also working on updating the Congress and Conferences webpage of APFCB to include the details of all the scientific events, which have been granted APFCB auspices.

F. Report of activities of Corporate Members for 2021

The APFCB Corporate Representative is Mr Alexander Wong from Siemens. As addition to the number of corporate members mentioned at the beginning of this report, the following are updates for the year 2021

1. Receivables Reconciliation from Corporate Members

Efforts have been made by both the Treasurer and Corporate Representative to reduce the amount receivables from Corporate Members, that had been exacerbated by the COVID-19 pandemic. To address this, corporate members will be given a 2-year grace period to clear their outstanding overdues, following which the corporate membership will not be renewed.

2. Appointment of Corporate Representatives to APFCB Committees

In this Term, the APFCB saw an increase in interest levels from Corporate Members to participate in our activities. As such, the APFCB EB had agreed to double the number of nominations of corporate representatives to the APFCB Committees, to 2 members serving each Committee –

- Communications & Publications Committee – Will Greene (Roche), Ai Tin Lim (Siemens)
- Conferences & Conferences Committee – Will Greene (Roche), Ai Tin Lim (Siemens)
- Education & Lab Management Committee – Hong Yew Lim (Roche), Pearline Teo (Siemens),
- Scientific Committee – Claire Chen (Abbott), TzeWei Poh (Beckman)

3. Zoomification of Corporate Member Activities

Since the COVID-19 pandemic, many Corporate Members have also taken to digital engagements. This ensured that the APFCB continued to receive a robust level of support for its educational activities, a trend that will likely persist moving into 2022. The APFCB saw a tremendous increase in the number of scientific articles and advertisements submitted for each APFCB e-newsletter.

In addition, several corporate members also took the opportunity to organize virtual webinars and events. Examples of events that were successfully organized virtually include

- APFCB Interpretive Commenting Masterclass Webinar Series – supported by Siemens Healthineers
- APFCB Preanalytical Masterclass Webinar Series – supported by BD
- APFCB Preanalytical Guidelines – supported by BD

G. Executive Board report of activities for 2021

Since the congress held in Jaipur end 2019, it has not been possible to have a physical meeting which was previously held annually at the beginning of the year. The EB held several virtual meetings instead.

Helen, please add on the meetings the EB had during 2021, and any decisions made thank you

January 2022

Reported by APFCB EB and Chairs

Sunil Sethi, Leslie Lai, Endang Hoyaranda, Helen Martin, Leila Florento, Alexander Wong, Samuel Vasikaran, Tony Badrick, Raja Elina Raja Azzidin, Praveen Sharma

