Message from the Chairman

Dear APSTH members,

As we approach the year-end and usher in the new year in a few days’ time, it is apt for us to reflect on 2017 - our moments of achievement, success, and more importantly new friends made and old friendships renewed.

APSTH close collaborations with ISTHand JSTH resulted in several key events for APSTH this past year.

In June 2017, we heard presentations from 5 young investigators from Australia, China, Malaysia and South Korea who were awarded the travel grants for the joint symposium for JSTH and APSTH at Fukuoka.

For the first time, APSTH had a booth at the exhibition area at the ISTH congress at Berlin in 2017, where we raised the awareness and showcased the activities of APSTH and in particular the coming APSTH Congress 2018 in Hokkaido, Japan.

Many member countries in APSTH had organised various activities in support for ISTH World Thrombosis Day (WTD). WTD campaign’s media relations efforts in 2017 had identified Singapore as a target media market and we had interviews with patients and experts published in mainstream newspapers and radio broadcasts to raise awareness and better treatment for thrombotic disorders.

With generous support from ISTH and collaborations with the Thai Society of Haematology, we saw a very successful 3-day workshop on Thrombosis and Haemostasis at Bangkok in November 2017 which had benefitted greatly the people interested in coagulation topics be they trainees, specialists or scientists. Congratulations to Dr.Pantep Angchaisuksiri, and Dr.Ponlapat Rojnuckarin, the 2 co-chairmen, for organising this excellent and enriching education workshop.

Finally, we will like to put on records our thanks and appreciation to Dr.Pantep Angchaisuksiri has laboured endlessly for the APSTH newsletter since its inception in Jan 2011, and has now passed the baton onto Dr.Ponlapat Rojnuckarin. Please join me in thanking Dr.Pantep for his dedication and hardwork as editor for the APSTH newsletter for the past 7 years and we welcome Dr.Ponlapat onboard. Do continue your support in contribution of articles towards our newsletter.

I look forward to us working together to further strengthen the society’s function in advancing scientific knowledge, building collaborations and better treatments in the fields of coagulation and thrombosis.

Wishing you much happiness, success and fulfilment in 2018.
Dear Colleagues and friends

We wish you all to have a very Happy New Year. This is not only the first issue of 2018, but also the very first APSTH Newsletter which I have become the Editor after Dr. Pantep Angchaisuksiri. If you have any comments or suggestions to this bulletin and/or have any interesting news or articles you would like to share with APSTH members, please do not hesitate to contact me via email addresses above.

Firstly, Dr. Jiaan-Der Wang gives us a review of the 7th Congress of East Asia Hemophilia Forum (EAHF 2017) in Taiwan. The meeting was greatly successful with renowned speakers, numerous attendees and interesting scientific presentations, as well as very entertaining social activities. Subsequently, I present a review of the Bangkok ISTH Workshop 2017 which was organized by ISTH, APSTH and Thai Society of Hematology (TSH). This meeting was also really successful as an arena to exchange knowledges and ideas in our field. We, together, should organize excellent regional conferences like these ones more and more in the future.

The next section is the research news by Dr. Tsukasa Ohmori. He describes his marvelous work in genome editing in hemophilia B mice. A lot of progresses in hemophilia researches have been evolved recently and the treatment landscape of this disease is changing drastically.

Barbara Krolak depicts the activities for world thrombosis day (WTD) - 13 October 2017 - among Asia-Pacific countries. You would be happy to know that the WTD campaign in our region has become stronger and stronger. It should be our common goal to increase thrombosis awareness in general public all around the world.

Lastly, the upcoming meetings are listed. The most important one would be the 10th Congress of the Asian-Pacific Society on Thrombosis and Hemostasis (APSTH) during 28-30 June 2018 in Roytan Hotel, Sapporo, Japan. The meeting is chaired by Dr. Satoshi Fujii and held in conjunction with the 40th Congress of the Japanese Society on Thrombosis and Hemostasis (JSTH). Abstract submission is now open until 7 February 2018. Please note that there are available travel grants awarded to presentations with good scientific quality. We hope to see you in Sapporo.

Ponlapat Rojnuckarin, Editor
Officer of Public Relations and Communications APSTH
The 7th Congress of East Asia Hemophilia Forum held on October 6th-8th, 2017 in China Medical University, Taichung, Taiwan, was an overwhelming success bringing together 197 attendees from 10 countries.

The conference began on October 6th with the opening ceremony (Figure 1), and a welcoming reception party for all conference attendees (Figure 2). It was an exciting first day made even more so by Mayor of Taichung city, Mr. Lin who attended the opening ceremony to express his appreciation for the dedication of EAHF 2017 held in Taichung city, the most beautiful city in Taiwan.

Figure 1: (from left) conference chairmen Dr. Shen, TSTH president Dr. Peng, Mayor of Taichung city Mr. Lin and China Medical University president Dr. Tsai at the opening ceremony.

Figure 2: welcome party with Taiwan culture event, dance and songs.
In this forum, we had 5 workshops (below). Local speakers illustrated several interesting clinical cases to interact with all attendees (figure 4).

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Conference Hall, 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-09:30</td>
<td>WS-1 Management of Hemophilia A with inhibitors (Immune Tolerance)</td>
</tr>
<tr>
<td>09:00-10:00</td>
<td>WS-2 Management of Hemophilia B with inhibitors (Immune Tolerance)</td>
</tr>
<tr>
<td>10:10-11:30</td>
<td>WS-3 Acquired Hemophilia with Surgery (Jason Lin, Taiwan)</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>WS-4 Assessment of Joint with Sonography (Shih-Jen Chiu, Taiwan)</td>
</tr>
<tr>
<td>12:30-13:10</td>
<td>WS-5 Cardiovascular Comorbidities and Ischemic Heart Disease in Patients with Hemophilia Prevalence, Risk factors and Management (Chia-Ying Chiang, Taiwan)</td>
</tr>
</tbody>
</table>

EAHF 2017 featured 8 intriguing and inspiring special issues (figure 5).

Figure 4: Upper from left, Dr. Lin, Dr. Wen, Dr. Wang; Lower from left Dr. Chiou, and Dr. Chang.

Figure 6: There were 24 oral presentations and 27 poster presentations. It was a rich program that provided the newest advances and information to be shared and discussed. New ideas was hypothesized, and new collaborations was developed within this EAHF 2017.

Figure 7: This forum included 2 keynote lectures spoken by leading experts, Dr. Pipe (figure, left) and Dr. Rodriguez-Merchan (figure, right).

Figure 5: Upper from left: Dr. Rodriguez-Merchan, Dr. Ono, Dr. Mai, and Dr. Zhang.

Lower from left: Dr. Lee, Dr. Shen, Dr. Dunkley, and Dr. Srivastava (order according to agenda).
In addition to the scientific program, a social event and tour to Sun Moon Lake was also planned for attendees to enjoy as a means to strengthen professional connections and personal relationships with friends, and in some cases, even family (figure 9).

With our continuing dedication and ceaseless hard work, there will be much more progress in our near future. We have an appointment to see each other again at EAHF 2019, and we look forward to seeing all of you again in Tianjin, China (Figure 11).

Organizing committee, EAHF 2017
Review of the ISTH-TSH 2017 Workshop in Bangkok

The ISTH-TSH 2017 Workshop was held in Arnoma Hotel, Bangkok from 4 to 7 November 2017. The meeting is organized by the collaborative efforts of the International Society of Thrombosis and Haemostasis (ISTH), which is the main sponsor, with the Asian Pacific Society of Thrombosis and Hemostasis (APSTH) and the Thai Society of Hematology (TSH). It has been the great honor for me to be a Program Co-Chair together with Professor Pantep Angchaisuksiri.

The event displayed the great success with 270 participants from 24 countries. While 55% of delegates were from Thailand, there were 35% from other ASEAN countries including Vietnam, Malaysia, Myanmar, Indonesia, Philippines and Singapore. The other participants were from all other the world comprising Asian or European countries, Australia, New Zealand, America and Canada. This educational event was certified 25 credits from the European Union CME (EACCME®).

The meeting was designed as a ‘Workshop’ format to promote the active learning and interactions of the participants including a small training size (Figure 1), sufficient times for Q&A and discussions (Figure 2 &3), Case studies sessions presented by participants with interactive discussion, and Meet the expert sessions daily (Figure 4). Furthermore, there were also plenty of times for networking during coffee breaks and dinner receptions.

Numerous world-renowned experts (Figure 5-9) from ISTH, APSTH and TSH have provided the latest information in basic and clinical aspects of Hemostasis and Thrombosis. Over the four-day course, there was an intense overview on the subjects of blood coagulation, hereditary and acquired bleeding disorders, platelets and venous thrombosis that were applied in the context of Asian countries. Furthermore, topics of local interest were also presented, such as hemostasis in tropical diseases and management of the diseases under limited resources. This conference was the great opportunities for exchanges of wisdoms among various parts of the world.

As the meeting was overwhelmed with fruitful interactions, the feedbacks of ‘excellent’ or ‘very good’ format were received from the majority of attendees. I would like to express my sincere thanks to the ISTH staff (Figure 10): Lacey Schmeidler, Cary Clark and Michelle Dial, as well as TSH staff especially Mrs. Kanungnit Tangjaitrong, all of whom were behind this success.

We believe that this kind of collaborative workshop is extremely valuable for practicing medical personnel and scientists. In the future, more meetings in this field should be planned and organized in our regions.

Ponlapat Rojnuckarin

Figure 1: The Conference Room
Figure 2: Dr. Michael Makris

Figure 3: (From left to right) Dr. Claire McLintock, Dr. Satoshi Fujii and Dr. Tetsumei Urano

Figure 4: Meet the Experts (From left to right): Dr. Bundarika Suwanawiboon and Dr. Stephan Moll

Figure 5: The speakers: (From left to right) Dr. Nigel Key, Dr. Gili Kenet, Dr. Claire McLintock, Dr. Johannes Oldenburg, Dr. Michael Makris, Dr. David Lillicrap, Dr. Christopher Ward, Dr. Pantep Angchaisuksiri, Dr. Jameela Sathar and Dr. Ampaiwan Chuansumrit

Figure 6: Dr. Flora Peyvandi

Figure 8: Dr. Walter Ageno

Figure 8: Dr. Doyeun Oh

Figure 9: Dr. Nongnuch Sirachainan

Figure 10: (From left to right) Dr. Pantep Angchaisuksiri (Program Co-chair), Lacey Schmeidler (Program Manager) and Cary Clark (Director of Programs and Education, ISTH)
Hemophilia is a X-linked congenital hemorrhagic disease affecting 1 in 5000–10 000 males. The disease is caused by mutations in coagulation factor VIII (FVIII) or IX (FIX) genes (F8 and F9 genes, respectively). The development of coagulation factor concentrates to control severe bleeding has improved the prognosis for hemophilia patients. However, the treatment requires patients to undergo frequent intravenous injection because of the extremely short half-life of the coagulation factors. Adeno-associated virus (AAV) vector-mediated gene therapies have recently been reported to provide long-term therapeutic effects with a single treatment, resolving the current difficulty in hemophilia care. However, it is possible that AAV-mediated gene therapy may not be appropriate for children with hemophilia. AAV vectors are predominantly maintained episomally; therefore, cell division dilutes the AAV genome, resulting in the loss of therapeutic expression. Indeed, gene expression in the liver was not maintained when an AAV vector was administered to neonatal mice. To overcome this weakness with the current gene therapies for hemophilia, we applied CRISPR/Cas9-mediated genome editing to AAV-mediated gene therapy (Ohmoriet al., Sci Rep, 2017).

Genome editing is a type of gene engineering that causes double-strand breaks (DSB) at a specific DNA site in the genome. Distinct from protein-guided cleavage by zinc finger nuclease and TALEN, CRISPR/Cas9 uses only gRNA sequences to determine sequence specificity. We delivered CRISPR/Cas9 tools (Cas9 and gRNA) by AAV vector. Expression of gRNA targeting exon 8 of F9 together with Cas9 by AAV vector in liver significantly reduced plasma levels of FIX in wild type mice only by vector injection (Fig. 1), suggesting that the vector system could induce DSB at the target genome in hepatocytes in vivo. Further, the vector system inserted a normal cDNA sequence into intron 1 of F9 and restored the hemostasis of hemophilia B mice (Fig. 2). Importantly, treatment effects at birth could be maintained despite elimination of the AAV vector genome according to liver cell proliferation. The permanence of this therapeutic effect is a very important advantage of genome editing because it induces a modification in genomic DNA. Further studies are required to increase the efficiency of homology-directed repair, and possible off-target effects of the CRISPR/Cas9 system need to be carefully assessed before use in human therapies.
World Thrombosis Day 2017 Campaign Sees Increased Call to Action Across Communities in Asia-Pacific Region

INTRODUCTION

With one in four people dying worldwide from conditions related to thrombosis, the mission of the World Thrombosis Day (WTD) global campaign is more critical now than ever before. Founded in 2014 by the International Society on Thrombosis and Haemostasis (ISTH), the WTD movement has since grown to an impressive global community of more than 1,050 partners from 90+ countries — an important milestone for the campaign.

This year, partners across the world organized more than 9,000 activities and events in support of WTD to educate and inspire communities, media, and stakeholders. Specifically, in the Asia-Pacific region, activities were organized by nearly 200 partner organizations with the support of three regional WTD steering committee members. By leveraging complimentary resources provided by the campaign, Asia-Pacific partners joined together to create a groundswell of support to raise awareness about the dangers of thrombosis and need for greater action, including an increase in traditional and digital media activation across platforms.

The 2017 campaign continued the theme of Know Thrombosis: Keep Life Flowing, which encourages partners and supporters to understand and educate others about thrombosis, including its risk factors, signs, symptoms, and prevention. A key priority area this year was education tailored specifically to healthcare professionals, which was implemented through targeted partner outreach, the development of new custom healthcare professional resources, updated key messages, and dedicated symposiums at global industry meetings.

To explore a sampling of efforts and events in the Asia-Pacific region, please see the 2017 highlights below listed in alphabetical order by country.
ARMENIA
New this year was an exciting flash mob hosted by the Armenian Hematology Association. The activity was followed by an educational seminar for medical professionals.

AUSTRALIA
Sydney, Australia, was designated as a key media market by WTD campaign headquarters, which provided significant media exposure and coverage throughout the country. A dedicated press release was distributed about new WTD survey results highlighting that only 50 percent of the Australian public (over age 40) are aware of atrial fibrillation (AFib), and less than half understand the connection between AFib and stroke. The press release was published across approximately 50 publications. A feature article was placed in Body & Soul and interviews were conducted with local radio stations including 2SM (Sydney), 3AW (Melbourne), and Health Professional Radio.

Darren Lehmann, coach of the Australian cricket team and blood clot survivor, joined the movement as a WTD celebrity ambassador. Lehmann shared his story and advocated for thrombosis awareness through an exclusive WTD video interview, live Facebook video broadcasts, and social media messages. His leadership helped engage hundreds of thousands in support of WTD.

In addition, 60 partner organizations in Australia participated in WTD 2017 activities, hosting a variety of events and activities both large and small. At Charles Sturt University in Wagga Wagga, partners organized a morning tea awareness event, conducted health screenings, and distributed educational flyers. ArjoHuntleigh hosted a WTD educational webinar presented by the Australian College of Nursing, and Nepean Hospital and Barraba Health Service set up information tables for patients and visitors.

Westmead Hospital staff dressed up “human blood clots” to raise awareness, and the Thrombosis and Haemostasis Society of Australia and New Zealand offered a WTD breakfast and walk around the harbor to promote the theme of “Keep Life Flowing.”

CHINA
Notable support across traditional and social media platforms was organized by partners in China, such as the Beijing Heart Union Foundation and the PE-DVT Research Group.

INDIA
WTD 2017 welcomed creative activities from new partners country-wide. r2 Diagnostics India, a subsidiary of r2 Diagnostics Inc. USA, hosted a city-wide run in Delhi to encourage an active lifestyle. They also distributed WTD posters throughout the city. India’s National Health Portal also published awareness information about WTD (View here).

IRAN
The Iranian Hemophilia and Thrombophilia Association, MAHTA, raised awareness across the large city of Tehran by coordinating billboard signage on busy city highways. In
addition, the organization hosted an information stand in a public park and conducted an interview with a national broadcast health station. Fact sheets were also distributed across general hospitals in Tehran.

In Gorgan, Iran, the Taleghani Teaching Hospital was the host of the 11th Congress of Thrombosis by the Iranian Society on Thrombosis and Haemostasis. Similarly, Shiraz Hematology Research Center organized a WTD educational symposium featuring important topics such as thrombophilia screening tests and anticoagulation treatment in the pediatric age group.

JAPAN

Six partners across Japan participated in WTD 2017, including China-Japan Friendship Hospital in Beijing, who had the opportunity to feature its WTD activities in a Facebook Live video on the official WTD Facebook account to approximately 15,000 followers. Leading experts presented at a VTE educational meeting that welcomed more than 100 people in the community, as well as a dedicated workshop for local medical professionals. Click here to watch the full highlights video.

Dr. Tetsumei Urano, WTD Steering Committee member from Japan, wrote a special blog post published by BioMed Central to commemorate WTD 2017. In the post, Urano highlights the specific conditions that WTD focuses on, including DVT and AFib.

NEW ZEALAND

Thrombosis awareness in New Zealand was led by 15 partners. Obex Medical celebrated WTD with an education session on thrombosis prevention, followed by a morning tea for staff. As part of its healthcare professional education efforts, Obex Medical also distributed campaign materials across market channels, including pharmacies in New Zealand. Counties Manakau Health in Auckland posted WTD signage and resources throughout the facilities, in addition to an engaging education booth.

WTD sponsor Medtronic re-launched its popular “Dotty the Clotty” figure to hospitals across New Zealand. Many clinicians and the public requested photos with Dotty the Clotty!

RUSSIA

WTD 2017 welcomed 10 partners throughout Russia, with notable activities and media coverage across the country to raise awareness. The Russian National Association of Experts on Thrombosis, Clinical Hemostasiology and Hemorheology offered an event in the city of Arkhangelsk that gathered the local community to talk about the dangers of thrombosis with special blood clot costumes and an article published in a regional newspaper. An educational conference was also organized.

Among activities in Pakistan, local partner Aga Khan University Hospital hosted a thrombosis awareness session attended by physicians, pharmacists, and nurses. The presentation, “Thrombosis: Deadly Threat in Health Care” offered continuing medical education for all attendees.

In Saint Petersburg, an educational meeting was hosted to discuss the topic of thromboprophylaxis in pregnant women at North-Western State Medical University.
From a media perspective, an exclusive matte release was distributed throughout Russia by WTD campaign headquarters. Click here to read the release.

SAUDI ARABIA
Najran Armed Forces Hospital organized a WTD awareness day with lectures and special demonstrations from pharmacists about how to use thrombosis-related medications.

SINGAPORE
Singapore secured notable media coverage for WTD 2017 placements in popular publications, such as a feature article, “Dangers of Deep Vein Thrombosis: Don’t Let Blood Clot in Vein Go Untreated,” published in both print and online in The Straits Times, Singapore’s highest-selling newspaper. Experts also spoke with local radio stations about WTD, including 938LIVE’s dedicated health program Body & Soul.

An influential educational forum was held in recognition of WTD by the Academy of Medicine Singapore, featuring an impressive line-up of renowned speakers and topics such as cancer-associated VTE and anticoagulation in pregnant patients.

THAILAND
A WTD interview was conducted on Thai PBS Channel (watch the interview here) and a WTD press release across Thailand resulted in seven key placements with national media. Additionally, a customized WTD infographic was created for distribution across Thailand for awareness and education.

Local partner Ramathibodi Hospital, Mahidol University, hosted a WTD special event on 14 October that opened with a short film on “getting to know thrombosis,” followed by a chair exercise demonstration, thrombosis survivor interview, and a quiz game. The event was held in Bangkok and sponsored by the Thai Society of Hematology, Thai Red Cross, and Faculty of Medicine Ramathibodi Hospital.

TURKEY
Impressive activities were organized across Turkey, including an inaugural WTD announcement in the Turkey Telegraph. The President of the Turkish Society of Hematology interviewed with national television station CNNTurk to discuss WTD and the importance of awareness. The Turkish Society of Hematology also distributed a press bulletin to all national press on 13 October.

Additionally, a WTD parade in the streets of Istanbul helped to excite and engagement the general public about the campaign. A dance video and print resources were also distributed throughout the event. Organized by Dr. Mert Dumantepe, activities also included an educational meeting with chair exercise demonstrations and support from the Turkish Football Federation at a national football game.

For more information about the campaign, visit www.worldthrombosisday.org. Also, join the conversation on social media by following WTD on Facebook and Twitter.
Upcoming Meetings:

1. The 62nd Annual Meeting of the Society of Thrombosis and Hemostasis Research
   20-23 February 2018 – Vienna, Austria
   http://www.gth2018.org/

2. The 2018 Highlights of ASH® in Asia-Pacific
   9-10 March 2018 - Bali, Indonesia
   http://www.hematology.org/Highlights/Asia.aspx

3. The IPFA 3rd Asia Workshop on Plasma Quality and Supply
   21-22 March 2018 - Kuala Lumpur, Malaysia

4. International Conference on Thrombosis and Hemostasis Issues in Cancer
   13-15 April 2018 – Bergamo, Italy
   https://www.icthic.com/en

5. World Federation of Hemophilia (WFH) 2018 World Congress
   20-24 May 2018 – Glasgow, Scotland
   https://www.wfh.org/congress/en/home

6. 25th Biennial International Congress on Thrombosis
   23-25 May 2018 – Venice, Italy
   http://www.thrombosis2018.org/

7. The 6th TSH International Symposium: Next Frontiers in Myeloid Disorders
   25-27 May 2018 – Bangkok, Thailand
   http://www.tsh.or.th/tsh-is/

8. The 10th Congress of the Asian-Pacific Society on Thrombosis and Hemostasis (APSTH)
   28-30 June 2018 – Sapporo, Japan
   http://apsth2018.com/

9. The International Society of Thrombosis and Haemostasis (ISTH) SSC 2018 Meeting
   18-21 July 2018 - Dublin, Ireland
   http://www.ssc2018.org/