



## Inside

Message from the Chairman	1
From the Editor	2
Taiwan Society on Thrombosis and Hemostasis	3
Report from a Recipient of the APSTH/JSTH 2012 Travel Grant	4
Volunteering in Cambodia – One Person Can Make a Difference	5
Research News	8
Update on the 7th APSTH Congress	9
Asia Pacific Thrombocytopenia/Thrombosis Network - APTIN Update	11
Upcoming Meetings	11

## APSTH Officers

### Honorary Chairmen

*Akikazu Takada*  
*Yasuo Ikeda*

### Chairman

*Hatem Salem*

### Secretary General

*Yukio Ozaki*

### Public Relations and Communications

*Pantep Angchaisuksiri*

## Contact Us

### Secretary General Office

**Yukio Ozaki**

*Department of Laboratory Medicine*  
*Faculty of Medicine*  
*University of Yamanashi*  
*1110 Shimokato*  
*Chuo Yamanashi 409-3898*  
*Japan*  
*E-mail: yozaki@yamanashi.ac.jp*  
*Tel: 81-55-273-6770*  
*Fax: 81-55-273-6924*

### Editor Office

**Pantep Angchaisuksiri**

*Division of Hematology*  
*Department of Medicine*  
*Ramathibodi Hospital*  
*Mahidol University*  
*Bangkok 10400*  
*Thailand*  
*E-mail: pantep.ang@mahidol.ac.th*  
*Tel: 662-201-1796*  
*Fax: 662-201-1796*

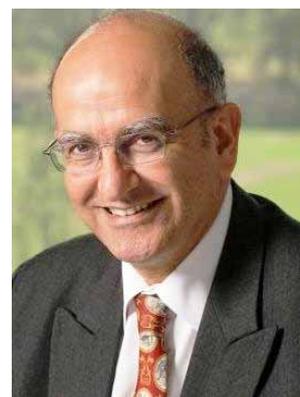
## Message from the Chairman

### Greetings from Melbourne

I feel privileged to be in a position to continue to address you as members of this growing society. The Asian-Pacific Society on Thrombosis and Hemostasis continues to grow and establish itself as a key society addressing important health issues in our region. Our newsletter reaches you on a regular basis and details our achievements and where we are headed.

When we established the newsletter, the idea we had was using this as a vehicle to enhance the interaction among all members of the society. The quality of the newsletter and its contents has improved dramatically under the editorial leadership of Pantep Angchaisuksiri. We have very informative articles and significant contributions from many countries. Having said this, we can do more. We need to hear from as many clinicians and investigators as possible so that we can understand our capabilities and limitations better. The importance of getting to know each other cannot be over-emphasised. There are considerable skill sets and experience in the Asia Pacific region and we have the responsibility to ensure that this is well known to all. I therefore encourage you all to write to us and tell us your views; tell us what you are doing that is exciting and what concerns you may have. Help us identify our strengths and tell us your needs so that we can help each other. I would like to see the newsletter as an information conduit on all that is relevant to the field, including awards, scholarships, prizes, new registries or anything else that will bring us together. I am hoping that we will be in a position to discuss this in more detail at our upcoming Council Meeting in Melbourne.

Our trainees represent the future of our society and it is important to open as many doors as possible for them. They should be included in discus-



**Hatem Salem**

sions and encouraged to join the society. Senior people who are members of the society have the added responsibility of ensuring that our junior colleagues become members. Joining the society is free and the advantages that a trainee can gain from their membership are significant. By receiving our regular newsletter they stand to be informed of the clinical and scientific activities and progress in the field. They will also find out the important events and conferences in the field. With time, we would expect trainees to voice their views on how best to plan a training program, whether this is a clinical or scientific program. Everyone has a point of view, and every view counts, but views need to be heard if they are going to make a difference.

This year will be my last year serving you as a Chairman of the Society. I was elected three years ago and felt extremely humbled and very privileged to be given this task. I am under no illusion that we have a lot of work ahead of us if this society is to become successful and establish itself as the main society in the field. I am conscious that this will require a significant amount of work from all our leaders in the field. Several have and continue to contribute very significantly. Our current Executive Director Yukio Ozaki works tirelessly for the good of the society. You just need to look at the website to appreciate what he has done for our image. Our

## Members of APSTH Council

### Australia

Beng Chong  
Hatem Salem  
Chris Ward

### Cambodia

Robyn Devenish  
Chean Sophal

### China

Ming Hou  
Changgeng Ruan  
Yongqiang Zhao

### India

Alok Srivastava

### Indonesia

Aru Wisaksono Sudoyo  
Karmel Tambunan

### Japan

Satoshi Fujii  
Yukio Ozaki  
Koji Suzuki  
Tetsumei Urano

### Korea

Hynsook Chi  
Kwang-Hoe Chung  
Doyeun Oh  
Seonyang Park

### Malaysia

Faraizah Abdul Karim  
Jameela Sathar

### Mongolia

Otgonbat Altangerel  
Nergui Dagvadorj

### New Zealand

Mark Smith

### Philippines

Maria Teresa B. Abola

### Singapore

Manjunatha Kini  
Lai Heng Lee  
Sim Leng Tien

### Sri Lanka

H.M. Sduharma Vidyatilake

### Taiwan

Hui-Chi Hsu  
Ching-Tien Peng  
Ming-Ching Shen

### Thailand

Pantep Angchaisuksiri  
Saenguree Jootar  
Wichai Prayoonwiwat  
Artit Ungkanont

### Vietnam

Bach Quoc Khanh  
Nguyen Anh Tri

editor-in-chief Pantep Angchaisuksiri has shown a degree of commitment and dedication that is unrivalled. For these two individuals, we extend our deepest thanks and gratitude. But we do need more of us to stand up and support them, and I encourage you to put your hand up and join us in this wonderful and exciting journey. The field of bleeding and thrombosis is just beginning to blossom; it is undergoing a major metamorphosis. We have far more diagnostic and therapeutic tools than we ever had before and it is only the beginning. We have a better understanding of what the platelet does for haemostasis, inflammation and the innate immunity. We are also unravelling the important interaction between the platelet, coagulation factors and the leukocyte in the pathogenesis of atherothrombosis. Advances take

place in the field extremely rapidly. We hope to be able to communicate some of these advances at our upcoming scientific meeting in Melbourne. My colleague, Chris Ward, President of the Congress has worked with many of our colleagues in the Asia-Pacific region to put a wonderful scientific program together. This, together with the attraction of Melbourne as wonderful city, should ensure a great attendance from large number of our colleagues in the Asia-Pacific region. We are all looking forward to meeting you in Melbourne in October of this year. Remember this is the spring carnival for horse racing and Melbourne promises to be a most exciting and enjoyable place. Make sure you have some spare time (and money for the races) to enjoy what Melbourne offers particularly at this time of the year.

## From the Editor



Dear Colleagues,

In each issue of our newsletter, we focus on matters of importance to all of us in APSTH. This is the fourth issue and from it, you will learn about several aspects of our work.

As we continue looking at local societies in our region, we have a story about the Taiwan Society on Thrombosis and Hemostasis. They are a new group but they have set an ambitious set of goals. Next we have an article which shows the importance of one of our programs to encourage development of our younger members. In this case it was the "Young Investigator Award for the APSTH/JSTH Joint Symposium". Reading on, you will find a fascinating story of how you can put your knowledge to work in a less developed part of the region. It's

aply titled, "One Person Can Make a Difference" and the country where it takes place is Cambodia. Want to know about one of the latest groundbreaking research projects from Japan? It's all in the article, "Generation of Megakaryocytes and Platelets from Preadipocytes". The "7th Congress of the Asian-Pacific Society on Thrombosis and Hemostasis" to be held in Melbourne, Australia in conjunction with the annual scientific meeting of the Haematology Associations of Australia (HAA2012) is covered in detail in our next story. And last, but not least, we have the latest news about the Asia Pacific Thrombocytopenia/Thrombosis Network. That network is supported by the Asian Pacific Society on Thrombosis and Haemostasis (APSTH) and the Australasian Society on Thrombosis and Haemostasis (ASTH) now has a live website [www.apthn.org](http://www.apthn.org) for APSTH members to access and be involved.

I want to reemphasize what our chairman, Hatem Salem, said at the top of this newsletter - that your contribution of an article to this newsletter is very important to the progress that this society is making. I hope to hear from you.

Pantep Angchaisuksiri, Editor  
Officer of Public Relations and Communication APSTH

# Taiwan Society on Thrombosis and Hemostasis (TSTH)



**Prof. Ming Ching Shen**

## History

The establishment of TSTH was initially under the leadership of Prof. Ming Ching Shen, the pioneering scholar of hemophilia and thrombosis treatments in Taiwan. Most scholars, experts and doctors experienced in this field were invited to take part in the organization of the society.

The purpose of initiating the TSTH was to provide a platform for physicians and other members practicing clinical care as well as clinical or basic researchers interested in this field to exchange update information, latest progress and experiences of clinical care or research. Also, through the collaboration of members, it is expected to promote both domestic and international research in the field of thrombosis and hemostasis.

Besides, because the treatment of patients in the field of thrombosis and hemostasis is not standardized yet, it is important to set up a consensus of clinical guidelines for the management of patients in Taiwan by all the experts in the society in the future.

The Taiwan Society on Thrombosis and Hemostasis (TSTH) was finally established on May 7, 2011. Prof. Ming Ching Shen was elected as the first President of TSTH.



**Meeting of the founding on the Taiwan Society of Thrombosis and Hemostasis on May 7, 2011**

## Current Activities

The organization of Taiwan Society of Thrombosis and Hemostasis is composed of 4 committees including: Scientific Program Committee, Medical Affairs Committee, Publication Committee, General Affairs Committee.

At the beginning of the newly established society, the total number of members was around 80 and we continue enrolling new members. The first academic conference of the Taiwan Society on Thrombosis and Hemostasis, and Post XXIII ISTH reviews were held on October 1, 2011.

The most important issues of ISTH in Kyoto including hemophilia treatment, vWD, platelet function disorders, management of venous thromboembolism and immune thrombocytopenic purpura were reviewed. Subsequently, the 2nd conference of Hemophilia Care: Advancements in Asia Pacific 2011 was successfully held in conjunction with the symposium of TSTH.

One of the initial tasks of our society is to set up the Taiwan hemophilia registry. In the past, the registry data of hemophilia patients was collected by the Taiwan National Health insurance system but the information was limited. Therefore, we are currently trying to launch the registration program.

## Perspective

Since this is a newly developed society, we will recruit more members and work together on the following tasks:

1. Complete the Taiwan hemophilia registry program and extend to vWD as well as other rare bleeding disorders if possible.
2. Hold regular academic conferences and annual conference of TSTH.
3. Prepare for the official publication of TSTH.
4. Promote public awareness on the importance of thrombosis and hemostasis disorders, and establish a constructive communication between TSTH and our Department of Health.
5. Set up the clinical guidelines of management of various thrombosis and hemostasis disorders in Taiwan.

Through the efforts of our members, we are confident we will reach our goals step-by-step in the future.

TSTH website: [www.tsth.org.tw](http://www.tsth.org.tw)

# Report from a Recipient of the APSTH/ JSTH 2012 Travel Grant

## APSTH/JSTH Joint Symposium: An Experience and an Event to Remember.



**Jaa Yien New**  
 PhD Student  
 Department of Medicine,  
 St. George Clinical School,  
 University of New South Wales,  
 Australia.



On the night of 2nd February, 2012, as I was browsing through my emails, one heading caught my attention which reads "Selection for young investigator award for the APSTH/ JSTH joint symposium". I was ecstatic to find out that the abstract which I had submitted for the award had been accepted! I had a fond memory of Japan as I was in Kyoto the year before, attending the prestigious 23rd Congress of the ISTH. I was therefore really excited to make a trip to this beautiful country again. More importantly, this would be the first time presenting my work orally at an international platform, and I could not describe how honored I was to be given such an opportunity.



On the day of the symposium, I had the honor to meet Prof. Yukio Ozaki, Prof. Satoshi Fujii and Prof. Doyeun Oh who were part of the steering committee of the joint symposium. I also had the opportunity to meet other young investigators from China and Vietnam. The research area from the four presenters ranged from basic science to clinical medicine. I presented my research on a potential treatment for Heparin-Induced Thrombocytopenia (HIT) which largely involved techniques and knowledge of molecular and protein work. From a background of basic science, it was therefore a privilege to listen to the presentations of others from a totally different field.

The joint symposium was held in conjunction with the 34th annual meeting of the Japan Society on Thrombosis and Hemostasis. It was an annual local conference for the Japanese scientific community. Besides attending talks given by invited speakers from overseas, I also attended sessions presented by the Japanese speakers who gave the talk in Japanese but with slides presented in English. Despite the language barrier, I was impressed with the high quality research work exhibited by the Japanese scientific communities. One of the sessions was presented by Prof. Satoshi Nishimura from the University of Tokyo. His work involves visualizing the formation of thrombus in 3D using laser confocal microscopy. I was in awe when I saw the high quality images showed by Prof. Nishimura. During the Q&A session, the audience displayed such great interest and enthusiasm whereby they were actively engaged in a discussion with the speakers. This shows the commitment of the Japanese scientific community which takes their research seriously by working towards a better understanding of the clinical and scientific aspects of the vascular biology and coagulation.

The kind generosity of the organizers to provide the travel award to Japan means a lot to me as a student. I am glad that my current work has attracted interest from the international research community. This inspires me to continue with my research and to pursue my passion for science. The opportunity to present my work at such an important meeting serves as an unforgettable experience for someone who is still at the start of developing a career in the field of platelet biology and I would like to thank the organizers for kindly providing me with such opportunity. A big "thank you" also goes to my supervisor Prof. Beng Chong, co-supervisors Dr. Jose Perdomo and Dr. Xing-Mai Jiang for mentoring me in my project. I would therefore strongly encourage young researchers to apply for this award in the future for the chance to present their work and also to garner the experience in oral platform presentation at an international level.

# Volunteering in Cambodia: One Person Can Make a Difference

**Robyn Devenish**

**Medical Laboratory Scientist**

**National Pediatric Hospital, Phnom Penh, Cambodia**

Cambodia, a country of 14 million people, is still recovering from the ravages of the Khmer Rouge regime in the 1970's, where the whole infrastructure of the country was destroyed, including hospitals and medical staff killed or forced to work as peasants. This is particularly evident, even today, in the poor quality of services available at hospitals throughout the country.

*In this article, I will cover some of the early progress we made in the eleven years I worked in Cambodia. Although great progress has been made in Cambodia, there is still much work still to be done and I would welcome help from any other volunteers to take my work forward. There are 90 government labs in Cambodia and only five in Phnom Penh and one in the province that can do coagulation screening tests and one which can provide diagnosis and factor assays. (Not including AHC which is in Siem Reap).*

*Please come to Cambodia to help. Medical Technologists, Scientists and Haematologists are welcome. Contact: Robyn Devenish, RLD@iinet.net.au*

I was very shocked to find that the only coagulation tests available at the laboratory were a bleeding and clotting time. I was later to discover that this was the case in all 90 government hospitals throughout the country. As we had many



**Angkor Hospital for Children**

children admitted with dengue haemorrhagic fever (DHF) and other coagulopathies, many of whom died, I could see the need for setting up PT and APTT, so the doctors could monitor and treat the patients more effectively.

## My First Three Years in Cambodia: 2001 – 2003

In January 2001, I accepted a one year volunteer position as the Laboratory Director at the Angkor Hospital for Children (AHC), a non-government hospital in Siem Reap. This one year term in Cambodia, eventually turned into an 11-year saga as I began to realize the huge need for improving diagnostic laboratory medicine in the country. Although my work in Cambodia has encompassed all disciplines and quality laboratory management systems, this article will focus on my work to improve Haemophilia diagnosis and treatment in Cambodia.



**Leaving Perth airport in January 2001**

When I suggested this to the then medical director (another expat) I was very astounded when he said it was a waste of time as the Khmer doctors wouldn't know what to do with the results and there was no treatment. I consequently heard similar negative comments from other people as I tried to set these tests up at a national level. However, as I knew the tremendous difference these simple tests would make I set out to make it happen.

As I had no support from the hospital, on my next visit to Perth, I went to see Jim Thom, senior scientist at Royal Perth Hospital and obtained some donated reagents and controls to bring back with me.

Using manual methods, it was then easy to set up and train the Khmer staff to perform the PT and APTT assays. The difficult task was teaching the Khmer doctors to interpret the results. As they had never heard of these tests before it took many lectures to help them to understand. But, as they saw the abnormal results from patients with DHF and DIC they soon realized the value of the tests.

The next problem to solve was how to treat these patients as we had no access to fresh frozen plasma (FFP). We collected our own blood donors, but only into single bags for whole blood, so my next challenge was to find a way to make our own FFP. The first step was to buy double donor bags, which was easy to solve, but of course I didn't have a centrifuge to spin it down.

I discovered the local government blood bank laboratory had a refrigerated centrifuge (which they never used) so was able to take our donor bags there to spin down and then it was easy to separate off the plasma and store it in our freezer.

Later, I received a \$3000 donation from a German dentist who was working at the hospital and I was able to buy a second hand centrifuge from a company I found on the internet. Getting the centrifuge to Cambodia from the USA was a saga in itself, but many people helped along the way.

Once we had the FFP, I was able to explain to the doctors how to use it and it was incredibly rewarding to see the difference it made in treating the DHF patients, and many lives were saved and continue to be saved by this simple intervention. About 3 months after we had set up the coagulation tests, we found our first possible haemophilia patient. I was very surprised as at this stage I was only thinking about acquired coagulopathies. As we did not have the reagents to do mixing studies or factor assays I realized that this was the next problem to solve. So again on my next visit to Perth I obtained another donation of reagents from Royal Perth Hospital and was able to set up and train the Khmer staff to perform the assays for FVIII and FIX and subsequently diagnosed many cases.

However, treatment for the haemophilia patients was not an easy problem to solve. As haemophilia diagnosis had never been available in Cambodia before, the doctors knew nothing about the treatment, or that the prevalence is similar throughout the world. There were no haematologists in Cambodia and as a scientist I had only limited knowledge in this area and was not prepared that we would start finding these cases so soon.

In one case, I had a stand-up fight with the surgeon, because he wanted to operate because they were sure it was osteomyelitis. I contacted the World Federation of Haemophilia (WFH) and my Australian colleagues and was able to obtain some treatment guidelines. But of course at this stage, we only had FFP available. It was a very stressful time, as being the dengue season we had limited stocks of FFP and these patients had priority. It was heart-breaking to not be able to treat the Haemophilia patients, many of whom had brothers who had already died from bleeding problems. In my innocence I was expecting that the WFH would be able to supply us with factor concentrates. They said, "no, you have to set up a local haemophilia association first". Then I approached some of the companies to donate factor but they all said, "no, we only donate to WFH who do the distribution". A Catch 22 situation!

None the less, even with our limited FFP we were able to help the families a lot by having a correct diagnosis and giving them advice on how to avoid bleeding problems and use ice packs, etc. I also taught the laboratory staff how to prepare cryoprecipitate, but because of our limited FFP stocks we could never make enough.

At this stage the hospital administration could see the value

of the tests and agreed to purchase our own reagents locally. The Dade-Behring company in Australia also donated a Sysmex CA50 coagulation analyser. After meeting Dr Eric Preston and Dr Steve Kitchen (from the UK) at a Haemophilia conference in Thailand, I was able to obtain a subscription for the laboratory to the UKNEQAS program, which still continues today.

Dr Sing Heng, a paediatrician at AHC continues to this day to diagnose and treat Haemophilia patients in Siem Reap, and is an active member of the Cambodian Haemophilia Association.

## My Later Years in Cambodia: 2004 – 2011

I'm going to next mention briefly the other organizations I worked for during the rest of my time in Cambodia. As has been listed above, a lot of good improvements were made in my first three years in Cambodia. Improvements continued as the same pace in the next phases of my work there.

After 3 years at the AHC, I accepted a position with at the National Institute of Public Health (NIPH), to act as the national laboratory advisor for the USCDC HIV program in Cambodia.

One day, through my door came a young Cambodian, Dr Chean Sophal. He had just returned from France as a qualified paediatric haematologist. It was like a miracle, to at last be able to work with him to provide proper treatment to our Cambodian haemophilia patients. He was also amazed to find me, and we continue to this day to work together to improve the outcomes, not only on bleeding disorders but all other haematological conditions.



**Dr. Chean Sophal**

Although not in my scope of work, I knew the importance of setting up coagulation testing at the national level. I was able to purchase another Sysmex CA50 machine for the NIPH lab but had no money for reagents. I had heard about the Bayer Haemophilia Awards and decided to apply for a Care Givers Award. My application was successful and we were able to -

1. Provide practical and theoretical training to laboratory technicians.
2. Hold a 1 day seminar for clinicians on the diagnosis and treatment of haemophilia
3. Translate 4 WFH booklets into the Khmer language for Haemophilia patients and families.

I had kept in contact with Dr Preston and Dr Kitchen and they agreed to donate their services to help me provide this training. The Dade-Behring company donated reagents for the training and the ISTH sent a delegate to present at the seminar.

Subsequent to the training, coagulation testing was set up at the NIPH laboratory and diagnosis of Hemophilia became available in the capital city Phnom Penh. I also obtained another subscription for this laboratory to the UKNEQAS program.

Now that I was in contact with Dr Chean Sophal and we were finding more and more haemophilia cases, the quest to obtain factor concentrates became our next goal. This meant as previously mentioned, we had to set up a Cambodian Haemophilia Association (CHA). I met a young man, Steve Harknett, who worked as a volunteer with a disability organization; he had found several cases of suspected haemophilia in the countryside but had not been able to get a proper diagnosis until he heard about my work. As he had experience in setting up an NGO he was able to help us make a constitution for setting up the CHA. With a lot of hard work from my Cambodian colleagues to get CHA registered with the Cambodian government we were finally able to achieve this goal in 2008.



**Robert Leung from World Federation of Haemophilia and Cambodian Haemophilia Association Team Meeting with Minister of Health**

In 2007 I decided to work as a volunteer at the National Paediatric Hospital (NPH) so I could work to help improve diagnosis of children with haematological diseases at this laboratory.



**National Paediatric Hospital**

Currently we have diagnosed 75 Haemophilia patients, 1 FXIII deficiency, 1 suspected VWD Type 2N and 1 suspected Glanzmanns thrombasthenia. This is still really only the tip of the iceberg, as with a population of 14 million, we could expect up to 1000 cases that are undiagnosed in the community or most probably already deceased. So far all our diagnosed cases have been under 30 years.

The WFH can only provide us very limited amounts of factor concentrate, so no patient receives prophylactic treatment.

We also obtain some donations from a wonderful American organization called SHARE, who often help us in emergency situations, where we find a surgeon has operated on a haemophilia patient by mistake and can't stop the bleeding. Lack of knowledge about this disorder in Cambodia is still a huge problem and we are hoping that in the future the MOH will develop a National Guideline on the diagnosis and treatment of bleeding disorders.

In 2009 I successfully applied for another Bayer award, so I could fund the translation of a coagulation textbook into Khmer. With the help of Dr Chean Sophal and his colleagues we were able to complete this objective. The book can now be used at teaching institutes for both lab staff and medical doctors and distributed to hospitals.

In 2011, I have been working for other organizations such as WHO and URC as a consultant to improve diagnostic laboratory medicine in other government hospitals throughout Cambodia. I was surprised and delighted several months ago to be successfully nominated by the APSTH for a Novo-Nordisk Hemophilia Foundation (NHF) award. The money from this award will enable me to set up coagulation testing at another two major hospitals in Cambodia.



**Red circles indicate labs with coagulation testing. Green circles are proposed labs for 2012.**

# Research News

## Generation of Megakaryocytes and Platelets from Preadipocytes

**Yumiko Matsubara**

*Department of Laboratory Medicine, Keio University School of Medicine*



We would like to introduce our current research projects [1-3]. They are part of a study on the megakaryocytes (MKs) and platelets differentiated from subcutaneous adipose tissues and preadipocytes.

Recent advances in regenerative medicine have created a broad spectrum of cell research. Further, new strategies for manufacturing MKs and subsequently platelets, have been highlighted to elucidate the mechanisms of differentiation into MKs and platelets and to develop a donor-independent source for platelet transfusion. MKs and platelets have been differentiated from hematopoietic stem cells (HSCs), fetal liver cells, ES cells, and iPS cells.

We previously reported the generation of MKs and platelets from subcutaneous adipose tissues and 3T3-L1 cell lines of preadipocytes, a major component of adipose tissues, but not 3T3 fibroblast cell lines [1, 2]. Table 1 shows advantage and disadvantage of each starting material for the differentiation into MKs and platelets *in vitro*. Subcutaneous adipose tissues containing a lot of preadipocytes are easily obtained and available in large quantities, and the use of subcutaneous adipose tissues to produce a large number of MKs platelets is advantageous. Also, the protocol for the generation of MKs and platelets from adipose tissues has straightforward using culture media previously used to differentiate HSCs into MKs and platelets and requires no gene introduction [3].

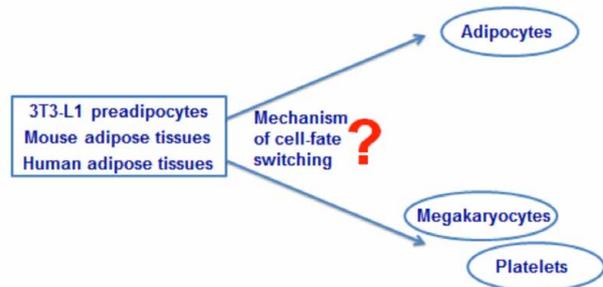
**Table 1. Advantage and disadvantage of each starting material for the differentiation into MKs and platelets *in vitro*.**

	Collection	Proliferation	Handling
Hematopoietic stem cells	×	×	○
ES cells	×	○	△
iPS cells	○	○	△
Subcutaneous adipose tissues	○	○	○
Preadipocytes	○	○	○

To investigate the mechanism of platelet generation from preadipocytes, we examined the gene expressions of factors (GATA1, GATA2, Fli1, RUNX1, FOG1, p45NF-E2, and c-mpl) reported to regulate MK differentiation and platelet production in the 3T3-L1 preadipocytes, and we observed the expression of all the factors except for GATA1. Thus, the 3T3-L1 preadipocytes possess critical factors in relation to MK differentiation and platelet production as well as adipocyte differentiation.

Our studies are now aimed at elucidating the cell-fate switching mechanism using the 3T3-L1 preadipocytes, mouse subcutaneous adipose tissues, and human subcutaneous adipose tissues (Figure 1) and to establish an *in vitro* culture system to provide a large number of platelets. In addition, we are studying whether fibroblasts can be forced into megakaryopoiesis by ectopic expression of candidate transcription factors (ASH 2011 meeting, abstract# 908), based on the findings; platelets were generated from 3T3-L1 preadipocytes, but not its parent cell line 3T3 fibroblasts.

**Figure 1. The cell-fate switching mechanism.**



1. Matsubara Y, Saito E, Suzuki H, Watanabe N, Murata M, Ikeda Y. Generation of megakaryocytes and platelets from human subcutaneous adipose tissues. *Biochem Biophys Res Commun* 2009; 378: 716-720.

2. Matsubara Y, Suzuki H, Ikeda Y, Murata M. Generation of megakaryocytes and platelets from preadipocyte cell line 3T3-L1, but not the parent cell line 3T3, *in vitro*. *Biochem Biophys Res Commun* 2010; 402: 796-800.

3. Matsubara Y, Murata M, Ikeda Y. Culture of megakaryocytes and platelets from subcutaneous adipose tissue and a preadipocyte cell line. *Methods Mol Biol* 2012; 788: 249-258.

# 7th Congress of the Asian-Pacific Society on Thrombosis and Hemostasis

**Christopher Ward**  
 President of the 7th APSTH Congress



This year's Congress will be held in Melbourne, Australia in conjunction with the annual scientific meeting of the Haematology Associations of Australia (HAA2012). By combining the Congress with this large meeting, we have been able to plan a comprehensive programme over 5 days (27th - 31st October), including special workshops and satellite symposia. Workshops on platelet science and laboratory coagulation (see below) will open the proceedings on Saturday 27th October. The main Congress will commence on Sunday 28th with an Education Day programme outlining recent advances in coagulation science and clinical management. We have confirmed an outstanding international faculty for the Congress with the following speakers:

- Walter Ageno (Italy) – atypical venous thrombosis
- Jing-fei Dong (USA) - microangiopathies
- Terry Gernsheimer (USA) – immune thrombocytopenia
- Peter Gross (Canada) – microparticles in coagulation and inflammation
- Paul Harrison (UK) – platelet function and testing
- Jong-Wook Lee (Korea) – paroxysmal nocturnal haemoglobinuria
- Bernhard Nieswandt (Germany) – coagulation factors in stroke
- Yukio Ozaki (Japan) – novel platelet functions
- Herbert Schoechl (Austria) – coagulopathy of trauma
- Alok Srivastava (India) – haemophilia management
- Raymond Wong (Hong Kong) – novel anticoagulants

The Congress will also feature over 30 coagulation experts from Asia and Australia in symposia covering arterial and venous thromboembolism, haemophilia, platelet disorders, microangiopathies, bleeding and thrombosis in pregnancy and novel therapies. There will be a special focus on the novel oral anticoagulants that are entering clinical practice, including strategies to deal with bleeding and options for monitoring. The HAA offers opportunities for clinicians and scientists across the haematology spectrum to learn from each other – this year's Congress will build on this with com-



bined plenaries on the impact of platelet disorders, splanchnic thromboses and anticoagulant reversal. Delegates are welcome to attend any of the programme streams during the meeting, but separate registration will be required for the Saturday Workshops.

The Congress programme will include sponsored “satellite” symposia, held at the main conference venue, covering important clinical challenges in haemostasis, antiphospholipid antibody syndrome, novel anticoagulants and haemophilia. Oral “Free Communications” sessions will highlight





# Platelet Workshop

Melbourne Exhibition and Convention Centre

October 27th – 28th, 2012

In conjunction with the 7th Congress of the Asian-Pacific Society of Thrombosis and Hemostasis and HAA 2012 - October 28 to 31, 2012.

## TOPICS

- Platelet Biology, Megakaryopoiesis, Animal Models, Functional Analysis, and Platelet Death
  - From Basic Science to Clinical Translation
    - incl. Joint sessions with ASTH/APSTH

**SIX INTERNATIONAL and  
>20 NATIONAL SPEAKERS**

Incl. Peter Gross (CAN), Paul Harrison (UK)  
Bernhard Nieswandt (GER) and Yukio Ozaki (JAP)

+

Free Communication sessions on both days  
Plus Posters and Awards

**\*\*NETWORKING AND SOCIAL ACTIVITIES\*\***

**Abstracts and Registration Now Open**

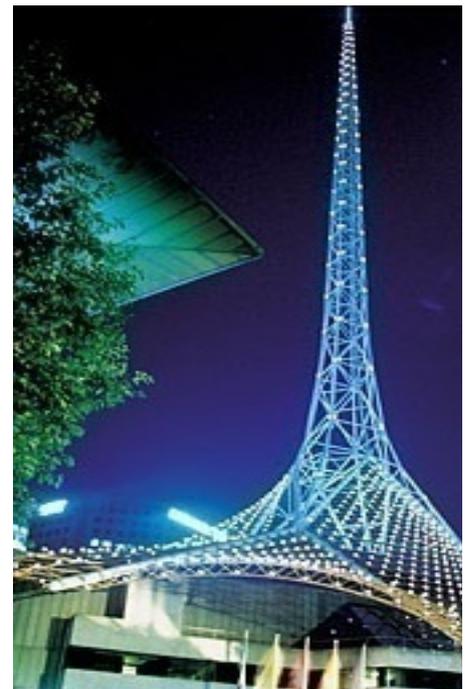
REGISTRATION – AU\$275 go to

<http://www.fcconventions.com.au/HAA2012/index.html>



the best submitted abstracts on each day of the main Congress, with a large poster session on Monday 29th. Masterclasses, allowing small-group, informal learning from an international expert, will be held on Monday and Tuesday – Congress masterclasses will cover atypical thromboses (Ageno), platelet disorders (Gernsheimer) cancer and thrombosis (Gross), haemophilia (Srivastava). As numbers are limited, delegates should register for these popular sessions early.

The Congress offers a perfect opportunity to (re)connect with colleagues and experts from Asia-Pacific and further afield, to share experiences and challenges and establish new collaborations. The meeting will encourage networking at entertaining social events, starting with the official Welcome Reception on Sunday 29th and concluding with the Congress Party on Tuesday 30th, an occasion not to be missed! The conference venue, the Melbourne Convention Exhibition Centre is ideally located in the heart of Melbourne's entertainment precinct along the Yarra River, just a short walk from the city centre and many local attractions. A wide range of hotel accommodation is available within walking distance and delegates can take advantage of Melbourne's excellent public transport, including the famous trams.



# Asia Pacific Thrombocytopenia/Thrombosis Network - APTIN Update

The Asia Pacific Thrombocytopenia/Thrombosis Network (APTIN) supported by the Asian Pacific Society on Thrombosis and Haemostasis (APSTH) and the Australasian Society on Thrombosis and Haemostasis (ASTH) now has a live website [www.aptin.org](http://www.aptin.org) for APSTH members to access and be involved.

APTIN is an exciting opportunity for haematologists, scientists and nurses from around the Asia Pacific region to collaborate, interact, provide a forum for research and collate and publish data on specific disorders of thrombosis and haemostasis. Two networks are currently being established – Asia Pacific Microangiopathic Thrombocytopenia Network (APMAT Network) and the Anticoagulant Reversal and Event Study Collaborative (ARES Collaborative). They are both close to site initiation and patient recruitment and the APTIN website has information pertaining to both.

APMAT (Asia Pacific Microangiopathic Thrombocytopenia Network) is investigating the pathophysiology, diagnosis and treatment of a rare, poorly understood and life threatening condition of Thrombotic Thrombocytopenic Purpura (TTP). The initial Australian and New Zealand component of APMAT Steering Committee meeting occurred in Melbourne on the 23rd March. The International Asia Pacific APMAT Committee will meet at the APSTH/HAA meeting in October in Melbourne with the aim of formalising the Asia Pacific network. Prof. Ross Baker is hoping to meet with key country leaders soon at the upcoming ISTH SSC meeting in Liverpool and the World Federation of Haemophilia Meeting in

Paris. The protocol and data collection tool is being finalised and work on the logistics of blood collection well developed. It is an exciting opportunity for basic science research questions to be addressed in the Asia Pacific region for improved diagnosis and treatment of TTP.

The ARES Collaborative is investigating significant haemorrhage or thromboembolic adverse events in people taking oral anticoagulants over the next 3 years, with a focus on observing management of people on warfarin or the new oral anticoagulants (NOAC) presenting to emergency departments. The ARES Collaborative is gaining momentum with much of the behind-the-scenes work completed. On the 9th March in Sydney, the initial ARES Steering Committee met to discuss the aims and objectives of the study and assured a commitment to participation in gaining relevant data. The protocol has been finalised, the data collection tool accepted, and ethics submission approved at various sites in Australia and New Zealand. Finishing touches are being made regarding site and patient on-line registration. We would welcome any new sites interested in participating in ARES Collaborative over the next few months.

If you require further information and seek your centres involvement in APTIN please see details on the website [www.aptin.org](http://www.aptin.org) or contact Professor Ross Baker ([ross.baker@health.wa.gov.au](mailto:ross.baker@health.wa.gov.au)), Megan Sarson, ASTH Secretariat ([asth@bigpond.com](mailto:asth@bigpond.com)), or the APTIN Project Officer, Claire Bell ([claire.bell@health.wa.gov.au](mailto:claire.bell@health.wa.gov.au)).

## Upcoming Meetings:

- 1 XXX International Congress of the World Federation of Hemophilia**  
8-12 July 2012 - Paris, France  
[www.wfhcongress2012.org](http://www.wfhcongress2012.org)
- 2 22<sup>nd</sup> International Congress on Thrombosis**  
6-9 October 2012 - Nice, France  
[www.thrombosis2012.org](http://www.thrombosis2012.org)
- 3 HAA 2012**  
A Joint Scientific Meeting of the Haematology Society of Australia and New Zealand, Australia and New Zealand Society of Blood Transfusion, Australasian Society of Thrombosis and Haemostasis with the 7th Congress of the Asian-Pacific Society of Thrombosis and Hemostasis  
28-31 October 2012 – Melbourne, Australia  
[www.fcconventions.com.au/HAA2012](http://www.fcconventions.com.au/HAA2012)
- 4 54<sup>th</sup> ASH Annual Meeting and Exposition**  
8-11 December 2012 - Atlanta, USA  
[www.hematology.org](http://www.hematology.org)