



Asia Pacific Spine Society

APSS NEWS

News From Your Regional Spine Society

Issue 12 | Jan - Dec 2021
www.apssonline.org

President's Message



Dear Colleagues and Members,

It is a real honour and privilege to take over as the Chair of the Asia Pacific Spine Society and I am sure that, with all your help and active involvement, our society will make tremendous strides in the next two years. The change of office bearers of APSS took place virtually in June. The Society is immensely grateful to Professor Emeritus Keith Dip Kei Luk, Immediate Past President, for his contribution, guidance, and commitment towards the APSS.

Although the COVID virus posed major challenges on many fronts, we have exhibited resilience and innovation to excel in all the activities of APSS. I congratulate everyone for rising to the crisis and continuing our best care to our patients despite the situation.

The highlight for the first half of the year has been the 13th Combined Meeting of APSS and APPOS (APSS-APPOS 2021) organised in Kobe, Japan. The co-chairmen of the Congress, Dr Morio Matsumoto, and Dr Yukihiro Matsuyama had persevered through the impact of COVID-19 to organise a remarkably successful online meeting that shattered three (3) records. First, we have recorded the highest number of registrations to our annual scientific meeting over the years with 699 participants. Secondly, over 600 participants were recorded daily during live sessions from 10 – 12 June. Lastly, the meeting also documented a record-high of 546 submissions of abstracts. On behalf of the Executive Committee, I would like to applaud the team for setting a new standard for all upcoming Annual Scientific Meetings. Congratulations again!

We are also honoured to feature an excerpt from the oration by Professor Emeritus Shoichi Kokubun, entitled 'My Life as a Spine Surgeon of Lateral Thinking'. Turn to page 10 to read his insightful sharing.

While we continue to adapt to the new normalcy, APSS has also evolved in its education and outreach programme. With the exceptional effort from the Online Education Committee, I am pleased to report that four (4) webinars had been successfully conducted every quarter of the year. Visit our website to watch the playback hosted by OrthoTV.

In the second half of the year, I am delighted to report that the 2nd APSS-HKU Basic Spine Course was successfully held in September. To wrap up the year on a high note, we launched the first virtual fellowship – the APSS DePuy Synthes Virtual Fellowship programme in November. A total of 28 fellows were granted the privilege of interactive session with 22 experienced spine experts in the region to learn and discuss various surgical techniques.

Welcoming the new year, I would like to invite you to attend the APSS Annual Meeting 2022 with Live Operative Course from 10 to 12 June, 2022 in Coimbatore, India. The abstract submission and registration will open soon, so stay tuned for the announcement on the APSS website.

The Society continues to monitor the situation regionally and continue to innovate and explore new methods to reengage and reconnect to you. Be on the lookout for more activities in the Diary of Events on the back cover.

In the meantime, I hope you will continue to stay safe, and I look forward to meeting you in person soon. Warmest greetings of this festive season and best wishes for happiness this New Year!

Yours sincerely,
PROFESSOR S RAJASEKARAN

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Board Member's Message



Dear APSS Members,

I am currently the Professor and Chief of Spine Surgery in Department of Orthopedic Surgery, National Taiwan University Hospital. I am the President of the Taiwan Spine Society for the term 2020-2022 and a Board Member of the Taiwan Orthopaedic Association.

Following in the footsteps of Professor Po-Quang Chen, my participations in academic and operative activities of this society started from 1998 when APSS is still the Spine Section of Western Pacific Orthopaedic Association. Over the years, I attended several APSS meetings and courses as an attendee or as a faculty. I have recommended numerous Taiwanese spine surgeons participating APSS annual meetings, courses and fellowship programs. I served as the Director of Scientific Program for the first Annual Meeting of APSS in Taiwan in 2018. I have been in charge of organizing and co-hosting APSS travelling fellowship program in Taiwan in 2018 and 2019. I became a Board Member of APSS Taiwan Chapter in 2016 and my term will be concluded in 2022. I am the Chairman of the Constitution, Bylaws and PP&M Sub-Committee for the term 2021-2023.

Since APSS covers a very wide geographic territory, clinical situations and demands on spine care may be very diverse from region to region. APSS plays an important role on organizing devoted spine experts and integrating various resources to provide opportunities of education and training as well as a platform for communication and idea exchange. Taiwanese APSS members and myself have been enthusiastic in participating and making contributions. APSS will definitely continue growing with networks of internationally renowned spine surgeons within and beyond the AP area together with increasing participation from spine surgeons of younger generations.

Yours sincerely,
SHU-HUA YANG

Dr Shu-Hua Yang also shared with us his personal experiences on the management of spine patients in his hospital during the COVID-19 outbreak in Taiwan

In early January 2020, Taiwan was the first country beside China reacted to the COVID-19 infection, even though actual situations and information in the original epidemic area were really opaque at that moment. In order to integrate resources for challenges to come, central government of Taiwan set up the Central Epidemic Command Center (CECC) on Jan. 20, 2020. Despite of intense circumstances, there was no outbreak nor lockdown happened in Taiwan. Under cautious prevention measures, orthopedic and spine services including outpatient clinics, inpatient care, emergent and elective surgeries were all executed as usual. From April 12 to Dec. 22, 2020, there is a 253-day streak of no domestic COVID-19 infection in Taiwan. The prevalence of COVID-19 infection in Taiwan remained very low, 1290 confirmed cases in a population of 23.8 million over a period of 16 months, until May 15, 2021.

For the very first time, more than 100 new confirmed COVID-19 cases nationwide were reported on May 15, 2021. Government of Taiwan immediately escalated the regulation and set several restrictions at frontlines of epidemic prevention. All major hospitals were demanded to prepare specialized units with requested number of beds for treatment of COVID patients exclusively. National Taiwan University Hospital (NTUH), the hospital I work for, is in the neighborhood of the initial outbreaking area. NTUH immediately converted 200 beds into specialized COVID-19 care units. Due to a cluster infection of 10 persons in the engineering affair office, hospital-wise screening was performed on May 19. Fortunately, no medical personnel who provided direct care to patients were found infected. In order to limit the risk of nosocomial infection that might result in hospital shutdown, loading of outpatient clinics were reduced and all elective surgery was cancelled. Emergent service was reserved mainly for COVID patients. Only very few surgeries for other patients were performed during the initial weeks of this outbreak. After high alert for 4 weeks, limited numbers of elective surgery for relatively urgent reasons were allowed after getting permission from the senior management personnel. All patients have to be negative in PCR test before admission to the hospital. After 12,715 confirmed cases in 37 days, the number of daily confirmed cases nationwide decreased to double digits on June 21. Although the recent outbreak seems to quiet down at the moment, high intensity regulations will be still in effect in following 2 to 4 weeks. Orthopedic and spine practices in the hospital recovers very slowly because of the regulations and also patients' reluctance to have non-urgent medical managements at this moment.

The daily numbers of confirmed COVID-19 cases in Taiwan dropped to single digit in August. Confirmed cases were just sporadically reported after September. Outpatient clinics, inpatient treatments and surgeries gradually returned to the status before outbreak in the final months of 2021.

(The above information summarized as of the situation until Dec 31, 2021)

2nd APSS - HKU Basic Spine Course 2021

As the world adapts to the endemicity of COVID-19 and attempts to re-establish in-person connections, the APSS together with the University of Hong Kong (HKU), and the Spine Chapter of the Hong Kong Orthopaedic Association (HKOA) co-organised the 2nd APSS-HKU Basic Spine Course on September 11, 2021, at the Hyatt Regency Hotel in Hong Kong.

Adhering to the COVID-19 restrictions on large gatherings whereby two-thirds of the participants are to be vaccinated and maintaining safe physical distance, the course was well-attended by 26 local participants. There was a total of 12 faculties contributing to the scientific sessions of the course including 3 international APSS faculties namely, Dr Yudha Mathan Sakti (Indonesia), Dr Dennis Hwee Weng Hey (Singapore), and Dr Roongrath Chitragran (Thailand) who joined via online conference call.

The course covered basic principles of degenerative conditions, spinal deformity and spinal trauma including case discussions with the participants. The highlight of the course was the hands-on sawbones workshop that granted the participants a first-hand experience with basic surgical principles and instrumentation in the cervical and lumbar spine. With the generous instrumentations support from Johnson & Johnson and Medtronic for the sawbones, there was a high faculty to participant ratio. The presence of supporting staff enabled the smooth running of the workshop.

Overall, the feedback and evaluation from the participants were very positive, and the Organising Chairman, Dr Kenny Kwan extends his gratitude to the APSS leadership as well as staff from APSS and HKU for their support in making this course a success.



▲ Organising Chairman, Dr Kenny Kwan welcomed the participants on-site the Basic Spine Course after a hiatus in 2020 due to COVID-19 pandemic.



◀ Left: Dr Jason Cheung guiding a participant at one of the stations during the saw bone workshop.

Right: Dr Dennis Hey interacting with on-site participants via online conference call.

Bottom: Group photo comprising Organising Chairmen and the local delegates of the course.



APSS Webinar 2021 Series: Cervical Spine

Acknowledging the new norm, the Executive Committee of APSS has established the Online Education Sub-Committee at the end of the year 2020 to evolve in its education and outreach programme. The webinar series enables the online presentation and discussion on topics that is engaging, relevant and informative.

The overall theme for the year 2021 was Cervical Spine. With the exceptional effort from the Online Education Sub-Committee, a webinar session was successfully conducted every quarter of the year and the topics discussed at the quarterly webinar sessions are themed as follows:

Jan 2021: Multilevel Cervical Myelopathy – Dilemmas in Management

April 2021: Craniovertebral Junction / C1-C2 surgery

July 2021: Complications in Cervical Spine Surgery

October 2021: Spinal Trauma – Cervical Trauma & Thoracolumbar Spine Trauma

The Online Education Sub-Committee extend its gratitude to a total of 18 faculty members who have contributed their knowledge and six (6) case presenters who were invited to present a case for discussion throughout the four (4) webinar sessions:

FACULTY

1. Dr Keith Dip Kei Luk (Hong Kong)
2. Dr Abhay Nene (India)
3. Dr Ajoy Prasad Shetty (India)
4. Dr Harvinder Singh Chhabra (India)
5. Dr Pankaj Kandwal (India)
6. Dr Ram Chaddha (India)
7. Dr S Rajasekaran (India)
8. Dr Sandeep Sonone (India)
9. Dr Sudhir K Srivastava (India)
10. Dr Vishal Kundhani (India)
11. Dr Kuniyoshi Abumi (Japan)
12. Dr Yasutsugu Yukawa (Japan)
13. Dr Woo-Kie Min (Korea)
14. Dr Chung Chek Wong (Malaysia)
15. Dr Rohit Kumar Pokharel (Nepal)
16. Dr Mohd Arif Khan (Pakistan)
17. Dr Jose Manuel Ignacio (Philippines)
18. Dr Gabriel Liu (Singapore)

CASE PRESENTERS

1. Dr Saijyot Raut (India)
2. Dr Varun Agarwal (India)
3. Dr Akira Iwata (Japan)
4. Dr Weng-Hong Chung (Malaysia)
5. Dr Reuben Soh (Singapore)
6. Dr Ming Hsiao Hu (Taiwan)



▲ A collage of faculty members and case presenters during APSS webinars in 2021.

The quarterly webinars which were streamed on and hosted by OrthoTV have reached out and accumulated over 5,800 views live and post-live. The discussion during the webinar was very dynamic and many a times had extended beyond the planned 120-minute session.

Visit our [website](#) to watch the playback hosted by OrthoTV, and stay tuned for the announcement of the upcoming webinar in 2022.



Medtronic

ADVANCING THE KNOWLEDGE OF SPINE SURGERY IN THE ASIA PACIFIC REGION



Mark Your Calendar!

APSS MEDTRONIC WEBINARS

DEFORMITY SCOLIOSIS

- FEBRUARY:** ADOLESCENT IDIOPATHIC SCOLIOSIS (PART 1)
MAY: ADOLESCENT IDIOPATHIC SCOLIOSIS (PART 2)
AUGUST: EARLY ONSET/CONGENITAL SCOLIOSIS /
NEUROMUSCULAR/SYNDROMIC SCOLIOSIS
NOVEMBER: SURGICAL TECHNIQUES IN SCOLIOSIS SURGERY

2022

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2020 APSS Ganga Hospital Fellow's Testimonial

Dr Md Sarwar Jahan is currently a Consultant of Orthopaedic Surgery based in National Institute of Traumatology and Orthopaedic Rehabilitation (NITOR), Dhaka, Bangladesh. He is a spine surgeon inspired by Dr Md Shah Alam, a Board Member and Life Member of APSS who made spine surgery uncomplicated and appealing to young surgeons.

He came to know about the fellowship programme from other senior colleagues who are APSS Fellowship Alumni and aspired to be among the community. He submitted the application specifically for the Ganga Hospital Fellowship as he wishes to be under direct supervision of Dr S Rajasekaran.

Dr Jahan completed the APSS – Ganga Hospital Fellowship between November 3, 2021, and December 24, 2021, and is pleased to share his experience at the Ganga Hospital, Coimbatore, India.



▲ Dr Jahan (left), APSS-Ganga Hospital Fellow 2020, with Dr S Rajasekaran (right).

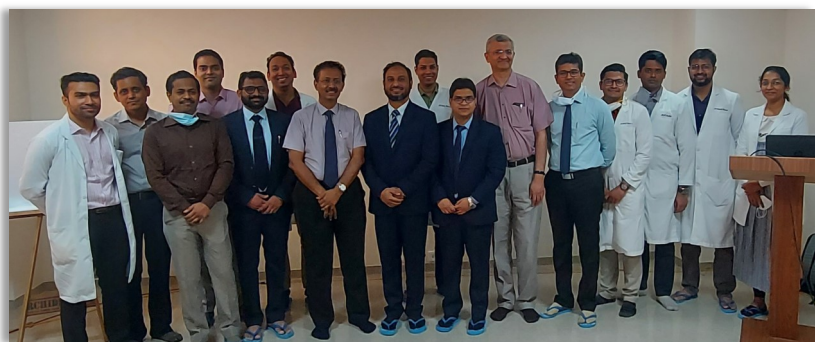
“

There were many memorable experiences as a fellow in Ganga Hospital. Dr S Rajasekaran is very thoughtful host as he mindfully demonstrated the procedure he was performing in the surgery. In terms of surgery tools exposure, I am grateful that Dr Rajasekaran has arranged a hands-on workshop on high-resolution microscope whereby I was oriented on microscopic disc surgery, and it is a first for me while almost all surgeries performed in Ganga Hospital was assisted using high resolution microscope. He also arranged a workshop to allow me to have hands-on experience with high-speed burrs. There were about 30 – 35 surgeries accomplished in 10 operation theatres daily in Ganga Hospital and the efficiency of the staff were remarkable.

In the hall of the hospital, the quote from Aristotle was display which says, “**We are what we repeatedly do; Excellence, then, is not an act, but a habit**”.

Dr Rajasekaran exudes the living example of such excellence as he is constantly constructing knowledge and instil interests for research among the young spine surgeons. He is now searching for the bacteria in the cell of human body that are responsible for the disease condition to discover new treatment method. He also arranged a workshop related to Next Genome Sequencing (NGS) where all eminent scientists present their thinking and plans in surgery. I am truly astonished and inspired by his thirst for knowledge and research discoveries.

”



▲ (Left) Group photo of Dr Sarwar Jahan (ninth from the left, standing) together with host, Dr S Rajasekaran and the Spine Unit of the Ganga Hospital. (Right) Pictured herewith, Dr Jahan assisted Dr Rajasekaran in one of the surgeries during the fellowship programme.

Visit www.apssonline.org to read the complete fellowship report of the APSS Ganga Hospital Fellowship 2020.

2020 APSS Medtronic Fellow's Testimonial

Dr Md Faridul Islam and **Dr Aditya Raj** had completed the APSS Medtronic Fellowship between April 1 to June 30, 2021, and August 9 to November 6, 2021, respectively. They are pleased to share their experiences as follows:

Dr Md Faridul Islam

Hosted by Dr Md Shah Alam at the Bangladesh Spine & Orthopaedic Hospital (BSOH), Dhaka, Bangladesh.

Dr Islam who is currently affiliated with the Abdul Malek Ukil Medical College Hospital, Noakhali, Bangladesh, decided to specialise in spine as he realised the lack of spine surgeons working in the district level and the needs to serve the people in his country. He became a Life Member of APSS after participating in the APSS Dhaka Operative Course in 2018 and came to know about the fellowship programme through APSS bi-monthly e-newsletter.

“ It has been a great pleasure to finally having the opportunity to work with Dr Md Shah Alam after attending to many of his lectures at various conferences. Throughout the fellowship with Dr Shah Alam, I had participated in 90 cases and observed 8 cases. The fellowship provided me with knowledge that would benefit my practices henceforth.



▲ Group photo of Dr Md Faridul Islam (third from the left, standing) together with host, Dr Md Shah Alam, and fellow colleagues from the BSOH.

Dr Aditya Raj

Hosted by Dr Chong-Suh Lee at the Samsung Medical Centre, Seoul, South Korea .

Dr Raj who is currently based in Department of Orthopaedics of the King Edward VII Memorial (K.E.M) Hospital, Mumbai, India, has always inclined towards spine surgery as his specialisation since his residency mainly due to the motivation from mentors. He came to know about the APSS fellowship programme through his colleagues who were previously a part of the esteemed programme. He was excited to seize this opportunity to further his understanding in the field and skills as well as having a unique enriching experience in his career.



▲ Dr Aditya Raj (left) together with host, Dr Chong-Suh Lee (right).

“ This fellowship was truly a golden opportunity for my understanding of spine surgery. I was exposed to entire range of patients and procedures ranging from spinal deformity, minimally invasive spine surgeries to spine tumours and metastases. The use of anterior procedures such as OLIF and anterior column realignment (ACR) in the management of adult spinal deformity without any posterior osteotomies was a unique experience for me. I was overwhelmed to experience the power of anterior procedures in adult spinal deformity. The sagittal and coronal correction that could be achieved with ACR was a new domain for me since my prior training for these disorders was mainly through posterior osteotomies. The major highlight of the fellowship was the opportunity to scrub in majority of the cases which provided an insight into the surgical procedures. The spine tumour board was another distinct advantage which allowed multi-departmental treatment protocols optimised for each patient. Overall, the entire fellowship experience was truly an amazing opportunity to broaden my academic and surgical horizon and I am glad to have utilized it to the fullest.

Visit www.apssonline.org to read the complete fellowship report of the APSS Medtronic Fellows 2020.

APSS-APPOS 2021: 13th Combined Meeting of Asia Pacific Spine Society & Asia Pacific Paediatric Orthopaedic Society in Kobe, Japan



The 13th Combined Meeting of Asia Pacific Spine Society & Asia Pacific Paediatric Orthopaedic Society (APSS-APPOS 2021) was held as a hybrid format for the first time, due to Covid-19 situation from June 10 to 12, 2021, and available via on-demand streaming from June 10 to 30, 2021. We are pleased to note that despite the difficulties, APSS-APPOS 2021 was attended by as many as 699 participants from 26 countries, and 546 abstracts were received in total for APSS and APPOS. Once again, we sincerely thank everyone for their support.



▲ From left to right: Opening Remarks by APSS Organising Co-Chairmen, Prof. Morio Matsumoto and Prof. Yukihiro Matsuyama, as well as APPOS Organising Chairman, Prof. Yasuharu Nakashima



During the meeting period from June 10 to 12, the sessions were live-streamed and saw fruitful discussions, with the attendance of nearly 600 participants each day.

The program of APSS 2021 consisted of symposia, APSS Scoliosis Focus Group + JSS Joint Symposium, Meet the Master, Video on Key Surgical Techniques, Best Paper, Fellowship Session and APSS-APPOS Combined Symposium, and many distinguished experts from Japan and abroad engaged in lively discussions via ZOOM Webinar.

In addition to live-streaming, each session was also made available for viewing via on-demand streaming for about a month after the meeting had concluded.

In the Free Paper Session, we set up an online Q&A site for the first time to ensure many participants would join the lively discussions. We also created the “Best Viewing Awards” to recognize the 10 most frequently viewed presentations during the on-demand streaming period, which helped to encourage active participation in the Free Paper Session.

▲ From top to bottom:
(1) Moderators of the scientific sessions, Dr Daisuke Sakai and Dr Shinji Takahashi
(2) Presentation on-site
(3) Discussion session which features on-site and online faculty members.

APSS-APPOS 2021 Fast Facts	
Total number of registration (including invited participants)	699
Total number of abstracts accepted	APSS: 432
	APPOS: 114
Total number of participants accessing the live streaming sessions from June 10 - 12	Nearly 600 participants daily
Total number of exhibition booths	On-site & virtual: 5
	On-site only: 2

Congratulations!

to the winners of APSS Best Paper Awards for both Congress and Asian Spine Journal (ASJ) Awards

APSS Congress Best Paper Awards

Dr. Momotaro Kawai (Japan)	Long-term selective stimulation of transplanted neural stem/progenitor cells for spinal cord injury improves locomotor function mediated by increased synaptic transmission
Dr. Kazuya Kitamura (Japan)	Intrathecal administration of recombinant human hepatocyte growth factor for acute traumatic cervical spinal cord injury: double-blinded, placebo-controlled and randomized phase I/II study

APSS—ASJ Best Paper Awards

Dr Dilip Chand Raja Soundararajan (India)	Novel biomarkers of health and degeneration in human intervertebral discs - in-depth proteomic analysis of collagen framework of fetal, healthy, scoliotic, degenerate and herniated discs
Dr. Sehan Park (Korea)	Significance of vertebral body sliding osteotomy as a surgical strategy for the treatment of cervical ossification of the posterior longitudinal ligament
Dr. Jiong Hao Tan (Singapore)	Deep learning pipeline for automated detection and classification of central canal, lateral recess and neural foraminal stenosis on lumbar spine MRI

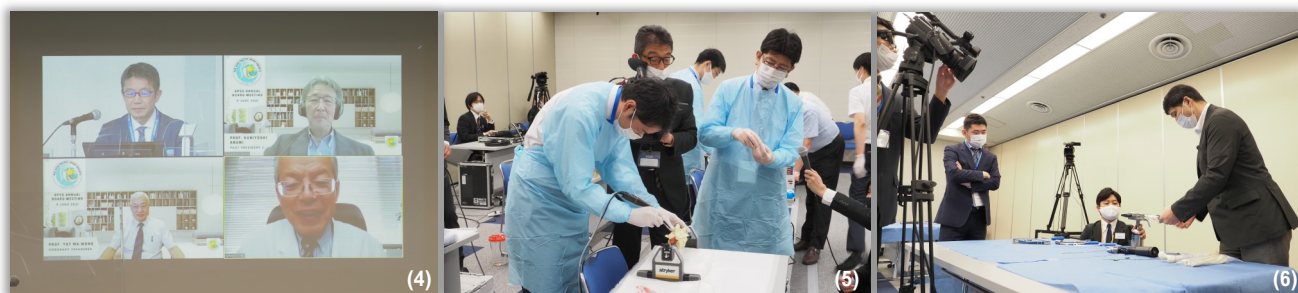
In the Plenary Lectures, Dr Katsuro Tomita (Japan) and Dr Kuniyoshi Abumi (Japan) delivered inspiring lectures that will contribute to the development of technologies in the area of spine surgery.

In the Presidential Oration, Dr Shoichi Kokubun, who served as the President of APSS from 2005 to 2008, gave an interesting lecture on his lifelong achievements as a spine surgeon of lateral thinking. An excerpt of his oration can be read on page 10 and 11.

The APSS-APPOS Combined Symposium, which was distinctive of the Combined Meeting of APSS and APPOS, featured lectures by Dr Masashi Takaso (Japan), Dr Arvind Jayaswal (India), Dr Keith Dip Kei Luk (Hong Kong), and Dr Haruhisa Yanagida (Japan). They provided valuable opportunities for participants to share the latest academic information and scientific knowledge in the areas of spine surgery and paediatric orthopaedics.

In addition to the scientific program, we organized morning and luncheon seminars, hands-on seminars, and a corporate exhibition, both on-site and online, in cooperation with many sponsoring and supporting companies.

Despite the difficulty in gathering due to Covid-19, we hope this year's APSS-APPOS Combined Meeting provided a useful opportunity to network and exchange opinions with fellow participants.



▲ From left to right: (4) Plenary Lecture by Dr Katsuro Tomita and Dr Kuniyoshi Abumi; (5 & 6) Hands-on Seminar which were recorded for On-demand streaming.



◀ From left to right:
(7) Welcome Remarks online by APSS President, Dr Keith DK Luk during the Opening Ceremony.
(8) APSS Presidential Inauguration Ceremony was streamed virtually witnessing the change of Presidency of APSS



Once again, we sincerely appreciate your enormous contribution to the 13th Combined Meeting of Asia Pacific Spine Society & Asia Pacific Paediatric Orthopaedic Society (APSS-APPOS 2021).

◀ Deepest appreciation to the Local Organising Committee for their time and efforts in making the APSS-APPOS 2021 during a pandemic, a historical success.

My Life as a Spine Surgeon of Lateral Thinking

Dr Shoichi Kokubun, who is Professor Emeritus Tohoku University and Director, Research Centre for Spine & Spinal Cord Disorders at the NHO Sendai Nishitaga Hospital, Sendai, Japan, as well as a founding member and Past President of APSS, was invited to deliver an oration at the 13th Combined Meeting of APSS and APPOS in Kobe, Japan. Dr Kokubun has dedicated his life to knowledge and discovery, and to this day, he continues to contribute to the spine surgery beyond the Asia Pacific region.

The following are excerpts from his oration entitled “My Life as a Spine Surgeon of Lateral Thinking”:

Dr Kokubun’s life as a spine surgeon is divided into three periods: 15 years at Nishitaga Hospital from 1971, 20 years at Tohoku University, from 1986 and again another 15 years at Nishitaga Hospital from 2006 till today.

In 1971, three years after graduation from Tohoku University, he started working at National Nishitaga Sanatorium, Sendai. The surgery for thoracic tuberculosis spine was curettage through a costotransversectomy. Next year, the Director of the sanatorium recommended him to learn modern techniques of spinal surgery, especially the Harrington instrumentation, in Kobe, Japan, where he observed a congenital scoliosis being stretched with a halo-pelvic and simply wondered why the hemivertebra was not removed. Fortunately, during his 3-month stay, Dr Kokubun attended Professor Arthur Yau’s lectures and surgical demonstrations.

These experiences combined lead to Dr Kokubun’s decision to make spine surgery his specialty and to his three dreams – first, as a clinician, learning from pioneers, healing patients and nurturing juniors; second, as a surgeon, developing new surgical procedures; and third, as a biologist, clarifying mysteries of the human body and diseases.

With his dream set, Dr Kokubun visited Hong Kong in 1974 for two months to learn from Professor Arthur Yau and Professor Arthur Hodgson, founding members of APSS and APOA, respectively. At the same time, he made many lifelong friends including Dr John Leong. They nurtured him towards contribution to the development of spine surgery in the Asia Pacific region. He returned with renewed aspirations and began planning to achieve his dreams. The chart on the right on the right illustrates his plans.

In spine research, Dr Kokubun believed that awareness of something may lead to a different direction by lateral thinking and subsequently to the goal by vertical thinking.

Dr Kokubun successfully excised an L1 hemivertebra first in Japan in 1977 and became the first surgeon in the world who performed segmental shortening for tethered cord syndrome associated with lipomyelomeningocele in 1995. Around the same time, he devised a new compression hook and rod system that has 20-degree adjustability for closing posterior wedge osteotomy.



BASE

- Learning symptomatology, especially neurology
- Mastering pioneers' surgical procedures

GOALS

- Clinical and basic researches
- Developing new surgical procedures
- Instruction of junior and propagation toward the general public
- Establishing spine care territory
- International exchange



▲Dr Kokubun during an Operative Course in Coimbatore, India in 2007



5-L PHILOSOPHY

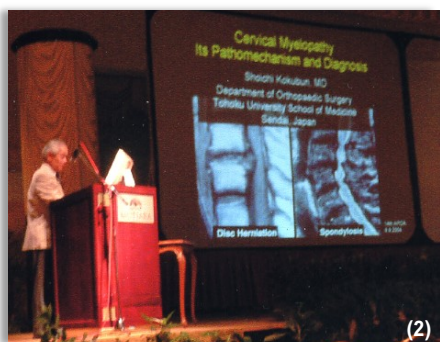
In Developing or Promoting Spine Surgeries:

1. Less Invasive
2. Less Complicated
3. Less Fusion
4. Less Metal Works
5. Less Expensive

In the 1980s, neurological level diagnosis of cervical myelopathy was thought impossible. Dr Kokubun postulated that gray matter signs, i.e., hyporeflexia, muscle weakness and sensory change in the upper extremities would indicate the level of the spinal cord compression. This lateral thinking together with verification of the hypothesis lead him to establishing the diagnostic indices for symptomatic levels in 1984. He proposed a new type of herniation, cartilaginous endplate-type herniation, which is the most common type in the cervical spine. Additionally, he began organising the spine operative course at Nishitaga Hospital, Sendai starting in 1982.

In 1986, Dr Kokubun returned to Tohoku University and formed the Tohoku University Spine Society (TUSS) based on the 5-L philosophy. The philosophy was a fruit of his lateral thinking. The TUSS started building its spine registry covering a population of about 4 million by registering all spine surgeries yearly from 1988. In 2016, they published a quarter-century long data which is the oldest spine registry in the world. The 5-L philosophy resulted in low rates of instrumented surgeries with less than 10% overall and less than 4% for degenerative diseases according to the registry.

In 2006, Dr Kokubun completed his term as Professor & Chairman at Tohoku University and retired. Upon retirement, he returned to Nishitaga Hospital and commenced his clinical study to discover the truth and establish physical examination and treatment of non-specific pain in the locomotive organs. Blessed with successive awareness in the past 15 years, Dr Kokubun discovered Myogelosis - hardening (Hypertonicity) of muscles at rest. The study findings include: (1) The muscle tone at rest is controlled through muscle-muscle and skin-muscle reflexes, (2) Myogelosis, hardening of muscle fibers, causes pain, and (3) Myogelosis can be treated by using the reflexes. With these knowledge, Dr Kokubun wishes to publish a book on pain from muscle.



Dr Kokubun proved through various breakthroughs that lateral thinking triggered by awareness can lead to promising new researches. The research with strategy will subsequently be planned by vertical thinking and conducted persistently. Finally, the research achieves its goal by systematization of its fruits.

He ended his oration with a quote that aptly represents his perseverance through his 50 years of life as a spine surgeon:

All truths are easy to understand once they are discovered; the point is to discover them.

-- Galileo Galilei (1564-1642)



▲ Top to bottom: (1) Dr Kokubun assessing a patient at the first operative course at Nishitaga Hospital in 1982; (2) Dr Kokubun providing a lecture entitled "Cervical Myelopathy: Its Pathomechanism and Diagnosis" at the APOA Congress in 2004; (3 - 5) Featuring Dr Kokubun's comradeship in spine surgery globally; (6) Dr Kokubun proposing a toast during a congress.



Date
10th to 12th
June 2022

**REGISTER
NOW!**



Asia Pacific Spine Society Annual Meeting 2022 *with* Live Operative Course

Venue : Ganga Hospital, Coimbatore, India
Hybrid Meeting



**CALL FOR ABSTRACTS
SUBMISSION PERIOD**
15th January to
15th March, 2022

**EARLY BIRD
REGISTRATION
OPEN**

15th January to
15th April, 2022



Secretariat
Ganga Hospitals
313, Mettupalayam Road, Coimbatore - 641 043, Tamil Nadu, India.
Email: apss2022hybrid@gmail.com

website : <https://apss2022.org/>

APSS DePuy Synthes Fellowship Programme 2021

These fellowships are organised on a yearly basis with the support from DePuy Synthes since 2004. Nine successful applicants were selected for the fellowship, and two APSS members which were selected as the exchange fellows of APSS-SICOT.

Considering the coronavirus (COVID-19) pandemic, the APSS considered the challenges in mandatory quarantine and testing as well as additional duration for visa clearance and approval which may increase the financial stress on fellows. However, the APSS would still want to enable the unique learning experience between the respected senior spine surgeons and junior spine surgeons in the region.

Therefore, the APSS has adapted and custom-designed the format of this year's fellowship programme whereby fellows are granted options to complete their 3-week fellowship attached to APSS spine centre(s) in their home country or to be attend to a 2-month virtual fellowship programme.

Both fellowship programmes were held successfully between 1 November and 25 December 2021. APSS is thankful for the hosts who offered their centres of excellence for spine surgery for the 2021 local fellowships! These programmes would not be possible without the contributions made by DePuy Synthes and APSS Fellowship Sub-Committee.

APSS DePuy Synthes Local Clinical / Travelling Fellowship Programme 2021

Fellow 1: Dr Kazuki Takeda

Fellowship period: November 29 – December 17, 2021



▲ Group photo of Dr Kazuki Takeda (first from the left, seated) together with host, Dr Kuniyoshi Abumi, and fellow colleagues from the Sapporo Orthopaedic Hospital Centre for Spinal Disorders.

Dr Kazuki Takeda was hosted by three local hosts in Japan, namely Dr Kuniyoshi Abumi at Sapporo Orthopaedic Hospital Centre for Spinal Disorders, Dr Shoichi Kokubun at Tohoku University, Sendai, and Dr Yasuhisa Tanaka at Tohoku Central Hospital, Yamagata. A spine surgeon inspired by his mentors - Dr Morio Matsumoto, Dr Masaya Nakamura, and Dr Kota Watanabe in Keio University, Dr Takeda had witnessed several APSS fellows visiting Keio University, and hoped to enhance his clinical knowledge and surgical techniques as well as to establish network with other spine surgeons in the region through his personal participation in the fellowship programme.

During his attachment with Dr Abumi, Dr Takeda had the opportunity to observe Dr Abumi conducting posterior corrective fusion from C2-Th4 in the patient with drop head syndrome and was amazed by his technique of quick cervical pedicle screw insertion and deformity correction. He was also arranged to visit four hospitals in Hokkaido to learn about cervical deformity treatment and learned theoretical concept for scoliosis correction when observing two scoliosis surgeries - neuromuscular scoliosis and AIS – conducted by Dr Manabu Ito and Dr Hideki Sudo at National Hospital Organization Hokkaido Medical Center. Dr Takeda finally learned the usefulness of K-point injection developed by Dr Kokubun for the patients with non-specific neck pain as well as how to exam and diagnose with myogelosis. He also visited two other hospitals in Sendai where he discussed in-depth about spinous process splitting double-door laminoplasty and learned about micro-endoscopic laminectomy (MEL) and lumbar foraminotomy (MELF) conducted by Dr Seiji Yamaya.



▲ Dr Takeda (right) together with host, Dr Shoichi Kokubun.

APSS DePuy Synthes Local Clinical / Travelling Fellowship Programme 2021 (cont.)



He also learned how to diagnose with C4 and C8 radiculopathy caused by cervical disc hernia or foraminal stenosis during his attachment with Dr Tanaka. Additionally, Dr Takeda had the opportunity to participate spine surgeries including XLIF, fenestration, Kurokawa's spinous process splitting double-door laminoplasty and cervical foraminotomy as an assistant. Dr Tanaka also arranged for him to visit Tohoku Central Hospital in Yamagata which recorded approximately 700 spine surgeries yearly.

◀ Dr Kazuki Takeda (right) together with host, Dr Yasuhisa Tanaka.

Fellow 2: Dr Naveen Agarwal

Fellowship period: December 3 – December 24, 2021

Local host & centre: Dr S Rajasekaran at the Ganga Hospital, Coimbatore, India.



Inspired by his mentor, Dr R.P.S Tomar with ACDF technique for spine relief, **Dr Naveen Agarwal** undergone mentorship under Dr Pankaj Kandwal in AIIMS Rishikesh, who later recommended him to complete his fellowship under Dr Arvind Jayaswal at Primus Hospital, New Delhi and subsequently, a 2-year ASSI Spine Fellowship with Dr Saumyajit Basu at Park Clinic, Kolkata.

He came to know about APSS fellowship programme from Dr Arvind Jayaswal and was guided by fellow, Dr Anil Solanki to apply for the programme. He hoped to observe the spine techniques and technologies by other spine centres in the region through this programme.

He has observed and participated in more than 100 spine surgeries, ranging from degenerative spine pathologies to complex deformities to intradural tumours to complex CVJ abnormalities throughout the fellowship.

Dr Agarwal learned the tips and tricks of performing cervical pedicle screw fixation and that 90% of spinal stenosis can do well with micro-decompression alone. It was a new perception to him and will change the way he treats his stenosis patients. Dr Agarwal also had his first-time observation of endoscopic spine surgery and had privilege to Dr Ajoy Shetty's patented surgical techniques. He concluded expressing his gratitude to the host and the centre for the memorable 3-week fellowship.

◀ From top to bottom:

- (1) Fellow, Dr Agarwal presented with a certificate by host, Dr S Rajasekaran upon completion of his fellowship
- (2) Group photo of Dr Agarwal (second from the right) with Dr Ajoy Shetty, and other fellows at Ganga Hospital.
- (3) Fellow was able to attend a hands-on workshop related to microsurgery during the fellowship.



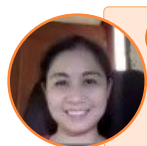
APSS Medtronic Fellowship Programme offers four (4) Awards annually. The application for APSS Medtronic Fellowship 2022 will be opened soon. Watch out for announcement at www.apssonline.org. In the meantime, visit the [APSS website](http://www.apssonline.org) to read the complete fellowship report of the APSS DePuy Synthes Fellowship 2020.

APSS First Online Fellowship: APSS DePuy Synthes Virtual Fellowship Programme 2021

In an innovative attempt to enable exchange of knowledge despite the travel restrictions, the APSS launched its first virtual fellowship programme in November. This fellowship programme comprised of 2-hour interactive virtual sessions with mentors which encompassed review of current trends and literature on surgical technique, clinical assessment of patients, radiological assessments and pre-operative planning, surgical instruction with edited pre-recorded videos and interactive discussion on surgical technique.

Besides awarding to existing fellows who had received the awards in 2020, 19 additional slots were also opened for recommendation of fellow from each APSS chapter. The total number of participants for this innovative virtual online spine fellowship was 28 fellows.

The fellowship had an intense schedule with three sessions weekly on every other day, except Sunday. Fellows were also encouraged to present their cases to seek inputs from mentor and fellows as well as to exchange unique cases for references. The fellows benefited tremendously from these programmes and the scientific meeting. Some of the positive feedbacks received from the fellows are featured below:



“The mentors were really impressive, and animated, showing their enthusiasm in imparting their knowledge.”

Fellow: Dr Anne Kathleen B. Ganai-Antonio (Philippines)



“The most successful session was to encourage fellows to share their case for discussion among mentor and fellows.”

Fellow: Dr Chunguang Duan (China)



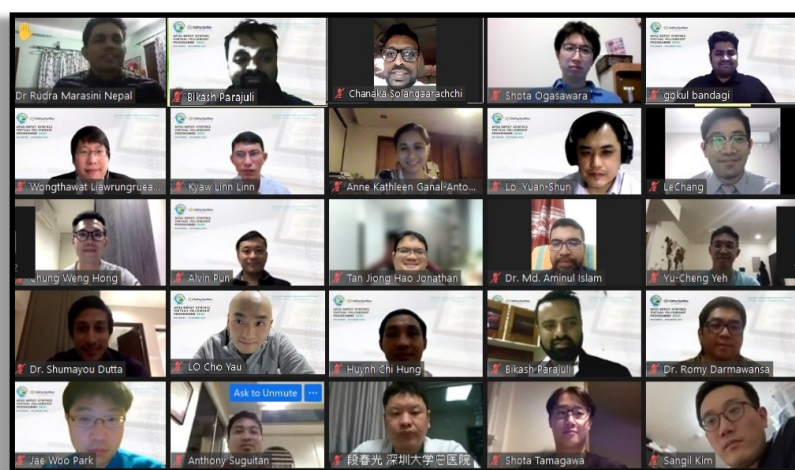
“It was a nice experience interacting with all mentors. All doubts as well as concepts were cleared. The surgical videos helped very much!”

Fellow: Dr Gokul Bandagi (India)



“It was very informative to receive lectures on various topics from mentors from different regions.”

Fellow: Dr Shota Tamagawa (Japan)



▲ A collage of fellows during one of the interactive session with mentor,

We would like to extend our utmost gratitude to the 22 mentors for contributing their time and knowledge to make this virtual fellowship a grand success. Most importantly, this fellowship programme would not be possible without the contributions made by DePuy Synthes and APSS Fellowship Sub-Committee.

Advancing the Knowledge of Spine Surgery in Asia Pacific Region
Building Bridges, Learning Together

DePuy Synthes
PART OF THE Johnson & Johnson FAMILY OF COMPANIES

APSS DEPUY SYNTHES VIRTUAL FELLOWSHIP PROGRAMME 2021

22 Mentors | 22 Sessions | 28 APSS Fellows

Clinical assessment of patients | Radiological assessments and pre-operative planning |
Surgical instruction with edited pre-recorded videos | Interactive discussion on surgical technique |
Review of current trends and literature on the surgical technique

November – December 2021
Enquiries: spineapssonline.org | Website: www.apssonline.org



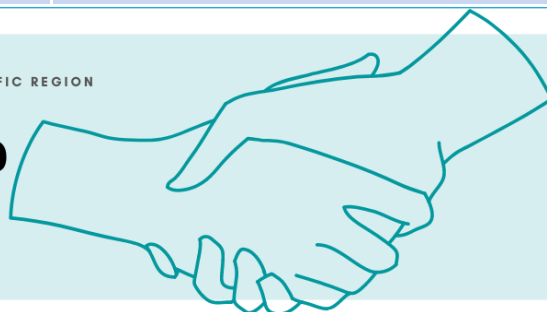
2022 - 2023 Diary of Events

Activity	Date	Venue
APSS Medtronic Fellowship 2019/2020	Jan 2022 – July 2022	<p>Dr Gabriel Liu National University of Singapore, Singapore</p> <p>Dr Guixing Qiu Peking Union Medical College Hospital, Beijing, China</p> <p>Dr Kuniyoshi Abumi Sapporo Orthopaedic Hospital - Center for Spinal Disorders, Japan</p> <p>Dr Zhuojing Luo Xi-Jing Hospital of the Fourth Military Medical University, China</p> <p>Dr Chong-Suh Lee Samsung Medical Centre, Korea</p> <p>Dr Mun Keong Kwan University Malaya Medical Centre, Malaysia</p> <p>Dr Chung Chek Wong Sarawak General Hospital, Malaysia</p>
APSS – Medtronic Webinar #1: Adolescent Idiopathic Scoliosis (Part 1)	20 Feb 2022	Live streaming on OrthoTV
APSS – Medtronic Webinar #2: Adolescent Idiopathic Scoliosis (Part 2)	15 May 2022	Live streaming on OrthoTV
APSS Annual Meeting 2022 with Live Operative Course	10 Jun – 12 Jun 2022	Ganga Hospital, Coimbatore, India
APSS – Medtronic Webinar #3	Aug 2022	Live streaming on OrthoTV
APSS – Medtronic Webinar #4	Nov 2022	Live streaming on OrthoTV
APSS Virtual Live Operative Course	Dec 2022	Online conference
APSS Ganga Hospital Fellowship 2022	Oct – Dec 2022	Spine Surgery Unit of Ganga Hospital, Coimbatore, India
APSS DePuy Synthes Clinical & Travelling Fellowship 2022	Jul – Dec 2022	Spine Centres of Excellence in Asia Pacific
APSS Medtronic Fellowship 2022	Jul 2022 – Dec 2023	Spine Centres of Excellence in Asia Pacific
SpineWeek 2023	1 May – 5 May 2023	Melbourne Convention and Exhibition Centre (MCEC), Melbourne, Australia



ADVANCING THE KNOWLEDGE OF SPINE SURGERY IN THE ASIA PACIFIC REGION

APSS LIFE MEMBERSHIP CAMPAIGN: 1 JANUARY - 31 MAY 2022



Asia Pacific Spine Society

The APSS started with the Western Pacific Orthopaedic Association - Spine Section in 1979 as an educational and scientific forum for the advancement of knowledge in the field of spine surgery.

Our mission is to advance knowledge in the field of spine surgery and promulgate the maintenance of professional standards in order to provide the best professional care to patients with spinal problems.

APSS News

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