

# 2012 American Orthopaedic Association- Association of South East Asian Nations (ASEAN) Orthopaedic Association Travelling Fellowship

## **ASEAN Fellows:**

### Dr Lau Leok Lim (Author)

Associate Consultant in Spine Service  
National University Health System  
Singapore

Presentation: 'Shoulder Balance in Adolescent Idiopathic Scoliosis' and 'Outcome of Severe Lower Extremity Injuries –An Asian Perspective'

### Dr Paul Cesar N. San Pedro ('Paul')

Consultant in Adult Reconstruction  
Phillipine Orthopaedic Center  
Philippines

Presentation: 'Neglected Hip fracture'

### Dr Piya Kiatisevi ('Piya')

Consultant in Musculoskeletal Oncology  
Lerdsin General Hospital  
Thailand

Presentation: 'Functional Outcome and Complications Following Periacetabular Reconstruction for Metastatic Disease' and 'Diagnostic Accuracy of CT-Guided Core Needle Biopsy in Musculoskeletal Lesions Compared to Incisional Biopsy'

### Dr Ferdiansyah Mahyudin ('Ferdy')

Consultant in Musculoskeletal Oncology  
Dr. Soetomo General Hospital  
Surabaya  
Indonesia

Presentation: 'Experience of Large Bone Defect Reconstructions Using Allograft'

### Dr Yeap Ewe Juan ('EJ')

Consultant in Foot and Ankle Surgery  
Tuanku Fauziah Hospital  
Kangar, Perlis  
Malaysia

Presentation: 'Endoscopic Gastrocnemius Recession' and 'Minimally Invasive Treatment of Calcaneal Fractures'

## **Brief History**

The ASEAN Orthopaedic Association was set up in 1981 to help foster closer ties among orthopaedic surgeons in the region. Chief among its programs include various travelling fellowships. The American Orthopaedic Association travelling fellowship is awarded biennially to a fellow from each of the member countries to visit orthopaedic centres of excellence in the United States of America. Typically, the visit covers the Eastern, Central or Western part of the USA. The duration of the stay is about 3 weeks. The last leg of the fellowship is the annual meeting of the American Orthopaedic Association.

## **Prelude**

I was extremely thrilled to be awarded the travelling fellowship representing Singapore. It was also around this time that I celebrated the arrival of my first-born Rachel into my family. With a heavy heart, I was about to give up the award, fearing post-partum blues, that my wife may experience from new responsibilities. A lot of planning went into getting help from my in-laws, an experienced confinement lady and a helper. With the blessing of my wife, this trip became possible.

Several weeks prior to the departure, each elected fellow received multitude of e-mails from the coordinators of various hospitals in the USA. Most of the documents were related to confidentiality of patient information; others went into criminal records et cetera. One of the centres required us to have Mantoux test and chest x-rays done.

Aside from the legal formalities, the fellows got in touch with each other to organise a gift list. We had acrylic plaques custom-made here in Singapore for each of the centre we plan to visit on the itinerary.

## **Seattle, Washington June 10-14, 2012**

We arrived in Seattle separately at different times and checked into The Inn at Virginia Mason which was pre-booked by our local host. After getting over the jet-lag, all the fellows met for a get-to-know each other dinner at Vivo – a local pub-restaurant.

### **Harborview Medical Center**

The next day, Dr Jens Chapman, Hansjoerg Wyss Professor and Chair of the Department of Orthopedics and Sports Medicine, Harbourview Medical Center met up with us. He was a robustly built American spine surgeon of German heritage. He walked us to the famous trauma centre which was 10 minutes away. We were introduced to his department. The morning presentation started at 7am, much like our teaching sessions. 4 of us presented our work that morning. Ferdy (our Indonesian fellow) had a finger cut injury from cutting a bagel and experienced first-hand health service there by a local hand surgeon Dr Douglas Hanel.

The rest of the morning and afternoon were spent in the operating rooms. The set-up of the operating rooms was reminiscent of a typical operating room in Singapore. Time-out was strictly enforced. In addition, the names of visitors were taken down too. I observed a revision cervical spine

surgery in a patient with rheumatoid arthritis. I managed to visit other operating rooms to see Dr “Chip” Routt in action with a minimal invasive intramedullary fixation of an anterior pelvic fracture without navigation (accordingly to him, the brain is the best navigator) and Dr Stephen Benirschke in managing a comminuted calcaneum fracture in a soldier resulted from an IED (improvised explosive device) while he was in Afghanistan. I saw innumerable fine K-wires that he used to piece the calcaneum painstakingly together. He closed the wound personally and applied a VAC dressing despite the presence of the fellows and residents. The evening time was spent at the trauma round. Some of the interesting cases were highlighted to us including a lady who fell from a horse with anterior shoulder dislocation that impinged and incarcerated in the thoracic cavity with three ribs fracture.

Light refreshment was served at the end of the evening. Dr Ted Wagner who spent considerable time volunteering in Indonesia came to join us. We presented our token of appreciation to our hosts. I was truly impressed with the

cases managed here and would recommend this place highly to anyone with an interest in trauma fellowship.



ASEAN fellows with faculty of Harborview Medical Center. From left Dr Lisa Taitsman, Dr Stephen Benirschke, Dr Robert Dunbar, Dr Ted Wagner, Dr Jens Chapman and Dr Douglas Hanel.

### **Seattle Children’s Hospital**

The Seattle Children’s Hospital was our next destination. We were at the hospital at 6am on Tuesday. This is one of the largest children hospitals in the USA. It served a population of 4 million but over an area one third the size of the USA. It proved logistically-challenging to bring a child from an area such as Alaska for acute management let alone chronic management. As a result, they had several out-posts in the region. It was no surprise that nurses and specialists were sent to these out-posts regularly. The hospital was very much children-centric and family friendly. Security was tight with every visitor given an instant photo-pass to get around the hospital. We were greeted by our gracious host musculoskeletal oncology surgeon Dr Ernest ‘Chappie’ Conrad – a disciple of Dr Enneking. I was introduced to Dr Wally Kregel – a paediatric spine surgeon at this hospital. We shared common professional interest and had a great discussion on patient care. They had the ideal patient-doctor environment – a central office where the team worked. The team consisted of 1 to 2 residents, 2 experienced advanced nurse practitioners and a consultant. There were many rooms around this central office including a satellite radiology room. The number of patients seen was much fewer than what we normally would see. However, most of the patients were either too sub-specialised to be managed by a general practitioner or were surgical-candidates. Lunch was spent

with Dr Carol Moverly and Dr Mark Dale, both general paediatric orthopaedists. We spent the evening joining the journal club in the house of Dr Dale, a beautiful crib that overlooked a lake.

Wednesday morning started at 7am with us giving our presentations. I presented my work on scoliosis. Pre-operative cases including derotation of femoral anterversion, excision of tarsal coalition and a large lumbar scoliosis correction in a Marfanoid patient were discussed. The presence of Dr Michael Goldberg whose primary interest was skeletal dysplasia gave a wonderful insight into some of the cases. The latter part of the morning was spent in the operating room with Dr Krenal. He performed growing rods in a patient with juvenile scoliosis.

The night ended with a farewell dinner at Ivor Restaurant with Dr Conrad and his team where we had the best grilled king salmon and clam chowder ever. The restaurant overlooked Union Lake near the lake house where 'Sleepless in Seattle' was filmed. Dr Conrad gave me a signed copy of "Practice of Pediatric Orthopaedics", a popular textbook edited by Dr Lynn T. Staheli, the emeritus professor and famous educationalist from this hospital. The warm and personal touch accorded to us in this hospital was unparalleled.



ASEAN fellows with Dr Conrad (tallest man) and his team in front of Ivor Restaurant. Far left Dr Cordelia Carter, Dr Suzanna Steinman and Dr Gregory Schmale.

### Seattle City

Seattle City is famous particularly for its rainy weather. Amazon, Microsoft and Boeing are based here. Grey's Anatomy's fictitious Seattle Grace Hospital is here too. We spent the morning sitting on an amphibious duck tour, enjoying the breeze coming our way. The later part of the day was spent strolling along Farmers Market opposite the very first Starbucks cafe which is currently still in operation. Large Alaskan Crabs were a common sight. The trip to



Asean fellows posing with an amphibious duck tour bus that can transform into a boat. From left EJ, author, Ferdy, Piya and Paul.

Seattle concluded with an evening flight to San Francisco.

## California, June 15-21 2012

### University of California San Francisco General Hospital and affiliated Trauma Institute

Dr Theodore Miclau was our host here. He turned up in a huge General Motor van at the front of the hotel at 6.00am. The van was bequeathed by his late father fitted all of us in with plenty of leg room. We passed by San Francisco Convention Centre, the venue that Apple used to launch its new products. We were introduced to Dr Miclau's department briefly and it was followed by a trauma round, much like our



Dr Miclau and his GMC van (left). Asean fellows posed with Dr Miclau at the façade of the Orthopaedic Trauma Institute.

Tuesday trauma round. The trauma institute sat next to the UCSF General Hospital in a Victorian building. It was re-furnished almost single handedly by Dr Miclau over the years after he took over an almost deserted department years ago. He managed to build the department with its research division, surgical lab and epidemiological unit compacted into a 2-storey building. This was hard to imagine after seeing the glittery side of the more affluent business district. In the afternoon, we were brought to the UCSF General Hospital which was located next to a construction site –where they were building a brand new general hospital. I could understand the need for a new hospital the moment I walked into the building. The Emergency Room was crowded and the clinics were old. Despite the adversity, UCSF did very well in their research. I was told to attend an informal resident teaching given by a Dr Jim Johnston only to find out later from my oncology colleague that he was the Dr Jim Johnston – the inventor of the CPS megaprosthesis. The prosthesis had been cleverly designed to encourage bone-metal implant integration.

### San Francisco

San Francisco was absolutely stunning. It was hilly with houses built along slopes. We had a car tour of the city by Dr Miclau. We were brought to the Golden Gate Park and Twin peak – the highest natural point of the city. We could look far across the Golden Gate Bridge from one end and the city at the other. We were hosted at Another Monkey – a Thai restaurant. Piya – our Thai fellow was pleasantly surprised by the authenticity of the food served.

Saturday morning was spent with Dr Saam Moshed, an orthopaedic surgeon with epidemiological background on a walking tour of the city that cut across the China town. This was completed with the famous San Francisco tram ride. We retired early to bed after some shopping.

### **Stanford University Medical Center**

I was looking forward to visit Stanford University – an Ivy League university that contributed tremendously to information technology. Yahoo, Hewlett & Packard, to name a few originated from this place. Our arrival did not go unnoticed! We were each given an information pack about Stanford University Medical Center when we checked into the Stanford Terrace Inn. Room rate was double the usual as this was the time of convocation and the Inn was full house. Temperatures here were akin to that in Singapore minus the humidity. Dinner was spent in a Croatian restaurant with our hosts Professor Stuart Goodman, Professor Christopher Mow and Professor Robert Lane Smith. We had fine wine from Napa valley, a local produce courtesy of Professor Smith.

Early next morning, we were brought in to their round which was conducted in the Radiology department. The residents concluded their presentations with interesting cases including a case of charcot spine and a failed vascularised bone graft in a patient with avascular necrosis of the hip. An interesting case of MHE (multiple hereditary exotoses) caught my attention and I shared our experience of malignant transformation in our series. Later on, I was brought to Lucile Packard's Children's Hospital, the affiliated children hospital to meet Prof Lawrence Rinsky. I was attached to him for the rest of my stay here. I observed a case of excision of exostosis of the distal femur and another case of posterior spinal instrumentation and fusion for thoracolumbar kyphoscoliosis in a patient with Jeanu Syndrome. Luncheon research discussion was conducted at a faculty club. Dinner was spent with other senior faculty members of the department including Professor William Maloney – the Chairman and Professor, Dr Eugene Carragee – an outspoken leading figure in spine despite his quiet demeanour, at a Californian restaurant.

The next day was spent in the outpatient department with Professor Rinsky. He was a disciple of Professor Luque – the inventor of Luque wiring that was commonly used in neuromuscular scoliosis. The arrangement in the outpatient rivalled that of the Seattle Children's hospital. I managed to see a range of paediatric cases with Professor Rinsky including both spine and non-spine cases. We discussed the management of myelomeningocele, aneurysmal bone cyst of spinal process of cervical spine and torticollis with C2 pathological fracture. Quite a sizable number of patients were Spanish-speaking and Professor Rinsky was well-versed in the language. He was professional and yet grandfatherly in his dealing with the patients and families. I was immensely impressed with his mannerisms. We spent the late evening in an arthritis round and thereafter listened to a talk given by Dr Raffi Avedian – a young faculty in musculoskeletal oncology. Again Dr Jim Johnston was quoted. Dinner was spent at a Taipan Chinese restaurant with junior faculty members including Dr Avedian, Dr Ivan Cheng, Dr James Huddleston and Dr



Asean fellows with Dr Mow (left), Dr Avedian, Prof Maloney (in red tie) and Prof Smith (right) at Standord University Medical Center.

Julius Bishop. The latter was my age. He was board eligible and was still in the midst of board preparation – I wished him luck.

Wednesday was the last day of our stay in Stanford. The Grand round started at 6am. This was followed by our presentations to the department. Professor Smith – an orthopaedic research professor often seen in Polo Tee turned up in suit and tie. After the grand round, we thanked our hosts especially Professor Maloney and presented him a plaque as a token of appreciation. We then bade our hosts farewell. At this juncture, we realised that it was time for Fredy to remove his suture. Dr Mow kindly helped us out with this. Academic Medical Centres such as this are usually well-endowed with resources. As they are very accustomed to visitation from travelling fellows, the programme for this tour was very systematically planned. We were grateful for the hospitality we received here.

### **Fresno, University of California Residency Program**

Fresno, a place that I did not know existed was a short turbojet away from the San Francisco Airport. Our stay here lasted less than 24 hours. When the previous hosts asked us our itinerary, one of the typical comments was “What, Fresno?” Fresno is situated at the centre of California, dividing the state into Northern and Southern California. We were visiting the Community Regional Medical Center, which was part of UCSF Fresno Residency Program. Our guide was Dr Daniel R Baxter. Dr Baxter is very familiar with South East Asia. His wife hailed from the Philippines; in fact she worked in Paul’s hospital prior to emigrating to the USA. They often spent their summer vacation in countries in South East Asia including Singapore. ‘The highest peak in Singapore is Timah Hill!’ That was what he told me.

This community hospital is both a Level I trauma centre and Level III (highest) neonatal intensive care unit. The residents here enjoy free flow of Starbucks coffee from the coffee machine in their resting lounge. I was utterly impressed with the welfare they had. We wore shorts and Tee shirts as instructed by Dr Baxter to the hospital. The rest of the department except Dr Baxter turned up in long sleeved shirts. We were clearly underdressed but it was rather thoughtful of our host as we were heading to Yosemite National Park after the hospital tour and grand round. A case of disseminated spine infection resulting from coccidioidomycosis was presented at the round. The patient’s presenting symptoms were similar to what we would expect in spinal tuberculosis; only that the prevalence of this particular fungal infection is very high in this region. This was followed by presentations from EJ and Paul.

Much of the rest of the day was



ASEAN fellows with Dr Baxter (left) and Mrs Baxter (right) in front of a giant Sequoias tree at Yosemite National Park.

spent in Yosemite National Park. We had a short walking trip around the park where big Sequoias trees were everywhere. The trunk of the biggest Sequoias could only be encircled by at least 10 adults. In the afternoon we had picnic by the riverbank. Across the river, we could see people mountain climbing. It was all too soon before we had to return back to the city and airport for our subsequent journey.

## **Tuscon, Arizona June 22- 27 2012**

### **Tuscon City**

Tuscon is a city bordering Mexico and marked the southern point of our visit at the west coast. The prick of the 40°C heat could be felt the moment we landed. We were welcomed by both Dr Lawrence Housman from the Tuscon Orthopaedic Institute and Professor John Ruth from the University of Arizona Medical Center. Stepping outside the airport we were greeted by the sight of cactuses. They were everywhere and humongous compared to the ones we see at the nursery here in the tropics.

We spent the weekend at human Biosphere 2. It started out as an experiment of self-sufficient living environment in the middle of the dessert. Water and electricity management expertise was an art and science in that kind of environment. The Biosphere proved cooling in contrast to the heat outside.

Dr William Grana, a 2009 inductee to the Sports Medicine Hall of Fame by American Orthopaedic Society for Sports Medicine (AOSSM) (God father of 2012 AOSSM Travelling Fellows) and Dr Jordan Smith (2012 Japanese Orthopaedic Association – American Orthopaedic Association travelling fellow) brought us to the Arizona-Sonora Desert Museum the next day. Museum was really a misnomer. The specimens were life exhibits showing various types of cactuses including giant cactus called saguaro and local fauna including Desert Bighorn, hummingbirds, Helenena (wild boar like but belongs to the dog family) and Heela monster. We had dinner at Dr Grana's private residence. It was a lovely home that allowed us to mingle with staff from the University of Arizona Medical Center. Apparently, Dr Ghana and his family were out of town frequently to visit their grandchildren. He allowed residents and fellows to hold private parties in his home!

### **Tuscon Orthopaedic Institute (TOI)**

Tuscon Orthopaedic Institute is a privately run hospital. They have over thirty orthopaedic surgeons. Our host Dr Housman, a Canadian who moved here a number of years ago is an adult reconstructive surgeon. I spent half a day in his operating



ASEAN fellows with the CEO of Tuscon Orthopaedic Institute, Mr Greg Waters (left) and Dr Housman (right) with souvenirs of University of Arizona Baseball championship T-shirts.

room. In the later half, I joined Dr Stephen Curtin, an Irish American Spine Surgeon who was immensely hospitable. During the rest of my stay with him, I saw a number of revision spine cases, mostly due to adjacent segment degeneration. I also find time to join Dr Kent Vincent, an Iowa trained Paediatric Orthopaedic Surgeon. I observed a case of excision of hemivertebra in a 2 year-old girl of Mexican origin. The last day was spent briefly with Dr Nebojsa Skrepnik. He was a commercial research investigator for the hospital. It opened my eyes to the commercial research world in a privately run setting. We thanked Dr Housman prior to our departure.

### **University of Arizona Medical Center (UAMC)**

Professor Ruth was our host here. We were picked up in various vans owned by UAMC throughout our stay here. They had organised a cadaveric course for total ankle replacement for us, moderated by Dr Leonard Daniel Latt. We also made a brief visit to their research laboratory, of whom Dr John A Szivek was the director. They were very much into cartilage research and scaffold manufacturing. We presented our work in their evening teaching round. We then bade farewell to the department and presented Professor Ruth with our token of appreciation.



Top picture: ASEAN fellows with Prof John Ruth (left), Dr Jordan Smith (lab coat) and Dr Jason Wild (right).

Bottom left: ASEAN fellows at cadaveric lab implanting STAR total ankle replacement. Bottom right picture showed the Image Intensifier photo of the ankle after the procedure.

## Washington DC June 28-30

Our last stop was Washington DC, the city where the American Orthopaedic Association's 125<sup>th</sup> annual meeting was held. This year, it was held at the swanky Gaylord National Resort and Convention Center which sat next to a berth. The theme for this year was Creative Leadership. It probably struck a chord with the ground as America was experiencing a healthcare reform. We could feel the heat of the political debate in healthcare at the National Mall where protesters assembled as the Congress was voting on Obama-care, which essentially aimed to provide more health coverage for the uninsured at the perceived expense of the middle and upper classes.

The 2012 Distinguished Contribution to Orthopaedic Award went to Professor Stuart Weinstein who was our SOA (Singapore Orthopaedic Association) lecturer not too many years ago. The Howard Steel lecturer was Lieutenant General Charles Bruce Green. Dr Green had family medicine background and had under him the management of more than 40,000 servicemen and women. He detailed the logistical transformation at the front of battle line to allow evacuation of severely injured service personnel within 72 hours to a military hospital in the USA – a feat given that it was akin to flying an ICU (intensive care unit) as and when needed. This explained my encounter with the serviceman injured by the IED while at Harborview Medical Center.

It was at this meeting all the travelling fellowship concluded including the British Orthopaedic Association and the American Orthopaedic Association travelling fellowship. A special reception was held for the travelling fellows and its previous alumni. We had the honour to meet up with Professor Lawrence Marsh – the faculty in-charge of the travelling fellowships and the President of American Orthopaedic Association Dr Douglas R Dirschl. We took the opportunity to thank them personally for the arrangement of this travelling fellowship.



ASEAN fellows with Dr Douglas Dirschl, the president of the American Orthopaedic Association.

## **Washington DC**

Washington DC is the political centre of the USA. The White house and the Congress are situated here at Capitol Hill. It was a fantastic place for cultural lovers. It was at the Natural History Museum that I learned about Lucy – a species of an extinct human that had both apelike and humanlike features. The temperment weather here was a contrast to the temperature we experienced in Arizona.

## **Postlude**

I benefitted tremendously from this travelling fellowship despite the fact that I needed to play catch up in my paternal bonding with Rachel. It opened my eyes to the practise of orthopaedics in a vast country like the USA. It never ceases to amaze me at how consistent good medical care was delivered across the west coast and how receptive our hosts were to our visit. I had since met a couple of friends made during this fellowship in other international meetings. This attests to the fact that the world is becoming a global village. To reciprocate the hospitality that I received, I co-ordinated and hosted several fellows from Japan and the ASEAN region in Singapore. This is the least I can do to thank the people who had first extended me their hospitality. I would strongly recommend that Singapore Orthopaedic Association continue to support fellowship like this in future.

## **Acknowledgement**

I would like to thank Professor HK Wong, A/Prof J Thambiah (Immediate Past President of SOA), A/Prof Wilson Wang (President of SOA) and SOA Secretariat Assistant Michelle and above all my family for making this trip possible. I would also like to thank the rest of the ASEAN fellows for their friendship and support during this fellowship.