0700 – 0800  **MEET-THE-EXPERTS**  Case Discussion  
**Moderators:** Fazir Mohamad, Kwan Mun Keong  
**Expert Panels:** S Rajasekaran, Shoichi Kokubun, Hiroyuki Nakase, Jose Manuel F Ignacio

0800 – 0900  **SYMPOSIUM 1**  
**Recent Advances in Spine Surgery**  
**Moderators:** Chiu Chee Kidd, Abdul Hadi Husin  
Diffusion Tensor Imaging of the spinal cord and its clinical applications  
S Rajasekaran  
Neurormonitoring in spine surgery: Stepwise management of lost signal  
Ashok Kumar Jaryal  
Magnetically Controlled Growth Rods: Is it the final answer in Early Onset Scoliosis?  
Wong Yat Wa  
Acute Spinal Cord Injury – Evidence-based practice
Jose Manuel F Ignacio

0900 – 0930  **PLENARY**  
**Moderator:** K S Sivananthan  
Navigation in spine surgery: Fact or fiction?  
S Rajasekaran

0930 – 1000  **OPENING CEREMONY**

1000 – 1030  **COFFEE / TEA**

1030 – 1130  **BEST RESEARCH AWARD (ORAL PRESENTATION)**  
**Moderators:** Mohd Imran Yusof, James Tan  
The presence of tear drop psoas morphology predisposes patients for post-operative psoas muscle weakness and pain during Oblique Lateral Lumbar Interbody Fusion (OLIF)  
Mohd Hisam Muhamad Ariffin  
The morphometric study of L2-S1 lumbar spine using magnetic resonance imaging: Feasibility anatomy analysis for Oblique Lumbar Interbody Fusion (OLIF) approach in Malay Malaysian population  
Azizul Akram Salim  
Upper Instrumented Vertebrae (UIV) tilt angle is an important post-operative radiological parameter that correlates with post-operative neck and medial shoulder imbalance
Ler Xin Yi
Predictive factors for post-operative medial and lateral shoulder imbalance following Posterior Spinal Fusion (PSF) in Lenke 1 and 2 Adolescent Idiopathic Scoliosis (AIS) patients [pg 77]

Goh Saw Huan

The conformity of radiological shoulder balance parameters in Adolescent Idiopathic Scoliosis (AIS) patients after corrective surgery [pg 78]

Tan Pheng Hian

Accuracy, safety and diagnostic outcome of percutaneous fluoroscopic vs CT-guided transpedicular core needle biopsy for spinal infections and tumors – A prospective randomised trial [pg 79]

Lee She Ann

1130 – 1230  EXPERT FORUM 1

Adult Spinal Deformity

Moderators : Abdul Hadi Husin, Jayamalar Thurairajasingam

Case presentation – Severe kyphoscoliosis with underlying neurofibromatosis [pg 29]

Brian Teo

Risk management in Adult Deformity Surgery [pg 30]

Mohd Hisam Muhamad Ariffin

Planning correction in patients with sagittal imbalance : Do we have the answer? [pg 31]

Sabarul Afian Mokhtar

Reducing the risk and complications in spinal osteotomies for sagittal imbalance

Chung Jae-Yoon

Minimally Invasive Spine Surgery in Adult Spinal Deformity : What are the limits?

Gabriel Liu

Case presentation : What was done

Brian Teo

1230 – 1300  LUNCH SATELLITE SYMPOSIUM (Sutra Medi-Environ)

Moderator : Khoo Eng Hooi

Percutaneous Stenoscopic Lumbar Decompression (PSLD) [pg 32]

Lim Kang-Tack

1300 – 1430  FRIDAY PRAYERS
1430 – 1530  
**EXPERT FORUM 2**  
Cervical Spine  
*Moderators*: Mohamad Fauzlie Yusof, Lee Chee Kean  
*Case presentation – Atlanto-dental osteoarthritis with spinal canal stenosis and cervical myelopathy at C1/C2 level* [pg 33-34]  
Thuraikumar Kanniah  
The never-ending debate in Cervical Spondylotic Myelopathy (CSM): Should I approach from the front or back? [pg 35]  
Zamzuri Zakaria  
*Surgical treatment of Cervical Sagittal Malalignment* [pg 36]  
Suk Kyung-Soo  
Patients with high grade cord compression with Myelopathy: How do we reduce the risk of post-operative neurological worsening? [pg 37]  
Kuniyoshi Abumi  
Silent Cervical Spondylotic Myelopathy with significant cord compression: The role of conservative treatment [pg 38]  
Mohamad Zaki Haji Mohd Amin  
*Case presentation: What was done*  
Thuraikumar Kanniah

1530 – 1630  
**SURGICAL TECHNIQUE VIDEO PRESENTATION**  
*Moderators*: Abd Shukor Mohd Hashim, Sureisen Mariapan  
*Pedicle Subtraction Osteotomy for Ankylosing Spondylitis*  
Wong Chung Chek  
*Oblique Lumbar Interbody Fusion* [pg 39]  
Mohd Hisam Muhamad Ariffin  
*Total En Bloc Resection of Uncinate for Cervical Spondylotic Radiculopathy* [pg 40]  
Suk Kyung-Soo  
*Reduction Technique for High Grade Spondylolisthesis*  
Chung Jae-Yoon  
*Neurosurgical Virtual Reality Simulation in Cranio-vertebral junction lesions* [pg 41]  
Hiroyuki Nakase

1630 – 1700  
**COFFEE / TEA**

1700 – 1800  
**MSS 11TH ANNUAL GENERAL MEETING** (MSS Members only)
0700 – 0800  **MEET-THE-EXPERTS (ELI LILLY) Case Discussion**  
*Moderators*: Abdul Malik Mohamed Hussein, Chris Chan Yin Wei  
*Expert Panels*: Kuniyoshi Abumi, Suk Kyung-Soo, Chung Jae-Yoon, Wong Yat Wa, Gabriel Liu

0800 – 0900  **SYMPOSIUM 2**  
*Complications of Spine Surgery*  
*Moderators*: Brian Teo, James Tan  
- Massive intra-operative blood loss: Risk factors, prevention and management [pg 42]  
  Saw Lim Beng  
- Surgical site infection following spine surgery – What do we do when dealing with surgical site infection? [pg 43]  
  Brian Teo  
- Avoiding pedicle screw malposition in spine surgery [pg 44]  
  Luthfi Gatam  
- Epidural Haematoma in spine surgery – Detection and management [pg 45]  
  Jose Manuel F Ignacio

0900 – 1000  **FREE PAPERS PRESENTATION 1** [pg 80 – 87]  
*Moderators*: Mohamad Zaki Haji Mohd Amin, Ed Simor Khan Mor Japar Khan  
- Cervical spondylotic radiculopathy – The role of conservative management [pg 81]  
  See Lei Peng  
- Does transverse diameter of the cervical spinal canal play a role on CSM development? [pg 82]  
  Murat Sayin  
- Complications associated with Oblique Lateral Interbody Fusion L5/S1 performed without an access surgeon [pg 83]  
  Mohd Hisam Muhamad Ariffin  
- Surgical outcome of percutaneous stenoscopic lumbar decompression [pg 84]  
  Ozlan Izma Muhamed Kamil  
- Intra-operative nerve monitoring in treating spine tumors [pg 85]  
  Nishanthi Apparow  
- 2-year radiological outcome study of Adolescent Idiopathic Lumbar Scoliosis treated with short segment anterior fusion [pg 86]  
  Nur Aida Faruk Senan  
- Perioperative outcome of severe Adolescent Idiopathic Scoliosis (AIS) (Cobb angle > 90°) utilising a dual attending surgeon strategy [pg 87]  
  Chian Xue Han

1000 – 1030  **COFFEE / TEA**
1030 – 1130  **EXPERT FORUM 3**

Adolescent Idiopathic Scoliosis

**Moderators:** Abdul Malik Mohamed Hussein, Nor Azlin Zainal Abidin

Case presentation – Presumed Adolescent Idiopathic Scoliosis with Large Extradural Spinal Arachnoid Cyst with Absent Channel Pedicles undergoing surgery – A rare case report and experience [pg 46-47]

Lim Sze Wei

Adding on phenomenon in AIS: Can we prevent it?

Gabriel Liu

Decision-making for selective thoracic fusion in Lenke 1C and 3C curves [pg 48]

Wong Yat Wa

Approach to patients with Severe Idiopathic Scoliosis [pg 49]

Luthfi Gatam

Prevention of shoulder imbalance in Adolescent Idiopathic Scoliosis [pg 50]

Fazir Mohamad

Case presentation: What was done

Lim Sze Wei

1130 - 1230  **EXPERT FORUM 4**

Lumbar Degenerative Disease

**Moderators:** Lau Choon Ping, Dzulkarnain Amir

Case presentation [pg 51]

Amir Fariz Zakaria

Cauda Equina syndrome from lumbar disc herniation: Does surgical timing matter? [pg 52]

Warat Tassanawipas

The role of conservative treatment in acute lumbar disc herniation [pg 53]

K S Sivananthan

Central lumbar disc herniation: Decompression alone versus fusion

Azmi Baharudin

Minimally invasive approach to lumbar disc herniation: Is there an advantage?

Nor Azlin Zainal Abidin

Case presentation: What was done

Amir Fariz Zakaria
1230 – 1330  
**FREE PAPERS PRESENTATION 2**  [pg 89 – 98]  
*Moderators*: Abdul Malik Mohamed Hussein, Amir Fariz Zakaria

**Defining two subtypes of Lenke 1 curve**: An analysis of pre-operative shoulder balance and post-operative outcome following Posterior Spinal Fusion (PSF) in Adolescent Idiopathic Scoliosis (AIS) patients  [pg 91]  
Ng Yun Hui

*How common is pre-operative medial and lateral shoulder discordance in Lenke 1 and 2 curves? An analysis of shoulder balance among 151 AIS patients*  [pg 92]  
Sherwin Johan Ng

**Does medial and lateral shoulder discordance affect post-operative shoulder balance following posterior spinal fusion?**  [pg 93]  
Nur Sulwana Mohamad Hanapi

**Does the severity of the curve (Lenke 1 & 2) affect the distance of the aorta to the vertebra?**  [pg 94]  
Siti Mariam Mohamad

**The comparison between cervical supine side bending versus cervical supine traction radiographs in predicting proximal thoracic flexibility for Lenke 1 and 2 Adolescent Idiopathic Scoliosis**  [pg 95]  
Josephine Rebecca Chandren

**Minimally invasive fracture reduction using monoaxial percutaneous pedicle screws in thoracolumbar burst fracture**: Surgical technique and preliminary report of radiological outcome  [pg 96]  
Siti Mariam Abd Gani

**Defining two subtypes of Lenke 5 Adolescent Idiopathic Scoliosis patients undergoing posterior spinal fusion**  [pg 97]  
Chung Weng Hong

**The outcome of operative treatment modalities in patients with spinal metastases**  [pg 98]  
Nur Aida Faruk Senan

1330 – 1430  
**LUNCH SATELLITE SYMPOSIUM (Baxter)**  
*Moderator*: Sabarul Afiq Mokhtar

**Challenges in the management of haemorrhage and CSF leak in spinal surgery**  [pg 54]  
Dharmendra Ganesan
1430 - 1530  **SYMPOSIUM 3**  
Tips and Tricks of My Favourite Surgery  
*Moderators*: Tan Chor Ngee, Chiu Chee Kidd  
*Discectomy* [pg 55]  
Mohd Imran Yusof  
*Anterior Cervical Discectomy and Fusion*  
Gabriel Liu  
*Cervical Laminoplasty* [pg 56]  
Kuniyoshi Abumi  
*Cortical bone trajectory technique for Lumbar Degenerative Disease* [pg 57]  
K S Sivananthan

1530 - 1630  **ORTHOPAEDIC-NEUROSURGERY COMBINED SYMPOSIUM**: *Case Discussion*  
*Moderator*: Sabarul Afian Mokhtar  
**ORTHO Panels**: Chooi Yue Seng, Mohd Imran Yusof, Chong Chee Seang, Abdul Hadi Husin  
**NEURO Panels**: Hiroyuki Nakase, Sia Sheau Fung, Kantha Rasalingam, Regunath Kandasamy  
**CASE 1**: Grade 1 lumbar spondylolisthesis with spinal stenosis [pg 58]  
Amir Fariz Zakaria  
**CASE 2**: C1-C2 Instability  
Sia Sheau Fung  
**CASE 3**: Case of severe Spondylotic Myelopathy with central cord syndrome [pg 59]  
Azrul Azmi  
**CASE 4**: Spinal Epidural Abscess  
Kantha Rasalingam

1630 - 1645  **COFFEE / TEA**

1645 - 1745  **MEDICO-LEGAL FORUM**: *Open Discussion*  
*Moderators*: K Parameshwaran, Sabarul Afian Mokhtar  
Malaysia medico-legal climate and spine surgery [pg 60]  
K S Sivananthan  
Compensation for spinal injuries in medico-legal cases [pg 61]  
Raja Eileen Soraya  
Aggravated damages in medico-legal suits [pg 62]  
Shanti Abraham
0700 – 0800

**MEET-THE-EXPERTS Case Discussion**

**Moderators:** Azmi Baharudin, Chiu Chee Kidd

**Expert Panels:** Warat Tassanawipas, Luthfi Gatam, K S Sivananthan, Sabarul Afian Mokhtar

0800 – 0900

**EXPERT FORUM 5**

**Spinal Metastasis**

**Moderators:** Saw Lim Beng, Hishamuddin Salam

- Case presentation – Multiple spinal metastasis in renal cell carcinoma treated with minimally invasive spinal stabilisation and circumferential decompression followed by stereotactic body radiation therapy [pg 63]
  
  Chung Weng Hong

- Management considerations for metastatic epidural spinal cord compression
  
  Wong Chung Chek

- The role of Stereotactic Body Radiation Therapy (SBRT) in the management of spinal metastasis [pg 64]
  
  Wan Zamaniah Wan Ishak

- Assessment and management of spinal instability in patients with spinal metastasis [pg 65]
  
  Fazir Mohamad

- The role of palliation in patients with advanced spinal metastasis
  
  Lam Chee Loong

- Case presentation: What was done
  
  Chung Weng Hong

0900 – 0930

**COFFEE / TEA**

0930 – 1030

**ORTHOPAEDIC-NEUROSURGERY COMBINED SYMPOSIUM**

**Moderators:** Lau Choon Ping, Kantha Rasalingam

- Iatrogenic Dural Injury: Prevention and management [pg 66]
  
  Dharmendra Ganesan

- Cervical disc arthroplasty: Is it a fad or the future? [pg 67]
  
  Abdul Malik Mohamed Hussein

- Annular tear in patients with low back pain
  
  Jagdeep Nanra

- Importance of pelvic parameters in fusion of the lumbar spine [pg 68]
  
  Sabarul Afian Mokhtar
1030 – 1130  SYMPOSIUM 4  
Conservative Treatment in Spine Surgery  
**Moderators:** Ahmad Sabri Omar, Ozlan Izma Muhamed Kamil

The role of bracing in scoliosis  \[pg 69\]  
**Harwant Singh**

Natural history of cervical spondylotic radiculopathy  \[pg 70\]  
**Shoichi Kokubun**

Spinal injections for lumbar radiculopathy: Do they really work?  
**Deepak Ajit Singh**

Management of low back pain: The perspective of a pain physician  \[pg 71\]  
**Lim Heng Hing**

1130 - 1230  SYMPOSIUM 5  
The Most Memorable Case in My Spine Practice  
**Moderators:** Abdul Malik Mohamed Hussein, Nor Azlin Zainal Abidin

First case of hemivertebra excision  \[pg 72\]  
**Shoichi Kokubun**

A case of Severe Structural Scoliosis with unusual pathology and treatment  
**K S Sivananthan**

My most memorable case in my spine practice  
**Warat Tassanawipas**

1230 - 1300  CLOSING CEREMONY, AWARD PRESENTATION & LIFE MEMBERS’ CERTIFICATE PRESENTATION