

## CURRICULUM VITAE

### PROFILE

**Name:** LIEW BOON SENG

**Qualification:** M.D., USM 2000; M.S.  
(Neurosurgery) USM 2009; CMIA (NIOSH); Spine  
Fellow (Nanoori, South Korea); Neurosurgery Fellow  
(Asahikawa Red Cross and FHU, Japan)

**Position:** Neurosurgeon

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Hospital Sungai Buloh, Jalan Hospital,  
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### **Working Experience:**

1. Housemanship : (2000-2001): Medicine, Surgery, Obstetrics & Gynecology
2. Medical Officer: (2001-2005) Paediatrics, Surgery, Neurosurgery
3. Neurosurgery Residency: 2005-2009
4. Neurosurgeon: Department of Neurosurgery, Hospital Kuala Lumpur, Malaysia (01-06-2009-28-2-2011); Department of Neurosurgery, Hospital Sungai Buloh, Malaysia (01-03-2011 - Present)

### PROFESSIONAL QUALIFICATIONS

**2000** Registered medical practitioner by the Malaysia Medical Council

**2009** Gazetted by the Malaysian Government as a certified Neurosurgeon

**2012** Certified Medical Impairment Assessor (CMIA) by the National Institute of Occupational Safety and Health (NIOSH), Malaysia

**2013** Authorised to use Gliolan® in the Fluorescence-guided resection  
Obtained the certificate of completion in Gliolan® Training Course  
organized by Medac GmbH, Germany on 11-4-2013

**2016** Certificate of Recognition for attending Malaysia Medical Experts Training at  
Prince Court Medical Centre on 17-9-2016

**2017** Spine fellowship (Nanoori Suwon, Korea)

**2018** Vascular anastomosis and skull base surgery fellowship (Asahikawa Red  
Cross Hospital, Asahikawa, Hokaido, Japan)

**2018** Cerebrovascular fellowship (Fujita Health University Banbuntane Hotokukai  
Hospital, Nagoya, Japan).

### PROFESSIONAL MEMBERSHIP

2000-Present Life member of Malaysia Medical Association

2011-Present Member of Hospital Sungai Buloh Post-graduate society  
(Member no.36/11)

2012-2015 Associate Member of Neurosurgical Association of Malaysia

2016-Present Member of Neurosurgical Association of Malaysia

2013-2018 Associate Member of AOSpine

2017 Life member of Malaysian Society of Interventional Pain  
Practitioner

2018-Present. Member of AOSpine

### **PROFESSIONAL APPOINTMENT**

2011-Present Honorary Academician (Neurosurgery) Medical Faculty, Universiti Teknologi MARA (UiTM), Malaysia

2011-2013 Malaysia Medical Association (MMA) Representatives to the Majlis Kanser Nasional (MAKNA)

2011-Present Neurosurgery Representative to Tele-consultation Project, Tele-health Division, Ministry of Health, Malaysia

2012-2014 Committee members of the Advanced Diploma Oncology Care Curriculum Development Lab, Training Management Division, Ministry of Health Malaysia

2013-2016 Chairperson of the National Clinical Practice Guideline in the Early Management of Head Injury Development Group, Ministry of Health, Malaysia.

2013-2015 Malaysia Medical Association (MMA) Representative to the National Transplantation Council, Ministry of Health, Malaysia

2014 Expert committee for health technology assessment of continuous intrathecal baclofen infusion, Ministry of Health Malaysia

2014-Present Local Preceptor for the Advanced Diploma Perioperative (Neurosurgery), Ministry of Health, Malaysia

2014-Present Local Preceptor for the Advanced Diploma in Oncology Nursing, Ministry of Health, Malaysia

2015-2017 Committee members of the Curriculum Development of Advanced Diploma in Neuroscience Nursing, Ministry of Health, Malaysia

2012 Reviewer for Journal of Neurosciences in Rural Practice

2012-Present Reviewer for the Medical Journal of Malaysia

2013-Present Reviewer for the Journal of Neurological Sciences

2016-Present Reviewer for the Malaysian Journal of Medical Sciences

2014-2015 Hospital Research Committee members 2014 – 2015

2015-2017 Hospital Research Committee members 2015 – 2017

2015 Organizing chairperson of the Neurosurgical Education and Training (NEAT) 2015, Sungai Buloh

2016-2017 Committee on Medical Education, Malaysian Medical Association (MMA)

2016-Present Committee on Continuous Professional Development (CPD), Malaysian Medical Association (MMA)

2016-Present Malaysia's Ambassadors to the Dandy Assembly, Malaysia Chapter of the Walter E. Dandy Neurosurgical Society

2016 Organizing committee member of Kuala Lumpur Interactive course on Operative Neurospine (KLiCON) 2016

2016 Organizing Secretary of Neurosurgical Association Malaysia (NAM) Neurospine Congress 2016

2016-Present Neurosurgery Collaborative Research Committee, Ministry of Health, Malaysia

2016-Present Neurosurgical Association Malaysia (NAM) Educational Committee

2016-2017 Assistant Secretary, Neurosurgical Association Malaysia (NAM)

2017	Scientific Co-chair, Myneuro2017 Conference, Joint Meeting of 27 <sup>th</sup> Malaysian Society of Neurosciences (MSN) and 17 <sup>th</sup> Neurosurgical Association of Malaysia (NAM)
2017	Organizing committee of Malaysian Medical Association (MMA) Seminar 2017: Career Guidance for Doctors
2017-2018	Honorary Secretary, Neurosurgical Association, Malaysia (NAM)
2017-2018	Honorary Lecturer, School of Medical Sciences, Health Campus, Universiti Sains Malaysia
2017-2018	Organizing Secretary, World Federation of Neurological Surgeons (WFNS) Symposia 2018 Kuala Lumpur
2018-Present	Deputy Head, Clinical Research Centre, Hospital Sungai Buloh
2018-Present	Editorial board member of the Medical Journal of Malaysia (MJM)

### **AWARD/ SCHOLARSHIP**

1. Excellence Service Award 2003, Johor State Health Department (Hospital Sultanah Aminah, Johor Bahru)
2. Scholarship recipient of International Basic Neurosurgery Course, Term I, Course I “Neurotrauma and Functional Neurosurgery”, organized by Turkish Neurosurgical Society, 14-17 March 2012, Antalya, Turkey
3. Sponsorship recipient of Young Neurosurgeon Support for the IX Asian Congress of Neurological Surgeons, Istanbul, Turkey (2012)
4. Sponsorship recipient of Sinch Educational Grants by the the Italian Society of Neurosurgery for the 15<sup>th</sup> Interim Meeting of the World Federation of Neurosurgical Societies, 8-12 September 2015, Rome, Italy.
5. Excellence Service Award 2016, Selangor State Health Department (Hospital Sungai Buloh, Selangor)
6. Dr. Wu Lien-The Best Poster Award :1<sup>st</sup> Prize (Research) at 11<sup>th</sup> National Conference for Clinical Research, 27-29 September 20
7. Recipient of Yoko Kato International Foundation scholarship for Neurosurgery fellowship program at the Fujita Health University Banbuntane Hotokukai Hospital, Nagoya, Japan.

### **PRESENTATIONS (International)**

1. Kuala Lumpur Convention Centre (KLCC); Symposium on “Severe Traumatic Brain Injury: Outcome in patients with diffuse brain injury without surgical lesion” during 8<sup>th</sup> Asian Congress of Neurological Surgeons on 22<sup>nd</sup> November 2010
2. E-poster presentation: “A Proposed Roy’s Point as the Entry Site of the Ventricular End of a Ventriculoperitoneal Shunt” during 9<sup>th</sup> Asian Congress of Neurological Surgeons, Istanbul, Turkey on 2-5<sup>th</sup> September 2012
3. Oral presentation: “Transitioning from Student to Neurosurgeon – Are you ready for this change?” during Young Neurosurgeons Meeting, in conjunction with 9<sup>th</sup> Asian Congress of Neurological Surgeons, Istanbul, Turkey on 4<sup>th</sup> September 2012
4. E-poster session entitled “5-year Experience at a Single Institution in Malignant Glioma Surgery: Comparing Post-operative Maximum Residual Tumour Thickness between 2 Groups: with and without 5-aminolevulinic Acid Induced

- Protoporphyrin IX Fluorescence Assisted Surgery during the 15<sup>th</sup> WFNS World Congress of Neurosurgery, Coex Convention Center, Seoul, Korea.
5. Oral presentation: "Pineal Gland Tumour: Application of Frameless Image Guided Tumour Biopsy and Ventriculoperitoneal Shunt Placement via Single Skin Incision and Burr hole" at 2<sup>nd</sup> International Congress on Minimally Invasive Neurosurgery, Xian China on 13 September 2014.
  6. Oral Presentation: "Outcome Following Craniotomy in Patients with Primary Intracranial Haemorrhage" at 4<sup>th</sup> International Conference on Neurology and Epidemiology, Kuala Lumpur on 6 November 2014
  7. Poster presentation on "Surgery of Pineal Region Tumour Using Infratentorial Supracerebellar Approach in Semi-Sitting Position in Paediatric Patients: Is It More Advantageous? " during 1st Congress of Asian-Australasian Society for Pediatric Neurosurgery (AASPN), on 20 – 22 March 2015 at the Evergreen International Convention Centre, Taipei, Taiwan.
  8. Oral Presentation on "Risk Factors For Ventriculoperitoneal Shunt Failure And The Association With Accuracy Of Ventricular Shunt Catheter Placement" during 14th Asian Australasian Congress of Neurological Surgeons on 18 -4-2015, at the International Convention Centre Jeju, Jeju Island, Korea.
  9. E-Poster presentation on "Surgery of Pineal Region Tumour Using Infratentorial Supracerebellar Approach in Semi-Sitting Position in Paediatric Patients: Is It More Advantageous? " during 43rd Annual Meeting of International Society of Paediatric Neurosurgery, Izmir, Turkey on 4-8 October 2015 at the Büyük Efes Convention Centre, Izmir, Turkey.
  10. E-poster presentation: "Outcome in Patients with Spontaneous Primary Intracranial Haemorrhage Underwent Craniotomy Procedures" (PO - 041) and "Pineal Gland Tumour: Application of Frameless Image Guided Tumour Biopsy and Ventriculoperitoneal Shunt Placement Via Single Skin Incision and Burrhole" (PO - 042) and Oral presentation: "Surgical Outcome in Patients with Tumour and Tumour-Like Lesions of The Spine Canal: Review of a Single Institution Experience" (OP - 42) and "Surgery of Pineal Region Tumour using Infratentorial Supracerebellar Approach in Semi-Sitting Position in Paediatric Patients: Is It More Advantageous?" (OP - 43) during 11<sup>th</sup> Asian Congress of Neurological Surgeons, Surabaya, Indonesia on 8-12<sup>th</sup> March 2016
  11. Oral Flash presentation FL-039 on "Outcome Comparison between Surgically Treated Chronic Subdural Hematoma and Subdural Effusion in Infants" on 22 October 2016 at the 4th Annual Meeting of the International Society for Pediatric Neurosurgery (ISPN), Kobe, Japan.
  12. Young Neurosurgeon session oral presentation entitled "Surgical outcome in patients with spontaneous primary intracranial hemorrhage." On 31 January 2017 at the 3rd Winter Seminar on Cerebrovascular Diseases, Fujita Health University banbuntane Hotokukai Hospital, Nagoya, Japan.
  13. Oral presentation on "Utilization of Neuroimaging Data with Cartesian coordinates to test the accuracy of surgical localisation and to propose new standard" at the INCF Neuroinformatics 2017 in Kuala Lumpur on 20-8-2017

#### **PUBLICATIONS (First and co-author)**

1. **B S Liew**, S A Johari, A W Nasser, J Abdullah; Severe Traumatic Brain Injury : Outcome In Patients With Diffuse Axonal Injury Managed Conservatively In Hospital Sultanah Aminah, Johor Bahru – An Observational Study; Med J Malaysia, Vol 64, No 4, Dec 2009, page 280-288

2. Ng WP, Liew BS, Gee TS, Azmin KR (2015). Posterior Fossa Intradiploic Epidermoid Cyst: A Case Report. *The International Medical Journal Malaysia*. Volume 14 Number 2, Dec 2015, page 67-70
3. Clinical practice guidelines (CPG) on “Early Management of Head Injury in Adults” (2015) published by: Malaysia Health Technology Assessment Section (MaHTAS). MOH/P/PAK/304.15 (GU). ISBN: 978-967-0769-45-5
4. LIEW B, Rosman A, Adnan J (2016) Outcome In Patients With Spontaneous Primary Intracranial Hemorrhage Underwent Craniotomy; *Journal of Brain and Spinal Cancer*; Volume No: 1 Issue No: 1; s 2 - 1(1):0-0
5. Liew BS, Gee TS, Azmin KR, Johari SA. (2016). 5-Aminolevulinic Acid Induced Protoporphyrin IX Fluorescence with Neuronavigation in Malignant Glioma Surgery: 5-Year of Experience at a Single Institution. *SciTz Neurosurg Spine*. 2016. 1(1): 1002
6. Marymol Koshy, WP Ng, BS Liew, Azmin Kass R, Mohammad Hanafiah, et al. (2016) Usefulness of Fluorescence-Guided-Surgery in Achieving Gross Total Resection of Malignant Glioma: Evaluation Using Mr Volumetric Study. *Archiv Neurol Neurosurgery*, 1:105
7. Liew BS, Zainab K, Cecilia A, et al. Early management of head injury in adults in primary care. *Malays Fam Physician*. 2017;12(1);22–25.
8. Ng WP, Liew BS, Idris Z, Rosman AK. Fluorescence-guided versus conventional surgical resection of high grade glioma: a single-centre, 7-Year, comparative effectiveness study. *Malays J Med Sci*. 2017;24(2):78–86.  
<https://doi.org/10.21315/mjms2017.24.2.10>
9. Liew BS, Rosman AK, Adnan JS. Sinking Skin Flap Syndrome. *J Clin Intensive Care Med*. 2017;2: 042-048.
10. You X, Liew BS, Rosman AK, Musa KI, Idris Z: The estimated cost of surgically managed isolated traumatic head injury secondary to road traffic accidents. *Neurosurg Focus* 44(5):E7, 2018