



Assoc. Prof. Cdr. Sorayouth Chumnanvej, M.D., Ph.D

Office:

Neurosurgery Unit, Surgery Department ,
Faculty of Medicine Ramathibodi Hospital
Mahidol University
Bangkok Thailand
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Education

Degree

MD. ๒๕๐๘

Cert. Of Clin. Sci.
(Surgery)

Thai Board of
Neurosurgery

Thai Board of
Family Medicine

Clinical Research
Fellow in Cerebrovascular

Royal Thai Naval Staff

Certification
In ELANA technique

Certificate
of Attendance

Certificate
of Completion

Doctor of Philosophy
in Biomedical Engineering

Institution

Faculty of Medicine, Thammasat University, Bangkok. Thailand.

Faculty of Medicine Ramathibodi Hospital
Mahidol University, Bangkok, Thailand.

Faculty of Medicine Ramathibodi Hospital
Mahidol University, Bangkok, Thailand.

The Royal College of Family Physicians of Thailand.

Neurosurgery Department, Brigham and Women Hospital and
Children Hospital Harvard Medical School, Boston MA USA.

Royal Thai Naval Staff College, Institute of Advanced Naval Studies.

Excimer Laser Assisted Non Occlusive Anastomosis, UMC Utrecht,
The Netherlands.

Full-Endoscopic Spine Surgery, Department of Spine Surgery and Pain Therapy
Center for Orthopaedics and Traumatology
St. Anna Hospital , Herne, Germany.

Mazor Robotics Renaissance Training Course
Florida Hospital Nicholson Center
Celebration FL USA.

Department of Biomedical Engineering, Faculty of Engineering
Mahidol University, Bangkok, Thailand.

Year

1997 ๒๕๐๘

2000

2001

2003

2005

2007

2009

2010

2013

2019

Job History

Neurosurgeon (2002-2008)
Neurosurgery Unit, Provide general neurosurgical care in a busy practice of four
Surgery Department neurosurgeons. Work extensively with general surgical residents
Somdej Pra Pin Klao and registered nurses. Developed and taught in nursing skills for
Naval Hospital, Bangkok, registered nurses and general surgical residents working in neurosurgical practice
Thailand.

Neurosurgery Unit, (2008- NOW)
Surgery Department, Teaching and service with neurosurgical residency training program are provided.
Faculty of Medicine, Clinical research field of interest including cerebrovascular and spinal surgery and
Ramathibodi Hospital also the medical instrument technology and surgical robot is mainly contributed.
Mahidol University
Bangkok Thailand

Publications

-Cranioplasty with "Pinklao" molding technique

Sorayouth Chumnanvej, M.D.
Bullentin of The Neurosurgical Association of Thailand 14, 2 (Oct-Dec 2546) 8-16.

-Comparison of Computed Tomographic Angiography and Digital Subtraction Angiography in the Initial Management of Patients with Subarachnoid Hemorrhage

Ian F. Dunn, M.D., Sorayouth Chumnanvej, M.D., William B. Gormley, M.D., Robert M.
Friedlander, M.D., Christos Gkogkas, M.D., Kai U. Frerichs, M.D., Arthur L. Day, M.D., Dong H. Kim, M.D.
Neurosurgery. 2006 Aug ;59(2):456

-Short-term Phenytoin Use (3 days) after Subarachnoid Hemorrhage is Adequate for Seizure Prophylaxis and Decreases Adverse Events

Sorayouth Chumnanvej, M.D., Ian F. Dunn, M.D., Dong H. Kim, M.D.
Neurosurgery. 2007 Jan ;60 (1):99-103

-The Full Endoscopic Uniportal Lumbar Discectomy: Our First 46-Cases Experience Report

Verapan Kuonsongtum, M.D., Sompoch Paiboonsirijit, M.D., Withawin Kesornsak, M.D.,
Worawut Chaiyosboorana, M.D., Pataravit Rukskul, M.D., M.Sc. (Clinical Science), Dr med,
Sorayouth Chumnanvej, M.D., Sebastian Ruetten, M.D.
J Med Assoc Thai. 2009 Jun;92(6):776-80.

- Traumatic Brain Injury

Sorayouth Chumnanvej, M.D.
Rama Med J. 2010;33: Jan-March, 33-41

- Chronic Subdural Hematoma: Drainage VS No Drainage

Prasert Sarnvivard. M.D., Sorayouth Chumnanvej, M.D.
J Med Assoc Thai. 2011 Dec;94(11):1352-6.

- CLINICON: A Service Robot Designed to Position and Transport Patient: First Conceptual Design and Applications Report

Rama Med J. 2012;35: 247-256

-Accuracy of Needle-Tip Localization by Ultrasound Guidance Lumbar Selective Nerve Root Block: A Prospective Clinical Study of 78 Lumbar Nerve Roots Block

Sorayouth Chumnanvej, Narongdet Wetchagama, Verapan Kounsongtham
J Med Assoc Thai. 2011 Dec;94(12):1451-6

- Full Endoscopic Lumbar Discectomy via Interlaminar Approach: 2-Year Results in Ramathibodi Hospital

Sorayouth Chumnanvej, Withawin Kesornsak, Prasert Sarnvivad, Verapan Kuansongthum
J Med Assoc Thai. 2011 Dec;94(12):1465-70

- Outcome Predictor of Spontaneous Intracerebral Hemorrhage Management: Ten-Year Neurosurgical Experience at Ramathibodi Hospital

Prasert Sarnvivad, Sorayouth Chumnanvej
J Med Assoc Thai. 2011 Dec;94(12):1471-5

-Retrospective 5-Year Clinical Outcome of Interdisciplinary Treatment for Ruptured Cerebral Arteriovenous Malformation: The Lesson Learned

Sorayouth Chumnanvej, Prasert Sarnvivad
Archives of Medicine, 2015 vol.7 NO.4:4

-Physical and Mechanical Characterizations of Oxidized Regenerated Cellulose/Polycaprolactone Composite for Use as a Synthetic Dura Mater

Thunyanun Theeranattapong, Ticomporn Luangwattanawilai, Jintamai Suwanprateeb, Waraporn Suvannapruk, Sorayouth Chumnanvej, Warinkarn Hemstapat Key Engineering Materials August 2015, 659:19-23.

-Bilayer oxidized regenerated cellulose/poly ϵ -caprolactone knitted fabric-reinforced composite for use as an artificial dural substitute

Jintamai Suwanprateeb, Ticomporn Luangwattanawilai, Thunyanun Theeranattapong, Waraporn Suvannapruk, Sorayouth Chumnanvej, Warinkarn Hemstapat
Journal of Materials Science: Materials in Medicine, July 2016, 27:122.

-Visualization of Needle-Tip Localization by Ultrasound Guidance with Contrast Bubble in Lumbar Selective Nerve Root Block: Clinical Pilot Study.

Chumnanvej S, Kittayapirom K, Chumnanvej S. World Neurosurg. 2018 Mar;111:e418-e423. doi: 10.1016/j.wneu.2017.12.079. Epub 2017 Dec 21.

-Determination of spinopelvic parameters in degenerative lumbar spondylolisthesis patients undergoing lumbosacral spine fusion surgery: the lesson learnt.

Sorayouth Chumnanvej, Noppatee Segkaphant. Turkish Neurosurgery. Jan. 2018. doi:10.5137/1019-5149.JTN.23442-18.1

-Pathway and workspace study of Endonasal Endoscopic Transsphenoidal (EET) approach in 80 cadavers.

Sorayouth Chumnanvej, Suwiphat Chalongsongse, Branesh M. Pillai, Jackrit Suthakorn. International Journal of Surgery Open. Dec. 2018.

-Anatomical workspace study of Endonasal Endoscopic Transsphenoidal Approach.

Sorayouth Chumnanvej, Duangkamol Pattamarakha, Thanwa Sudsang, Jackrit Suthakorn. Jun 2019. doi.org/10.1515/med-2019-0059.

-Surgical Robotic Technology for Developing an Endonasal Endoscopic Transsphenoidal Surgery (EETS) Robotic System.

Sorayouth Chumnanvej, Branesh M. Pillai, Jackrit Suthakorn. The Open Neurology Journal. Jun 2019.

Proceedings

-Peripheral Nerve Localization by Frequency-Based Electrical Stimulation.

Dilok Puanhvan, Sorayouth Chumnanvej, Sarawin Khemmachotikun, Yodchanan Wongsawat. Neural Information Processing. Lecture Notes in Computer Science Volume 8226, 2013, pp 352-359.

-ANN-based nerve damage preservation system for neurosurgical operation

Dilok Puanhvan, Sorayouth Chumnanvej, Sarawin Khemmachotikun, Yodchanan Wongsawat.

Soft Computing and Intelligent Systems (SCIS), 2014 Joint 7th International Conference on and Advanced Intelligent Systems (ISIS), 15th International Symposium

Poster Presentation

- The Efficacy of Fluoroscopy-Guided Procedures in Chronic Low Back Pain Management in Thailand.

Nuj Tontisirin, Verapan Kounsongtum, Koravee Pasutharnchat, Piyamart Sirivararom, Sorayouth Chumnanvej, Suwanna Chanpradub, Wichai Ittichaikulthol, Varaporn Vikakul, Amara Panich. Poster Presentation at the ASRA 2009 Fall Pain Medicine Meeting in San Antonio Texas. Nov 19-22, 2009.

- Bilayer-Synthetic Tissue Substitute with Drug Delivery.

TechInnovation 2016 at Resorts World Sentosa Convention Centre Resorts World Ballroom West, Basement 2 8 Sentosa Gateway, Sentosa Island , 20-21 Sep. 2016, Singapore 098269.

International Lecture

-AO Spine Advances Symposium in Spinal Controversy & Uncertainty (Inter-EA) Singapore, Singapore 02 Mar 2013 - 03 Mar 2013

-Cadaveric Workshop on Neuroplasty The National University of Malaysia, Cheras, Kuala Lumpur 23 Mar 2014

-The 7th Annual Meeting of Taiwan Neurospinal Society Kaohsiung, Taiwan 7 Jun 2014- 8 Jun 2014

-The 1st International Symposium of High-Tech Spine Surgery Medical Science Research Center, The Catholic University of Korea, St. Mary's Hospital, Seoul, Korea 19 July 2014.

-Cell-Based Treatment for Spinal Cord Injury Patient Chiropractic Conference at Central Queensland University, Brisbane, Australia 4 October 2014.

Patents

-No. 1501007554 : THEKA: the Synthetic Dural Substitute

-No. 1601002611 : Preparations of poly(D,L-lactic-co-glycolic acid) microparticles control release Nicardipine Hydrochloride for Biomedical Application

-No. 1701003249 : Wireless ICP Sensor

-No. 1701006348 : Endonasal Endoscopic Transsphenoidal Approach Simulation Model

Awards

- ICS Inventor Award 2019 (the International College of Surgeons)
44th Annual Scientific Congress of the Royal College of Surgeons of Thailand
3rd Joint Meeting with the Minister of Public Health
13-16 July 2019, Thailand

Professional Organizations

- Thai Medical Council (Member)
- Fellow of the Royal College of Surgeons of Thailand (FRCST)
- Fellow of the Royal College of Neurological Surgeons of Thailand (FRCNST)

Personal Interests

- cerebrovascular surgery.
- spinal surgery and instrumentation.
- peripheral nerve entrapment.
- neuromodulation.
- surgical robot.
- robotic assisted surgery.

References Available Upon Request

