



## Wongthawat Liawrungrueang, MD

Head of Department of Orthopaedics,  
Vice-Dean of Faculty of Medicine,  
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### PROFESSIONAL SUMMARY

Dr. Wongthawat Liawrungrueang is Assistant Vice President of the Spine Society of Thailand, Vice-Dean of the Faculty of Medicine, Chair of The Spine Division, and Head of the Orthopaedics Department at the University of Phayao. Wongthawat does research in the fields of Spine surgery, Orthopaedic surgery, endoscopic spine surgery and minimally invasive surgery. He is an expert in full-endoscopic spine surgery (FESS) and biportal endoscopic spinal surgery (BESS). He currently serves as a Board member of the Asia Pacific Spine Society (APSS) and AO Spine Faculty.

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### PERSONAL DETAILS

**Date of Birth:** February 11, 1985  
**Hometown:** Fang, Chiang Mai, Thailand  
**Nationality:** Thai

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### PROFESSIONAL EXPERIENCE

#### Assistant Vice President, Foreign Affairs

Spine Society of Thailand (SST), Thailand  
2022 – Present

#### Vice-Dean of the Faculty of Medicine

University of Phayao, School of Medicine, Thailand  
2022 – Present

#### Head of the Department of Orthopaedics Surgery

University of Phayao, School of Medicine, Thailand  
2022 – Present

#### Chief of Spine Surgery

University of Phayao, School of Medicine, Thailand  
2022 – Present

#### Spine Surgeon (Fellowship)

Chiang Mai University, Chiang Mai, Thailand  
2021 – 2022

#### Orthopedic Surgeon (Resident)

Prince of Songkla University, Department of Orthopedics,  
Hatyai, Thailand  
April 2015 – June 2021

#### Internship Doctor (Medicine)

Prince of Songkla University Faculty of Medicine,  
Hatyai, Thailand  
April 2014 – March 2015

#### Clinical Practice (Medical Student and Externship)

Rajavithi Hospital, Bangkok, Thailand  
2012 – 2014

#### Computer Programmer and Software Engineer

Thomson Reuters, Bangkok, Thailand  
March – April 2007

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### EDUCATION AND TRAINING

#### Asia Pacific Spine Society Fellowships Program,

#### Minimally Invasive and Endoscopy Spine Surgery

Chungnam National University Hospital, Daejeon, South  
Korea | September 2024 – November 2024

**International Fellowships Program (IFP), Minimally Invasive and Endoscopy Spine Surgery**

*Seoul Segyero Hospital, Seoul, South Korea | November 2023 – January 2024*

**Certificate of Spine Surgery (Orthopedic)**

*Chiang Mai University, Thailand | 2021 – 2022*

**Diploma of Thai Board of Orthopedic Surgery**

*Prince of Songkla University Faculty of Medicine, Hatyai, Thailand | July 2017 – June 2021*

**Higher Graduate Diploma (Clinical Sciences), Orthopedics**

*Prince of Songkla University Faculty of Medicine, Hatyai, Thailand | April 2016 – April 2018*

**Certificate in Microsurgery Training Laboratory**

*National University Hospital of Singapore, Singapore | May 22 – May 26, 2017*

**Doctor of Medicine**

*College of Medicine, Rangsit University, Bangkok, Thailand | 2008 – 2014*

**Bachelor's Degree in Computer Science**

*Faculty of Science, Chiang Mai University, Thailand | 2003 – 2007*

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**AWARDS AND HONORS**

**Medical Service Excellence Award** – Prince of Songkla Hospital | 2014 – 2015

**Outstanding Alumni Award** – Rangsit University | 2016

**Outstanding Alumni Award** – Rajavithi Hospital | 2017

**Best Oral Presentation Award** – "Satisfaction Experiment on i-Exercise" | Tokyo, Japan, 2019

**Best JOA Congress Travel Award** – Surgical Treatment in Carpal Tunnel Syndrome | Pacifico Yokohama, Japan, 2019

**Best Spine Fellow Award** – APSS DePuy Synthes Virtual Fellowship | 2021

**Gold Prize in English Award JSSR 2023** – Japanese Society for Spine Surgery and Related Research |

*Hokkaido, Japan, 2023*

**Gold Prize in English Award JSSR 2024** – Japanese Society for Spine Surgery and Related Research |

*Yokohama, Japan, 2024*

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**PUBLICATIONS**

- Artificial Intelligence Detection of Cervical Spine Fractures Using Convolutional Neural Network Models**  
*Neurospine*, 2024. DOI: 10.14245/ns.2448580.290
- Clinical and Radiographic Outcomes of Cervical Disc Replacement Versus Posterior Endoscopic Cervical Decompression: A Matched-Pair Comparison Analysis**  
*Neurospine*, 2024. DOI: 10.14245/ns.2448582.291
- Osteoporotic Vertebral Compression Fracture (OVCF) Detection Using Artificial Neural Networks Model Based on the AO Spine-DGOU Osteoporotic Fracture Classification System**  
*North American Spine Society Journal (NASSJ)*, 2024. DOI: 10.1016/j.xnsj.2024.100515
- Artificial Intelligence-Assisted MRI Diagnosis in Lumbar Degenerative Disc Disease: A Systematic Review**  
*Global Spine Journal*, 2024. DOI: 10.1177/21925682241274372
- Artificial Neural Networks for the Detection of Odontoid Fractures Using the Konstanz Information Miner Analytics Platform**  
*Asian Spine Journal*, 2024. DOI: 10.31616/asj.2023.0259

6. **Commentary on “The Utility and Feasibility of Smart Glasses in Spine Surgery: Minimizing Radiation Exposure During Percutaneous Pedicle Screw Insertion”**  
*Neurospine*, 2024. DOI: 10.14245/ns.2448568.284
7. **Current Trends in Artificial Intelligence-Assisted Spine Surgery: A Systematic Review**  
*Asian Spine Journal*, 2024. DOI: 10.31616/asj.2023.0410
8. **Cervical Spine Fracture in Diffuse Idiopathic Skeletal Hyperostosis: A Bibliometric Analysis**  
*SAGE Open Medicine*, 2024. DOI: 10.1177/20503121241249050
9. **An Invasive Squamous Cell Carcinoma of the Ankle: A Case Report**  
*Annals of Medicine & Surgery*, 2023. DOI: 10.1097/MS9.0000000000000568
10. **Automatic Detection, Classification, and Grading of Lumbar Intervertebral Disc Degeneration Using an Artificial Neural Network Model**  
*Diagnostics*, 2023. DOI: 10.3390/diagnostics13040663
11. **Endoscopic Carpal Surgery in Carpal Tunnel Syndrome: A Systematic Review**  
*SAGE Open Medicine*, 2023. DOI: 10.1177/20503121231177111
12. **Full Endoscopic Drainage of Cervical Epidural Abscess**  
*Book Chapter*, 2023. DOI: 10.1007/978-981-19-7761-9\_14
13. **Acute Traumatic Lateral Atlantoaxial Dislocation Associated with Locked Atlas Lateral Mass and Odontoid Process Fracture: A Clinical Case Study and Literature Review**  
*North American Spine Society Journal (NASSJ)*, 2022. DOI: 10.1016/j.xnsj.2022.100169
14. **An Unusual Dermatofibroma Over the Distal Interphalangeal Joint**  
*Journal of Orthopaedic Reports*, 2022. DOI: 10.1016/j.jorep.2022.100093
15. **Minimally Invasive Carpal Tunnel Release: A Clinical Case Study and Surgical Technique**  
*Annals of Medicine and Surgery*, 2022. DOI: 10.1016/j.amsu.2022.104950
16. **Posterior Endoscopic Cervical Decompression in Metastatic Cervical Spine Tumors: An Alternative to Palliative Surgery**  
*JAAOS: Global Research and Reviews*, 2022. DOI: 10.5435/JAAOSGlobal-D-22-00201
17. **A Computed Tomographic Morphometric Analysis of the Odontoid Process for Using Anterior Double Herbert Screws Fixation in the Southeast Asian Population**  
*Interdisciplinary Neurosurgery*, 2022. DOI: 10.1016/j.inat.2021.101459
18. **An Unusual Chordoma of the Odontoid Process: A Case Report and Literature Review**  
*JAAOS: Global Research and Reviews*, 2022. DOI: 10.5435/JAAOSGlobal-D-22-00018
19. **Spinal Nerve Compression After Malunion of Vertical Sacrum Fractures**  
*International Journal of Surgery Case Reports*, 2022. DOI: 10.1016/j.ijscr.2022.107117
20. **A Preliminary Report on Augmented Reality-Assisted Carpal Tunnel Release**  
*The Journal of Hand Surgery (Asian-Pacific Volume)*, 2022. DOI: 10.1142/s2424835522720134

21. **An Unusual Presentation of Thoracic Diffuse Idiopathic Skeletal Hyperostosis (DISH) and Video-Assisted Thoracoscopic Surgery (VATS)**  
*International Journal of Surgery Case Reports*, 2022. DOI: 10.1016/j.ijscr.2022.106993
22. **Can Acute Radiculopathy Be Caused by Upper Lumbar Hemorrhagic Synovial Cyst Spinal Compression in the Elderly?**  
*International Journal of Surgery Case Reports*, 2022. DOI: 10.1016/j.ijscr.2022.107002
23. **Surgeons' Perspective, Learning Curve, Motivation, and Obstacles of Full-Endoscopic Spine Surgery in Thailand: Results From a Nationwide Survey**  
*BioMed Research International*, 2022. DOI: 10.1155/2022/4971844
24. **Anterior Screw Fixation for Type II Odontoid Process Fractures: A Single-Center Experience with the Double Herbert Screw Fixation Technique**  
*Annals of Medicine and Surgery*, 2022. DOI: 10.1016/j.amsu.2022.103337
25. **The Adjustable Aiming Device for Caspar Pin Insertion in Anterior Cervical Spine Surgery**  
*Journal of Orthopaedic Surgery*, 2022. DOI: 10.1177/10225536221077460
26. **Anterior Cervical Spine Surgery for Treatment of Secondary Dysphagia Associated with Cervical Myelopathy in Patient with Forestier's Disease**  
*Annals of Medicine and Surgery*, 2021. DOI: 10.1016/j.amsu.2021.103120
27. **Biomechanical Study of a Newly Developed Continuous Double Knots Technique Compared with the 4-Strand Double-Modified Kessler Technique for Flexor Tendon Repair**  
*Journal of Experimental Orthopaedics*, 2021. DOI: 10.1186/s40634-021-00404-4
28. **The Aiming Device for Cervical Distractor Pin Insertion: A Proof-of-Concept, Feasibility Study**  
*BMC Musculoskeletal Disorders*, 2021. DOI: 10.1186/s12891-021-04533-w
29. **Surgical Management of Diffuse Idiopathic Skeletal Hyperostosis (DISH) Causing Secondary Dysphagia (Narrative Review)**  
*Journal of Orthopaedic Surgery*, 2021. DOI: 10.1177/23094990211041783
30. **Reducible Nonunited Type II Odontoid Fracture with Atlantoaxial Instability: Outcomes of Two Different Fixation Techniques**  
*International Journal of Environmental Research and Public Health*, 2021. DOI: 10.3390/ijerph18157990
31. **The Intersection Between Lateral Mass and Inferomedial Edge of the C1 Posterior Arch: A Reference Point for C1 Lateral Mass Screw Insertion**  
*Neurospine*, 2021. DOI: 10.14245/ns.2040814.407
32. **Soft Tissue Releasing and Serial Casting for Management of Flexion Contracture After Primary Total Knee Arthroplasty in a Patient with Hemophilia**  
*International Journal of Surgery Case Reports*, 2021. DOI: 10.1016/j.ijscr.2021.105995
33. **Talaromycosis Marneffei of the Cervical Spine: An Unusual Infection**  
*JAAOS: Global Research and Reviews*, 2021. DOI: 10.5435/jaaosglobal-d-21-00003

34. **Carpal Tunnel Surgery Using a Wireless Endoscopic Visualization Instrument: A Cadaveric Study**  
*The Journal of Hand Surgery (Asian-Pacific Volume)*, 2021. DOI: 10.1142/s2424835521500326
35. **Cervical Spine Myelopathy from Metastoma Association with Chronic Retention of a Bullet**  
*Journal of Health Science and Medical Research*, 2021. DOI: 10.31584/jhsmr.2021804
36. **Corrective Osteotomy of Global Sagittal Imbalance in the Neglected Fracture-Dislocation Thoracic Spine**  
*Trauma Case Reports*, 2021. DOI: 10.1016/j.tcr.2021.100409
37. **In Vitro Elution Characteristics of Gentamicin-Impregnated Polymethylmethacrylate: Premixed with a Second Powder vs. Liquid Lyophilization**  
*BMC Musculoskeletal Disorders*, 2021. DOI: 10.1186/s12891-020-03923-w
38. **Traumatic Neglected Atlanto-Axial Dislocation in Pediatric: A Case Report**  
*Journal of Korean Society of Spine Surgery*, 2021. DOI: 10.4184/jkss.2021.28.1.32
39. **Acute Traumatic Unilateral Cervical C4–C5 Facet Dislocation in Pediatric Toddlers**  
*BMC Musculoskeletal Disorders*, 2020. DOI: 10.1186/s12891-019-3019-9
40. **The Aiming Device for Cervical Distractor Pin Insertion: A Developmental and Experimental Study**  
*Preprint*, 2020. DOI: 10.21203/rs.3.rs-111908/v1
41. **Biomechanics Study of the Holding Power Between Tendon and Suture Using Different Techniques**  
*The Journal of Hand Surgery (Asian-Pacific Volume)*, 2020. DOI: 10.1142/s2424835520500320
42. **Nocardial Vertebral Osteomyelitis and Epidural Abscess of Thoracic Spine in an Immunocompromised Patient**  
*American Journal of Surgical Case Reports*, 2020. DOI: 10.31487/j.ajscr.2020.03.02
43. **Successful Transitional Cell Carcinoma of Bladder Underwent Laparoscopic Radical Cystectomy with Orthotopic Intracorporeal Y Pouch Neobladder Using a 3D Digital Printing Model for Surgical Post-Op Pouch Evaluation**  
*Urology Case Reports*, 2020. DOI: 10.1016/j.eucr.2020.101190
44. **Response to: Management of Traumatic Spinal Fracture in the Coronavirus Disease 2019 Situation**  
*Asian Spine Journal*, 2020. DOI: 10.31616/asj.2020.0194.r1
45. **Keyhole Surgery for Carpal Tunnel Syndrome Using MIS-CTS-Kits (Surgical Technique)**  
*International Archives of Orthopaedic Surgery*, 2020. DOI: 10.23937/2643-4016/1710018
46. **Effectiveness of Surgical Treatment in Carpal Tunnel Syndrome Mini-Incision Using MIS-CTS Kits: A Cadaveric Study**  
*Advances in Orthopedics*, 2020. DOI: 10.1155/2020/8278054
47. **Bilateral Pure Facet Joint Dislocation in Thoracolumbar Junction (T11–T12) Without Facet Fracture Using a 3D Digital Printing Model for Surgical Planning: A Case Report**  
*Trauma Case Reports*, 2020. DOI: 10.1016/j.tcr.2019.100273
48. **Minimally Invasive Carpal Tunnel Release (CTR) Using the Wongsiri Technique with**

**MiniSURE**

*Advances in Orthopedics*, 2020. DOI:

10.1155/2020/6273723

49. **Multiple Needle Puncture Combined with Repetitive Knee Manipulation in Total Knee Arthroplasty for Correcting Varus Deformity**

*Journal of Orthopaedic Surgery*, 2020. DOI:

10.1177/2309499020924600

50. **Surgical Outcome of Collateral Ligament Injury with Metacarpal Head Fracture in a Near Amputation After Power Saw Injury: Case Report**

*International Journal of Surgery Case Reports*,

2019. DOI: 10.1016/j.ijscr.2019.10.078

51. **Adhesive Strips as the Sole Method for Skin Closure is Effective in Total Knee Arthroplasty**

*Journal of Orthopaedic Surgery*, 2019. DOI:

10.1177/2309499019873983

52. **Satisfaction Experiment on i-Exercise Developing for Assisting Orthopedics Patients**

*Proceedings of the 2019 2nd International*

*Conference on Information Science and Systems*

- *ICISS*, 2019. DOI: 10.1145/3322645.3322676

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