

BRIAN HSU

EDUCATION AND QUALIFICATIONS

Current Appointments	Visiting Medical Officer , Children's Hospital at Westmead VMO , North Shore Private Hospital VMO , Westmead Private Hospital VMO , Norwest Private Hospital
Spine Surgery Training	Clinical Spine Fellowship, Twin Cities Spine Center, Minneapolis, 2007 – 2008 (12 months, 1 st Aug 2007 – 31 st July 2008) Clinical Spine Fellowship, University of California, San Francisco, 2007 (6 months, February 2007 to 31 st July 2007)
Postgraduate	Fellow of the Royal Australasian College of Surgeons Australian Orthopaedic Association Associate Member
Medical Registration	Medical Board of NSW, Australia – MPO332344 United Kingdom General Medical Council - 6075996
Tertiary	MBBS , University of Sydney, 1997 Elective Term: Spine Service at Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, UK
Secondary	St Ignatius College, Riverview Years 11 and 12 St Joseph's College, Hong Kong

WORK EXPERIENCE

2007-08 Clinical Spine Fellow	Twin Cities Spine Center, Minneapolis, Minnesota (12 months) Combined experience of Adult and Paediatric Spine surgery at Abbott Northwestern Hospital and Gillette Children's Hospital
2007 Clinical Spine Fellow	Department of Orthopaedic Surgery, University of California, San Francisco (6 months) Combined experience of Complex Adult Spinal Reconstructions for Spinal Deformities and Paediatric Scoliosis

WORK EXPERIENCE (CONTINUED)

2006 Orthopaedic Registrar	12 months at Royal North Shore Hospital <u>General Orthopaedic and Spine Service</u>	
2005 Orthopaedic Registrar	6 months at Westmead Hospital, 6 months at Westmead Children's Hospital <u>General Orthopaedic and Spine Service</u>	
2004 Orthopaedic Registrar	6 months at Liverpool Hospital, 6 months at Wollongong Hospital	
2003 Orthopaedic Registrar	6 months at St George Hospital, 6 months at WaggaWagga Base Hospital	
2002 Orthopaedic Registrar	12 months at Auckland Hospital and Starship Children's Hospital, New Zealand <u>General Orthopaedic and Spine Service</u>	
2001 Orthopaedic Registrar	6 months at Royal Prince Alfred Hospital; (First 6 months on study leave)	
2000 Orthopaedic Registrar	6 months at Rachel Forster; 6 months at Dubbo Base Hospital, Dubbo	
1999 Orthopaedic Registrar	12 months at Royal North Shore Hospital and North Shore Private Hospital	
1998 Resident Medical Officer at Royal Prince Alfred Hospital (RPAH)	Term 1	Leave
	Term 2	ICU and Cardiothoracic Surgery as SRMO at RPAH
	Term 3	Neurosurgical ICU at RPAH
	Term 4	Surgery at Bathurst Base Hospital
	Term 5	Paediatrics and Neurosurgery at RPAH
1997 Internship at RPAH	Term 1	Orthopaedics RPAH
	Term 2	Orthopaedics and General Surgery at Rachel Forster Hospital
	Term 3	Accident and Emergency at RPAH
	Term 4	Cardiothoracic Surgery and Medical Nights at RPAH
	Term 5	Geriatric Medicine at RPAH

BOOK CHAPTERS

- **Management of Fixed Coronal Imbalance**

Hsu B, Berven S

In The Textbook of Spinal Surgery, 3th Edition, Keith H. Bridwell (ed.), Lippincott Williams & Wilkins, 2011

- **Minimally Invasive Posterior Surgical Approaches to the Lumbar Spine**

Schwender JD, Hsu B

In The Textbook of Spinal Surgery, 3th Edition, Keith H. Bridwell (ed.), Lippincott Williams & Wilkins, 2011

- **Biomechanics of the Spine**

Narvani AA, Hsu B, Wilson L

In Basic Orthopaedic Sciences: The Stanmore Guide, Manoj Ramachandran (ed.), Hodder Arnold, 2006

PUBLICATIONS

- **Zoledronic acid improves bone mineral density, reduces bone turnover and improves skeletal architecture over 2 years of treatment in children with secondary osteoporosis.** *Bone*. 2011; 49:939-43.

Simm P., Johannesen J., Briody J., McQuade M., **Hsu B**, Bridge C., Little D., Cowell C., Munns C.

- **Alignment of pedicle screws with pilot holes: can tapping improve screw trajectory in thoracic spines?** *Eur Spine J*. 2010 Jan;19(1):71-7. Epub 2009 Jun 14.

Erkan S, **Hsu B**, Wu C, Mehbod AA, Perl J, Transfeldt EE.

- **Biomechanical evaluation of a new AxiaLIF technique for two-level lumbar fusion** *Eur Spine J*. 2009 Jun;18(6):807-14. Epub 2009 Apr 8.

Erkan S, Wu C, Mehbod AA, **Hsu B**, Pahl DW, Transfeldt EE.

- **Transcranial motor evoked potentials combined with response recording through CMAP as the sole modality of Spinal Cord Monitoring in Spinal Deformity Surgery** *Spine* 33(10);1100-6, 2008

Hsu B, Cree A, Lagopoulos J, Cummine JC

- **Recurrent substernal nodular goiter – Incidence and Management** Surgery 1996; 120: 1072-5

Hsu B, Reeve TS, Guinea AI, Robinson B, Delbridge L

ABSTRACTS

International Meetings

SRS & IMAST & NASS 2008

- **Complications of Pedicle Subtraction Osteotomy versus Smith-Peterson Osteotomy in the treatment of Flat-back deformity (Accepted for podium presentation SRS 2008, E-Poster IMAST 2008)**

Hsu B, Mehbod A, Transfeldt E, Perra J, Lonstein J, Winter R.

- **Radiographic Results of Pedicle Subtraction Osteotomy versus Smith-Peterson Osteotomy in the treatment of Flat-back deformity (Accepted for podium presentation SRS 2008, E-Poster IMAST 2008)**

Hsu B, Mehbod A, Transfeldt E, Perra J, Lonstein J, Winter R.

- **A Systematic Method to evaluate Thoracic Pedicle screw positioning (Manuscript preparation in progress for publication, accepted for podium presentation at IMAST 2008, E-Poster SRS 2008)**

Hsu B, Erkan S, Mehbod A, Wu C, Transfeldt E

- **Pedicle screw trajectory is improved with tapping in thoracic spines (Manuscript preparation in progress for publication, accepted for presentation at IMAST 2008, E-Poster SRS 2008, Minneapolis Orthopaedic Society)**

Erkan S, Hsu B, Mehbod A, Wu C, Transfeldt E

- **Biomechanical evaluation of a new AxiaLIF technique for two level lumbar fusion (Manuscript preparation in progress for publication, accepted for E-Poster IMAST 2008)**

Erkan S, Wu C, Mehbod A, Hsu B, Transfeldt E

American Society of Neurophysiological Monitoring (ASNM) 2008

- **Risks for Spinal Cord Injury From Electrocautery Coagulation Around Thoracic Nerve Roots in a porcine model (Manuscript preparation in progress for publication, Presented at ASNM 2008)**

Hsu B, Skinner S, Mehbod A, Wu C, Transfeldt E

North American Spine Society Spring Break 2009

- **Three-Dimensional Analysis of the Cervical Neuroforamina Using an Upright M.R.I. in Healthy and Spondylotic Individuals Placed in Flexion, Extension, and Axial Rotation**

Pahl D, Hsu B, Rovner J, Denis F, Garvey T

Spine Society of Australia

Podium Presentation 2006

Transcranial Motor Evoked Potentials As The Sole Modality Of Spinal Cord Monitoring In Spinal Deformity Surgery

Hsu B, Cree A, Lagopoulos J, Cummine J

PRESENTATIONS

International Meetings

Scoliosis Research Society

- **Podium Presentation 2008**

Pedicle Subtraction (PSO) versus Smith-Petersen Osteotomies (SPO) for Correction of Fixed Sagittal Plane Deformities: Clinical and Radiographic Outcomes in 151 Patients

IMAST (International Meeting on Advanced Spine Techniques)

- **Podium Presentation 2008**

A Systematic Method to evaluate Thoracic Pedicle screw positioning

- **Podium Presentation 2008**

Comparison of infection rates of Open vs Minimally-invasive TLIFs

- **Poster Presentation 2007**

Transcranial Motor Evoked Potentials in Neuromuscular Scoliosis

Hsu B, Cree A, Lagopoulos J, Cummine J

- **Poster Presentation 2006**

The use of Transcranial Motor Evoked Potentials in Deformity Surgery: Efficacy and Results

Hsu B, Cree A, Lagopoulos J, Cummine J

Spine Society of Australia

Podium Presentation 2006

Transcranial Motor Evoked Potentials As The Sole Modality Of Spinal Cord Monitoring In Spinal Deformity Surgery

Hsu B, Cree A, Lagopoulos J, Cummine J

Other Meetings, Lectures and Presentations

- **Twin Cities Spine Center, Minneapolis, Minnesota**
Monthly Morbidity and Mortality Meeting Coordinator and Presenter, 2007-08
- **University of California, San Francisco Orthopaedic Grand Rounds 2007**
 - Orthopaedic Education in Australia: Past, Present and Future
- **Liverpool Hospital Orthopaedic Department Grand Rounds 2004**
 - Smoking and Tibial Non-union or Delayed union
 - Management of Distal Third Clavicle Fractures
- **St George Hospital Grand Rounds 2003**
 - Placement of Acetabular Screws in Total Hip Arthroplasty
 - Hip Anatomy and Hip Approaches
 - Removal of Implants in Revision Hip Arthroplasty
 - Leg Length Discrepancy and Pre-operative Planning in Total Hip Arthroplasty
 - Ligament Balancing in Total Knee Arthroplasty
- **Auckland Hospital Orthopaedic Department Grand Rounds 2002**
 - Fractures of the Odontoid
- **Australian Orthopaedic Registrar Association Annual Meeting 2006**
 - Spinal Cord Monitoring in Spinal Surgery
- **Australian Orthopaedic Association Registrar Teaching**
 - **2005** Trochanteric and Subtrochanteric femur Fractures
 - **2004**
 - Scoliosis: Aetiology, Classification and Management
 - Cervical Spine Trauma
 - **2003** Heterotopic Ossification at the Elbow
- **Wollongong Hospital Orthopaedic Department 2004**
 - Management of Midfoot Fractures
 - Management of Calcaneal Fractures

AWARDS AND SCHOLARSHIPS

Post-Graduate

- **Australian Orthopaedic Association Travelling Scholarship 2006**
- **Spine Society of Australia, Travelling Scholarship 2006**

Tertiary

- **Robin May Memorial Prize 1996** for "Display of leadership and good

fellowship through his or her term as a medical undergraduate”

- **Northern Sydney Area Health Services Board Prize** in 1996, for “Best overall contribution to the NorthernClinicalSchool during undergraduate training”.
- **John Irvine Hunter Prize and the title ‘Prosector’** in 1993, for “Proficiency in anatomy and contribution to the Wilson Museum of Anatomy, University of Sydney”

Secondary

- **St Ignatius College Prize**, for “highest Aggregate score in the 1990 Higher School Certificate”
- **Proxime of Year 12** St Ignatius College 1990
- **Australian Students Prize** for gaining a place in the top 500 Order of Merit list in the 1990 Higher School Certificate
- **NSW Premiers Certificate of Excellence** for First in the State in 3 unit Chinese
- **The Australian Chinese Academics and Professionals Association for Excellence** in the 1990 HSC 3 unit Chinese

COURSES

Spine Surgery Courses

- **Scoliosis Research Society** 45th Annual Meeting Pre-meeting Course and Instructional Course Lectures, Kyoto, Japan, 2010
- **Scoliosis Research Society** 44th Annual Meeting Pre-meeting Course and Instructional Course Lectures, San Antonio, 2009
- **Spinal Trauma Techniques**, Medtronic, Sydney, 2008
- **Emerging Trends in Cervical Spine**, Stryker Spine, Baltimore, MD, 2008
- **Current Trends in Adult and Paediatric Deformity Treatment**, Dallas, Texas, 2008
- **Controversies in Deformity Surgery**, Santa Fe, New Mexico, 2008
- **International Spine Tumour Symposium**, Vancouver, Canada, 2007
- **Spine Deformity Symposium**, AO Spine, San Diego, 2007
- **Management of Complications in Complex Spine Surgery**, AO Spine, San Francisco, 2007
- **Scoliosis Research Society** 43rd Annual Meeting Pre-meeting Course and Instructional Course Lectures, Salt Lake City, Utah, 2008
 - **Update on Congenital Spinal Deformity**
- **Scoliosis Research Society** 42nd Annual Meeting Pre-meeting Course and Instructional Course Lectures, Edinburgh, Scotland, 2007
 - **Update on Congenital Spinal Deformity**
- **Scoliosis Research Society** 41st Annual Meeting Pre-meeting Course and Instructional Course Lectures, Monterey, California, 2006
 - **Paediatric Deformity Symposium**
- **Elevating Best Practice**, Depuy, Spine Cadaver Course, Sydney, 2006
- **Cervical Spine Cadaver Workshop**, Stryker Spine, Sydney, 2006
- **Elevating Best Practice**, Depuy, Spine Cadaver Course, Brisbane 2005
- **Advances in Spine**, Port Douglas, 2005
- **Medtronic Spine EducationDay** at the Royal Australasian College of

Surgeons, Melbourne, 2007

- **Demonstrator** at the **Cervical Spine Cadaver Workshop** for Operating Theatre Nurses (SHIVER) 2006 at Prince of Wales Hospital Laboratories, Sydney

Orthopaedic and Trauma Surgery

- **Trauma Cadaver Course**, Zimmer, Melbourne 2005
- **AO Hand Course**, Sydney, 2002
- **AO Foot and Ankle Course**, Sydney, 2002
- **Basic Principles in Fracture Management**, AO Course, Hong Kong, 1999

Leadership, Management and Research

- AOA-Kellogg Leadership Series, Module 1: **Using Research to Advance Organizational Success**. At the Kellogg School of Management, Chicago, 2007
- **Graduate Certificate of Public Health**, Auckland University, 2002
- **Critical Literature Evaluation and Research Course**, RACS, 2001

CONFERENCE PARTICIPATION

- **International Meeting of Advanced Spinal Techniques** 2007, 2008
- **Scoliosis Research Society** 2006, 2007, 2008, 2009, 2010
- **Spine Society of Australia** 2005, 2006
- **Australian Orthopaedic Registrars Association Annual Meeting** 2002-04

ADMINISTRATIVE POSITIONS

- Scoliosis Research Society, Member of Research Grants Review Committee 2010
- Scoliosis Research Society, Member of Education Committee 2010, 2011
- Reviewer for SPINE 2010, 2011
- Reviewer for Clinical Neurology and Neurosurgery, 2008, 2011
- Presenter and Preceptor for Resident Teaching Series, University of California, San Francisco, Department of Orthopaedic Surgery, 2007
- Registrar in charge of Rachel Forster Bone Bank, 2000
- Treasurer, Sydney University Medical Society, 1995
- Vice-President of Resident Medical Officers' Association, Royal Prince Alfred Hospital, 1998
- Undergraduate Year Representative in Years 4, 5 & 6
- Student Member of Sydney University Faculty of Medicine, 1996, 1997
- Intern Representative to Clinical Training Committee, RPAH
- Secretary of Sydney University Soccer Football Club, 1996

PROFESSIONAL MEMBERSHIPS

- Fellow of Australasian College of Surgeons, since 2007
- Candidate member Scoliosis Research Society, since 2008
- Australian Society of Orthopaedic Surgeons (ASOS), since 2004
- Member of the Australian Medical Association, since 1997
- Associate Fellow of Australian Orthopaedic Association
- American Academy of Orthopaedic Surgeons, International Affiliate Member

LANGUAGES

Fluent in English and Chinese (Cantonese)