

OVERSEAS CLINICAL SPINE FELLOWSHIP REPORT

Queen Mary Hospital & The Duchess of Kent Children's Hospital
The University of Hong Kong (HKU)

FELLOW PROFILE

Fellow Name:	Dr. MEENA UMESH
Current Position:	Orthopaedic Spine Surgeon, India
Qualifications:	MBBS, MS (Orthopaedic Surgery) University College of Medical Sciences, Delhi (University of Delhi)
Prior Fellowships:	• AO Spine Fellowship (ROH Birmingham, UK) • AO Spine Fellowship (ISIC New Delhi, India) • Clinical Spine Fellowship (Stavya Spine Hospital, Ahmedabad, India) Advanced & Minimally Invasive Spine Fellowship (Japan)
Fellowship Period:	May 2026 – August 2026 (4-Month Intensive Rotation)
Host Institution:	Department of Orthopaedics and Traumatology, The University of Hong Kong

"This world-class clinical fellowship program offers an unparalleled depth of exposure into complex adolescent idiopathic scoliosis management, pioneering endoscopic interventions, and comprehensive clinical reasoning under the mentorship of global leaders in spine deformity care."

1. Introduction & Application Workflow

This report details a prestigious four-month Overseas Clinical Spine Fellowship completed at Queen Mary Hospital (QMH) and the Duchess of Kent Children's Hospital (DKCH), Sandy Bay, running under the auspices of the University of Hong Kong (HKU) from May 2026 to August 2026.

For prospective fellows seeking high-volume exposure to adult and pediatric spinal deformities, degenerative spine, spine infection, spine trauma with advanced technology management planning, this program represents a benchmark clinical opportunity. Entry into this fellowship involves a rigorous selection protocol requiring competitive application submission followed by a comprehensive panel interview.

Administrative Onboarding & Licensing

Onboarding logistics were efficiently managed through professional electronic correspondence by Ms. Jade Chan and Ms. Alison (Secretary of Spine Services). Following the receipt of the formal digital offer letter, the required credentials were compiled and verified for both physical registry and formal evaluation.

- Medical Registration: The team proactively facilitated securing a Limited Medical License from the Medical Council of Hong Kong.
- Visa Application: Upon licensing approval, full institutional support was provided to obtain an online electronic employment visa issued for a total eligibility span of six months.
- On-Site Logistics: Immediate distribution of security access credentials (for ward entry, operating theaters, and staff office quarters), original physical licenses, and an official campus housing authorization letter was finalized upon check-in.

Departmental Orientation

Initial clinical integration was structured beautifully by Nurse Hester (Nurse Coordinator for the Spine Division). She provided a thorough operational tour of the hospital systems, coordinated inter-departmental workflows, and designated specific schedules for the presentation rosters within the regional pre-operative clinical meetings.

2. Spine Division Leadership & Faculty Structure

The Spine Division within the Department of Orthopaedics and Traumatology at HKU consists of world-renowned clinicians, researchers, and dedicated staff. Working along with this collaborative hierarchy ensures phenomenal professional growth.

Chairman of Orthopaedics	Prof. Jason Cheung
Chief of Spine Division	Prof. Kenny Kwan
Senior Consultant	Dr. Paul
Spine Consultants	Dr. Graham Shae, Dr. Chris Tang
Senior Residents	Dr. Andy, Dr. Samuel
Orthopaedic Rotational Trainees	Dr. Raymond, Dr. Marcus, Dr. Brian, Dr. Victor
International Co-Fellow	Dr. Ingrid (Philippines), Dr Jun Hao (Singapore) Dr Kim (Brazil)

3. Structured Weekly Schedule

The fellowship maintains a balanced, high-yield weekly routine split seamlessly between complex deformity outpatient clinics, academic multi-disciplinary meetings, and heavy operative theater blocks across both host institutions.

Monday: Ward Rounds & Scoliosis Outpatient Clinic

The week initiates with specialized morning ward rounds focused on service patient reviews, typically led by Dr. Graham Shae. Following rounds, fellows spend 09:00 AM to 01:00 PM consulting within the highly populated Scoliosis Clinic at DKCH (typically stationed in consultation room 6). This environment offers extensive hands-on experience in inspecting varying severities of spinal asymmetry, assessing curve progressions, and formulating management strategies.

Tuesday: Intensive Operative Day (DKCH)

Tuesdays are entirely dedicated to major surgical procedures. Following early service rounds, the operative day starts promptly at 08:20 AM within the main theaters at DKCH, frequently extending into the late evening. Under senior consultancy guidance, fellows participate in major reconstructive spine surgeries and deformity corrections.

Wednesday: Spine Grand Rounds & Academic Conference

- 08:30 AM Grand Rounds (Wards 5, 6, 7 & 8 - DKCH): A cornerstone academic pillar. Fellows bear complete responsibility for presenting thorough history, imaging tracks, and proposed management plans to the assembled senior spine team. This provides exceptional interactive learning and refines active clinical decision-making metrics.
- Mid-Day Academic Meeting (QMH): The team travels to Queen Mary Hospital for the Departmental Conference, situated on the 5th floor of the Professorial Block.
- 02:00 PM – 05:00 PM Evening Clinic (DKCH): Focuses on localized patient follow-ups, postoperative progress monitoring, and specialized treatment adjustments.

Thursday: Advanced Surgical Operations (DKCH)

Similar to Tuesday, Thursdays follow a rigorous surgical schedule commencing at 08:20 AM. Fellows scrub into extensive, technical cases, offering prime opportunities to practice meticulous tissue handling and instrumentation techniques under close consultant supervision.

Friday: System-Wide Grand Rounds & Pre-Operative Planning

- Morning Rounds & QMH Grand Rounds: System-wide multi-disciplinary case breakdowns detailing long-term postoperative patient tracking and outcomes.
- 12:45 PM Pre-Operative Briefing (QMH Library, 5th Floor Professorial Block): Fellows formulate and drive highly descriptive PowerPoint case summaries covering all incoming surgical admissions. The spine unit reviews every structural detail, anticipating difficulties and tailoring pathological plans.
- 02:00 PM – 05:00 PM Outpatient Clinic (QMH S-Block, 7th Floor): The week concludes with comprehensive patient screens, handling multi-pathological adult degenerate consultations.

4. Core Clinical Competencies & Surgical Innovations

The unique volume of complex tertiary pathology encountered at HKU enabled advanced mastery across several cutting-edge therapeutic modules:

Adolescent Idiopathic Scoliosis (AIS)

- Posterior Spinal Fusion (PSF): Mastery of complex correction methodologies including rod rotation maneuvers, cantilever translation techniques, Direct Vertebral Rotation (DVR), and combined compression-distraction mechanics.
- Anterior Deformity Options: Observation and analysis of state-of-the-art endoscopic-assisted Vertebral Body Tethering (VBT) procedures driven by Prof. Jason Cheung.
- Revision Protocols: Strategic management plans involving broken tethers, revision VBT, and extended posterior constructs.

Endoscopic Spine Surgery

- Unilateral Biportal Endoscopic (UBE) Interventions: Comprehensive technical instruction covering standalone biportal decompressions alongside endoscopic lumbar interbody fusions (Endo-Fusions) reinforced with percutaneous pedicle screw fixation systems by Prof. Jason Cheung & Prof. Kenny

Minimally Invasive Spine Surgery (MISS)

- High-yield competency in Oblique Lumbar Interbody Fusion (OLIF) approaches and advanced multi-level percutaneous pedicle screw instrumentation techniques.

Pediatric & Early-Onset Scoliosis (EOS)

- Traditional Growth Rod surgical implantation, lengthening strategies, and localized structural management.
- MAGEC (Magnetic Expansion Control) System: Non-invasive magnetic spine lengthening procedures utilized for progressive early-onset scoliosis patterns in children aged 2 years and above.

Open Reconstructive Procedures

- Conventional open surgical frameworks including precise lumbar lamina fenestration and open Transforaminal Lumbar Interbody Fusion (TLIF).

Interventional Pain & Care

- Spinal Injections: Precision execution of Transforaminal Epidural Steroid Injections (TFESI) under fluoroscopic guidance.
- Non-Operative AIS Treatment: Evidence-based conservative management protocols, including advanced rigid bracing metrics, customized physiotherapy regimens, and dedicated psychological counseling frameworks for parents.

New Pre-Operative Diagnostic Insights

- Fulcrum Bending Radiography: A landmark learning point. The department utilizes whole-spine Fulcrum Bending (FB) X-Rays instead of standard lateral side-bending films. Pre-operative calculations, flexibility mappings, and

definitive fusion levels depend strictly on these specialized projections to optimize curve correction.

Rigid Deformity Traction

- Halo-Gravity Traction (HGT): Development of strict protocols regarding patient selection, incremental weight titration parameters, duration guidelines, and outcome milestones for highly rigid, severe spinal structural pathologies before definitive surgery.

5. Fellowship Research Endeavors & Academic Initiatives

Active academic research formed a crucial pillar of the clinical integration during the fellowship rotation. Engaging directly with the departmental multi-center databases, the following investigative projects were pursued under faculty supervision:

Project 1: Clinical Efficacy and Safety Profile of Antiplatelet Regimens in Cervical Myelopathy Populations

- Research Team: Dr. Graham Shae, Dr. Andy, Dr. Meena Umesh

Project 2: Examining the position of the tether at each operated level in relation to surgical outcomes in Post-Operative Serial Radiographic Parameters in our VBT cohort of Adolescent Idiopathic Scoliosis

- Research Team: Prof. Jason Cheung, dr prudence, Dr. Meena Umesh

Project 3: Examining and comparing the sagittal profile of VBT and spinal fusion patients in standard and relaxed positions preoperative and postoperatively Serial Radiographic Parameters in Adolescent Idiopathic Scoliosis

- Research Team: Prof. Jason Cheung, dr prudence, Dr. Meena Umesh

6. Logistics, Stipend & On-Site Fellow Life

Beyond clinical excellence, the HKU spine fellowship provides comprehensive infrastructural support designed to accommodate international fellows seamlessly, making it a highly attractive destination.

Premium On-Campus Accommodation : fully-equipped residential housing situated right inside the scenic DKCH Campus.

Accommodation at DKCH



On-Call Responsibilities & Weekend Freedom

On-call clinical duties are exceptionally manageable, averaging approximately 3 to 4 on-call shifts per month. Saturdays and Sundays represent guaranteed full holidays.

Financial Security via Monthly Stipend : the institution allocates a generous monthly stipend of 20,000 HKD to the fellow.

7. Illustrative Clinical Case Reflections

The following archetypes highlight the surgical precision and decision-making logic routinely executed during the rotation:

Case 1: Severe Adolescent Idiopathic Scoliosis (AIS)

15/F, Severe AIS (T9-L3: 116 deg), Asymptomatic, shoulder/Pelvis Level. Truncal shift to right side ++, Forward bending showed right sided loin hump, rigid with side bending and Satisfactory overall sagittal alignment. Pre Op Halo Traction, Final surgery (T10-L3anterior released, PSF T5-L4)



Case 2: Skeletally Immature AIS

A 12/F, Stand with shoulders/pelvis level, Trunk shift to left side +ve, Forward bending showed left sided lon hump, flexible with side bending, No rib hump. X-ray: AIS (T5-T10: 41, T10-L3: 54deg), Risser 2-3, Lenke 6C, Sanders 5, Good sagittal alignment. Procedure : Endoscopic assisted Double VBT.



Case 3: AIS , Lenke 1B

13yr/F, standing with right shoulder slightly higher, trunk shift to right side ++, Forward bending showed prominent right sided rib hump, partly correctible with side bending. Mild left sided loin hump, flexible with sided bending. {(T6-L1 = 75 deg (unbends to 30s), L1-L5 = 56 deg (unbends to 20s)}. PSF T5-L2 (Counter de-Rotation at distal screw for lumbar curve). Here Learning key point: XR at POD 2 and POD 7.



8. Networking, Team Integration & Social Milestones

A defining hallmark of this fellowship is the rich social camaraderie and tight integration with the clinical staff. This collaborative team culture fosters lifelong global friendships and cross-border research networks.





Prof. Jason



Graham



Chris Tang



Spine Team (DKCH & QMH)

DKCH and Nearby Sandy bay Sunset POINT



Sandy bay sun set point



DKCH front view



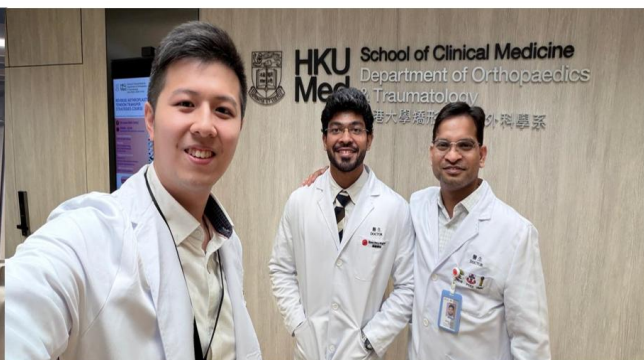
Nurse – Hester



Nurse – Sameul (scoliosis clinic)



Wednesday Department Conference



Conclusion & Key Advice to Applicants

The Overseas Spine Fellowship at the University of Hong Kong stands as an elite milestone for any orthopedic surgeon looking to specialize in advanced spine surgery. The clinical depth, innovative techniques like Fulcrum Bending radiography, and cutting-edge technologies like the MAGEC system and UBE provide exceptional career acceleration. Future fellows are advised to maintain active, open dialogue during the pre-operative presentation rounds and completely immerse themselves in both the academic and cultural vibrancy of Hong Kong.

Dr. Meena Umesh
Overseas Spine Fellow, DKCH & QMH

Prof. Jason Cheung
Chairperson, deptt Of Orthopedics
University of Hong Kong (HKU)