**Mr Arun Ranganathan** *MBBS, MRCS, PGDip(Orth Engin), DM, FRCS(Tr&Orth)*

Consultant Spine and Orthopaedic Surgeon

Barts and The London NHS Trust

**Spinal Practice**

**Degenerative Neck and Back Conditions** – Minimal Access muscle sparing Micro-Endoscopic spinal surgery, Cervical and selective Lumbar Disc Arthroplasty and Fusion, Spinal navigation and Stealth with Minimal Access muscle sparing Lumbar spinal fusions, Dynamic stabilisation procedures.

**Adult Degenerative Scoliosis Surgery** – Correction of adult sagittal plane spinal imbalance, Spinal Osteotomies for deformity correction in adults.

**Tumours** – Kyphoplasty, Surgical and multi-disciplinary management of all

benign/malignant spinal tumours including Enbloc resections,

Minimal Access endoscopic tumour surgery

**Paediatric Spinal Deformity** – Scoliosis and Scheuermann's Kyphosis

**Trauma** - Adult and paediatric spinal trauma – spinal cord injuries, craniovertebral junction trauma, Cervical, Thoracic and Lumbar spinal trauma – stabilisation/ fusion and reconstruction.

**Education:**

Bachelor of Surgery and Bachelor of Medicine – Bangalore, India

Postgraduate Training in Orthopaedics - India

Postgraduate Diploma in Orthopaedic Engineering – Cardiff University

Doctorate of Medicine (Orthopaedics - Spine Surgery) – University of Nottingham

FRCS(Tr&Orth) and MRCS – Royal College of Surgeons of Edinburgh

**Registrar training in Trauma and Orthopaedic Surgery:**

Northern and Yorkshire Deanery

**Fellowship:**

AO North America Advanced Spinal Deformity and Neuro-Spine Fellowship - University Of Toronto – Krembil Neuroscience Centre (Toronto Western Hospital) and Hospital for Sick Children, Toronto

Adult Degenerative and Neuro-Spine as advanced SpR/Fellow in James Cook University Hospital, Middlesbrough

Research and Clinical Fellow in Spinal Surgery – Centre for Spinal Studies and Surgery, Nottingham University Hospital NHS Trust.

**Additional responsibilities:**

Reviewer for ‘Spine’ journal, International Research Journals, Journal Of Medicine and Medical Sciences, Research Grants Commission, Univ Of Hongkong

**International Awards in Spine Surgery**

- 2009 International Society For Study Of Lumbar Spine (previously Volvo Award) 2009 award - by Spine journal for best international research in the field of basic science and spinal biomechanics – Miami, Florida.

- 2009 Spine Society of Australia Research award for best research work in Spine surgery – Brisbane, Australia.

- 2004 International Society For Study Of Lumbar Spine (previously Volvo Award) 2009 award - by Spine journal for best international research in the field of clinical studies in spine surgery – Porto, Portugal

- 2004 Bristspine International Award for Best basic science research work – Nottingham, UK.

- Association of Spine Surgeons –Depuy- Acromed Award Prize for Best Basic Science Research in Spine Surgery for the year 2004 – India.

 **Research interests:**

I have pioneered research in Intervertebral Disc Nutrition studies using advanced MR Imaging techniques for 10 years and hold a doctorate degree in this field. I am a part of several international research projects. I have delivered invited lectures internationally and published extensively in the field of intervertebral disc physiology I have also published extensively on all aspects of clinical spine surgery in international peer reviewed journals of spine surgery.

I have a keen research and clinical interest in treatment of all types of spinal trauma. In addition I also have interests in Traumatic Spinal cord injury, Biological solutions to Low back pain and Spinal Tumours.

**Key Publications:**

***Predictors of Treatment Outcomes in Geriatric Patients with Odontoid Fractures: AOSpine North America Multi-centre Prospective GOF Study.*** MG Fehlings, **Arun R**, Vaccaro A, Arnold P, Jens Chapman , Kopjar B. **Spine (Phila Pa 1976)**. 2013 Mar 1. [Epub ahead of print]. PMID: 23459135

***Predictors of Surgical Outcome in Cervical Spondylotic Myelopathy.***  Karpova A, **Arun R**, Davis AM, Kulkarni AV, Massicotte EM, Mikulis DJ, Lubina ZI,FehlingsMG. **Spine (Phila Pa 1976).** 2013 Mar 1;38(5):392-400. PMID: 23448898

***Reliability of Quantitative MRI Methods in the Assessment of Spinal Canal Stenosis and Cord Compression in Cervical Myelopathy***

Karpova A, **Arun R** , Davis AM, Kulkarni AV, Mikulis DJ, Sooyong C, Rabin D, Craciunas S, Smith SR, Hansen MA, George J, Fehlings MG.

**Spine (Phila Pa 1976)**. 2013 Feb1;38(3):245-52. PMID: 22772577

***New treatments and imaging strategies in degenerative disease of the intervertebral disks.***

Lotz JC, Haughton V, Boden SD, An HS, Kang JD, Masuda K, Freemont A, Berven S, Sengupta DK, Tanenbaum L, Maurer P, **Ranganathan A**, Alavi A, Marinelli NL.

**Radiology.** 2012 Jul;264(1):6-19.

***ISSLS Prize Winner 2009 : What is the effect of a sustained Load on Diffusion of Solutes in Human Intervertebral Discs ?***

**Arun R,** BJC Freeman, BE Scammell, DS McNally, P Gowland.

**Lead article in Spine (Phila Pa 1976)** Vol 34(21),Oct 1 2009, pp 2324 – 2337.

PMID: 19755934

***ISSLS Prize Winner 2004: A Study of Diffusion in Human Lumbar Discs: A Serial Magnetic Resonance Imaging Study Documenting the Effect of Endplate on Diffusion in Normal and Degenerate Discs.***

S. Rajasekaran, JN Babu, **Arun R**, AP Shetty, S Murugan.

**Spine (Phila Pa 1976)**, Number 23,Dec.1, 2004, pp 2654-2667.

PMID: 15564914

***Scoliosis in Duchenne’s Muscular Dystrophy: a changing trend in surgical management. A historical surgical outcome study comparing sublaminar, hybrid and pedicle screw instrumentation systems.***

**Arun R**, S Srinivas, SMH Mehdian.

**Eur Spine J.** 2010 Mar;19(3):376-83. Epub 2009 Sep 17. PMID: 19760271

***Scoliosis in Association with Infantile Hypophospahtasia – A rare case study in two siblings. Review article.***

**Arun R,** R Khazim, JK Webb, J Burn.

**Spine (Phila Pa 1976)**, Vol.30, Aug 15, 2005. PMID: 16103841 (Impact Factor 2.676)

***A New Technique for Reduction of High Grade Isthmic Spondylolisthesis****.*

SMH Mehdian, **Arun R**, Alwyn Jones, AA Cole

**Spine (Phila Pa 1976)**. 2005 Oct 1;30(19):E579-84. Review.

PMID: 16205332 (Impact Factor 2.3)

***Do Anterior interbody Cages have a potential value in the surgical management of Scheuermann’s Kyphosis?***

**Arun R***,* SMH Mehdian, BJC Freeman, SC Daivajina

**SPINE J**. 2006 Jul-Aug; 6 (4):413-20. PMID: 16825049

***Multilevel vertebral osteomyelitis and facet joint infection following epidural catheterisation.***

**Arun R**, Al-Nammari SS, Mehdian SM.

**Acta Orthop Belg**. 2007 Oct; 73(5):665-9. PMID: 18019927

***Spontaneous kyphotic collapse followed by autostabilisation secondary to cervical osteomyelitis in an intravenous drug abuser.***

**Arun R, Kasbekar AV, Mehdian SM**

**Acta Orthop Belg**. 2007 Dec; 73(6):807-11. PMID: 18260500

***A New Three Stage Spinal Shortening Procedure For Reduction of Severe Adolescent Isthmic Spondylolisthesis* – *a case series with medium to long term follow-up.***

S H Mehdian, **Arun R**

**Spine (Phila Pa 1976).**  2011 May 15;36(11):E705-11. PMID: 21358576

***A Safe Controlled Instrumented Reduction Technique for Cervical Osteotomy in Ankylosing Spondylitis -* *a 16 year experience.***

S H Mehdian, **Arun R**

**Spine (Phila Pa 1976).** 2011 Apr 20;36(9):715-20. PMID: 21289582

***Comparison of Three Types of Lumbar Osteotomy for Ankylosing Spondylitis – a case series and evolution of a safe technique for instrumented reduction***

**Arun R**,HV Dabke, SH Mehdian

**Eur Spine J. 2011** Dec; 20(12):2252-60. PMID: 21800034