

Kumar G. Sinha M.D.

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CLINICAL / TEACHING APPOINTMENT

Assistant Professor
Seton Hall University, Hackensack Meridian School of Medicine
Department of Orthopedics
St. Joseph's University Medical Center

Attending Physician
St. Joseph's University Medical Center
Department of Orthopedic Surgery
Paterson, NJ 07503
September 2009 - Present

Attending Physician
Robert Wood Johnson University Hospital at Rahway
Rahway, NJ 07065
September 2009 - Present

BOARD CERTIFICATION

American Board of Orthopaedic Surgeons
Spine Surgery Subspecialty - 2011

EDUCATION

Spine Surgery Fellowship
University of Miami, Department of Orthopaedic Surgery /
Miami Children's Hospital
July 2008 – August 2009

Orthopaedic Surgery Residency
July 2003 - June 2008
Seton Hall University Graduate Medical Education
St. Joseph's Hospital and Medical Center
Paterson, NJ 07514

State University of New York, Upstate Medical University, School of Medicine
Syracuse, New York
Doctor of Medicine, Graduated May 2003

Rutgers University, College of Engineering
New Brunswick, New Jersey
Bachelor of Science, Electrical Engineering, May 1996
Graduated with High Honors

HONORS

Rutgers University
Garden State Scholar; College of Engineering Deans List.
Tau Beta Pi, National Engineering Honor Society;
Eta Kappa Nu, National Electrical Engineering Honor Society.

RESEARCH

- Treatment of isthmic spondylolisthesis with anterior interbody fusion using allograft and BMP followed by percutaneous pedicle screw fixation.
Arash Emami, MD. Dept. of Orthopaedics, St. Joseph's Hospital & Medical Center, NJ
- Association between Slipped Capital Femoral Epiphysis, Tibia Vara, and Type II Juvenile Diabetes.
Richard Bowen, MD. Dept. of Orthopaedics, A.I. Dupont Children's Hospital, DE
- Retrospective comparison of wound healing associated morbidity in use of External Beam Radiation Therapy with and without brachytherapy in post-surgical treatment of high-grade soft tissue sarcoma. March 2002 – March 2003.
Timothy Damron, MD. Dept. of Orthopaedics., SUNY, Upstate Medical University, NY
- Fatigue Crack Morphology in Cemented Hips.
Designing and writing software programs to locate and analyze fatigue cracks on digital images of stained specimens. NIH Study. Sept 2001 – March 2003.
Amos Race, PhD. Dept. of Orthopaedics., SUNY, Upstate Medical University, NY
- Twelve lead ECG data calculated from only three physical leads using neural networks and fractal analysis. Samples contained normal and infarction ECGs. June 1996 – October 1997.
David Schreck, MD. Kumar Sinha, Mhulenberg Regional Hospital, NJ
- Delineating between viable and infarcted intestinal tissue following bowel ischemia using EMG and digital signal processing. Design and implementation of proposed device.
May 1995 – Dec. 1995.
John Semmlow, PhD. Dept. of Biomedical Eng., Rutgers University. NJ

PUBLICATIONS

- Sahai N, Faloon MJ, Dunn CJ, Issa K, Sinha K, Hwang KS, Emami A. Short-Segment Fixation With Percutaneous Pedicle Screws in the Treatment of Unstable Thoracolumbar Vertebral Body Fractures. *Orthopedics*. 2018 Nov 1;41(6)
- Emami A, Faloon M, Sahai N, Dunn CJ, Issa K, Thibaudeau D, Sinha K, Hwang KS. Risk Factors for Pseudarthrosis in Minimally-Invasive Transforaminal Lumbar Interbody Fusion. *Asian Spine J*. 2018 Oct;12(5):830-838.
- Dunn C, Moore J, Sahai N, Issa K, Faloon M, Sinha K, Hwang KS, Emami A. Minimally invasive posterior cervical foraminotomy with tubes to prevent undesired fusion: a long-term follow-up study. *J Neurosurg Spine*. 2018 Oct;29(4):358-364.
- Bowen JR, Assis M, Sinha K, Hassink S, Littleton A., Associations among slipped capital femoral epiphysis, tibia vara, and type 2 juvenile diabetes, *J Pediatr Orthop*. 2009 Jun;29(4):341-4.
- Schreck DM, Berenfeld B, Chibber P, Brotea C, Sinha K: Fractal Dynamics of Normal and Infarction ECGs: A Predictive Computer Model. *Annals of Emergency Medicine*, September 1997, 30:3
- Pourtaheri S, Emami A, Shafa E, Sinha K, Hwang K, Holmes, L. "The Role Magnetic Resonance Imaging in Acute Cervical Spine Fractures." *Spine Journal*. 2013 Nov 21. S1529-9430(13). (PubMed: 24269913).
- Faloon M, Sahai N, Pierce TP, Dunn CJ, Sinha K, Hwang KS, Emami A. Incidence of Neuraxial Abnormalities Is Approximately 8% Among Patients With Adolescent Idiopathic Scoliosis: A Meta-analysis. *Clin Orthop Relat Res*. 2018 Feb 21

Pourtaheri S, Emami A, Allert J, Sinha K, Hwang K, Holmes, L. “Cervical Corpectomies with Ultra-low Dose Recombinant Bone Morphogenetic Protein-2 in High Risk Patient: Complications and Outcomes.” *Orthopedics*. 2013 Dec 1; 36(12).

Dunn CJ, Mease S, Issa K, Sinha K, Emami A. Low energy chronic traumatic spondylolisthesis of the axis. *Eur Spine J*. 2017 Jul 21

Pourtaheri S, Emami A, Sinha K, Hwang K. “Ultra-low Dose Bone Morphogenetic Protein-2 in Three-Level Anterior Cervical Surgery.” *Orthopedics*. 2015 Apr;38(4):241-5

Pourtaheri S, Emami A, Shafa E, Sinha K, Hwang K, Holmes, L. “The Safety of Instrumentation in Vertebral Osteomyelitis.” *North American Spine Society Annual Meeting*. (NASS 2013). New Orleans, LA

Issa K, Stewart T, Faloon M, Sahai N, Mease S, Sinha K, Hwang K, Emami A. Clinical Differences Between Monomicrobial and Polymicrobial Vertebral Osteomyelitis. *Orthopedics*. 2017 Mar 1;40(2):e370-e373.

Pourtaheri S, Issa K, Stewart T, Patel Y, Sinha K, Hwang K, Emami A. When Do You Drain Epidural Abscesses of the Spine? *Surg Technol Int*. 2016 Oct 26; XXIX:374-378.

Issa K, Pourtaheri S, Vijapura A, Stewart T, Sinha K, Hwang K, Emami A. Delay in Diagnosis of Vertebral Osteomyelitis Affects the Utility of Cultures. *Surg Technol Int*. 2016 Oct 26; XXIX:379-383.

Emami A, Faloon M, Issa K, Shafa E, Pourtaheri S, Sinha K, Hwang KS. Minimally Invasive Transforaminal Lumbar Interbody Fusion in the Outpatient Setting. *Orthopedics*. 2016 Nov 1;39(6):e1218-e1222

Pourtaheri S, Issa K, Lord E, Ajiboye R, Drysch A, Hwang K, Faloon M, Sinha K, Emami A. Paraspinal Muscle Atrophy After Lumbar Spine Surgery. *Orthopedics*. 2016 Mar-Apr;39(2):e209-14.

PRESENTATIONS

Can rhBMP-2 improve Fusion Rate For Revision Long Fusion to Sacrum in Adults?
Sinha, K, Emami, A
Poster Presentation, International Meeting for Advanced Spinal Techniques
Nassau, Bahamas 2007

EMPLOYMENT

Computer Engineer, Ariel Corporation, Cranbury, NJ
Full time computer engineering position developing applications with various programmable digital signal processors. August 1996 – November 1997

Building Supervisor, Busch Campus Center, Rutgers University, NJ
January 1995 – May 1996
Managed 80,000 sq. ft facility and supervised student staff members.

Technical House Staff, Busch Campus, Rutgers University, NJ

Sept 1993 - January 1995

Organized, administered and maintained technical equipment and trained new employees.

**LEADERSHIP &
COMMUNITY
SERVICE**

Volunteer Surgeon. Butterfly Foundation, Nonprofit organization focused on teaching and performing spinal deformity surgery in developing countries.

Secretary, Surgery Club

Member, American Medical Student Association

DES Tutor for Embryology and Anatomy

Member, Emergency Medicine Club

Coordinated and performed in the Diwali Cultural Show in fall of 1998

Rutgers University

Member of IEEE (Institute of Electrical and Electronic Engineers)

Biology Club, Premedical Society

Intramural Basketball (1993), Finalist in intramural Racquetball competition (1996)

Council 96 (Organizers of various programs involving the class of 1996)

Volunteer Work

Research Assistant, Dept. of Hematology/Oncology, RWJ Hospital; May '95 – Sept '95

Emergency Room Volunteer, Mhulenberg Regional Hospital; June '96 – Dec '96

Memberships

AAOS, NASS,AMA, SAS

INTERESTS

Include home improvement and automation, mountain biking, digital photography, basketball, running, electronic projects and computers.