ADULT RECONSTRUCTION FELLOWSHIP ORTHOPAEDIC SURGERY

UNIVERSITY OF MINNESOTA

Medical School

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2017-2018
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**Adult Reconstruction Fellowship Program**

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WELCOME
To the Adult Reconstruction Fellowship Program

Thank you for your interest in the Adult Reconstructive Fellowship Program at the University of Minnesota.

Our fellowship program is based at the University of Minnesota Medical Center, Fairview. The fellowship provides a broad training experience in the diagnosis, management, and surgical treatment of adult reconstructive disorders. Fellows are exposed to clinical problems spanning the breadth from minimally invasive procedures, such as hip arthroscopy, to multiply revised joint replacements with substantial structural bone loss. In addition, problems ranging from osteoarthritis to complex revision joint replacements are encountered routinely. The University of Minnesota provides an ideal setting for the fellowship training program.

Many faculty are involved with fellowship training and each has their own subspecialty interest and expertise. This provides excellent opportunities for mentorship in all areas of adult reconstructive surgery. The training program has been successful in graduating surgeons who practice in community and academic settings in the United States, as well as in Europe, the Middle East, and Asia. There are opportunities for on-going research participation, as well as teaching and interaction with the University of Minnesota residency training program.

Thank you very much for your interest in our Adult Reconstruction Fellowship Program. We look forward to receiving your application through the San Francisco Match. Inquiries may be directed to Carol Skaja-Jacobsen, Adult Reconstruction Fellowship Coordinator, cskajaja@umn.edu

Sincerely yours,

Edward Y. Cheng, M.D.
Director, Adult Reconstructive Joint Fellowship
Mairs Family Professor

http://www.ortho.umn.edu/education-training/fellowships
Program Description

This twelve-month fellowship, accredited by the Accreditation Council for Graduate Medical Education (ACGME), is a one year fellowship at the University of Minnesota Medical Center (UMMC). The year provides time in the outpatient clinic and operating room and is devoted to patient care responsibilities. There are research obligations as well and a requirement for graduation from the program is completion of a research project and publication submission.

University of Minnesota Health® at University of Minnesota Medical Centers, East and West Bank. The hospital, based on 2 campuses on either side of the Mississippi River, is a quaternary care referral site for the entire Upper Midwest region from Montana to the upper peninsula of Michigan. Fellows are exposed to treatment and management of the young adult hip (femoroacetabular impingement) and hip arthroscopy and osteotomies, primary hip/knee arthroplasty, complex revision arthroplasty, and reconstructive surgery after tumor excision and metastatic disease in addition to degenerative disease. Patients are under direct care of a single faculty attending surgeon, and the fellow works intimately with that surgeon to gain knowledge and experience.

There is only one resident assigned to the service; therefore, when multiple surgeries are performed or the resident is on vacation or away for interviews, the fellow's surgical experience is increased.

Fellows are given clinical and surgical responsibilities commensurate with their capabilities and experience. There is minimal inpatient work as a resident and physician assistant are assigned these tasks. There is no regular on-call assignment; however, fellows are welcome to scrub in any and all surgical cases.

The fellow’s primary responsibility is planning surgical cases and providing both surgical and outpatient assistance. Secondary responsibilities include: Teaching residents, rotating weekend morning inpatient rounding with the resident, covering resident inpatient call during the OITE exam, giving educational presentations, e.g., grand rounds and nursing lecture.
UNIVERSITY OF MINNESOTA

University of Minnesota Health, West Bank Hospital

University of Minnesota Health, East Bank Hospital

University of Minnesota, Clinics and Surgery Center

TRIATM Orthopaedic Center
EDWARD Y. CHENG, M.D.
Adult Reconstruction Fellowship Program, Director
Mairs Family Professor University of Minnesota

Dr. Cheng, Mairs Family Professor, is the Program Director for the Adult Reconstruction Fellowship Program at the University of Minnesota. Dr. Cheng specializes in adult reconstruction and orthopaedic oncology. His research focuses on joint replacement, osteonecrosis, soft tissue sarcomas, and bone tumors. Dr. Cheng is also the Editor for the Journal Bone and Joint Surgery: Essential Surgical Techniques.

EDUCATION
• Boston Children’s Hospital Medical Center, Boston, MA, Pediatric Orthopaedic Oncology Fellow
• Massachusetts General Hospital, Boston, MA Orthopaedic Oncology Fellowship, Research Fellowship
• Harvard Combined Orthopaedic Surgery Residency Program, Boston, MA, Orthopaedic Surgery, Residency
• Northwestern University, McGraw Medical Center, Chicago, IL, General Surgery, Internship and Residency
• Northwestern University Medical School, Chicago, IL, MD

MEMBERSHIPS AND LEADERSHIP
• Children’s Oncology Group 2010
• American Orthopaedic Association 2001-present
• American College of Surgeons Oncology Group 2000-present
• National Osteonecrosis Foundation 1997-present
• Association Research Circulation Osseous, Secretary-Treasurer, North America 2016-present
• Association Research Circulation Osseous, Vice President, North America 2007-2015
• Musculoskeletal Tumor Society
  o Secretary 2008-2009
  o Treasurer 2009-2010
  o President-elect 2010-2011
  o President 2012-2013
• American Association of Hip and Knee Surgeons 1994-present
• American Academy of Orthopaedic Surgeons 1994-present
• International Society of Limb Salvage

HONORS AND AWARDS
• University of Minnesota, Mairs Family Endowed Chair in Orthopaedic Surgery 2004
• Distinguished Professor Appointment, Affiliated Zhongshan Hospital-Dalian University 2017
• University of Minnesota Hospitals and Clinics, Physician Recognition Award 1993
• Guide to America’s Top Surgeons 2016
• International Association of Orthopaedic Surgeons - Top Doctor 2017, 2016, 2015
• Best Doctors 2016, 2015
• Newsweek Health, Top Cancer Doctors 2015
• Minnesota Monthly, Top Doctors for Women Award 2011
• America’s Top Physicians, Consumers’ Research Council of America 2004
• United States Food and Drug Administration, Advisory Committee Service Award 2001
• American Cancer Society Clinical Oncology Fellowship Award 1989-1990
PATRICK MORGAN, M.D.
Assistant Professor
University of Minnesota

Dr. Morgan’s specialty is adult reconstruction, focusing on young adult hip disorders and joint preservation procedures. His practice includes hip arthroscopy, hip resurfacing, and joint replacement of the hip and knee.

EDUCATION
- Washington University School of Medicine, Fellowship in Joint Preservation, Resurfacing, and Replacement
- University of Minnesota, Residency
- University of Minnesota Medical School, MD

MEMBERSHIPS
- American Board of Orthopaedic Surgery, Certified
- American Academy of Orthopaedic Surgeons
- International Cartilage Repair Society
- International Society for Hip Arthroscopy
- Mid-America Orthopaedic Association

HONORS AND AWARDS
Dr. Dahl specializes in adult and pediatric orthopedics, including limb reconstruction and limb lengthening surgery. His practice also includes knee arthritis and cartilage preservation, ankle arthritis and cartilage preservation, lower extremity osteotomy, and repair of non-unions.

EDUCATION
- University of Verona, Italy, Limb Lengthening and Deformity Correction Fellowship
- International Institute for Limb Restorative Surgery, Kurgan, Sibera, USSR, Distraction Osteogenesis Fellowship (Ilizarov Methodology)
- University of Minnesota, Residency
- Hennepin County Medical Center, Internship
- Mayo Medical School, MD

MEMBERSHIPS
- American Academy of Orthopaedic Surgery
- American Medical Association
- Minnesota Medical Association
- Association for the Study and Application of the Methods of Ilizarov
- Limb Lengthening and Reconstructive Society of North America
- Minnesota Orthopaedic Society
- Pediatric Orthopaedic Society of North America
- American Orthopaedic Association

HONORS AND AWARDS
- “Best of Show” Naples Art Show “Pelican 2” 2014
- “Best of Show”, Naples Art Show, 2015, 2016
- “Best of Show”, Wounded in Action Art exhibit, Duty to All Bronze on Marble AAOS Annual Meeting, New Orleans, LA 2009
- St. Cloud Technical High School Distinguished Alumnus, 2006
- “Save the Children” Hospital Infants Annual Award, 2004
- St. Cloud State University Distinguished Alumni Award, 1992
- St. Cloud State University Distinguished Biology Alumnus, 1990
PATRICK HORST, M.D.
Assistant Professor
University of Minnesota

Dr. Horst is an Assistant Professor in the Department of Orthopaedic Surgery. He specializes in surgical treatment for degenerative conditions of the hip and knee including total hip replacement, total knee replacement, joint preservation surgery, and complex revision hip and knee replacement. His research interest focuses on improving patient outcomes and recovery after total joint replacement, orthopaedic specialization, and the socioeconomic impact of hip and knee arthritis and total joint replacement.

Dr. Horst recognizes the amount of pain and disability caused by hip and knee arthritis is great. His goal is to help patients regain function, decrease pain, and improve their quality of life through education and treatment of degenerative conditions of the hip and knee.

EDUCATION
- Stanford University, Stanford, CA, Adult Reconstruction and Joint Replacement, Fellowship.
- University of California, San Francisco, CA, Residency
- University of Minnesota Medical School, Minneapolis, MN

CLINICAL INTERESTS
- Hip and knee degenerative arthritis, osteonecrosis of the hip, total hip and knee replacement, revision hip and knee replacement, fracture around total hip and knee implants.

HONORS AND AWARDS
- Mauer Award for Outstanding Chief Resident, University of California San Francisco, CA, 2015
JOAN BECHTOLD, PhD
Professor
University of Minnesota
Research Director

Joan E. Bechtold, PhD, is Gustilo Professor of Orthopaedic Research and Vice-Chair of Research at the University of Minnesota and Graduate Professor in Orthopaedic Surgery and member of Graduate Faculty in Biomedical Engineering and the College of Veterinary Medicine. She is Director of Orthopaedic Biomechanics Laboratory at Hennepin County Medical Center, Minneapolis Medical Research Foundation and Excelen.

Dr. Bechtold received her BS in Mechanical Engineering from Michigan State University and her MS and PhD in Mechanical Engineering from the University of Minnesota. She worked at the Mayo Clinic Orthopaedic Biomechanics Laboratory and completed a fellowship at the Mueller Institute for Biomechanics in Bern Switzerland, before joining the Orthopaedic Biomechanics Laboratory at Hennepin County Medical Center, and began her association with the University of Minnesota.

Currently, Dr. Bechtold’s main research focus is on improving the bone-implant interface, for which she has been funded by NIH since 1995. With NIH, DoD and Orthopaedic Trauma Association support she investigates musculoskeletal infection and trauma. She is Associate Editor of the Journal of Orthopaedic Research, served as permanent member of NIH SBSR study section, and is currently serving 4 year position on NIAMS Council. With the Orthopaedic Research Society (ORS) she has served on Program, Education and Special Projects, Membership and Nominations committees, Women’s Leadership Forum, and most recently finished 5 years on Presidential Line. Her AAOS membership has included Bioengineering Committee, Women’s Health Issues Advisory Board, ORS/BOS Clinician Scientist Task Force, ORS/AAOS Research Advocacy Capitol Hill Days, and has been ASTM F-4 Committee member. She has served as Secretary-Treasurer and President of the American Society of Biomechanics (ASB). She is Fellow of ASB and AIMBE.
<table>
<thead>
<tr>
<th>Name of Fellow</th>
<th>Date of Graduation</th>
<th>Current Position</th>
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<tbody>
<tr>
<td>Rida Kassim</td>
<td>2002</td>
<td>Attending Surgeon, Beirut</td>
</tr>
<tr>
<td>Gideon Burstein</td>
<td>2003</td>
<td>Faculty, Sheba Medical Center, Israel</td>
</tr>
<tr>
<td>Issada Thongtrangan</td>
<td>2003</td>
<td>Faculty, Orthopaedic and Spine Institute, San Antonio, TX</td>
</tr>
<tr>
<td>Kevin Mulhall</td>
<td>2004</td>
<td>Attending Surgeon, Ireland</td>
</tr>
<tr>
<td>Edward Santos</td>
<td>2004</td>
<td>Associate Professor, University of Minnesota</td>
</tr>
<tr>
<td>Georges Al-Macari</td>
<td>2005</td>
<td>Faculty, Harvard-Brigham and Women's Hospital, Boston, MA</td>
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<tr>
<td></td>
<td></td>
<td>Faculty, VAMC, West Roxbury, MA</td>
</tr>
<tr>
<td>Muhammad Ajmal</td>
<td>2006</td>
<td>Asst. Clinical Professor, Vanderbilt University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attending Surgeon, VAMC Nashville, TN</td>
</tr>
<tr>
<td>Vineet Sharma</td>
<td>2006</td>
<td>Private Practice, India</td>
</tr>
<tr>
<td>Jonathan Sembrano</td>
<td>2007</td>
<td>Assistant Professor, University of Minnesota</td>
</tr>
<tr>
<td>Siddharth Joglekar</td>
<td>2008</td>
<td>Staff Surgeon / Section Chief, Orthopedic Surgery, Fresno, VAMC, UCSF Fresno</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clinical Instructor, Orthopaedics, UCSF Fresno</td>
</tr>
<tr>
<td>Vivek Sharma</td>
<td>2008</td>
<td>Attending Surgeon, Chief of Service, Hays Orthopedic Institute, Elect, Hays Medical Center, Hays, KS</td>
</tr>
<tr>
<td>Name of Fellow</td>
<td>Date of Graduation</td>
<td>Current Position</td>
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<tr>
<td>Aditya Maheshwari</td>
<td>2009</td>
<td>Assistant Professor, Director of Musculoskeletal Oncology and Adult Reconstruction University of New York Downstate Medical Center Brooklyn, NY</td>
</tr>
<tr>
<td>Niraj Kalore</td>
<td>2009</td>
<td>Attending Surgeon Chester Regional Medical Center Chester, SC</td>
</tr>
<tr>
<td>Jeffrey “JET” Luna</td>
<td>2010</td>
<td>Attending Surgeon Veterans Administration Medical Ctr Minneapolis, MN</td>
</tr>
<tr>
<td>Amit Sharma</td>
<td>2010</td>
<td>Attending Surgeon Saifee Hospital Maharashtra, Mumbai, India</td>
</tr>
<tr>
<td>Rameshkumar Periysamy</td>
<td>2011</td>
<td>Attending Surgeon Royal Care Hospital Coimbatore, India</td>
</tr>
<tr>
<td>Prasad Puruduppa</td>
<td>2011</td>
<td>Orthopedic Surgeon Trinity Regional Medical Center Fort Dodge, IA 50501</td>
</tr>
<tr>
<td>Arun Kannan</td>
<td>2012</td>
<td>Attending Surgeon Wockhardt Hospitals Mumbai, India</td>
</tr>
<tr>
<td>Sameer Naranje</td>
<td>2013</td>
<td>Attending Surgeon East Arkansas Ortho Associates Forrest City, AR</td>
</tr>
<tr>
<td>Vivek Jagadale</td>
<td>2013</td>
<td>Assistant Professor &amp; Attending Staff Surgeon at the Central Arkansas Veterans Healthcare System &amp; University Of Arkansas for Medical Sciences, Arkansas</td>
</tr>
<tr>
<td>Chenthuran Deivaraju</td>
<td>2014</td>
<td>Attending Surgeon Alta Vista Regional Medical Center Las Vegas, NM</td>
</tr>
<tr>
<td>Horim Choi</td>
<td>2015</td>
<td>Assistant Professor Adult Reconstruction University of Missouri Columbia, MO</td>
</tr>
<tr>
<td>Stephen Rossman</td>
<td>2016</td>
<td>Chief, Adult Reconstructive Surgery Assistant Professor Rutgers, New Jersey Medical School Newark, NJ</td>
</tr>
<tr>
<td>Eric Busse</td>
<td>2017</td>
<td>Attending Surgeon Mayo Health System Mankato, MN</td>
</tr>
</tbody>
</table>
“I am very satisfied with my experience I had during my rotation at the VAMC and looking forward to applying the knowledge and experience for betterment of my patients. I also look forward to having positive long-term interaction with the prestigious faculty during my career. I have been very lucky to have such excellent mentors.”

“This program offers the opportunity to be very close to the attending and has helped me to develop though processes regarding clinical evaluation, pre-operative counseling and preparation, intra-operative as well as post-operative decision making. In the operating room hands-on-experience progressing from first assistant to primary surgeon.”

“Because of the nature of the practice at the University, the fellow is exposed to a unique mix of tumors and degenerative joint disease. The fellow is also exposed to the challenge of reconstruction after tumor excision.”

“Good and experienced staff to work with.”

“Priceless rotation in terms of learning basics of joint replacement.”

“Diversity of cases – tumor and adult reconstruction.”

“I like the way attendings are open to questioning and the way they explain the decision making process and operative technique.”

“Case diversity, outstanding faculty, friendly environment, evidence based approach, and no unnecessary tensions.”

“I feel confident of doing any primary/revision hip/knee arthroplasty after my fellowship.”

“For someone who is interested in orthopedics as a whole, this program gives a wide exposure to multiple aspects of the orthopedics, especially arthroplasty and orthopaedic oncology (trauma and arthroscopy also to some extent.”

“Active role in clinic, operating room, and on hospital floor.”

“Great academic atmosphere.”

“Opportunity to work with multiple residents and staff persons.”

“I felt comfortable with primary joints, but I wanted to be able to tackle complex revisions, and this goal was met...All of my goals were accomplished, and I feel that I will have the background that I need to become a successful and respected surgeon.”
University of Minnesota Medical School
Adult Reconstruction Fellowship Program Bibliography


Thongtrangan I, Schwartz E, Saleh KJ: Osteolysis in revision total hip arthroplasty. Clin Orthop Rel Res 2004 (article accepted for peer reviewed publication)


**Santos, E,** Polly DW, Mehbod, AA, Saleh, KJ. Disc arthroplasty: lesions learned from total joint arthroplasty *Spine J* 2004 Nov-Dec; 4(6 Suppl): 182S-189S.

**Ajmal M.** Biologic factors influencing osteonecrosis-steroids, statins, ethanol, HV, and antiretroviral therapy and smoking. *Sem Arthrop* 2007, 18:3, 180-191


**Sharma V.** Is there are role for resurfacing hemiarthroplasty? *Sem Arthrop* 2007 18:3, 211-215.


Choi Horim, Steinberg Marvin, Cheng Edward Y., Osteonecrosis of the Femoral Head: Diagnosis and Classification Systems. Current Reviews in Musculoskeletal Medicine, 2015.


Prevention and Management of Prosthetic Infections
Muhammad Ajmal
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2006

Management of Periprosthetic Infection
Vineet Sharma
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2006

Resurfacing Hemiarthroplasty for Femoral Head Osteonecrosis
Sharma V, Ajmal M, Cheng EY
MOS (Minnesota Orthopaedic Society) 2006

A Reduced Incidence of Steroid Related Osteonecrosis in Diabetics after Renal Transplantation
Ajmal M, Matas A, Kuskowski M, Cheng, E
ARCO (Association Research Circulation Osseous) 2007

Does Statin Usage Reduce Risk of Steroid Related Osteonecrosis
Ajmal M, Matas A, Kuskowski M, Cheng E
ARCO (Association Research Circulation Osseous) 2007

Outcome of Acetabular Cage Reconstruction in Severe Pelvic Deficiency
Sembrano J, Santos E, Cheng E
AAHKS (American Association of Hip and Knee Surgeons) 2007

Non-Spinal Pain Generators in Low Back Pain
Jonathan Sembrano
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2007

Acetabular Cage Reconstruction
Sembrano J, Cheng E
MOS (Minnesota Orthopaedic Society) 2007
2008

3-Dimensional Imaging System (O-Arm) Guidance in Biopsy Procedures
Sembrano, JN, Polly DW, Cheng EY MOS
(Minnesota Orthopaedic Society 2008)

Outcomes after Excision of Pigmented Villonodular Synovitis of Knee
Sharma V, Cheng EY
MSTS (Musculoskeletal Tumor Society) 2008

Management of Periprosthetic Fractures in Total Hip Arthroplasties
Vivek Sharma
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2008

Core Decompression With or Without Cement Packing for Pre-Collapse Osteonecrosis of the Femoral Head-Long Term Results
Joglekar S, Kukowski M, Cheng E
AAHKS (American Association of Hip and Knee Surgeons) 2008

Management of Bone Loss in Revision Total Knee Arthroplasty
Siddharth Joglekar
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2008

2009

Core Decompression With or Without Cement Packing for Pre-Collapse Osteonecrosis of the Femoral Head-Long Term Results
Joglekar S, Kukowski M, Cheng E
AAOS 2009

Diagnosis and Management of Infected Total Knee Arthroplasty
Niraj Kalore
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2009

Total Hip Arthroplasty in Young Active Patients and Metal Hypersensitivity in Total Joint Patients
Aditya Maheshwari
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2009

Repeated Infection after Primary Exchange Arthroplasty for Infected Total Knee Total Knee Arthroplasty: Is Salvage Possible Again?
Maheshwari A, Gioe TJ, Kalore N, Cheng EY
AAHKS (American Association for Hip and Knee Surgeons) 2009,
Reprinted Infection after Primary Exchange Arthroplasty for Infected Total Knee Arthroplasty: Is Salvage Possible Again?
Maheshwari A, Gioe TJ, Kalore N, Cheng EY
AAOS 2010
Do Premium Implants Add Value? Analysis of High Cost of Joint Implants in a Community Registry
Gioe TJ, Sharma A, Tatman Pj, Mehle S
MAOA (Mid-America Orthopaedic Association) 2010

Reconstruction of Severe Acetabular Bone Loss (Paprosky Type-III): A Survival and Functional Analysis
Sharma AK, Sembrano JN, Cheng EY
MOS (Minnesota Orthopaedic Society) 2010

Do Premium Implants Add Value? Analysis of High Cost of Joint Implants in a Community Registry
Gioe TJ, Sharma A, Tatman Pj, Mehle S
MOS (Minnesota Orthopaedic Society) 2010

Coronol and Sagittal Plane Deformity Correction with X-LIF Cages in Degenerative Lumbar Spine
Amit Sharma
MOS (Minnesota Orthopaedic Society) 2010

Metal on Metal Hip Arthroplasties
Amit Sharma
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2010

Do Lordotic Cages provide Greater Segmental Sagittal Control Change Than Non-Lordotic Cages in Minimally-Invasive Lateral Interbody Fusion (LLIF)?
Sembrano JN, Sharma AK, Horazdovsky, Polly DW, Santos ERGS
Annual Research Meeting of the Society of Lateral Access Surgery 2010
MOS (Minnesota Orthopaedic Association) 2010
17th International Meeting on Advanced Spine Techniques 2010
Annual Meeting of the Society for Minimally Invasive Spine Surgery 2010

Lateral Lumbar Interbody Fusion (LLIF) vs Standard Approaches: Analysis of Segmental Lordosis Change
Sembrano JN, Sharma AK, Horazdovsky RD, Azmoudeh B, Santos ERG, Polly DW
3rd Annual Meeting of the Society of Lateral Access Surgery 2010
17th International Meeting on Advanced Spine Techniques 2010
Annual Meeting of the Society for Minimally Invasive Spine Surgery 2010

Does Zoledronic Acid Added to Bone Cement Reduce Local Progression of Metastatic Bone Disease?
Luna JT, Kalore NV, Zhang Y, Cheng EY
CTOS (Connective Tissue Oncology Society) 2010
Diagnosing Bone and Soft Tissue Sarcoma

**Jeffrey Luna**
Third District Nurses Meeting 2010

Does Zoledronic Acid Added to Bone Cement Reduce Local Progression of Metastatic Bone Disease?
**Luna JT, Kalore NV, Zhang Y, Cheng EY**
MOS (Minnesota Orthopaedic Society) 2010

Advances and Challenges in the Surgical Management of Metastatic Bone Disease
**Jeffrey Luna**
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2010

Outcome Results of Revision Total Hip Arthroplasty and Risk Factors Related to Failure
**Ramesh Periysamy**
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2010

2011

Does the Addition of Zoledronic Acid to Bone Cement Reduce Local Progression of Bone Metastases?
**Luna JT, Kalore NV, Zhang Y, Cheng EY**
AAOS 2011

Reconstruction of Severe Acetabular Bone Loss (Paprosky Type-III): Using Acetabular Cages.
**Sharma AK, Sembrano JN, Cheng EY**
AAOS 2011

Lateral Lumbar Interbody Fusion (LLIF) vs Standard Approaches: Analysis of Segmental Lordosis Change, Sembrano JN, **Sharma AK**, Horazdovsky RD, Azmoudeh B, Santos ERG, Polly DW  AAOS 2011

MAOA (Mid-American Orthopaedic Association) 2011
Annual Meeting of the International Society for the Advance of Spine Surgery 2011

Do Lordotic Cages Provide Greater Segmental Sagittal Control Change than Non-Lordotic Changes in Minimally-Invasive Lateral Interbody Fusion (LLIF)?
Sembrano JN, **Sharma AK**, Horazdovsky, Polly DW, Santos ERGS
Annual Meeting of the International Society for Advancement of Spine Surgery 2011

Articulating Antibiotic Spacers for Infected Knee Arthroplasty: Is There a "Best Method"
**Niraj Kalore**
MAOA (Mid-America Orthopaedic Association) 2011

Infected Total Knee Arthroplasties
**Ramesh Periysamy**
University of Minnesota Medical Center, Fairview - 8A Nursing Staff 2011
Diagnostic Approach to Imaging of Painful Young Adult Hip  
Prasad Puruduppa  
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2011

Management of Osteosarcoma  
Prasad Puruduppa  
University of Minnesota Medical Center, Fairview - 8A Nursing Staff 2011

Is there a Preferred Articulating Spacer Technique for Infected Knee Arthroplasty?  A Preliminary Study.  
Kalore NV, Maheshwari A, Sharma A, Cheng E, Gioe TJ  
The Knee Society Open Meeting 2011

2012

Rating Surgeons…What you Need to Know about Outcomes Assessment of the Knee  
Arun Kannan  
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2012

Preventing Infections After Arthroplasty  
Arun Kannan  
University of Minnesota Medical Center, Fairview – 8A Nursing Staff 2012

Metal on Metal Hip Arthroplasty: Where Are We Now?  
Sameer Naranje  
University of Minnesota Orthopaedic Surgery Department Grand Rounds 2012

2013

Surgical Approaches to Total Hip Arthroplasty  
Sameer Naranje MBBS  
University of Minnesota Medical Center, Fairview 8A Nursing Staff, January 2013

Blood! Conservation Strategies for Hip and Knee Replacements – Current Trends  
Vivek Jagadale MBBS  
University of Minnesota Orthopaedic Surgery Grand Rounds February 2013

Bone and Soft Tissue Tumors  
Vivek Jagadale MBBS  
University of Minnesota Medical Center, Fairview 8A Nursing Staff, March 2013

Value of Interleukin 6 in the Diagnosis of Prosthetic Joint Infection  
Vivek Jagadale MBBS  
Minnesota Orthopaedic Society Annual Meeting May 2013
**2014**

Grand Rounds Presentation  
**Chenthuran Deivaraju MBBS**  
University of Minnesota Orthopaedic Surgery Grand Rounds January 2014

Serum Interleukin 6 Improves Screening For Infected Total Knee Arthroplasty  
**Vivek Jagadale MBBS**  
AAOS 2014

Radiation Dosimetry Of Intraoperative O-arm® Versus Ct For Radiofrequency Ablation Of Osteoid Osteomas  
**Sameer Naranje MBBS**  
AAOS 2014

**2015**

Diagnosis and Treatment of Periprosthetic Joint Infection  
**Horim Choi, MD**  
University of Minnesota Orthopaedic Surgery Grand Rounds February 2015

Direct Intra-articular Antibiotic Infusion Combined with Prosthesis Retention Treatment for Infected Total Knee Arthroplasty  
**Horim Choi, MD**  
Minnesota Orthopaedic Society annual Meeting May 2015

**2016**

Diagnosis and Management of Periprosthetic Joint Infection, Grand Rounds, January 2016, **Stephen Rossman, DO**

Presentation to Hospital Staff on 8A: Basics of Hip and Knee Replacement, April 2016, **Stephen Rossman, DO**

Minnesota Orthopedic Society: Prospective Evaluation of Alpha Defensin in Diagnosing Periprosthetic Joint Infections, May 2016, **Stephen Rossman, DO**

**2017**

Grand Rounds Presentation: Problems Associated with Modular Components Used for Total Joint Arthroplasty, March 2017, **Eric Busse, MD**.

Presentation to Hospital Staff on 8A: Perioperative Complications Associated with Hip and Knee Arthroplasty, April 2017, **Eric Busse, MD**.

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<th>Incision</th>
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University of Minnesota Medical School
Adult Reconstruction Fellowship Program
Resident Experience Report
08/01/2016 – 07/31/2017
University of Minnesota
Research Laboratories

Department research is organized through the department Research Committee (RC). The RC oversees scholarship priorities and resources, provides scientific review for projects and IRB needs and provides support for faculty sponsored student and resident research projects. Several laboratories collaborate with department faculty, including the Veterinary School, Dental School, Center for Magnetic Resonance Research (CMRR), Biomedical Engineering and the Institute for Engineering in Medicine. A T32 Training Grant from NIH supports pre- and post-doctoral fellows in areas including Physical Therapy, Osteoblast and Osteoclast Biology, Stem Cell and Biomechanics.

Biomechanics and Human Performance Lab – Riverside Campus
This facility, which includes mechanical testing devices and a unit dedicated to finite element analysis and graphical evaluation of lung volume with spinal deformity, focuses on basic biomechanics of ligament reconstruction, spinal fixation, disc replacement, in vivo shoulder biomechanics, and methods of internal fixation. The laboratory has received funding through the Orthopaedic Research and Education Foundation, National Institutes of Health, and industry-related grants. Additional Biomechanics resources are available at Hennepin County Medical Center campus (Excelen Center for Bone and Joint Research and Education), with 6 degree of freedom servohydraulic spine loading device (MTS), conducting studies on a variety of bone fracture stabilization methods, spinal fusion devices and soft tissue characterization. Evaluation of surgical skill and competency assessment is conducted at both sites.

Veterinary School – St Paul Campus
Several veterinary DVM, PhD faculty have research-based appointments, and are available to assist with animal model development, study design, and data evaluation and interpretation. Current studies include cartilage damage and repair (osteochondritis dessecans (OCD) in veterinary population and humans), meniscus repair and imaging (with CMRR).

Center for Magnetic Resonance Research – University Campus
World class facility engaging in development of MRI techniques to better image human tissues in health and disease. Dedicated musculoskeletal research department with senior faculty and postdoctoral fellows; current focus is on cartilage damage development in OCD and evaluation of healing in meniscus. Micro CT imaging available with CMRR and with Dental School.

Clinical Translational Sciences Institute (CTSI) – University Campus
This medical school-wide resource is dedicated to aid the faculty, fellows, and residents in conducting high quality clinical research. The form of the research can be in a clinical trial design or a quasi-experimental prospective functional outcome design. The center is staffed by research methodologists, survey design and study design experts, and statisticians. The activities are funded by the National Institutes of Health, Centers for Medicare and Medicaid Services, independent foundations, and affiliations with local hospitals and medical groups.
History of the
Orthopaedic Surgery Department
University of Minnesota

Orthopaedic surgery has a rich heritage at the University of Minnesota, dating back to the founding of the Medical School in 1888. In 1897, Arthur Gillette assumed his duties as the first clinical professor of Orthopaedic Surgery at the University of Minnesota. Gillette also established the first State Crippled Children’s Hospital in 1897, which after his death became Gillette Children’s Hospital — an ongoing and vital part of orthopaedic education and patient care throughout the 20th century. Emile Geist succeeded Arthur Gillette as director of the Orthopaedic Surgery Division in 1921. After Geist’s death in 1933, Wallace Cole became the lead figure in Orthopaedic Surgery for the next 25 years. Although Cole was made full professor in 1935, Orthopaedic Surgery continued as a Division of the Department of General Surgery, headed by Owen Wangensteen, who tightly controlled the budget and most surgical activities.

Dr. Cole retired in 1956, at the mandatory age of 68, but continued to be active in educational activities at Gillette, Shrine, and VA Hospitals until his death in 1973. John Moe was appointed a clinical professor and head of the division in 1957. There was significant growth of the division under Moe, with advancement to a full department.

The appointment of Roby Thompson, Jr., M.D., as professor and department chair in 1974 was a major turning point because of his skills in every area. He brought not only good organizational skills for our educational endeavor, but also experience and interest in orthopaedic research that added immensely to the academic stature of what was already a strong clinical training program. Thompson was well received by the full-time and clinical faculty of both communities, and through his leadership and with cooperation of Dr. Robert Premer at the Minneapolis VA Medical Center, the VA and University programs were integrated by the early 80’s with strong faculty leadership at all of the affiliated hospitals, assuring a balanced and broad educational experience for all residents. In 1997, a national search led to the appointment of Dr. Marc Swiontkowski as professor and chairman of the Department of Orthopaedic Surgery. He has continued the long traditions of Drs. Gillette, Geist, Cole, Moe, and Thompson in leading the department to national excellence in patient care, research, and education. Dr. Swiontkowski completed his 10 years of planned Chairmanship in 2007. He continues as a full time Professor in the Orthopaedic Surgery Department.

In 2007, a national search led to the appointment of Dr. Denis Clohisy as Chairman of the Department of Orthopaedic Surgery. He has been an orthopaedic faculty member at the University since 1991. His specialty is musculoskeletal oncology.

Dr. Gillette  Dr. Geist  Dr. Moe  Dr. Cole  Dr. Thompson  Dr. Swiontkowski  Dr. Clohisy
Notes
Denis Clohisy, M.D.
Professor and Chair, Orthopaedic Surgery, University of Minnesota

Edward Y. Cheng, M.D.
Professor and Fellowship Program Director

Carol Skaja-Jacobsen
Fellowship Program Coordinator
Phone: 612-273-7951 Fax: 612-273-7959  cskajaja@umn.edu

University of Minnesota Medical School

DEPARTMENT OF ORTHOPAEDIC SURGERY

Orthopaedic Surgery
2512 South 7th Street, 2nd Floor Minneapolis, MN 55454

http://www.ortho.umn.edu/
2017-2018

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