DOUGLAS R. DIRSCHL, MD

Dr. Dirschl joins us from the University of North Carolina School of Medicine (UNC), where for the past decade he was the Frank C. Wilson Distinguished Professor and Chairman of the Department of Orthopaedics. His undergraduate education was at Stanford University in chemical engineering, where he graduated with distinction. After attending medical school at Oregon Health Sciences University, he did his internship in general surgery and his residency in orthopaedic surgery at University of North Carolina Hospitals.

Dr. Dirschl was identified via an extensive national search, during which it became clear that he was held in highest regard, both nationally and internationally, as a highly accomplished surgeon, leader in education and active researcher. He is viewed as a leader in orthopaedic education and health policy and is acclaimed as a superb educator on the lecture circuit and at home. He twice received his department’s highest teaching award at UNC. One strong indicator of his stature and recognition in the field is his election in 2011 as president of the American Orthopaedic Association, which is deemed the premier academic orthopaedic organization in the United States. Dr. Dirschl is widely recognized as an extremely skilled administrator and gifted leader. He is known for his ability to motivate scientists and clinicians to work toward shared goals and elevate standards and practices of patient care and education. Dr. Dirschl also has a strong history of promoting members of his department towards their scholarly goals.

Dr. Dirschl has conducted original research relevant to the practice of orthopaedic surgery and to our understanding of the biological basis of the surgery. In his studies, he has focused on the critical assessment of factors that influence reliability in classifying fractures of various types. His studies focus on the quality of radiographs and the reliability of interpretation and on the use of binary decision-making strategies to enhance reliability. In his studies of the biological basis of surgery, Dr. Dirschl has focused on a variety of biological correlates of orthopaedic injury, such as factors other than articular reduction that influence fracture outcomes.

The state-of-the-art surgical facilities in the Center for Care and Discovery coupled with Dr. Dirschl’s leadership will provide unprecedented opportunities for us to expand orthopaedics and build upon our already outstanding faculty and training programs.
Since I joined the Department in January, we have undertaken a major transformation in our clinical services. Our goal is to elevate the ease of access and the quality of service to patients across the full spectrum of our clinical offerings. Each of our programs will be organized around coordinating care for the patient’s condition—surgical or nonsurgical. We will do all of this while still providing the depth of specialty expertise that has always been a characteristic of the University of Chicago Medicine.

We are also building upon our group of exceptional physicians who are dedicated to excellence in patient care, innovation and collaboration. In addition to our current offerings, we are building new programs in spinal surgery, hip preservation, fragility fractures and bone health, and fracture nonunions. Our research in both image processing and analysis and musculoskeletal regeneration will provide us with opportunities to improve treatment and diagnostic capabilities.

In pursuit of continued academic excellence, we also will embed clinical effectiveness research in our educational programs, research endeavors and daily practice to better prepare future physicians to better demonstrate the value of the care they provide. We will recruit new clinical and research faculty, build an infrastructure and collaborate with renowned resources at the University of Chicago. Our mission is to become a national leader in demonstrating—to patients, employers, insurers and our profession—the economic and functional outcomes of bone and joint care. Over the next few years, for example, we hope to make terms such as “dollars per quality-adjusted life year” as well known as any outcome measure used today.

We are excited about our new marketing program, where we are known as the “Orthopaedics Center at the University of Chicago Medicine.” The “We’ve Got Your Back” campaign is a combination of radio spots, print ads, internet banners, signage, billboards and a Chicago Bears sponsorship. This campaign is already creating a buzz and is helping raise awareness of our programs and services.

I would be very pleased to talk with you more about the Department and our plans at any time, and I very much look forward to seeing you and hearing your ideas in the future.

Douglas R. Dirschl, MD
Lowell T. Coggeshall Professor of Orthopaedic Surgery
Chairman, Department of Orthopaedic Surgery & Rehabilitation Medicine
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*Design: Words & Pictures, Inc.*
ADULT JOINT RECONSTRUCTION
Henry A. Finn, MD
Hue Luu, MD

BONE HEALTH
Douglas R. Dirschl, MD
Rex C. Haydon, MD, PhD

FOOT AND ANKLE
Brian C. Toolan, MD
Ann Zmuda, DPM

FRACTURES AND NONUNION
Douglas R. Dirschl, MD

HAND AND UPPER EXTREMITY
Jovito Angeles, MD
Roderick Birnie, MD
Daniel P. Mass, MD

HIP PRESERVATION
Richard Kang, MD

ORTHOPAEDIC BIOLOGY
Tong-Chuan He, MD, PhD

ORTHOPAEDIC ONCOLOGY
Rex C. Haydon, MD, PhD
Hue Luu, MD
Michael A. Simon, MD

ORTHOPAEDIC RESEARCH
John M. Martell, MD

PEDIATRIC ORTHOPAEDICS & SCOLIOSIS
Robert Bielski, MD
Christopher M. Sullivan, MD, MPH

SHOULDER
Lewis Shi, MD

SPINE
James Mok, MD

SPORTS MEDICINE
Holly Benjamin, MD
Sherwin S.W. Ho, MD
Richard Kang, MD
J. Martin Leland III, MD
Bruce Reider, MD

REHABILITATION MEDICINE
Cheryl Benjamin, MD
Michelle Gittler, MD
Mary Lawler, MD
Ed Park, MD
Lisa Thornton, MD

ABOUT THE PHOTOGRAPH
These photographs showcase the variety of beautiful gardens covering the University of Chicago campus. Jason Smith, the photographer, lives and works in New York.
Jovito Angeles, MD, specializes in hand and upper extremity surgery with a special interest in biomechanics of the hand, bone stabilization devices and nerve regeneration. Dr. Angeles works with colleagues in the Department providing microsurgical expertise for reconstructive procedures. Dr. Angeles works with Daniel Mass, MD, program director for the Hand Fellowship, in training the hand fellows. He conducts introductory microsurgery courses to familiarize them with the basic exercises they need to improve their microsurgical skills. He is a fellow of the American Academy for Cerebral Palsy and Developmental Medicine. He is also a member of the International Society for Brachial Plexus and Peripheral Nerve Injury.

Robert Bielski, MD, continues as an examiner for the American Board of Orthopaedic Surgery. Dr. Bielski continues to serve as a reviewer for the Journal of Bone and Joint Surgery, the Journal of Pediatric Orthopaedics, the Journal of the American Medical Association and the Journal of Foot and Ankle Surgery. Dr. Bielski oversees the third and fourth year medical student rotation for the Department. He was awarded the Laros Teaching Award for 2013 by the residents for his outstanding teaching skills. Dr. Bielski went to Colombia in October with Fundación Casa de Colombia and the Shriner’s Hospital of Chicago to provide surgical care for children in Buga, Colombia.

Roderick Birnie, MD, continues his busy clinical practice in hand, upper extremity and general orthopaedic care (non-surgical) at the University of Chicago. Dr. Birnie also teaches the Motor Skills course for the Orthopaedic Surgery Residency Program.
Douglas R. Dirschl, MD, was named the inaugural chair for the new Department of Orthopaedic Surgery & Rehabilitation Medicine at the University of Chicago. He is the chairman of the Own the Bone Multidisciplinary Advisory Board for the American Orthopaedic Association. He is also a member of the Executive Committee, Finance Committee, Membership Committee, Own the Bone Steering Committee and chairman of the Nominating Committee for the American Orthopaedic Association. He is a member of the Budget and Finance Committee and Classification Committee for the Orthopaedic Trauma Association.

Henry Finn, MD, continues in his role as medical director of the University of Chicago Bone and Joint Replacement Center at Weiss. He is also professor of surgery at the University of Chicago Medicine's Department of Orthopaedic Surgery & Rehabilitation Medicine, as well as chief, Section of Orthopaedic Surgery at Louis A. Weiss Memorial Hospital. Dr. Finn was named a “Top Doctor in Chicago” from Chicago magazine, 2013. He was also recognized at the AAOS Annual Meeting in 2013 for his accomplishments as program director for the Adult Reconstruction Fellowship having more than 20 fellows.

Rex Haydon, MD, PhD, continues as co-instructor for the annual Musculoskeletal Clinicopathologic Seminar for residents held at the Gleacher Center, Chicago. He is also the course director for the Orthopaedic Basic Science Curriculum. Dr. Haydon is the program director for the Orthopaedic Oncology Fellowship Program at the University of Chicago. Dr. Haydon gave the keynote address at the Orthopaedic Research and Education Foundation Midwest Resident Research Symposium in May 2013.

Tong-Chuan He, MD, PhD, leads a molecular oncology lab that continues research on cancer, stem cells and bone biology. He continues collaborative efforts with other faculty in the areas of tendon and ligament repair research, articular cartilage regeneration research and implant wear-induced osteolysis and spine research. Dr. He is a member of the Committee on Molecular Medicine, the Committee on Cancer Biology, the Committee on Genetics and the Committee on Cell Physiology at the University of Chicago. He is also adjunct professor, School of Bioengineering, Chonqing University, China. Dr. He is a member of the International Chinese Hard Tissue Society.

Sherwin Ho, MD, continues in his role as program director for the Sports Medicine Fellowship at the University of Chicago. He also serves as team consulting physician for the Chinese national women's volleyball team.
J. Martin Leland, MD, continues to be very busy with his clinical and academic endeavors. Dr. Leland was named the associate editor of technology for the *Arthroscopy Journal*. He was named the chairman of Social Media Task Force, Arthroscopy Association of North America (AANA).

Dr. Leland was appointed to the Education Committee, American Orthopaedic Society for Sports Medicine (AOSSM). He has also become a member of American Orthopaedic Association (AOA) Emerging Leaders Program.

Hue Luu, MD, continues his busy clinical practice in total joint replacement and orthopaedic oncology. Dr. Luu was an invited lecturer at an orthopaedic meeting in Lanzhou, China, also performing hip and knee replacement during his time there. He was an invited lecturer in Chongqing, China in the summer of 2012, performing total knee replacement there as well. Dr. Luu continues teaching the oncology fellows, residents and students, one of the many aspects of his job that he truly enjoys.

John Martell, MD, is the director of the Orthopaedic Imaging Research Institute at the University of Chicago. Dr. Martell continues networking his research with physicians, medical centers and universities, both nationally and internationally.

Dr. Martell’s newest focus has been on the development of an Orthopaedic Fracture Classification Work Station. He intends to identify and classify fractures of the femoral shaft, neck and hip using computer vision techniques and automated edge detection of digital radiographs.

He continues to develop software that measures the wear performance of polyethylene in total knee arthroplasty (TKA). Accurate measurement of TKA polyethylene wear is unprecedented, and success with this project will result in an entirely new research direction for the Institute.

Daniel Mass, MD, is the program director for the hand fellowship with two hand fellows who do quarterly rotations between the University of Chicago and NorthShore University HealthSystem. Along with Drs. Benson, Phillips and Angeles, he interviewed 33 fellowship candidates out of 39 applicants, matching two of the choices through the NRMP. From December 1st through the 15th, Dr. Mass, accompanied by the two hand fellows, went to Lima, Peru, to perform surgery through the auspices of Health Volunteers Overseas. Dr. Mass was also given a $20,000 donation from a grateful patient to assist his research efforts.
Bruce Reider, MD, continues to serve as the editor-in-chief of the American Journal of Sports Medicine (AJSM). The AJSM attained an impact factor of 4.439, #1 of all 63 ranked orthopaedic journals. He launched the Orthopaedic Journal of Sports Medicine, a new open access journal. Dr. Reider was an invited speaker at the European Federation of Sports Trauma Societies (London), Topkon (Istanbul meeting of Orthopaedics and Traumatology), Japanese Orthopaedic Association (Hiroshima), and the University of New Mexico graduation speaker. Dr. Reider is also the leader of the University of Chicago Orthopaedic Journal Club.

Lewis Shi, MD, is building an academic shoulder practice with a mixture of arthroscopy, arthroplasty and trauma cases. He has set up a research program that includes translational shoulder research, prospective and retrospective clinical research.

Michael Simon, MD, continues in his role as associate dean of Graduate Medical Education. He was the interim chief of Orthopaedic Surgery and Rehabilitation Medicine until December 31, 2012. He facilitated the recruitment of the inaugural chair for the new Department of Orthopaedic Surgery & Rehabilitation Medicine. Dr. Simon provides historical perspective and mentors both faculty and residents in the Department.

Christopher Sullivan, MD, continues his busy pediatric practice at the University of Chicago and many off-site clinics. Dr. Sullivan is a reviewer for Clinical Orthopaedics and Related Research.

Brian Toolan, MD, also continues in his role as program director for the Orthopaedic Surgery Residency Program. Dr. Toolan is an American Board of Orthopaedic Surgery Examiner for the Part II (oral boards) and Maintenance of Certification. He is a member of the AAOS-ABOS Orthopaedic Surgical Skills Curriculum Task Force and the ACGME-ABOS Orthopaedic Surgery Resident Milestone Project. Dr. Toolan is an assistant editor for Foot and Ankle International.
Honors and Awards

JOVITO ANGELES, MD
Member, Reader Advisory Board of the Journal of Bone and Joint Surgery

ROBERT BIELSKI, MD
Recipient of the Gerald S. Laros, MD, Teaching Award for 2013
Board Examiner, American Board of Orthopaedic Surgery
Reviewer, Journal of Bone and Joint Surgery
Reviewer, Journal of Foot and Ankle Surgery
Reviewer, Journal of the American Medical Association
Reviewer, Journal of Pediatric Orthopaedics
Book Reviewer, Journal of the American Medical Association

RODERICK BIRNIE, MD
Doctors Demystify Finger Deformities for OTs and PTs
April 14th 2012
Boutonniere and Swan neck deformities

DOUGLAS R. DIRSCHL, MD
Appointed Professor and Chairman of the Department of Orthopaedic Surgery & Rehabilitation Medicine at the University of Chicago
Chairman, Own the Bone Multidisciplinary Advisory Board, the American Orthopaedic Association
Member, Executive Committee, American Orthopaedic Association
Member, Finance Committee, American Orthopaedic Association
Member, Membership Committee, American Orthopaedic Association

Chairman, Nominating Committee, American Orthopaedic Association
Member, Own the Bone Steering Committee, American Orthopaedic Association
Member, Budget and Finance Committee, Orthopaedic Trauma Association
Member, Classification Committee, Orthopaedic Trauma Association
President, American Orthopaedic Association, June 2011–June 2012
Immediate Past President, American Orthopaedic Association, June 2012–June 2013
Lowell T. Coggeshall Professor of Orthopaedic Surgery, University of Chicago, July 1, 2013
Named Best Doctors in North Carolina

HENRY FINN, MD
Chicago Magazine’s Top Docs (Orthopaedics), April 2013
Editorial Board, Journal of Arthroplasty
Oral Examiner, American Board of Orthopaedic Surgery

REX HAYDON, MD, PhD
Associate Editor, Current Orthopaedic Practice
Reviewer, Journal of Bone and Joint Surgery
Reviewer, Clinical Orthopaedics and Related Research
Reviewer, Journal of Orthopaedic Research
Reviewer, Journal of Gene Medicine
Reviewer, American Journal of Sports Medicine
Reviewer, LifeScience
Reviewer, Cancer Research
Grant Reviewer, Musculoskeletal Transplant Foundation
Grant Reviewer, Orthopaedic Research and Education Foundation
Grant Reviewer, Italian Association for Cancer Research (AIRC)

TONG-CHUAN HE, MD, PhD
Reviewer, American Journal of Sports Medicine
Reviewer, American Journal of Human Genetics
Reviewer, Cancer Research
Reviewer, Clinical Cancer Research
Reviewer, Critical Reviews in Oncology/Hematology
Reviewer, EMBO
Reviewer, EMBO Report
Reviewer, Gastroenterology
Reviewer, Genomics
Reviewer, Genes and Development
Reviewer, Journal of Clinical Investigation
Reviewer, Journal of Orthopaedic Research
Reviewer, Laboratory Investigation
Reviewer, Molecular and Cellular Biology
Reviewer, Nature Biotechnology
Reviewer, Nucleic Acids Research
Reviewer, Oncogene
Reviewer, PLoS Series Journals
Reviewer, Proceedings of the National Academy of Science, USA
Reviewer, Science
Reviewer, Stem Cells

Reviewer, Stem Cells and Development
Reviewer, Special Emphasis Panel/NIH ZRG1 ONC-K (03) M, June 2010
Reviewer, Biomedical Research Council of Agency for Science, Technology and Research of Singapore (A*STAR), July 2010
Reviewer, the Wellcome Trust Senior Fellowships, UK, February 2011
Charter Member, the Drug Discovery and Molecular Pharmacology (DMP) Study Section, NIH/NCI, Bethesda, MD
Editorial Board, Recent Patent Reviews on Anti-Cancer Drug Discovery
Editorial Board, Laboratory Investigation
Editorial Board, The Open Cancer Journal
Editorial Board, The Open Tissue Engineering and Regenerative Medicine Journal
Guest Editor, Current Gene Therapy
Editorial Board, World Journal of Stem Cells
Editorial Board, World Journal of Biological Chemistry
Editorial Board, World Journal of Orthopaedics
Editorial Board, American Journal of Stem Cells

SHERWIN S.W. HO, MD
Team Physician, Concordia University
Honors and Awards

J. MARTIN LELAND, MD
Orthopaedic Learning Center: Associate Master Instructor of the Year 2012
Distinguished Guest, 7th International Congress of Chinese Orthopaedic Association 2012 (Beijing, China)
Social Media 101 Instructional Course Lecture (Lecturer), AOSSM Annual Meeting, Chicago, IL (7/11/13)
Young Sports Medicine Specialists’ Workshop (Lecturer), AOSSM Annual Meeting, Chicago, IL (7/12/13)
Invited Speaker, AOSSM Product Workshops, AOSSM Annual Meeting, Baltimore, MD July 2012
Invited Speaker, Technology Summit for Arthroscopy Journal Board of Trustees Meeting, New York, NY, July 2012
Invited Speaker, Arthroscopy Journal Editors Meeting, Santa Monica, CA, September 2012
Invited Speaker, Focus Demonstration, AANA Fall Meeting, Phoenix, AZ, November 2012
Invited Speaker, Athletico Physical Therapy Lecture Series, Matteson, IL, February 2013
Invited Speaker, ATI Physical Therapy Lecture Series, Munster, IN, February 2013
Invited Speaker, Stryker Endoscopy Surgeon Innovation Summit, AAOS Academy Meeting, Chicago, IL March 2013
Invited Speaker, Arthroscopy Journal’s Technology Summit, AANA Annual Meeting, San Antonio, TX, April 2013
Invited Speaker, Arthroscopy Journal Reviewers Meeting, AANA Annual Meeting, San Antonio, TX, April 2013
Host, AOSSM European Traveling Fellowship, Chicago, IL, July 2013

HUE H. LUU, MD
Grant Reviewer, American Cancer Society Cell Structure and Metastasis (CSM) Study Section (Ad Hoc) (Atlanta, GA)
Grant Reviewer, Orthopaedic Research and Education Foundation
Grant Reviewer, The University of Chicago Internal Scientific Advisory Panel
Grant Reviewer, Liddy Shriver Sarcoma Initiative (Ossining, NY) (Ad Hoc)
Invited Speaker, Orthopaedic Meeting in Lanzhou, China, Summer 2012
Performed Hip and Knee Replacements in Lanzhou, China, Summer 2012
Gave Lectures and Performed Knee Replacement in Chongqing, China in Summer 2012

JOHN MARTELL, MD
American Association of Hip and Knee Surgeons James A. Rand Award, “Is Increased Modularity Associated with Increased Wear Debris in Metal-on-Metal Total Hip Arthroplasty Devices?” Dallas, TX, November 2012
Abstract Reviewer, Orthopaedic Research Society, Section of Arthroplasty
Reviewer, Journal of Wear
Reviewer, Journal of Bone and Joint Surgery
Manuscript Reviewer, Clinical Orthopaedics and Related Research
Grant Submission Reviewer, National Institute of Health
Manuscript Reviewer, Journal of Biomechanics
Manuscript Reviewer, Computer Methods in Biomechanics and Biomedical Engineering
Manuscript Reviewer, Journal of Biomaterials
Manuscript Reviewer, Journal of American Academy of Orthopaedic Surgeons

DANIEL MASS, MD
Invited lecture, 4th Annual Concepts in Upper Extremity Restoration in Atlanta, Georgia, in November 2012
BRUCE REIDER, MD
Dr. Bruce Reider continues in his role as editor of the American Journal of Sports Medicine. Dr. Reider is also on the Board of Directors of the American Orthopaedic Society for Sports Medicine.
Reviewer, The Physician and Sports Medicine
Reviewer, World Book Encyclopedia
Reviewer, Journal of Orthopaedic Research
Consultant Editor, Post-Grad Advances in Sports Medicine, Publisher Forum Medicus, Inc.
Reviewer, American Journal of Sports Medicine
Reviewer, Clinical Journal of Sports Medicine (Canada)
Reviewer, AAOS Sports Medicine Evaluation
Editorial Board, Operative Techniques in Sports Medicine
Reviewer, Orthopaedics Today
Reviewer, Arthroscopy
Reviewer, Clinical Orthopaedics and Related Research
Executive Editor, Sports Health: A Multidisciplinary Approach
Invited Speaker at European Federation of Sports Trauma Societies (London), Topkon (Istanbul meeting of Orthopaedics and Traumatology), Japanese Orthopaedic Association (Hiroshima), University of New Mexico Graduation Speaker
Starkey Duncan Service Award
Kennedy Lectureship, American Orthopaedic Society for Sports Medicine

LEWIS SHI, MD
Gold Medal Presentation, American Roentgen Ray Society Annual Meeting

MICHAEL SIMON, MD
Dr. Michael Simon continued in the role of interim chief of the Section of Orthopaedic Surgery and Rehabilitation Medicine until December 2012, at which time the dean announced the Department and inaugural chair.
Dr. Simon continues in his role as the associate dean of Graduate Medical Education.

CHRISTOPHER SULLIVAN, MD
Reviewer, Clinical Orthopaedics and Related Research

BRIAN TOOLAN, MD
Oral Examiner, Part II Oral Boards and Oral Recertification
American Board of Orthopaedic Surgery
Manuscript Reviewer, American Journal of Sports Medicine
Current Concepts and Topical Reviews Committee, Assistant Editor for Foot and Ankle International
Member, Education Committee, Mid-America Orthopaedic Association (MAOA)
Member, Evidence-Based Practice Committee, American Orthopaedic Foot and Ankle Society (AOFAS)
Member, Foot and Ankle Subcommittee, American Academy of Orthopaedic Surgeons (AAOS)
Member, Selection and Fund Raising Committee, Louis August Jonas Foundation
Member, Knowledge and Skills Subcommittee, American Orthopaedic Association (AOA)
Welcome—Dr. Lewis Shi

Lewis Shi, MD, joined the faculty of the Department of Orthopaedic Surgery & Rehabilitation Medicine in September of 2012. Dr. Shi attended Harvard Medical School and completed the orthopaedic residency program at Harvard. After his residency, Dr. Shi completed a shoulder and elbow fellowship at Massachusetts General Hospital, Boston. We were fortunate to recruit him to the faculty following his fellowship.

Dr. Shi specializes in shoulder and elbow injuries. He maximizes patients’ non-operative management prior to considering surgery. If necessary, he offers minimally invasive (arthroscopic) and open procedures that are appropriate for the patient’s disorders. Dr. Shi’s research focuses on the molecular basis of rotator cuff tear and the biomechanics of shoulder arthritis. He also is part of several national and international multi-center studies to improve diagnostic and treatment protocols of shoulder injuries.

Welcome—Dr. James Mok

James Mok, MD, is an orthopaedic surgeon who specializes in the diagnosis and treatment of spine conditions, including herniated discs, spinal stenosis, spondylolisthesis and degenerative disc disease. He also cares for patients with cervical stenosis or myelopathy—conditions in which the spinal cord and nerves become compressed in the neck. In addition, Dr. Mok has expertise in cervical and lumbar disc replacement.

After completing his fellowship, Dr. Mok served as a major in the United States Army, where his duties included caring for members of elite special operations units. He also deployed as the orthopaedic surgeon for a combat support hospital in Iraq. He received notable military awards for his service, including the Meritorious Service Medal.

Dr. Mok is an accomplished author and has been invited to present his work at national and international conferences on spine diseases and orthopaedic surgery. In 2010, he received the Norman T. Kirk Award for best scientific paper from the Society of Military Orthopaedic Surgeons.

Welcome—Dr. Richard Kang

Richard W. Kang, MD, MS, is an orthopaedic sports medicine surgeon skilled in a variety of minimally invasive and arthroscopic procedures. He specializes in the diagnosis and management of adolescent and adult hip conditions, including labral tears and femoroacetabular impingement. He also has expertise in the treatment of cartilage lesions of the hip, knee and shoulder. By utilizing modern techniques to preserve the natural joint, Dr. Kang’s objective is to delay or prevent the onset of arthritis and the need for a joint replacement. Dr. Kang’s work is dedicated towards alleviating pain and restoring patients’ quality of life.

Dr. Kang has published extensively on various topics within orthopaedic surgery, with a specific focus on the management of hip conditions as well as cartilage defects of the hip, knee and shoulder. His publications include numerous peer-reviewed manuscripts, multiple book chapters and technique videos. Dr. Kang’s research experience spans from developing novel basic science models to clinical outcomes studies, and has received a number of awards and grants. Notable research support includes that of the National Institutes of Health as well as the Orthopaedic Research and Education Foundation.
Faculty

UNIVERSITY OF CHICAGO

Professors of Orthopaedic Surgery
Douglas R. Dirschl, MD
Henry Finn, MD
John Martell, MD
Daniel P. Mass, MD
Anthony Montag, MD*
Michael Simon, MD
Brian Toolan, MD

Professor Emeritus of Orthopaedic Surgery
Bruce Reider, MD

Associate Professors of Orthopaedic Surgery
Rex Haydon, MD, PhD
Tong-Chuan He, MD, PhD
Sherwin Ho, MD

Assistant Professors of Orthopaedic Surgery
Jovito Angeles, MD
Holly Benjamin, MD*
Robert Bieliski, MD
Roderick Binnie, MD
J. Martin Leland, MD
Hue Luu, MD
Lewis Shi, MD
Christopher Sullivan, MD
Ann Zmuda, DPM*

Clinical Associate Professor of Orthopaedic Surgery
Michelle Gittler, MD

Clinical Assistants
Cheryl Benjamin, DO
Raymond Lee, MD
Edward Park, MD

Postdoctoral Fellows
Xian Chen, MD
Fang Deng, MD, PhD
Linyuan (Cecilia) Wang, MD
Jinhua Wang, MD

Visiting Research Associates (Assistant Professors)
Zhan Liao, MD, PhD
Hongmei Zhang, MD, PhD

Visiting Scholars
Yunfeng He, MD, PhD
Wei Liu, MD, PhD
Guoxin Nan, MD, PhD
Junhui, Zhang, MD

PhD/MD Students
Stephanie Kim
Mary Rose Rogers

NORTHSORE

Clinical Associate Professors
Joseph Allegra, MD
Ravi Bashyal, MD
David Beigler, MD
Eric Chehab, MD
Bradley Dunlap, MD
Miledones Eliades, MD
Eldin Karaikovic, MD
Steven Levin, MD
Seth Levitz, MD
Robert McMillan, MD
Craig Phillips, MD
Gary Shapiro, MD
Anand Srinivasan, MD

Pritzker School of Medicine

Clinician Educators
Patrick Birmingham, MD
Rachel Kermen, MD
Mark Mikhail, MD
Mark Neault, MD
Howard Robinson, MD
Danielle Schiff, MD
Naila Shaikh, MD
Rachel Sherman, MD

Senior Clinician Educators
Joseph Feldman, MD
James Fox, MD
Michael O’Rourke, MD
Gregory Palutsis, MD
Gregory Portland, MD
Amy Ptaszek, MD
David Shapiro, MD
Van Stamos, MD
Craig Williams, MD

*Secondary appointment
## ORTHOPAEDIC SURGERY RESIDENTS

### PGY-1

**Harpreet Bawa, MD**  
Undergraduate/Graduate  
University of California, Los Angeles/Case Western Reserve University School of Medicine

**Kyle Borque, MD**  
Undergraduate/Graduate  
Texas A&M University/Baylor College of Medicine

**Pranay Patel, MD**  
Undergraduate/Graduate  
Washington University in St. Louis/Southern Illinois University School of Medicine

**Anna Rosenblum, MD**  
Undergraduate/Graduate  
Harvard College/Albany Medical College

**Robert Stewart, MD**  
Undergraduate/Graduate  
University of Washington/Jefferson Medical College of Thomas Jefferson University

### PGY-2

**Joseph Cohen, MD**  
Undergraduate/Graduate  
University of San Diego/Tufts University School of Medicine

**Ananth Eleswarapu, MD**  
Undergraduate/Graduate  
Columbia University/The University of Pittsburgh School of Medicine

**Oliver Schipper, MD**  
Undergraduate/Graduate  
Bucknell University/Georgetown University School of Medicine

**Jason Somogyi, MD**  
Undergraduate/Graduate  
Illinois Wesleyan University/Loyola University Stritch School of Medicine

**Cory Stewart, MD**  
Undergraduate/Graduate  
Calvin College/Wayne State University School of Medicine

### PGY-3

**Erwin Bennett, MD**  
Undergraduate/Graduate  
Santa Clara University/University of Chicago Pritzker School of Medicine

**Jimmy Jiang, MD**  
Undergraduate/Graduate  
Georgia Tech/University of Alabama School of Medicine

**Min Lu, MD**  
Undergraduate/Graduate  
University of Chicago/University of Chicago Pritzker School of Medicine

**Gautam Malhotra, MD**  
Undergraduate/Graduate  
University of California, Los Angeles/University of Chicago Pritzker School of Medicine

**Zachary Sisko, MD**  
Undergraduate/Graduate  
University of Notre Dame/St. Louis University School of Medicine

**Aneet Toor, MD**  
Undergraduate/Graduate  
University of California, Los Angeles/Ohio State University College of Medicine

### PGY-4

**Kevin Hardt, MD**  
Undergraduate/Graduate  
University of Notre Dame/Indiana University School of Medicine

**Tyler Krummenacher, MD**  
Undergraduate/Graduate  
University of Notre Dame/St. Louis University School of Medicine

**Deepak Reddy, MD**  
Undergraduate/Graduate  
University of Michigan/University of Chicago Pritzker School of Medicine

**Christian Skjong, MD**  
Undergraduate/Graduate  
Carleton College/University of Chicago Pritzker School of Medicine
PGY-5
Kashif Ali, MD
Undergraduate/Graduate
University of Michigan/Case Western Reserve University School of Medicine

James Cameron, MD
Undergraduate/Graduate
Furman University/Emory University School of Medicine

Michael Chioffe, MD
Undergraduate/Graduate
University of Florida/University of Chicago Pritzker School of Medicine

Jay Diemel, MD
Undergraduate/Graduate
University of Notre Dame/Loyola University Stritch School of Medicine

Amrish Patel, MD
Undergraduate/Graduate
Rice University/Loyola University Stritch School of Medicine

ORTHOPAEDIC SURGERY
FELLOWS-2012 GRADUATES

Robert Steffner, MD
(Musculoskeletal Oncology)
University of California, Davis Health System

Donald “Mick” Sullivan, MD
(Adult Reconstruction)
Private Practice, Decatur Orthopaedic Center
Mt. Zion, Illinois

Brian Wegman, MD
(Adult Reconstruction)
Private Practice, Woods Mill Orthopaedics
Chesterfield, Missouri

Emmanuel Konstantakos, MD
(Sports Medicine)
Holzer Health System
Gallipolis, Ohio

Damian Kosempa, MD
(Sports Medicine)
Sports Medicine & Orthopaedic Center S.C.
Milwaukee, Wisconsin

Archit Patel, MD
(Hand and Upper Extremity)
Private Practice, Danbury Surgical Center
Danbury, Connecticut

Sarah Sibbel, MD
(Hand and Upper Extremity)
Shriners Hospital for Children
Sacramento, California
Education  Working toward fulfilling the Department of Orthopaedic Surgery and Rehabilitation Medicine’s mission to communicate knowledge through medical education, our faculty continue to be active in all levels of medical education. During the M3 year, we provide a core course for three hours, which includes instruction in casting and splinting, and a series of interactive lectures on orthopaedic topics. During their surgery clerkship, third year medical students are given the option of selecting orthopaedic surgery as their subspecialty rotation for 2.5 weeks. During this rotation, the junior medical students are introduced to the field of orthopaedics and given the opportunity to experience first-hand the rewarding yet challenging work we do.
DURING THE M4 YEAR, WE OFFER A FOUR-WEEK ELECTIVE INPATIENT ROTATION. Students are exposed to the various orthopaedic subspecialties during this rotation. In addition to our own students from Pritzker, this rotation is very popular with visiting students from other institutions as well. We also offer an outpatient elective, which is aimed towards students entering into primary care fields. Year after year, we continue to see many of our own students choose orthopaedics as a career.

Our residency program continued to flourish over the past year and has been greatly strengthened by our academic affiliation with NorthShore University HealthSystem (NSUHS). Through this affiliation, our residents rotate at Evanston Hospital, a designated Level I trauma center, and Glenbrook Hospital, a community hospital in Glenview, IL. All members of the NSUHS faculty are fellowship-trained subspecialty surgeons in well-established community practices. The individual practices of the faculty collectively provide an extensive, subspecialty-driven ambulatory experience in the evaluation and management of outpatient orthopaedic conditions. We have six residents training at NSUHS at a time on the Total Joint Arthroplasty, Foot & Ankle, Trauma, Hand, Sports Medicine and Spine services.

The majority of the resident educational program in orthopaedic surgery continues to occur at the University of Chicago Medicine. The clinical education is centered around inpatient units, on-site and off-site outpatient clinics and the operating room. The management of patients is divided into clinical services that include joint reconstruction including hip preservation, spine, oncology, pediatrics, foot and ankle, hand and upper extremity and sports medicine. Our curriculum is organized through these subspecialties and teams of residents are assigned to each service.

The didactic portion of the residents’ education occurs mainly through the morning clinical conferences. Our 6:15 am conference is a monthly rotating conference on pediatric orthopaedics, trauma, basic science, morbidity and mortality, quality assurance, sports medicine, adult reconstruction, spine, hand and upper-extremity and surgical indications for musculoskeletal diseases. All of our conferences are attended and led by attendings. Following the 6:15 am conferences, every weekday morning from 7:00 to 7:30 am, the junior resident on-call presents the emergency room cases from the evening before. This serves as quality control and an educational experience for residents. After the emergency room review, all faculty are required to present their operative cases for the day and explain their operative indications. Following the faculty presentation, residents show radiographs of patients who were operated on the day before, so that all individuals can see some of the technical results from the previous day’s surgery. In addition to our daily morning conferences, we also have a weekly Grand Rounds on Wednesdays and a monthly Journal Club. We are fortunate to have a large number of outside guest speakers present at our Grand Rounds.

Our four fellowship programs, Hand & Upper Extremity, under the direction of Daniel Mass, MD; Sports Medicine, under the direction of Sherwin Ho, MD; Musculoskeletal Oncology, under the direction of Rex Haydon, MD, PhD; and Adult Reconstruction, based at Weiss Memorial Hospital, under the direction of Henry Finn, MD, continue to train some of the nation’s brightest emerging orthopaedic subspecialists. Staying at the forefront of orthopaedic medical education is a goal the Department of Orthopaedic Surgery & Rehabilitation Medicine strives toward at every level of education.
Rehabilitation Medicine physicians work with other rehab professionals to restore or maximize each patient's functional skills, self-sufficiency and mobility. That is why Physical Medicine and Rehabilitation (PM&R) is often thought of as the “quality of life” specialty, adding both life to years and years to life. Our physiatrists lead interdisciplinary teams that include nurses, physical therapists, occupational therapists, speech-language pathologists, case managers and others. These teams develop individualized treatment plans to address each patient’s rehab needs. Treatment plans also focus on the patient’s longer-term functional goals once they’re home in the community.

These doctors provide patient care on an inpatient and outpatient basis. They also participate in various teaching activities for Schwab’s fully accredited residency training program in PM&R with the University of Chicago Pritzker School of Medicine.

At the University of Chicago, our PM&R specialists are involved in many educational and clinical pursuits. Mary Lawler, MD, serves as advisor to Pritzker students who are interested in PM&R as a specialty. Dr. Lawler also works with Cheryl Benjamin, DO, covering inpatient physiatry consultations at the University of Chicago. Lisa Thornton, MD, is the medical director of pediatric and adolescent rehabilitation. Dr. Thornton specializes in the care and treatment of children with disabilities. She is the medical director of KidsRehab and is board certified in pediatric rehabilitation, PM&R and general pediatrics. She is assistant professor in the Departments of Pediatrics and Orthopaedics and Rehabilitation at the University of Chicago Pritzker School of Medicine. She has appeared on several network television programs including Good Morning America, the CBS Early Show and CNN. Dr. Thornton is committed to educating patients, families and television viewers about critical health issues. Michelle Gittler, MD, is the resident program director at Schwab Rehabilitation Hospital and clinical associate professor at the University of Chicago. She also teaches annually at the Primary Care Orthopaedics Course.
# Weekly Conference Schedule

**THE UNIVERSITY OF CHICAGO**

**THE DEPARTMENT OF ORTHOPAEDIC SURGERY & REHABILITATION MEDICINE**

<table>
<thead>
<tr>
<th>Day</th>
<th>Place</th>
<th>Description</th>
<th>Faculty</th>
<th>Time</th>
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<tbody>
<tr>
<td>Monday</td>
<td>E-302</td>
<td>OITE Review/Oral Evaluations</td>
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<td>6:30–7:00 am</td>
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<td></td>
<td>E-302</td>
<td>AM Conference</td>
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<td>7:00–7:15 am</td>
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<tr>
<td>Tuesday</td>
<td>E-302</td>
<td>Clinical Conference</td>
<td>(See below)</td>
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<tr>
<td></td>
<td>E-302</td>
<td>AM Conference</td>
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<td>7:00–7:15 am</td>
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<tr>
<td>Wednesday</td>
<td>E-302</td>
<td>Basic Science</td>
<td>(See right)</td>
<td>6:15–7:00 am</td>
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<tr>
<td></td>
<td>E-302</td>
<td>Chairman/Resident</td>
<td>Drs. Simon/Toolan</td>
<td>7:00–7:20 am</td>
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<tr>
<td></td>
<td>E-302</td>
<td>Grand Rounds</td>
<td>(AM conference To Follow)</td>
<td>7:30–8:15 am</td>
</tr>
<tr>
<td>Thursday</td>
<td>E-302</td>
<td>Indications</td>
<td>(See right)</td>
<td>6:15–7:00 am</td>
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<td></td>
<td>E-302</td>
<td>AM Conference</td>
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<tr>
<td>Friday</td>
<td>E-302</td>
<td>Clinical Conference</td>
<td>(See below)</td>
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<tr>
<td></td>
<td>E-302</td>
<td>AM Conference</td>
<td></td>
<td>7:00–7:15 am</td>
</tr>
</tbody>
</table>

## DAILY AM CONFERENCE:
- **Pre-op & Post-op Discussion**
- **X-ray Review from Previous Day**
- **E.R. X-ray Review**

## WEDNESDAY BASIC SCIENCE CONFERENCE:
- July–Sept.–**Anatomy**
- Sept.–Dec.–**Pathology**–Simon/Haydon/Luu
- Jan.–June–**Basic Science Curriculum**

## THURSDAY INDICATIONS CONFERENCE:
(On a rotating basis)
- 1st week–**Trauma**
- 2nd week–**Adult Reconstruction**
- 3rd week–**Sports**
- 4th week–**Hand**
- 5th week–**Pediatrics**
- 6th week–**Foot and Ankle**

## CLINICAL CONFERENCES:

**Tuesday**
- 1st week–**Trauma**–Toolan/Mass/Birnie
- 2nd week–**Morbidity & Mortality**–Martell
- 3rd week–**Adult Reconstruction**–Martell/Luu
- 4th week–**Pediatrics**–Sullivan/Bielski

**Friday**
- 1st week–**Hand**–Mass/Birnie
- 2nd week–**Sports**–Leland/Ho
- 3rd week–**Adult Reconstruction**–Martell
- 4th week–**Foot & Ankle**–Toolan

## MONTHLY CONFERENCE:
- **Journal Club–Last Wednesday of each month–7:00 am E-302**
- **Ethics–One Wednesday quarterly–7:00 am**
  Vignettes in Ethics and Professionalism
  Compliance Education Annually
  Liability Education Annually
  Prosthetic Education Quarterly
  Cultural Competence Vignettes
On October 1, 2012, Jason Koh, MD, succeeded William Robb, MD, as the Chairman of Orthopaedic Surgery at NorthShore University HealthSystem. Since his arrival, new energy and growth have become the order of the day. With the addition of new physicians, there are now 90 orthopaedic surgeons in the Department. Refinement of the rotations for University of Chicago orthopaedic surgery residents and fellows has continued, with the goals that learners get a high quality, high volume, hands-on training experience that complements that received in Hyde Park. The recent addition of a total joint rotation exemplifies how the departments at NorthShore and the University of Chicago work closely together to optimize the resident experience. Howard Sweeney, MD, continues to lead the internationally recognized motor skills program that remains a key component of the learners’ educational experience. Collaborative research programs continue to grow as well, as multiple combined projects are underway with Drs. Lewis Shi and Sherwin Ho in the areas of shoulder, elbow and hip surgery. In conjunction with NorthShore faculty members, the University of Chicago residents and fellows this year have had the opportunity to research knee and shoulder injuries in the NFL, as well as utilize data mining techniques to write papers on total shoulder and elbow outcomes that have been accepted for presentation on Specialty Day.

Dr. Koh is even more optimistic about the future: “We look forward to continued growth and development clinically and academically. Our partnership with the University of Chicago has been wonderful and we look forward to continued success for our academic program.”

2013 Wavering Lecture

Dr. Koh, Dr. Sweeney and University of Chicago orthopaedic surgery residents pose with Robert T. Trousdale, MD, the 2013 Wavering Lecture speaker.
BIOGRAPHY
Dr. Clohisy received both his bachelor’s and medical degrees from Northwestern University. He completed his internship, research fellowship and residency at Saint Louis University School of Medicine, and went on to pursue an adult reconstructive surgery fellowship in the Hip and Implant Unit at Massachusetts General Hospital at Harvard Medical School. Dr. Clohisy joined the Washington University School of Medicine faculty in 1998, and achieved full professorship in 2008. His clinical expertise includes hip joint preservation — arthroscopy, osteotomies, impingement procedures — and replacement surgery. His research focuses on the diagnosis and treatment of pre-arthritic and early arthritic hip disorders, and on joint procedures of the lower extremity.

Dr. Clohisy has authored more than 160 scientific publications and book chapters, and is a frequently invited lecturer, both nationally and internationally. He currently serves as Governing Board Member of the Rehabilitation Institute of St. Louis, and also as an associate editor for the Journal of Bone and Joint Surgery.

HONORS
Dr. Clohisy has been the recipient of numerous honors and awards, including: the William Harris Award from the Orthopaedic Research Society, the Bristol-Myers Squibb/Zimmer/OREF Orthopaedic Surgery Career Development Award, the Palma Chironis Award for Excellence in Teaching, the Orthopaedic Research and Education Foundation Career Development Award, the AAOS-OREF Traveling Research Fellowship Award, and the Jerome J. Gilden Distinguished Physician Award for Excellence in Patient Care from the Department of Orthopaedic Surgery at Washington University School of Medicine.
Research Activities  Our mission is to inspire colleagues to create new knowledge, to communicate knowledge through medical education, and to provide superior and compassionate health care in a collegial atmosphere. Basic, clinical and translational research in orthopaedic science is an integrated part of our graduate medical education. Thus, in addition to the clinical and educational commitments, our faculty is actively involved in a broad range of research on bone and musculoskeletal diseases, which have been highlighted in the following areas.

THE ORTHOPAEDIC IMAGING RESEARCH INSTITUTE

As the director of The Orthopaedic Imaging Research Institute, Dr. John Martell continues to develop collaborations with implant manufactures and individual investigators. Dr. Martell’s research has been funded by grants from The Harris Foundation, NIH/NIAMS, Smith & Nephew, Stryker, Biomet and Zimmer. The Orthopaedic Imaging Research Institute is known nationally and internationally as a resource for the design and implementation of polyethylene wear studies and has been involved in the analysis of cross-linked polyethylene.

Dr. Martell accommodates requests from academic joint replacement programs to observe the techniques that are used in processing and analyzing films. The Orthopaedic Imaging Research Institute has become a world-class resource for the analysis of polyethylene wear in total hip arthroplasty. The Institute has furthered its commitment to orthopaedic research by sponsoring the Geraldine Mary Maley Research Award, an annual research award for projects developed by faculty/residents in the Department of Orthopaedic Surgery at the University of Chicago or Weiss Memorial Hospital.

Dr. Martell has recently developed several important and innovative biomedical imaging tools. First, mechanical analysis software allows investigators to estimate the joint reaction force and stress in normal and prosthetic hips. Using the joint stress as a predictor variable in combination with patient activity indicators (speed of walking, UCLA score or pedometer data) he has developed a multiple logistic regression model that can identify patients with total hips that are at risk for high wear and osteolysis in the long term. This model is now 87 percent accurate and has no false negatives in a series of 300 hips with minimum eight year follow-up.

Dr. Martell has partnered with Dr. Christian Heisel at Heidelberg University in Germany to investigate the biomechanical factors predisposing women to hip arthritis. Preliminary results show a significantly higher contact stress in the native hips of women patients compared to men. Factors that play a role in this finding are: a wider female pelvis, causing the body weight momentum to be larger, smaller femoral offset in women and smaller femoral heads, which increases contact stress. Dr. Martell is also working with Dr. William Walters from Australia to investigate the biomechanics of ceramic total hip arthroplasty to identify factors leading to squeaking in ceramic total hip arthroplasty.

As an extension of the mechanical analysis software, Dr. Martell developed preoperative templating software which allows the surgeon to template pre-operatively using knowledge of the impact choices for stress and wear performance of the implanted prosthetic hip joint. This identifies reconstructive options that put the patient at risk for high wear, and assists the surgeon in choosing prosthetic position and designs to minimize this significant complication. Another modification of the mechanical analysis software allows the estimation of shear forces in the capital femoral epiphysis.
that predispose to slipped capital femoral epiphysis (SCFE) in children. These shear forces, in conjunction with the skeletal age of the pelvis, have a predictive value of 90 percent for the risk of SCFE.

Dr. Martell has partnered with Argonne National Laboratories, and has received $20,000 through the BIASE initiative to fund a pilot project to develop a visual-tactile feedback system for use in minimally invasive robotic surgery. Preliminary testing of this video processing image analysis system has shown the capability to detect real-time suture strain rates that are 100 times lower than the strain to failure. Work now continues on perfecting the video processing, including and on measuring strains in sutures from archived clinical videos.

TENDON AND LIGAMENT INJURY REPAIR
Drs. Daniel Mass, Sherwin Ho, Lewis L. Shi and Jovito Angeles, in collaboration with Dr. T.-C. He, are investigating possible gene therapy approaches to enhancing tendon and ligament healing using recombinant adenoviral vectors expressing BMPs and/or other biological factors. They have demonstrated that BMP-13 can significantly improve the biomechanical properties of lacerated flexor tendons in a rabbit model while BMP-14 is also shown to significantly improve the biomechanical properties of lacerated flexor tendons in a rabbit model. Based on time-course studies of gene expression after tendon injury, they identified several factors that may work alongside BMP-13 and BMP-14 at different stages of tendon healing. Dr. Lewis L. Shi is also investigating biological factors that may improve the healing of rotator cuff injuries.

SHOULDER RESEARCH
Dr. Lewis L. Shi is leading an active shoulder research program, with multiple clinical and translational projects. In collaboration with Dr. T.-C. He, he is investigating biological factors that may improve the healing of rotator cuff injuries. He has an on-going IRB approved study examining patients undergoing shoulder arthroscopy, correlating the growth factors of the subacromial milieu to the condition and chronicity of cuff tears. The ultimate goal is to identify potential pharmacologic treatment to augment rotator cuff repairs in human patients.

Dr. Shi is leading several multi-centered shoulder clinical outcome studies. These are prospective randomized control trials studying the optimal methods of treatment for rotator cuff tears, biceps tendonitis and labrum tears. He is also conducting several studies using the Marketscan, a national insurance claims database, to examine the patterns, complications and cost of shoulder surgery in the last decade.

Dr. Shi continues his collaborations with several prestigious orthopaedic hospitals in China. In this past year, he has co-authored several papers in PLoS One and Genetic Testing and Molecular Biomarkers on ankylosing spondylitis with investigators in 301 Military Hospital in Beijing. Additionally, his work on vascularized fibula graft with the Shanghai Sixth People’s Hospital has generated multiple podium presentations at international conferences and will be published soon.

FOOT AND ANKLE RESEARCH
Dr. Brian Toolan has focused on several clinical projects related to foot and ankle disorders. In the past, he studied the effects of acquired flatfoot deformity on tibiotalar contact pressures in a cadaveric model, and performed a follow-up study on the effects of UCBL orthotics and surgical techniques on joint contact characteristics in the same model. Both of these studies were published in Foot & Ankle International. He recently published a retrospective study in Foot & Ankle International comparing lateral column lengthening to a medial calcaneal osteotomy in the treatment of adult acquired flatfoot. He is currently conducting a similar comparison in a prospective clinical study that is currently ongoing. Lastly, he is retrospectively evaluating the results of a new procedure for salvaging malunited ankle fractures with chronic syndesmotic disruption using a distal fibular arthrodesis and soft tissue reconstructions.

In addition to his interests on flatfoot deformity, Dr. Toolan is interested in developing a better understanding of ruptured Achilles tendon healing process and potentially developing new means of treating patients with this injury. Achilles tendon ruptures are common injuries, and both surgical and non-surgical treatments have frequent complications such as wound dehiscence and re-rupture. Therefore, Dr. Toolan, in collaboration with Dr. He, has used a rat model to investigate the effects of BMP-14 in the healing process.
and other factors on Achilles tendon healing, finding a 70 percent increase in tensile strength at two weeks.

ARTICULAR CARTILAGE REGENERATION AND ANTERIOR CRUCIATE LIGAMENT REPAIR

The Sports Medicine Service, consisting of Drs. Sherwin Ho, Martin Leland, and Richard Kang, has been intensively investigating the biological processes in articular cartilage regeneration, anterior cruciate ligament repair and rotator cuff tear repair. Articular cartilage has little intrinsic capacity to repair itself after injury, prompting many researchers to explore new methods to facilitate and augment cartilage regeneration. Currently, a variety of approaches have been developed, including chondroplasty, osteochondral transfer procedures (autologous and allograft procedure), microfracture and autologous cultured chondrocyte implant (ACCI). Each of these techniques is useful when utilized in appropriate conditions; however, a significant cohort of patients still fail to achieve good to excellent results even when surgical, pharmacologic and physical therapy are optimal by current standards. These clinical failures suggest that new biologic strategies, including gene therapy, may be a useful adjunct to current treatments to further improve clinical outcomes.

Drs. Sherwin Ho, Martin Leland and Richard Kang are investigating the possible use of Sox9 and/or other biofactors to facilitate articular cartilage regeneration. Previously, Drs. T.-C. He and Rex Haydon successfully transduced intervertebral disc cells with Sox9, a transcription factor necessary for chondrogenesis and Type II collagen synthesis. They observed that human degenerative intervertebral disc cells transfected with Sox9 genes led to chondrocyte proliferation with increased production of Type II collagen (Spine 28: 755–763). Currently, Drs. Ho, Leland and Kang are investigating whether exogenous expression of Sox9 in articular cartilage cells or in mesenchymal stem cells will augment articular cartilage repair in a rabbit model. This research has included experiments comparing different man-made scaffolds that can be used to implant these genetically altered cartilage cells back into the host knee defects (J Biomed Mater Res A. 2013, 101(12): 3542–50). In addition, Drs. Ho, Leland, and Kang are investigating the potential use of BMP-13 and/or PRP (platelet-rich plasma) for rotator cuff tears using a rat model, as possible treatment options for patellar tendonitis, and a unique approach to rehabilitation following ACL reconstruction surgery.

The Sports Medicine Service has developed a surgical skills laboratory for medical students, residents, and fellows to develop their arthroscopic and minimally-invasive surgical skills using a state-of-the-art virtual reality arthroscopy simulator (MIST) developed by the Spanish aerospace company GMV (based in Madrid), as well as with cadavers. Such virtual and simulated surgery represents important new educational tools for training medical students, residents and fellows. A study to quantitate the learning of these skills was presented at the Arthroscopy Association of North America’s Annual Meeting in San Francisco this year, as well as at the Mid-America Orthopaedic Society’s Annual Meeting in Marco Island, Florida, and has been submitted for publication.

Dr. Reider is also engaged in an ongoing clinical prospective cohort study of possible links between knee proprioception in collegiate soccer and basketball players. Dr. Reider’s previous research has shown that athletes with ACL tears have abnormal proprioception of the knee that returns to normal after ACL reconstruction. The current project prospectively measures proprioception in a large number of healthy athletes to see if those who go on to tear their ACLs have deficient proprioception prior to the injury. Dr. Reider has also completed a study of degenerative meniscal tears, which has been submitted for publication.

OSTEOSARCOMA IS A “DIFFERENTIATION DISEASE”

Under the direction of Drs. T.-C. He, Rex C. Haydon and Hue H. Luu, the Molecular Oncology Laboratory has focused on the molecular aspects of bone and soft tissue tumors through collaborations with Drs. Michael A. Simon and Anthony Montag. They previously found that β-catenin signaling is activated in approximately 70 percent of human osteosarcoma samples, suggesting that deregulation of β-catenin may play a role in the development of human osteosarcoma. They examined the expression of the S100A6 in human osteosarcoma, and found that approximately 84 percent of the analyzed osteosarcoma specimens stained positive for S100A6.
Thus, their findings suggest that S100A6 may be associated with the pathogenesis of osteosarcoma (International Journal of Cancer 102: 338–342; Clin Orthop Relat Res 466: 2060–2070, and Cancer Letters 229: 135–148). More recently, Drs. Haydon, Luu and He found that, while in mesenchymal stem cells BMP-2 and BMP-9 induce osteogenic differentiation, osteosarcoma cells are refractory to BMP-induced bone formation with increased cell proliferation, suggesting that blocks to normal BMP-induced differentiation must exist. Downstream targets of the osteogenic BMPs include several key inhibitors of differentiation that are commonly expressed in human tumors. They hypothesize that osteosarcoma may represent a “disease of differentiation,” possibly caused by the defects in the terminal differentiation pathway of pre-osteoblast and/or osteoblasts (Laboratory Investigation 88: 1264–1277; Clinical Orthopaedics and Related Research 466: 2114–2130; Clinical Orthopaedics and Related Research 454: 237–246; Clinical Cancer Research 16; 2235–2245, Clinical Cancer Research 8: 1288–1294). They are attempting to reconstruct osteosarcoma-like cells from mesenchymal stem cells by disrupting the differentiation pathway and enhancing proliferation activity of the progenitors. Consistent with the “disease of differentiation” model, generic differentiation agents, such as PPARγ agonists and retinoic acids, were shown to promote osteogenic differentiation and inhibit osteosarcoma tumor growth (Clinical Cancer Research 16; 2235–2245; PPAR Research 2010: 956427; PLoS ONE 5: e11917).

Drs. He, Haydon and Luu developed a novel orthotopic tumor model for osteosarcoma progression and pulmonary metastasis (Clin Exp Metastasis. 22: 319–329). This model highlights different stages of primary bone tumor progression and the eventual development of pulmonary metastasis. They are currently using this model to investigate several genes for their role in controlling bone tumorigenesis and metastasis. Meanwhile, they have conducted gene profiling analysis of gene expression patterns between non-metastatic and highly metastatic osteosarcoma cells, and have identified several promising candidate genes associated with pulmonary metastasis of osteosarcoma. Further functional characterization of these target genes is currently ongoing (Clinical & Experimental Metastasis 26:599–610). They have recently reported that insulin-like growth factor binding protein 5 (IGFBP5) suppresses tumor growth and metastasis of human osteosarcoma (Oncogene 30(37): 3907–17).

Effects of natural products and herbal extracts on cancer cells and stem cell differentiation: As natural products and herbs represent a great deal of resources for drug discovery, we have collaborated with Dr. Chun-Su Yuan of the Tang Center for Herbal Medicine Research and investigated the effect of several herbal products, such as Berberine and ginseng extracts, on cancer growth and proliferation, as well as on stem cell differentiation. Dr. He was one of the PIs on a P01 grant from the NIH to study the role of herbal products in cancer (International Journal of Oncology 32: 975–983; Oncol Rep 22: 943–952; Biol Pharm Bull 32: 1552–1558; Cancer Lett 289: 62–70; Mol Pharmacol 79(2): 211–9).

MOLECULAR BIOLOGY OF BONE FORMATION Identification of BMP-9 as the most osteogenic BMP in vitro and in vivo. Although several BMPs (mostly BMP-2 and BMP-7) have been shown to induce bone formation, it is unclear whether the ones currently used represent the most osteogenic BMPs. Through a comprehensive analysis of the 14 types of human BMPs, the He, Haydon and Luu lab previously demonstrated that BMP-2, BMP-6, and BMP-9 are the most potent osteogenic BMPs in
osteoblastic progenitor cells in vitro, which was published in the *Journal of Bone and Joint Surgery* with over 500 citations so far. They have concluded several rounds of in vivo studies and found that BMP-2, BMP-6 and BMP-9 are the most potent osteogenic BMPs at inducing orthotopic bone formation in athymic mice (Gene Therapy 11: 1312–1320; J Orthop Res 25: 665–677; and Front Biosci 13: 2001–2021). Interestingly, they have also found that osteogenic BMPs can induce adipogenic differentiation of mesenchymal stem cells (Stem Cells and Development 18: 545–559). They have demonstrated that TGFbeta/BMP type I receptors ALK1 and ALK2 are essential for BMP-9-induced osteogenic signaling in mesenchymal stem cells (J Biol Chem. 285(38): 29588–98).

To identify potentially important mediators of BMP-induced osteogenic signaling, Drs. He, Haydon and Luu determined the transcriptional differences between three osteogenic BMPs (i.e., BMP-2, -6, and -9) and two inhibitory/non-osteogenic BMPs (i.e., BMP-3 and -12). Through the microarray analysis in pre-osteoblast progenitor cells, they found that expression level of 203 genes (105 up-regulated and 98 down-regulated) was altered >2-fold upon osteogenic BMP stimulation. Gene ontology analysis revealed that osteogenic BMPs, but not inhibitory/non-osteogenic BMPs, activate genes involved in the proliferation of pre-osteoblast progenitor cells towards osteoblastic differentiation, and simultaneously inhibit myoblast-specific gene expression. Their findings are consistent with the notion that osteogenesis and myogenesis are two divergent processes (Journal of Cellular Biochemistry 90: 1149–1165). The Molecular Oncology Lab identified several potentially signaling mediators of BMP-induced osteogenesis. Several such downstream targets are the inhibitors of DNA binding/differentiation helix-loop-helix (a.k.a., Id proteins), connective tissue growth factor (a.k.a., CTGF), Hey1 and growth hormone. Their studies thus far have demonstrated that both Ids, CTGF, Hey1 and growth hormone play an important role in BMP-9 induced osteogenic signaling (Journal of Biological Chemistry 279: 55958–55968; Journal of Biological Chemistry 279: 32941–32949; Journal of Biological Chemistry 279: 55958–55968; Journal of Biological Chemistry 284: 649–659; and J Bone Miner Res. 2012, 27(7):1566–75).

**Role of Wnt/β-catenin signaling in osteogenic differentiation of mesenchymal stem cells:** The He, Haydon and Luu group previously demonstrated that Wnt/beta-catenin signaling is de-regulated in over 70 percent of human osteosarcomas. The He, Haydon, and Luu lab demonstrated that normal Wnt/β-catenin signaling is required for BMP-9 signaling in MSCs (Journal of Cellular and Molecular Medicine 13: 2448–2464). They have completed a microarray analysis on the genes regulated by Wnt3A in mesenchymal stem cells, and found that CTGF is also highly regulated by Wnt. They have recently finished a study, in which they demonstrate that CTGF is a mutual target of Wnt and BMP-9 and plays an important role in regulating osteogenic differentiation (Journal of Biological Chemistry 279: 55958–55968; Molecular and Cellular Biology 26: 2955–2964). Furthermore, Drs. He, Haydon and Luu have recently investigated the potential synergistic effect of other factors on BMP-9-mediated osteogenic differentiation and bone formation. Such factors include retinoid receptors and IGFs (PLoS ONE 5: e11917 and Journal of Bone and Mineral Research 25:2447–59).
Publications

JOVITO ANGELES, MD


HOLLY BENJAMIN, MD


ROBERT BIELSKI, MD

DOUGLAS R. DIRSCHL, MD


HENRY FINN, MD

 Rex Haydon, MD, PhD


Ning Hu, Dianming Jiang, Enyi Huang, Xing Liu, Ruidong Li, Xi Liang, Stephanie H Kim, Xiang Chen, Jian Li Gao, Hongyu Zhang, Wenwen Zhang, Yu-Han Kong, Jiye Zhang, Jinhua Wang, Wei Shui, Xiaoji Luo, Bo Liu, Jing Cui, Mary Rose Rogers, Jikun Shen, Chen Zhao, Ning Wang, Ningning Wu, Hui H. Luu, Rex C. Haydon, Tong-Chuan He* and Wei Huang† (2013): BMP9-regulated angiogenic signaling plays an important role in the osteogenic differentiation of mesenchymal stem cells. *Journal of Cell Science* 126: 532–541, PMID: 23203800.


Xing Liu, Jiaqiang Qin, Qing Luo, Yang Bi, Gaohui Zhu, Wei Jiang, Stephanie H Kim, Mi Li, Yuxi Su, Guoxin Nan, Jing Cui, Wenwen Zhang, Ruidong Li, Xiang Chen, Yuhan Kong, Jiye Zhang, Jinhua Wang, Mary Rose Rogers, Hongyu Zhang, Wei Shui, Chen Zhao, Ning Wang, Xi Liang, Ningning Wu, Yunfeng He, Hue H. Luu, Rex C. Haydon, Lewis L. Shi, Tingyu Li, Tong-Chuan He* and Ming Li† (2013) Crosstalk between EGF and BMP9 signaling pathways regulates the osteogenic differentiation of mesenchymal stem cells. *Journal of Cellular and Molecular Medicine* 2013 Jul 11. doi: 10.1111/jcmm.12097. [Epub ahead of print] PMID: 23844832.

Yi Wang, Siqi Hong, Ming Li, Jiye Zhang, Yang Bi, Yun He, Xing Liu, Guoxin Nan, Yuxi Su, Gaohui Zhu, Ruidong Li, Wenwen Zhang, Jinhua Wang, Hongyu Zhang, Yuhan Kong, Wei Shui, Ningning Wu, Yunfeng He, Xian Chen, Hue H. Luu, Rex C. Haydon, Lewis L. Shi, Tong-Chuan He* and Jiaqiang Qin* (2013) Noggin Resistance Contributes to the Potent Osteogenic Capability of BMP9 in Mesenchymal Stem Cells. *Journal of Orthopaedic Research.*

Mi Li, Yuan Chen, Yang Bi, Wei Jiang, Qing Luo, Yun He, Yuxi Su, Xing Liu, Jing Cui, Wenwen Zhang, Ruidong Li, Yuhan Kong, Jiye Zhang, Jinhua Wang, Hongyu Zhang, Wei Shui, Ningning Wu, Jing Zhu, Jie Tian, Qi-Jian Yi, Hue H. Luu, Rex C. Haydon, Lewis L. Shi, Tong-Chuan He* and Gao-Hui Zhu* (2013) Establishment and characterization of the reversibly immortalized mouse fetal heart progenitors. *International Journal of Medical Sciences* 10(8): 1035–1046.

Jiye Zhang, Yaguang Weng, Xing Liu, Jinhua Wang, Wenwen Zhang, Stephanie H Kim, Hongyu Zhang, Ruidong Li, Yuhan Kong, Xiang Chen, Wei Shui, Ning Wang, Chen Zhao, Ningning Wu, Yunfeng He, Guoxin Nan, Xian Chen, Sheng Wen, Hongmei Zhang, Fang Deng, Lihua Wan, Hue H. Luu, Rex C. Haydon, Lewis L. Shi, Tong-Chuan He* and Qiong Shi* (2013) Endoplasmic reticulum (ER) stress inducible factor cysteine-rich with EGF-like domains 2 (Crel2) is an important mediator of BMP9-regulated osteogenic differentiation of mesenchymal stem cells. *PLOS One* [in press].


T.-C. HE, MD, PhD

Enyi Huang, Yang Bi, Wei Jiang, Xiaoji Luo, Ke Yang, Jian-Li Gao, Yanhong Gao, Qing Luo, Qiong Shi, Stephanie H Kim, Xing Liu, Mi Li, Ning Hu, Hong Liu, Jing Cui, Wenwen Zhang, Ruidong Li, Xiang Chen, Jikun Shen, Yuhan Kong, Jiye Zhang, Jinhua Wang, Jinyong Luo, Bai-Cheng He, Huicong Wang, Russell R. Reid, Hue H. Luu, Rex C. Haydon, Li Yang, and Tong-Chuan He (2012) Conditionally Immortalized Mouse Embryonic Fibroblasts Retain Proliferative Activity without Compromising Multipotent Differentiation Potential. *PLOs ONE* 7(2): e32428. doi:10.1371/journal.pone.0032428 PMCID: PMC3285668.


Publications


Ning Hu, Dianming Jiang, Enyi Huang, Xing Liu, Ruidong Li, Xi Liang, Stephanie H Kim, Xiang Chen, Jian-Li Gao, Hongyu Zhang, Wenwen Zhang, Yu-Han Kong, Jiye Zhang, Jinhua Wang, Wei Shui, Xiaoji Luo, Bo Liu, Jing Cui, Mary Rose Rogers, Iikun Shen, Chen Zhao, Ning Wang, Ningning Wu, Hue H. Luu, Rex C. Haydon, Tong-Chuan He* and Wei Huang# (2013): BMP9-regulated angiogenic signaling plays an important role in the osteogenic differentiation of mesenchymal stem cells. *Journal of Cell Science* 126: 532–541, PMID: 23203800.


Yang Bi, Yun He, Jiayi Huang, Lei Xu, Ni Tang, Tong-Chuan He, Tao Feng (2013) Induced maturation of hepatic progenitor cells in vitro. *Brazilian Journal of Medical and Biological Research* [in press].

Publications


Ning Hu, Dianming Jiang, Enyi Huang, Xing Liu, Ruidong Li, Xi Liang, Stephanie H Kim, Xiang Chen, Jian-Li Gao, Hongsu Zhang, Wenwen Zhang, Yu-Han Kong, Jiye Zhang, Jinhua Wang, Wei Shui, Xiaojia Luo, Bo Liu, Jing Cui, Mary Rose Rogers, Jikun Shen, Chen Zhao, Ning Wang, Ningning Wu, **Hue H. Luu**, Rex C. Haydon, Tong-Chuan He* and Wei Huang* (2013) BMP9-regulated angiogenic signaling plays an important role in the osteogenic differentiation of mesenchymal stem cells. *Journal of Cell Science* 126: 532–541. PMID: 23203800.


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**DANIEL MASS, MD**


**BRUCE REIDER, MD**


LEWIS SHI, MD

Xing Liu, Jiqaqing Qin, Qing Luo, Yang Bi, Gaohui Zhu, Wei Jiang, Stephanie H Kim, Mi Li, Yuxi Su, Guoxin Nan, Jing Cui, Wenwen Zhang, Ruidong Li, Xiang Chen, Yuhan Kong, Jiye Zhang, Jinhua Wang, Mary Rose Rogers, Hongyu Zhang, Wei Shui, Chen Zhao, Ning Wang, Xi Liang, Ningning Wu, Yunfeng He, Sheng Wen, Hongmei Zhang, Fang Deng, Lihua Wan, Hue H. Luu, Rex C. Haydon, Lewis L. Shi, Tong-Chuan He* and Qiong Shi* (2013) Crosstalk between EGF and BMP9 signaling pathways regulates the osteogenic differentiation of mesenchymal stem cells. *Journal of Cellular and Molecular Medicine* 2013 Jul 11. doi: 10.1111/jcmm.12097. [Epub ahead of print] PMID: 23844832.


BRIAN TOOLAN, MD

In a celebration on October 24, 2013, Dr. Polonsky presented Dr. Dirschl with the medallion that accompanies the professorship. The medallion is inscribed:

**Douglas R. Dirschl, MD**
Lowell T. Coggeshall Professor
In recognition of outstanding scientific and academic accomplishments
2013

Dr. Dirschl then delivered a lecture entitled “Creative Leadership: Challenging Convention,” where he used colorful and entertaining vignettes in the history of orthopaedics and in his own career to illustrate successful and unsuccessful attempts at leading creatively to change patient care. A reception followed, attended by colleagues, friends, Department and UCM staff, as well as one of Dr. Coggeshall’s grandsons.
Next year’s AAOS meeting is being held in New Orleans. The University of Chicago’s Alumni Reception will be held at the InterContinental New Orleans, 444 St. Charles Avenue, Magnolia Room on Friday, March 14, 2014 from 6:30 to 8:30 p.m. I look forward to seeing you at the Annual Meeting.

Sincerely,

Douglas R. Dirschl, MD
Lowell T. Coggeshall Professor and Chairman
Department of Orthopaedic Surgery & Rehabilitation Medicine
The University of Chicago Medicine

Graduating Residents

Kashif Ali, MD
Aspen Sports Medicine Foundation Fellowship
under Dr. N. Lindsay Harris

James Cameron, MD
Scripps Clinic, San Diego for Arthroplasty Fellowship under Dr. William Bugbee

Michael Chioffe, MD
Northwestern Memorial Hospital Spine Surgery Fellowship under Dr. Alpesh Patel

Jay Deimel, MD
Stanford University Palo Alto Sports Medicine Fellowship under Dr. Marc Safran

Amrish Patel, MD
The University of Chicago Hand and Upper Extremity Fellowship under Dr. Daniel Mass
Presentations

ROBERT BIELSKI, MD
Pediatric Fractures and Dislocations, 19th Annual Primary Care Orthopaedics, Chicago, IL. June 2012

Pediatric Bone and Joint Infections, 19th Annual Primary Care Orthopaedics, Chicago, IL. June 2012

REX HAYDON, MD, PhD
G. Luther, R. Rames, E. R. Wagner, R. Haydon, T. He, H. Luu

G. Luther, E. R. Wagner, R. Rames, R. Haydon, T. He, H. Luu

G. Luther, R. Rames, E. R. Wagner, R. Haydon, T. He, H. Luu

G. Luther, E. R. Wagner, R. Rames, R. Haydon, T. He, H. Luu

TONG-CHUAN HE, MD, PhD
BMP9 and Regenerative Medicine. Plenary Speaker at the 2012 International Forum on Dental and Craniofacial Research, Chongqing, China, October 26–27, 2012

Osteogenesis and Sarcomagenesis. Institutional Seminar at Zhejiang Chinese Medical University, Hangzhou, China, November 8, 2012

Differentiation and Tumorigenesis. The 4th International Conference of Tumor Targeted Therapy and the 1st Conference of Personalized Cancer Therapy, Suzhou, China, November 9–12, 2012

Uncoupling Stem Cell Differentiation and Bone Tumorigenesis. The Tumor Cell Biology Seminar of the Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL, November 15, 2012

A Molecular Model of Primary Bone Tumors. Department of Pathology, The University of Chicago Medical Center, Chicago, IL, February 14, 2013

Cancer as a Differentiation Disease, at the Stem Cell Forum, Third Military Medical University, Chongqing, China, May 24, 2013

Stem Cell Biology and Tumorigenesis. The Second Chongqing International Forum of GI Cancers, Chongqing, China, May 25, 2013

Stem Cell Differentiation and Tumorigenesis, China/Chicago Surgical Research Symposium, Beijing, China, May 30–31, 2013

Wnt and BMP Signaling Pathways in Stem Cell Differentiation, 2013 University of Illinois at Chicago Oral Biology Centennial, Chicago, IL 60637, June 16–20, 2013

SHERWIN HO, MD
Clinical Orthopaedic Society, Moderator and Speaker, “Update on Hip Arthroscopy,” Moderator of Sports Medicine and Arthroscopy Session

Moderator and Speaker at Clinical Orthopaedic Society Annual Meeting, “Update on Hip Arthroscopy”


St. Catherine’s Hospital Orthopaedics CME Conference 2012, Munster, IN, “Current Concepts in Hip Arthroscopy”

Guest Professor of Joint Surgery, Beijing, China

AAOS/AOSSM “Fundamentals of Knee and Shoulder Arthroscopy for Orthopaedic Residents,” Faculty Member, September 14–17, 2012. Course ID 1203281

“Getting Patients Back in the Game,” AAOS Course ID 1203250, April 13–14, 2012. Rosemont, IL

“Meniscus Repair, Inside and Out” Videotape Demonstration; “Hamstring Graft Harvest” Faculty Surgery Demonstration of High Tibial Osteotomy; Moderator of Patellofemoral Instability, Non-Surgical Management

AAOS Knee Injuries Course #3250, Faculty, Lecturer and Instructor, “Chondral Allografts and Autologous (Autogenous) Cartilage Implant (ACI) Techniques”


Spotlight Lecture—“Knee Emergencies” June 18–20, 2011. Millennium Knickerbocker Hotel, Chicago, IL

AAOS Resident Arthroscopy Course, Live Surgical Demonstration Titled “SLAP Repair”

Pain Pump/Chondrolysis Expert (Bowman and Brooke for BREG)

Biomet Knee and Shoulder Arthroscopy Course, Faculty Speaker, ACL Fixation, Labral Repair, Henderson, NV

Guest Faculty, Guest Surgeon, Department of Orthopaedics, 309th Hospital of PLA, Beijing, China

Lamplighters Annual Scientific Program, Speaker

AANA Fundamentals in Arthroscopy Resident Course, 2013 LC 201, Faculty Instructor, January 17, 2013, Rosemont, IL

10th Annual Current Concepts in Primary Care Sports Medicine, “Shoulder and Elbow Injuries Associated with Overhead Sports; Shoulder Examination,” Millennium Knickerbocker Hotel, Chicago, IL, March 14–16, 2013


AAOS/ASES Course #3348/1303348, “Advanced Surgical Reconstruction of the Knee and Shoulder,” Faculty Surgical Demonstration, “Arthroscopic Subscapularis Repair,” April 19–20, 2013, Rosemont, IL

J. MARTIN LELAND, MD

Distinguished Guest, 7th International Congress of Chinese Orthopaedic Association, 2012 (Beijing, China)

HUE LUU, MD

Invited Lecturer at Orthopaedic Meeting in Lanzhou, China in Summer 2012

Charles Huggins Research Conference (Research Seminar), Chicago, IL


Presentations

JOHN MARTELL, MD
Invited Moderator Session #49 New Polyethylene Implant Wear; ORS Annual Meeting, San Francisco, CA February 2012
Invited Moderator Session #217 Implant Wear, ORS Annual Meeting, San Antonio, TX January 2013

DANIEL MASS, MD


BRUCE REIDER, MD
Distinguished Lecturer for the John C. Kennedy MD, FRCS Memorial Lectureship

LEWIS SHI, MD


MICHAEL SIMON, MD
Indiana University, Garceau-Wray Lectureship, Indianapolis, IN, June 15, 2012

BRIAN TOOLAN, MD
Toolan BC, Chronic Instability of the Syndesmosis after Rotational Ankle Fracture, 100th Anniversary Meeting of the Clinical Orthopaedic Society, September 13–15, 2012, Chicago, IL

Toolan BC, Instructional Course Lecture #243: Subtle to Severe Cavus Foot, 80th Annual Meeting of the American Academy of Orthopaedic Surgeons, March 19–23, 2013, Chicago, IL

2013-2014 Orthopaedic Residency Program

PGY5
KEVIN HARDT, MD
TYLER KRUMMENACHER, MD
DEEPAK REDDY, MD
CHRISTIAN SKJONG, MD

PGY4
ERWIN BENNETT, MD
JIMMY JIANG, MD
MIN LU, MD
GAUTAM MALHOTRA, MD
ANEET TOOR, MD
ZACHARY SISKO, MD

PGY3
JOSEPH COHEN, MD
ANATH ELESWARAPU, MD
OLIVER SCHIPPER, MD
JASON SOMOGYI, MD
CORY STEWART, MD

PGY2
HARPREET BAWA, MD
KYLE BORQUE, MD
PRANAY PATEL, MD
ANNA COHEN-ROSENBLUM, MD
ROBERT STEWART, MD

PGY1
KENNETH CHAKOUR, MD
SRIKANTH DIVI, MD
PATRICK LEUNG, MD
JONATHAN TWU, MD
NOELLE WHYTE, MD