Mission Statement

To inspire colleagues to create new knowledge, to communicate knowledge through medical education and to provide superior and compassionate health care in a collegial environment.
The Section of Orthopaedic Surgery & Rehabilitation Medicine at The University of Chicago in 2009 has continued to grow and prosper thanks to the efforts of our faculty, residents, fellows and support staff who proudly continue to distinguish themselves in patient care, research and education.

Overview

Thanks largely to the efforts of Dr. Brian Toolan, we were allowed this year to expand our residency to five students a year. This has enabled us to take advantage of the educational affiliation at NorthShore University Healthcare, formerly Evanston Northwestern Healthcare. We welcome the many new members of our faculty working at four hospitals in the northern suburbs of Chicago. It has been an excellent experience for all so far and we look forward to future collaboration with Dr. William Robb, Dr. Jason Koh and all of our colleagues who contribute to the education of our residents working at Evanston Hospital, Glenbrook Hospital, Highland Park Hospital and Skokie Hospital.

As you will see by our Annual Report, the accomplishments of our faculty and residents continue to be recognized both nationally and internationally. Dr. Rex Haydon has recently completed his travels to Great Britain and South Africa as an AOA-ABC Traveling Fellow. Dr. Michael Simon continues in the challenging role of Associate Dean for Graduate Medical Education, overseeing all residency and fellowship programs for the University. Drs. David Manning and Hue Luu oversee an outstanding clinical program in Adult Reconstruction at the University Medical Center, focusing in on improving patient outcomes through effective pain control and early mobilization. Dr. Daniel Mass and Roderick Birnie remain active in a busy upper extremity practice.

Drs. Sullivan and Bielski provide care for children from throughout metropolitan Chicago and Northwest Indiana. Dr. Martin Leland has joined Drs. Bruce Reider and Sherwin Ho in a growing sports program at the University of Chicago Medical Center. In addition for caring for the school’s athletes, Dr. Bruce Reider remains the Editor for the American Journal of Sports Medicine. Dr. Purnendu Gupta has expanded his practice to Weiss Memorial Hospital joining Drs. Henry Finn and Kris Alden in developing a new Spine Center of Excellence to complement Joint University at Weiss Memorial Hospital. Dr. John Martell has relocated his research institute to Weiss Memorial Hospital and continues to work closely with our engineering colleagues at Fermi lab. Our partners in Rehabilitation Medicine here and at Schwab Hospital provide the finest care for those with head injuries, spine injuries, amputations and other musculoskeletal conditions.

Dr. T.-C. He continues in his role as mentor, collaborator, educator and researcher. The Molecular Oncology laboratory, focusing on cellular events in differentiation, attracts many of the world’s most talented and insightful students at every level. Dr. He’s efforts are increasingly recognized nationally and internationally. His efforts and those of his students and collaborators have resulted in a program of distinction and excellence.

Our reputation continues to grow. We are increasingly recognized by funding agencies like the NIH, Cancer Society and the OREF. We recently hosted the Fahey North American Traveling Fellows and have had many visitors to our programs from throughout the world. Our residents represent the best of the best of graduating medical students from across the country and have continued to obtain the most highly sought after fellowship and postgraduate opportunities. The residents have presented the results of their research projects at esteemed meetings throughout the country, including the Annual Meeting of the AAOS, the Mid-America Orthopaedic Association and the AOA Annual Meeting. Our graduates and former associates have proudly reflected the values learned here and through their hard work have further strengthened our program.

I offer my heartfelt appreciation to all who have worked so hard in the past and present to make us the proud group that we are. In particular, I would like to thank the many people who allow the faculty and residents to succeed. This includes an outstanding administrative staff, nursing staff, medical assistants and clerical personnel, whose hard work often goes unrecognized but without whom we would be lost. I look forward to a bright future.

Terrance D. Peabody, M.D.
The Simon and Kalt Families Professor
Chief, Section of Orthopaedic Surgery and Rehabilitation Medicine
Robert Bielski, M.D., organized and held an orthopaedic review course for University of Chicago pediatric residents. He was an invited lecturer for the Midwest Podiatry Conference in March 2008, giving his talk, “Growth Plate Injuries.” Dr. Bielski gave a poster presentation at the Pediatric Orthopaedic Society of North America in May 2008 entitled “Retrograde Flexible Intramedullary Nail Fixation of Pediatric Femoral Fractures: A Biomechanical Study on the Effects of Fracture Location, Nail Position and Endcap Usage on the Stability of Fracture Fixation.”

Roderick Birnie, M.D., continues his busy clinical practice in hand and upper extremity surgery at the University of Chicago. He was a faculty contributor for the 16th Annual Primary Care Orthopaedic Course chaired by Dr. Sherwin Ho at the Drake Hotel, Chicago.

Henry Finn, M.D., was named Chairman of Surgery at Weiss Memorial Hospital in February of 2009. The Finn Knee™ was recognized as one of the most significant advancements in the field of orthopaedics by the American Academy of Orthopaedic Surgeons, AAOS Now, Vol. 2, Number 10, October 2008.

Purnendu Gupta, M.D., continues to be active in the Scoliosis Research Society. He is an editor for The Spine Journal, Clinical Biomechanics, The American Journal of Sports Medicine and The Archives of Physical Medicine and Rehabilitation. Dr. Gupta has been a presenter at various regional and national meetings throughout the year.

Rex Haydon, M.D., Ph.D., (second from left) was an American Orthopaedic Association ABC Traveling Fellow for 2009. In 1948, Dr. Robert I. Harris of Toronto, Canada, developed the concept of the American, British and Canadian Traveling Fellowship during his year as president of the American Orthopaedic Association. The original goal of the tour was to allow British orthopaedic surgeons to visit centers in North America in a time of post-World War II difficulties. The initial group from Great Britain consisted of 13 orthopaedic surgeons. The following year, 15 orthopaedic surgeons from the U.S. and Canada visited Great Britain, and the tradition has continued in the same alternating fashion — inviting South Africa to the tour in 1983 and Australia and New Zealand in 1985. The ABC Fellowship remains the most prominent traveling fellowship in orthopaedics and serves to identify future leaders of the specialty and acts as a catalyst to accelerate their careers. Dr. Haydon continues in his role of basic science for the orthopaedic residents and anatomy for medical students. He is also a faculty member for the University of Chicago Clinicopathologic Seminar for residents only which is held annually at the University of Chicago Gleacher Center in October.

T.-C. He, M.D., Ph.D., currently is mentoring a large number of students, residents, physicians and post-doctoral fellows. Dr. He continues to build our very successful, internationally renowned translational research program.
Sherwin Ho, M.D., traveled with his fellow and nurse to Beijing in January as a guest of the Chinese government, where he operated on Zhao Ruirui, the middle blocker on China’s Olympic women’s volleyball team and their most popular player. He was interviewed on China’s national network, CITV upon his arrival and the surgery was televised live on national TV. The story of the surgery and post-operative interviews were featured on the evening news in China. During the visit, Dr. Ho also operated on a member of the 1984 Olympic Gold Medal team, Rong Fang. Rong Fang is now the head of China Volleyball. He also examined a number of other well-known Chinese athletes. He lectured to the Orthopaedic Department at the Military Hospital where the surgeries were performed and moderated a research symposium while there as well. He was subsequently hosted at a dinner at the Chinese Consulate in Chicago in his honor. Dr. Ho continues to be the Team Physician for Concordia University, the University of Chicago, Momenta Dance Academy and USA Volleyball.

Martin Leland, M.D., has completed a very active and successful first year at the University of Chicago. His busy clinical practice has included a number of complex orthopaedic sports medicine surgeries, such as multi-ligament knee reconstruction, proximal hamstring repairs, total shoulder replacement and arthroscopic surgery of the shoulder, elbow, knee and hip. In addition to continuing to serve as a consultant with the Philadelphia Phillies, Dr. Leland has been working with the Chicago Blackhawks, Concordia College and numerous local high schools.

Hue Luu, M.D., was an invited speaker at the National Institutes of Health Pediatric Oncology Branch in Bethesda, MD, giving his talk “Understanding the Pathogenesis and Metastasis of Osteosarcoma.” He also presented at the 1st International Forum on Orthopaedics, Chongqing, China, “Current Trends in Hip and Knee Replacement in the U.S.” He was a faculty contributor for the 16th Annual Primary Care Orthopaedic Course chaired by Dr. Sherwin Ho at the Drake Hotel, Chicago, “Management of the Degenerative Knee.” Dr. Luu was the recipient of the Orthopaedic Research Society Career Development Fellowship Award at this year’s Annual Meeting (Las Vegas 2009).

David Manning, M.D., continues in his lead role for resident recruitment for the Section of Orthopaedic Surgery and Rehabilitation Medicine. Dr. Manning continues to be invited as faculty at local and national meetings for the specific purpose of teaching minimally invasive hip and knee replacement.

John Martell, M.D., is Director of the Orthopaedic Biomedical Imaging Institute at Weiss Memorial Hospital in affiliation with the University of Chicago. Dr. Martell has established a new collaboration with the A.N.C.H.O.R. (Academic Network for Conservational Hip Outcomes Research) to develop software that standardizes the pre- and post-operative interpretation of clinical pelvic radiographs. The Hip Morphometry Software is in the final phase of development and soon will be the focus of a multi-center evaluation study. This project is supported in part through an NFL grant to Dr. John Clohisy at Washington University. The Orthopaedic Biomedical Imaging Institute was selected by the William Harris Foundation to coordinate and evaluate the mid-term wear performance of Longevity Polyethylene. Dr. Martell was also mentor to Dr. Alfred Atanda, who was first place winner at the OREF for his work entitled “A Novel Biomechanical Method to Assess the Risk for Slipped Capitol Femoral Epiphysis in Children.”

Daniel Mass, M.D., was in Lima, Peru November 29 through December 13, 2008 with his fellow, Dr. Corrigan, through the auspices of Health Volunteers Overseas. He was reappointed to the American Association of Orthopaedic Surgeons Bone and Joint Decade Committee. Dr. Mass was also reappointed to the American Society for Surgery of the Hand Program committee. Dr. Mass is the Program Director for the Hand Fellowship at the University of Chicago and matched first choice for the 2010-11 academic year.
Terrance D. Peabody, M.D., continues in his role as the Chief of the Section of Orthopaedic Surgery and Rehabilitation Medicine. This year he was voted Favorite Faculty Member by Pritzker medical students. Dr. Peabody is the immediate past president of the Musculoskeletal Tumor Society. He continues in his role as the Academic Leadership Chairman for the American Orthopaedic Society. In addition, Dr. Peabody is the Program Chairman for the University of Chicago Musculoskeletal Oncology Fellowship.

Bruce Reider, M.D., continues in his role as the Editor of the American Journal of Sports Medicine. He is also the Leader of the University of Chicago Orthopaedic Journal Club.

Michael A. Simon, M.D., continues in his role as the Associate Dean of Graduate Medical Education and Designated Institutional Official of the institution. He completed his second year as Chairman of the Board of Trustees for the Journal of Bone and Joint Surgery. He was named Secretary of OMeGA, a non-profit LLC for distributing GME grants from industry. He was Visiting Professor at Case Western Reserve as the Carter Makely Lecturer in November 2008. He was also Visiting Professor at Oregon Health Science University in February 2009.

Christopher Sullivan, M.D., continues his busy pediatric practice at the University of Chicago and his many off-site clinics. Dr. Sullivan has presented lectures at national medical meetings on topics such as femur fractures and hip diseases in children. Scoliosis and other spinal deformities are among his many clinical interests. In addition, Dr. Sullivan reviews clinical articles for Clinical Orthopaedics and Related Research.

Brian Toolan, M.D., continues in his role as Program Director for the Orthopaedic Surgery Residency Program at the University of Chicago. He was successful in his application to the ACGME to increase the resident complement to five residents annually. He recruited Mark Bergin, M.D. as the fifth PGY3 to the program and Amrish Patel, M.D. as a fifth PGY2 to the program. Dr. Toolan was a local host for the American Orthopaedic Foot and Ankle Society (AOFAS) Traveling Fellows in July 2008. He was named to the Mid-America Orthopaedic Association Education Committee. He is the Assistant Editor for Current Concepts & Topical Reviews Committee, Foot and Ankle International. Dr. Toolan is also on the Evidence-based Task Force for the AOFAS. He gave national presentations the past year at the American Orthopaedic Foot and Ankle Society Annual Meeting, the 76th Annual Meeting of the American Academy of Orthopaedic Surgeons, the Mid-America Orthopaedic Association Annual Meeting and the 6th Annual Advanced/Comprehensive Foot and Ankle Reconstruction Course. He also achieved maintenance of certification from the American Board of Orthopaedic Surgery this past year.
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 & Rehabilitation 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.

At the University of Chicago, our Physical Medicine & Rehabilitation specialists are involved in many educational and clinical pursuits. Dr. Mary Lawler serves as advisor to Pritzker students who are interested in Physical Medicine and Rehabilitation (PM&R) as a specialty. Dr. Lawler has increased interest and availability in the field of PM&R at the University of Chicago with electives and sub-internships. Dr. Lawler also works with Drs. Sung-Lana Kim, Suzan Rayner (Medical Director, Schwab Rehabilitation Hospital) and Ed Park covering inpatient physiatry consultations at the University of Chicago. Dr. Lisa Thornton is President of the Medical Staff at Schwab Rehabilitation Hospital. Dr. Thornton is also the Chairman of the Advocacy Committee, American Academy of Cerebral Palsy and Developmental Medicine. Dr. Michelle Gittler 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. She is an Associate Editor of PMR: the Journal of Injury, Function and Rehabilitation. Dr. Gittler is Chairperson, Self-Assessment Committee, American Academy of PMR and is the vice chair of the Medical Education Committee for the American Academy of PMR. She is on the Oral Boards Exam Subcommittee of the American Board of PM&R. Dr. Gittler received the Golden Apple Teaching Award in 2009.

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 Physical Medicine and Rehabilitation with the University of Chicago Pritzker School of Medicine.
Clinical Services

Adult Joint Reconstruction
Henry A. Finn, M.D.
David W. Manning, M.D.
Hue Luu, M.D.

Foot And Ankle
Brian C. Toolan, M.D.

Hand And Upper Extremity
Roderick Birnie, M.D.
Daniel P. Mass, M.D.

Orthopaedic Biology
Tong Chuan He, M.D., Ph.D.

Orthopaedic Oncology
Rex C. Haydon, M.D., Ph.D.
Hue Luu, M.D.
Terrance D. Peabody, M.D.
Michael A. Simon, M.D.

Orthopaedic Research
John M. Martell, M.D.

Pediatric Orthopaedics & Scoliosis
Robert Bielski, M.D.
Christopher M. Sullivan, M.D., M.P.H.

Spine Surgery
Purnendu Gupta, M.D.

Sports Medicine
Sherwin S.W. Ho, M.D.
J. Martin Leland III, M.D.
Bruce Reider, M.D.

Rehabilitation Medicine
Michelle Gittler, M.D.
Sung-Lana Kim, M.D.
Mary Lawler, M.D.
Ed Park, M.D.
Suzan Rayner, M.D.
Lisa Thornton, M.D.

Secondary Appointments
Anthony Montag, M.D.
Holly J. Benjamin, M.D.
Ann Zmuda, M.D.

Weiss Hospital
Kris Alden, M.D.
Orthopaedic Surgery & Rehabilitation Medicine Housestaff

Orthopaedic Surgery Residents

**PGY-1**

Kashif Ali, M.D.
*Undergraduate/Graduate*
University of Michigan/Case Western Reserve University School of Medicine

James Cameron, M.D.
*Undergraduate/Graduate*
Furman University/Emory University School of Medicine

Michael Chioffe, M.D.
*Undergraduate/Graduate*
University of Florida/University of Chicago Pritzker School of Medicine

Jay Deimel, M.D.
*Undergraduate/Graduate*
University of Notre Dame/Loyola University of Chicago Stritch School of Medicine

Amrish Patel, M.D.
*Undergraduate/Graduate*
Rice University/Loyola University of Chicago Stritch School of Medicine

**PGY-2**

Reginald Alexander, M.D.
*Undergraduate/Graduate*
Howard University/Howard University College of Medicine

**PGY-3**

Michael Angeline, M.D.
*Undergraduate/Graduate*
Boston College/Georgetown University School of Medicine

Waqas Hussain, M.D.
*Undergraduate/Graduate*
Augustana College/Loyola University

Andre Spiguel, M.D.
*Undergraduate/Graduate*
University of Michigan/University of Chicago

Robert Steffner, M.D.
*Undergraduate/Graduate*
St. John’s University/Wayne State University

**PGY-4**

Tessa Balach, M.D.
*Undergraduate/Graduate*
The University of Chicago/New York Medical College

Erin Fleck, M.D.
*Undergraduate/Graduate*
University of Washington, Seattle/Georgetown University
Jaime Rice, M.D.  
*Undergraduate/Graduate*  
Ohio State University/Case Western Reserve

Dharmesh Vyas, M.D.  
*Undergraduate/Graduate*  
University of Illinois/University of Illinois

**PGY-5**

Alfred Atanda Jr., M.D.  
*Undergraduate/Graduate*  
University of Virginia/University of Pennsylvania

Matthew Beal, M.D.  
*Undergraduate/Graduate*  
Ohio State University/Ohio State University

Gregory Dairyko Jr., M.D.  
*Undergraduate/Graduate*  
University of Michigan/Northwestern University

Suleman Hussain, M.D.  
*Undergraduate/Graduate*  
Augustana College/Loyola University

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**Orthopaedic Surgery Fellows-2009 Graduates**

Samer Attar, M.D.  
*(Orthopaedic Oncology)*  
Assistant Professor, Johns Hopkins  
Baltimore, MD

Frank Corrigan, M.D.  
*(Hand and Upper Extremity)*  
United Medical Associate  
Binghamton, NY

Joshua Snyder, M.D.  
*(Sports Medicine)*  
GMC Peak Orthopaedics  
Greeley, CO

Luis Carrilero, D.O.  
*(Adult Reconstruction)*  
Spine Fellowship  
Minnesota
The Section of Orthopaedic Surgery & Rehabilitation Medicine continues to provide excellent educational opportunities for medical students, residents and fellows.

Members of the faculty are asked to lecture first and second year medical students in anatomy and in pathology. In addition, for second-year medical students, we provide one day of teaching in the clinical pathophysiology course each quarter and teach physical diagnosis of the musculoskeletal system. For third-year medical students, during each quarter, we provide a core course for three hours, which includes instruction in casting and splinting, and a series of interactive lectures on orthopaedic topics, in addition to a two-week in-patient rotation. This can accommodate up to four junior medical students every two weeks to improve the diversity of the students’ educational experience and meet the need for musculoskeletal education. For senior medical students, we provide a very popular one-month inpatient or outpatient rotation. This year, we have nine senior year students committed to a career in orthopaedics.

Our resident education program is outstanding and continues to be a model for other orthopaedic surgery residency programs. The program contains all of the elements necessary for the development of a competent orthopaedic surgeon. In addition, we have four orthopaedic surgery fellows, one each in orthopaedic oncology, sports, adult reconstruction, and hand and upper extremity surgery.

Basic sciences are integrated into the educational program at the bedside, during clinical conferences, and in a very concise, meticulous, well-structured didactic curriculum. We have a conference room of more than 700 square feet which is dedicated to orthopaedic education. Other resources include a computer based audio visual system, orthopaedic library, a microscope slide projector and audio-visual materials. The faculty participate in all of the didactic education. The didactic program is designed to have a two-year repetitive sequence covering anatomy, bioengineering, biology and pathology. The Gerald Laros Memorial Library contains wall-to-wall custom bookcases, conference table and chairs, and two computer stations with internet access to published works. Adjacent to the library, a resident office space houses 14 workstations, x-ray view boxes, and individual file space so that the residents can work and study during the day and evening hours. We moved the library and the resident offices closer to our academic offices and added the Suzanne Berman Orthopaedic Oncology Learning Center, which houses all the orthopaedic oncology files, radiographs, oncology database and the oncology fellow’s office.

The clinical educational program in orthopaedic surgery at the University of Chicago is centered at the University of Chicago Medical Center, with rotations at Loyola Medical Center and Weiss Memorial Hospital. The University Orthopaedic service is a cohesive academic unit with a full-time clinical and basic science faculty dedicated to the care of patients, the education of students, residents and fellows, and the creation of new knowledge in the clinical and basic science of musculoskeletal diseases. The clinical portion of the program is carried out primarily by thirteen full-time orthopaedic surgeons. 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 seven clinical services. The clinical care of orthopaedic surgery is divided into sections that include joint reconstruction, spine, oncology, pediatrics, foot and ankle, hand and upper extremity, and sports medicine. The faculty are as directly responsible as the physicians for patients and, with the residents, make pre- and postoperative evaluations of patients. Residents receive extensive inpatient and outpatient experience in the operative and non-operative management of orthopaedic problems.

This year, the University of Chicago implemented an academic affiliation with the NorthShore University Health
System, a four hospital system in the northern suburbs of Chicago. The residency has been expanded by one resident per year in order for senior residents to spend time with outstanding faculty members caring for a large number of patients with orthopaedic conditions. In addition, Dr. Howard Sweeney educates our residents utilizing a sophisticated simulation laboratory at Evanston Hospital.

The morning clinical conference schedule is consistent and thorough. Four times a week at 6:15 am, a clinical conference is scheduled and teleconferenced to Evanston and Glenbrook Hospitals. This is a monthly rotating conference on pediatric orthopaedics, trauma, basic science, morbidity and mortality, quality assurance, sports medicine, adult reconstruction, spine, and hand and upper extremity, and is administered by a faculty member. Once a week at 6:15 am, a faculty member administers an indications conference which discusses, in depth, surgical indications for musculoskeletal diseases. Finally, each service has its own clinical conference with residents and fellows who are rotating on the service. All resident education conferences are daily at 6:15 am so as not to conflict with clinical affairs and ensure maximal attendance. Every weekday morning from 7:00 to 7:30 am, faculty members and residents meet in the conference room and 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. They may be called upon to defend their cases. This requires that faculty members teach 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.

Wednesday morning, following the didactic basic conference, we have Grand Rounds. Since we are located in a metropolitan area with four other academic medical institutions, we have the luxury of having a large number of outside speakers from the other institutions available to give presentations which help diversify the resident educational experience. In addition, the city of Chicago is home to the American Academy of Orthopaedic Surgeons, the American Orthopaedic Association, the Accreditation Council on Graduate Medical Education, the American Medical Association, the American College of Surgeons and the Orthopaedic Learning Center. Often speakers are available from these organizations to provide insights and education.

Through these efforts, the Section of Orthopaedic Surgery and Rehabilitation Medicine continues to educate medical students, residents and fellows, fulfilling its mission of orthopaedic education.
### Weekly Conference Schedule

**The University of Chicago**  
**Section of Orthopaedic Surgery & Rehabilitation Medicine**  
**Weekly Conference Schedule**

<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>
<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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<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 below)</td>
<td>6:15-7:00 am</td>
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<td>E-302</td>
<td>Chairman/Resident</td>
<td>Drs. Peabody/Toolan</td>
<td>7:00-7:20 am</td>
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<td></td>
<td>E-302</td>
<td>AM Conference</td>
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<td>7:20-7:30 am</td>
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<tr>
<td></td>
<td>E-302</td>
<td>Grand Rounds</td>
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<td>7:30-8:15 am</td>
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<td>Thursday</td>
<td>E-302</td>
<td>Indications</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>
<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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<td>7:00-7:15 am</td>
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</tbody>
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**DAILY AM CONFERENCE: WEDNESDAY BASIC SCIENCE CONFERENCE**

- Pre-op & Post-op Discussion  
  July – September  
  Anatomy = Haydon
- X-ray Review from Previous Day  
  September – December  
  Pathology = Simon = Peabody = Haydon = Luu
- E.R. X-ray Review  
  January – June  
  Basic Science Curriculum

**THURSDAY INDICATIONS CONFERENCE: (ON A ROTATING BASIS)**

- 1st week – Trauma  
  4th week – Hand  
  7th week – Spine
- 2nd week – Adult Reconstruction  
  5th week – Pediatrics
- 3rd week – Sports  
  6th week – Foot and Ankle

**CLINICAL CONFERENCES:**

- **Tuesday**
  - 1st week – Trauma = Peabody = Gupta = Toolan = Mass = Birnie  
    - Spine = Gupta
  - 2nd week – Morbidity & Mortality = Martell
  - 3rd week – Adult Reconstruction = Martell = Manning = Luu
  - 4th week – Pediatrics = Sullivan = Bielski
- **Friday**
  - 1st week – Hand = Mass = Birnie
  - 2nd week – Sports = Reider = Ho = Leland
  - 3rd week – Adult Reconstruction = Manning = Martell = Luu
  - 4th week – Foot & Ankle = Toolan

**MONTHLY CONFERENCE:**

- Journal Club – Last Wednesday of each month = 7:00 a.m. = E-302
- Ethics – One Wednesday quarterly = 7:00 a.m.
We welcome our new affiliates from NorthShore University Health System!

Joseph Allea, M.D.
David Beigler, M.D.
Leon Benson, M.D.
Jean Cavanaugh, M.D.
Eric Chehab, M.D.
Bradley Dunlap, M.D.
Miledones Eliades, M.D.
Joseph Feldman, M.D.
James Fox, M.D.
Steven Haddad, M.D.
Thomas Hudgins, M.D.
Eldin Karaikovic, M.D.
Jason, Koh, M.D.
James Kudrna, M.D.
Steven Levin, M.D.
Robert McMillan, M.D.
Mohsin Naille, M.D.
Rima Nasser, M.D.
Michael O’Rourke, M.D.
Gregory Palutsis, M.D.
Craig S. Phillips, M.D.
Gregory Portland, M.D.
William J. Robb III, M.D.
David Shapiro, M.D.
Gary Shapiro, M.D.
Van Paul Stamos, M.D.
Howard J. Sweeney, M.D.
Justina Tanhehco, M.D.
Craig Williams, M.D.

The NorthShore University HealthSystem Department of Orthopaedic Surgery provides a multi-faceted educational experience for orthopaedic surgery residents. Residents learn through guided study, active participation and observation. Residents work with NorthShore orthopaedic faculty in conferences, in the operating room, in the emergency room, through in-patient care, in the Evanston Outpatient Clinic, in the faculty clinics and in the Psychomotor Skills and Virtual Reality Laboratory (Motor Skills Lab).

The Evanston Campus Outpatient Clinic allows residents to serve as the primary doctor caring for patients, under the supervision of NorthShore faculty assigned to the clinics.

The Motor Skills Lab provides a unique experience for the residency program by teaching and reinforcing the motor skills required for both established and evolving new surgical technologies and techniques. Two computer simulation programs are currently available, as well as a knot-tying station and various video education tools.

This rotation allows the orthopaedic surgery residents to experience and participate in orthopaedic care delivered in a busy suburban hospital system and affiliated practices.
On June 24, 2009, Dr. Michael A. Simon held his last clinic at the University of Chicago. I would like to recognize some of Dr. Simon’s many accomplishments for the Section of Orthopaedic Surgery and Rehabilitation Medicine at the University of Chicago.

In 1975, Dr. Simon was appointed an Assistant Professor at the University of Chicago. Four years later, he was promoted to Associate Professor and in 1983 was named Professor, both in the Section of Orthopaedic Surgery and the Department of Pathology. He has served numerous leadership positions in local, state and national professional organizations and societies. He served as President of the American Orthopaedic Association, President and Senior Director of the American Board of Orthopaedic Surgery and is also Past-President of the Academic Orthopaedic Society. He was Chairman of the Accreditation Council for Graduate Medical Education RRC Committee in Orthopaedic Surgery. He has served on the Committee of Basic Sciences and Chaired the Instructional Course Lectures in Bone Tumors for the Academy of Orthopaedic Surgeons. He was President of the Illinois Orthopaedic Society in 1992. He was also President of the Musculoskeletal Tumor Society in 1992. He has published numerous scientific articles, book chapters, abstracts and has been a frequent Visiting Professor at universities across the United States. He, along with Dr. Dempsey Springfield, co-authored the textbook entitled, “Surgery for Bone and Soft Tissue Tumor,” one of the most highly regarded textbooks on musculoskeletal oncology. He is currently on the Board of Trustees of the Journal of Bone and Joint Surgery.

As the former Director of the Orthopaedic Residency Program and the Orthopaedic Oncology Fellowship at the University of Chicago, he was responsible for developing the program into one of the premier orthopaedic programs in the United States. He has trained a cadre of academic orthopaedic surgeons who focus their practice in orthopaedic oncology. Dr. Simon was recognized by the American Orthopaedic Association as the AOA-Smith & Nephew Endoscopy Distinguished Clinician Educator in 2005.

While he may no longer see patients, Dr. Simon was, and still is, the heart and soul of this program. I am thankful that he continues to be part of the University of Chicago as the Associate Dean of Graduate Medical Education/DIO and my colleague in the Section of Orthopaedic Surgery and Rehabilitation Medicine.

Terrance D. Peabody, M.D.
Research Activities
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 Biomedical Imaging Institute at Weiss Memorial Hospital in Affiliation with The University of Chicago

As the Director of The Orthopaedic Biomedical Imaging Institute at Weiss Memorial Hospital in affiliation with the University of Chicago, Dr. John Martell continues to develop collaborations with implant manufacturers 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 Biomedical Imaging 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 Biomedical Imaging 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 Section 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% 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, a 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 capitol femoral epiphysis that predispose to slipped capitol femoral epiphysis in children. These shear forces, in conjunction with the skeletal age of the pelvis, have a predictive value of 90% for the risk of SCFE.

Dr. Martell has partnered with Argonne National Laboratory 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 measuring strains in sutures from archived clinical videos.

**Polyethylene Wear Particle-Induced Osteolysis**

In addition to the bioimaging analysis of polyethylene wear in total hip arthroplasty, Dr. David Manning is interested in developing more effective therapeutic and/or preventive measures for the clinical management of osteolysis. Osteolysis and resultant aseptic loosening is the most common cause of long-term failure in total joint replacements and is estimated to occur in over 25% of implant recipients. Current strategies to combat osteolysis include modifications of the bearing surface to decrease particle generation and biologic and/or pharmaceutical treatments once osteolysis has occurred. Alternate bearings, as of yet have not proven to be effective and pharmaceutical interventions such as bisphosphonates, Fosamax and anti-inflammatoryatories have, likewise, been unsuccessful thus far. Dr. Manning has recently completed an *in vivo* wear comparison study of highly crosslinked and traditional polyethylene in total hip arthroplasty. In a combined effort with Argonne National Laboratory, Dr. Manning is investigating non-friction carbon coating (NFC) applications in total joint replacement. Preliminary investigation of tribologic and mechanical properties as well as biocompatibility has been completed. The team has recently applied for NIH support for the development of this novel material.

In collaboration with Drs. T.-C. He, Hue H. Luu and Rex C. Haydon, Dr. Manning is investigating the potential use of several osteogenic BMPs as a biologic treatment of osteolysis-related bone loss. Successful non-operative treatment of osteolysis would improve implant survival, prevent many revision arthroplasties and simplify revision reconstruction techniques. Dr. Manning received the *Louis Block Award* to study the treatment of wear particle-induced osteolysis with the osteogenic BMPs in a murine model, and received the first *Geraldine Mary Maley Research Award* investigating this approach in a rat model.

**Tendon Repair**

On the biological front, Dr. Daniel Mass, in collaboration with Drs. T.-C. He, Rex C. Haydon and Hue H. Luu, is investigating possible gene therapy approaches to enhancing tendon and ligament healing using recombinant adeno-viral vectors expressing BMPs and/or other biological factors. With funding from the Orthopaedic Research and Education Foundation (OREF), Dr. Mass and colleagues have demonstrated that BMP-13 can significantly improve the biomechanical properties of lacerated flexor tendons in a rabbit model. Dr. Mass and colleagues have also demonstrated that BMP-14 can significantly improve the biomechanical properties of lacerated flexor tendons in a rabbit model. Based on time-course studies of gene expression after tendon injury, Dr. Mass has identified several factors that may work alongside BMP-13 and BMP-14 at different stages of tendon healing. Dr. Mass is currently collaborating with Dr. Lu of the Department of Chemistry to develop bio-degradable nano-capsules that can be used for time-released delivery vehicles for bio-active proteins to sites of tendon injury. This delivery system will be used to test the effect of TGF and BMP-14 on tendon healing in a rat model of Achilles tendon repair.

**Foot and Ankle Research**

Dr. Brian Toolan has completed 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 in 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 Drs. He, Haydon and Luu, has used a rat model to investigate the effects of BMP-14 and other factors on Achilles tendon healing, finding a 70% increase in tensile strength at two weeks. This study was funded by a research grant to Dr. Toolan from the American Orthopaedic Foot & Ankle Society, and was published in the Journal of Bone and Joint Surgery.

**Spine Research**

Dr. Purnendu Gupta has been involved in numerous clinical and translational projects regarding spine-related pathologies. In the cervical spine, he has previously investigated static versus dynamic plating techniques for multilevel ACDF and has presented his results at the North American Spine Society Annual Meeting and American Academy of Orthopaedic Surgeons Annual Meeting. This project was published in Spine in 2007. He has also been reviewing clinical and radiographic results after laminoplasty for multi-level cervical spinal stenosis. In the lumbar spine, Dr. Gupta has been involved in collaborative investigations examining percutaneously inserted pedicle screw-rod system following anterior lumbar arthodesis as well as biomechanical modeling of functional impairment and the prediction of spine loading. He has ongoing long-term prospective clinical outcomes research in the surgical treatment of adult and pediatric scoliosis. He is also currently working on a surgical technique for the treatment of pediatric spondylolysis, and is reviewing his clinical results using rhBMPs for treatment of pars fractures.

**Articular Cartilage Regeneration and Anterior Cruciate Ligament Repair**

The Sports Medicine Service, consisting of Drs. Sherwin Ho, Martin Leland and Bruce Reider has been intensively investigating the biological processes in articular cartilage regeneration and anterior cruciate ligament 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 outcome.

Drs. Ho, Leland and Reider 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. Currently, Drs. Ho, Leland and Reider 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. Dr. Ho has received the AOSSM Young Investigator Award to carry out the Sox9 gene therapy for articular cartilage repair. 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. In addition, Drs. Ho, Leland and Haydon 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 GMW, 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 quantify 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 ACL’s 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 “Disease of Differentiation”

Under the direction of T.-C. He, M.D., Ph.D., Rex C. Haydon, M.D., Ph.D., and Hue H. Luu, M.D., the Molecular Oncology Laboratory has focused on the molecular aspects of bone and soft tissue tumors through collaborations with Drs. Michael A. Simon, Terrance Peabody and Anthony Montag. They previously found that β-catenin signaling is activated in approximately 70% of human osteosarcoma samples, suggesting that deregulation of β-catenin may play a role in the development of human osteosarcoma. More recently, they have found that STI-571/Gliveec effectively inhibits β-catenin signaling in human colon cancer cells, as well as in human osteosarcoma and chondrosarcoma cells. Their findings suggest that inhibition of this signaling pathway by STI-571 may be further explored as an important target for adjuvant treatments for human cancer. Dr. Hue H. Luu also investigated the possible role of S100 proteins in human osteosarcoma. Dr. Luu recently examined the expression of the S100A6 in human osteosarcoma, and found that approximately 84% (42 of 50) of the analyzed osteosarcoma specimens stained positive for S100A6. Thus, their findings suggest that S100A6 may be associated with the pathogenesis of osteosarcoma.

Drs. Haydon, Luu and He examined the impact of osteogenic BMPs on osteosarcoma. In mesenchymal stem cells, BMP-2 and BMP-9 induce osteogenic differentiation; however, in osteosarcoma cell lines, they induce increased cell proliferation, without any evidence of bone formation. BMPs are commonly expressed in osteosarcoma, and have been associated with a poorer prognosis, 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. Their preliminary studies strongly suggest that osteosarcoma may represent a “disease of differentiation,” possibly caused by the defects in the terminal differentiation pathway of pre-osteoblast and/or osteoblasts. Drs. Haydon, Luu and He are investigating whether overexpression of the genes involved in repopulating early MSCs and/or removal the genes involved in promoting osteoblast terminal differentiation would convert mesenchymal stem cells into osteosarcoma-like tumor cells. This osteosarcoma reconstruction system should shed insights into the early events of bone tumor development. Drs. Haydon, Luu and He are also conducting thorough microarray analyses in order to identify the potential differentiation defects in osteosarcoma.

Drs. He, Haydon and Luu have also begun to examine the role of Wnt-signaling in osteosarcoma, and its impact on CTGF expression. Given the frequency of beta-catenin dysregulation in osteosarcoma and the diverse biological functions of CTGF in both normal cells and tumors, this may offer new insights into how osteosarcomas develop, and explain why osteosarcoma responds differently from stem cells to stimuli that promote differentiation. Secondly, it may lead to methods to circumvent these blocks to normal differentiation.

Dr. Hue Luu recently developed a novel orthotopic tumor model for osteosarcoma progression and pulmonary metastasis. This model highlights different stages of primary bone tumor progression and the eventual development of pulmonary metastasis. Drs. He, Haydon and Luu 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.

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/NCI to study the role of herbal products in cancer.

Molecular Biology of Bone Formation

Identification of BMP-6 and BMP-9 as the most osteogenic BMPs in vitro and in vivo. Understanding the molecular mechanisms underlying bone formation is pivotal for understanding the pathogenesis of bone diseases, as well as for developing effective approaches to bone regeneration. 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 250 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.

Molecular Portraits of BMP-Induced Osteogenic Signaling. 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., BMP2, 6 and 9) and two inhibitory/non-osteogenic BMPs (i.e., BMP3 and 12). Through the microarray analysis of ~12,000 genes 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. BMP-regulated expression of the selected target genes was confirmed by RT-PCR and CodeLink microarray analysis. 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.

Molecular mechanisms of BMP-regulated osteogenesis in mesenchymal stem cells: From their gene expression microarray analysis, the He and Haydon lab identified several potentially signaling mediators of BMP-induced osteogenesis. Two such downstream targets are the Inhibitors of DNA binding/Differentiation helix-loop-helix (a.k.a., Id proteins) and Connective Tissue Growth Factor (a.k.a., CTGF), both of which are known to play important roles in regulating cell proliferation and differentiation, as well as in tumorigenesis. Their studies thus far have demonstrated that both Ids and CTGF play an important role in BMP-9 induced osteogenic signaling.

Role of Wnt/β-catenin signaling in osteogenic differentiation of mesenchymal stem cells:

The He, Haydon and Luu group previously demonstrated that Wnt/β-catenin signaling is de-regulated in over 70% of human osteosarcomas. Recent studies also suggest that Wnt signaling may play an important role in regulating bone density, and one of the Wnt signaling antagonists Dkk1 may be implicated in the development of osteolytic lesion in multiple myeloma patients. Dr. He, Haydon and Luu group 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 play an important role in regulating osteogenic differentiation.

The above research activities in Drs. He, Haydon and Luu’s lab have been supported by research grants from The Aircast Foundation, The American Cancer Society, The Brinson Foundation, Musculoskeletal Transplant Foundation and the Orthopaedic Research and Education Foundation (OREF). Both Drs. Rex C. Haydon and Hue H. Luu have received support from OREF and a Physician Scientist Career K08 Grants from the National Institutes of Health (NIAMS) to investigate the molecular mechanisms behind osteogenic BMP-mediated bone formation. The collective body of research from this laboratory on the role of BMPs during mesenchymal stem cell differentiation was recognized by receiving the Kappa Delta/OREF Ann Donner Vaughan Award and the Marshall R. Urist Young Investigator Award.
Henry Finn, M.D.


Rex C. Haydon, M.D., Ph.D.


Tong-Chuan He, M.D., Ph.D.

Luo X, Sharff KA, Chen J, He TC, Luu HH. S100A6 Expression and Function in Human Osteosarcoma. *Clin Orthop Relat Res* 2008


J. Martin Leland III, M.D.

Leland JM, Ciccotti MG, Cohen SB, Zoga AC, Frederick RJ. Teres major injuries in two professional baseball pitchers. *J Shoulder Elbow Surg* 2009
Hue Luu, M.D.
Luo X, Sharff KA, Chen J, He TC, Luu HH. S100A6 Expression and Function in Human Osteosarcoma. *Clin Orthop Relat Res* 2008

Anthony Montag, M.D.

Terrance Peabody, M.D.

John Martell, M.D.
Shia DS, Clohisy JC, Schinsky MF, Martell JM, Maloney WJ. THA with Highly Crosslinked Polyethylene in Patients 50 Years or Younger. *Clin Orthop Relat Res* 2009

Bruce Reider, M.D.
Next year’s AAOS meeting is being held in New Orleans, LA. The University of Chicago’s Alumni Reception will be held at the New Orleans Marriott, Room Mardi Gras F, from 6:30 p.m. to 8:30 p.m. on Friday, March 12, 2010.

I look forward to seeing you at the Annual Meeting in March.

Terrance D. Peabody, M.D.,
The Simon and Kalt Families Professor Chief, Section of Orthopaedic Surgery and Rehabilitation Medicine

June 2009 graduation was held at Ditka’s Restaurant, 100 E. Chestnut in Chicago for the following:

- Two fellowships: Pediatric Orthopaedics at DuPont Children’s Hospital in Delaware followed by a Sports Medicine Fellowship at Thomas Jefferson University in Pennsylvania
- Harvard Orthopaedics Arthroplasty Fellowship at Massachusetts General under the direction of Dr. Andrew Freiberg
- Sports Medicine Fellowship under Dr. Frank R. Noyes, Cincinnati
- UCLA University of California Sports Medicine Fellowship
Dr. Jaureguito is a native of Reno, Nevada, and is a Cum Laude graduate of the University of Notre Dame, as well as an Alpha Omega Alpha graduate of Saint Louis University School of Medicine. Dr. Jaureguito served his residency at the University of Chicago and his fellowship training in sports medicine and arthroscopy at the Orthopaedic Specialty Hospital in Salt Lake City. He is fellowship-trained in sports medicine and arthroscopy, having spent an extra year of training and research at The Orthopaedic Specialty Hospital in Salt Lake City. He cares for numerous high school, college, professional and recreational athletes. Dr. Jaureguito is the team physician for Cal-State East Bay and Ohlone College.

Dr. Dean grew up in Chicago and received her medical training at the University of Chicago's Pritzker School of Medicine. Following her residency training as an orthopedic surgeon at the University of Chicago, she trained an additional 12 months in a hand surgery fellowship.

Dr. Dean is accomplished in microvascular reconstruction, which involves the reconnection of tiny nerves and blood vessels that can be seen only with the aid of a microscope. She treats numerous cases of hand and wrist trauma, hand deformities, carpal tunnel syndrome and wrist pain. Dr. Dean is Past Department Chair of Orthopedics at Providence Alaska, Past President of Anchorage Medical Society, Secretary / Treasurer of the Alaska Orthopedic Society and Affiliate Professor / Team Physician for UAA. Dr. Dean is a long, long-time fan of the Chicago Cubs!

Dr. Whitehurst is also the lead team orthopedic physician for the Rockford IceHogs.