

Message from the Chairman

Dear UW Orthopaedics Community,

As always, the holiday season provides a welcome opportunity to celebrate and express our appreciation to the many wonderful people in our lives.

Dr. Carol Teitz will step down as our Orthopaedic Chief of Sports Medicine as of January 1st, 2014. She has done a terrific job in the planning and transition of our previous Sports Medicine clinic into the new UW Medicine Sports Medicine clinic at Husky stadium, which has exceeded all expectations and has been a hit with everyone. Carol has been there since the clinic's start in 1967. Please look at her wonderful recollection of the history of our Sports Medicine Clinic, the first multi-specialty clinic in the world, in our [Discoveries 2013 report](#), beginning on page 111.



Drs. Mohtadi, Twaddle, and Teitz

We are very fortunate that Carol will continue in her dual roles as active member of our Sports Medicine group and as Vice Dean for Admission to the UW School of Medicine. As we all thank Carol for her contributions please also help me welcome **Dr. Bruce Twaddle, MBBA** in his new role as Orthopaedic Chief of Sports Medicine; we are very pleased to have him take on this exciting new role.

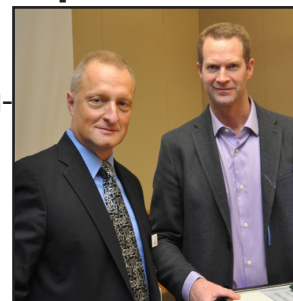
Another significant Faculty member has just announced his retirement effective January 1st, 2014. **Dr. Allan Tencer** has decided to head into his well-deserved retirement after more than 25 years of a distinguished research career. Among many accolades Dr. Tencer can take credit for



having arguably done more for the Biomechanics education of North American Orthopaedists and beyond than any other single individual through his countless chapters, instructional courses, lectures and articles. Outside of his traditional biomechanical research, Dr. Tencer is also recognized as one of the foremost experts in the field of musculoskeletal injuries incurred in car crashes. We wish Allan much fun in his retirement, where he will predictably spend a fair bit of time in the outdoors of the great Pacific Northwest.



Finally, I would like to thank two tireless colleagues for their distinguished clinician scientist contributions: (Left) **Dr. Chris Allan** [15 years] is a stalwart of our HMC Hand and Microvascu-

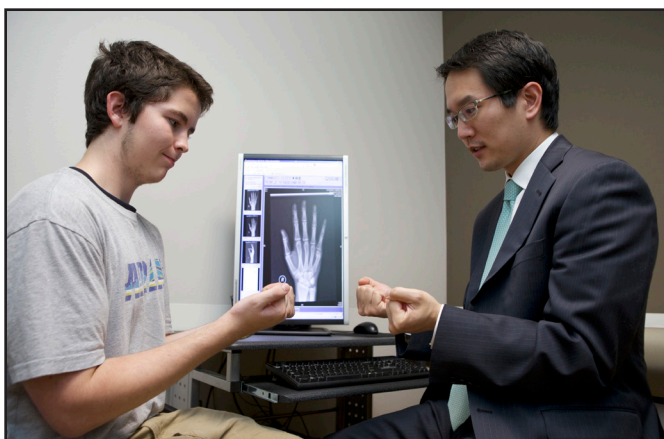


lar service and has had success in his federally funded research on how to regrow amputated fingers and limbs. (Right) **Dr. Rick Bransford** [10 years] is our Director of Spine education and has become a household name in our region and beyond for his expertise in spine care with more than 30 high impact publications to show for it.

As we prepare to close the books on 2013 we have many exciting projects to look forward to in 2014, including the move of our Department offices into the Ninth and Jefferson building in the Spring. In closing, I want to thank all of you who have contributed to our UW Orthopaedic mission of allowing our patients to lead longer and happier lives!

Thank you and Happy Holidays!

Spotlight: Drs. Ko and Smith receive funding from DoD



Dr. Jason Ko (right) in clinic

In 2009 the US Department of Defense (DoD) announced the Peer Reviewed Orthopaedic Research Program (PRORP) Clinical Trial Award, which is intended to support the rapid implementation of clinical trials with the potential to have a significant impact on military combat-relevant orthopaedic injuries.

We are pleased to announce that **Dr. Jason H. Ko**, Assistant Professor of Surgery and Adjunct Faculty of the Department of Orthopaedics and Sports Medicine, and **Dr. Douglas G. Smith**, Professor of Orthopaedics and Sports Medicine, are key investigators of the 2012 PRORP Clinical Trial Award entitled, “Targeted Reinnervation as a Means to Treat Neuromas Associated with Major Limb Amputation.” Dr. Ko is the Co-Principal Investigator of this \$2.5 million award, which will be a 4-year multicenter, prospective clinical trial that will evaluate the effects of Targeted Muscle Reinnervation (TMR) on neuroma formation in upper and lower extremity amputees.

The lead institution is Northwestern University in Chicago, IL, and the other participating institutions—in addition to the University of Washington—are Walter Reed National Military Medical Center in Bethesda, MD, and San Antonio Military Medical Center in San Antonio, TX. In addition to being the Co-PI of the entire study, Dr. Ko is the PI for the UW portion of the DoD grant and will work closely with co-investigators Dr. Smith and Dr. Janna L. Friedly, Assistant Professor of Rehabilitation Medicine, at Harborview Medical Center.

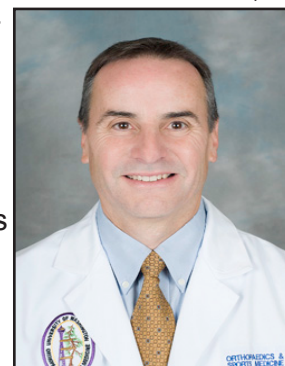
TMR is a revolutionary surgical technique performed in upper and lower extremity amputees whereby amputated nerves are transferred to intact target muscles to create new motor signals that allow the amputee to intuitively control a bionic limb. Developed by Drs. Gregory Dumanian (PI of the grant) and Todd Kuiken at Northwestern University, TMR has received previous funding support from the National Institutes of Health (NIH), DoD, and other sources. TMR has been featured in respected scientific journals such as *Lancet*, the *Journal of the Amer-*

ican Medical Association (JAMA), the *Journal of Bone and Joint Surgery*, *Plastic and Reconstructive Surgery*, and, most recently, the *New England Journal of Medicine*, which featured one of Dr. Smith’s patients.

In addition, TMR has gained nationwide attention as an innovative strategy to help amputees, especially our wounded US warfighters, and has been highlighted in the *New York Times*, *TIME Magazine*, *Newsweek*, the *Economist*, *National Geographic*, *New Yorker Magazine*, the *Oprah Winfrey Show*, *Good Morning America*, *CNN*, and other popular media outlets.

Painful neuromas are a significant problem after amputation, and although TMR was initially intended for the motor control of bionic limbs in amputees, Drs. Dumanian and Kuiken noticed early on that amputees with pre-existing neuroma pain had less pain after the TMR surgery. It was hypothesized that TMR surgery provided an avenue for amputated nerves to grow into target muscles, rather than form disorganized, painful neuromas. Funded by a grant from the Plastic Surgery Educational Foundation (PSEF), Dr. Ko tested this hypothesis during his residency at Northwestern University and demonstrated that TMR prevents neuroma formation in various animal models.

Concurrently, Dr. Smith, a long time friend of Dr. Kuiken, had begun performing TMR surgeries at Harborview Medical Center in both upper and lower extremity amputees, specifically for the prevention of neuromas. When Dr. Ko joined the UW faculty in 2012, he and Dr. Smith discussed Dr. Smith’s experiences with TMR and neuromas while collaborating on a book chapter. The clinical findings of the Northwestern group, combined with Dr. Smith’s extensive experience and Dr. Ko’s animal research, served as the conceptual foundation for the DoD grant.



Dr. Douglas G. Smith

Orthopedic-related injuries and major limb amputations make up a large portion of the devastating casualties resulting from conflicts overseas, and many of these patients will suffer from chronic pain due to symptomatic neuromas that do not respond to currently accepted treatment modalities. Harborview Medical Center is a unique civilian medical center that treats a high volume of extremity amputees, and Drs. Ko and Smith hope that UW’s involvement with this clinical trial will help define TMR as the new standard of care for the treatment of neuromas in amputees.

Department News

Sports Medicine Clinic public grand opening in new location!

On October 19 the Sports Medicine Clinic hosted an open house in their new Husky Stadium location. A team of 20 Sports Medicine faculty and staff members plus additional volunteers welcomed over 500 visitors and referring providers, scheduled appointments, took photos, and directed people to experience the special features of the new clinic.

The new 30,000 square foot facility makes appointments more convenient for patients by encompassing doctors, surgeons, physical therapists, radiologists, and other sports medicine specialists all under one roof. It boasts a Physical Therapy Clinic, Sports Cardiology, and Running Machine Programs. Open house visitors had the opportunity to experience one of the new special features - the antigravity treadmill. They were able to feel how a decrease in body weight could take pressure off their legs and allow for proper rehabilitation.



Visitors assisted **Dr. Albert Gee** (below) and **Dr. John Green** as they demonstrated minimally invasive arthroscopic surgical techniques on dummy knees and shoulders.



Athletes visiting the open house were able to view the new cutting-edge Sports Performance Center, which utilizes “prehab” strategies to prevent sports injury and improve performance. Other exciting features of the open house were platelet rich plasma treatments, for chronic tendon injuries and regenerative therapies, and musculoskeletal ultrasounds, to “diagnose” injuries and guide injections. **Dr. Teitz** discussed soft-tissue injuries with guests as they toured the beautiful new facility.

The open house celebration even included a Husky Band performance and a visit from Harry the Husky!



The Sports Medicine Clinic has always prided itself on its top-notch treatment of athletes as well as the general public, treating anyone with a passion for activity. We are all excited about how this new location will offer an even higher level of care using a collaborative, team-based approach.

Department News

eMTRCS: Electronic Milestone Tracking and Resident Competency System

As a result of a new mandate requiring residents to meet 16 specific procedural milestones and report their progress biannually, **Drs. Mickelson, R3** (lower left) and **Gundle, R4** (lower right) recognized a growing need for more immediate feedback from leadership within their residency program. They envisioned a tool that would allow residents to view milestones for each level of each rotation, allow them to input self-evaluation ratings of surgeries after completion, and give attending physicians the ability to view these evaluations and make an assessment of their own. Data would be inputted into the tool shortly after each procedure, and would provide the resident with immediate feedback. First year residents would receive feedback from upper-level residents, while the upper level residents would hear directly from attendings.

Drs. Mickelson and Gundle obtained an extramural Omega Medical grant to get this project off the ground and have also partnered with the UW's Center for Commercialization, in the hope that their startup can be expanded to other specialty programs in the future.

The residents are working with web developer **Felicia Mehl** to design a website as a reporting tool and have named it "eMTRCS" (Electronic Milestone Tracking and Resident Competency System). **Arien Cheron**, technical liaison between the department and the residency program, created the "alpha", or first demo, for the smartphone/tablet application that was successfully used to acquire their provisional patent.



The login information within eMTRCS communicates each particular resident's name, year, and rotation. The skill set page then breaks down each rotation into a list of milestones as each year of the residency program progresses. They utilize eMTRCS to ensure that they are meeting expectations from both the program and the faculty.

The website is currently in beta testing with a few of the residents, and the goal is to go live in January. The application format will follow shortly thereafter.

MA Appreciation Breakfast

In October, the Medical Assistants of the BJC were treated to an Appreciation Breakfast to thank them for all that they do. The spread included bagels, fruit, pastries and more.



L to R: Rolly Roxas, Charlene Portillo, Marianne Lundgren, Patrick Slevin, Nancy Dublinski, BJ Capuno and Shelley Kemmerer

Welcome new Spine ACE!



Please welcome our third Spine ACE to the department! Dr. Viral Patel received his medical degree from B. J. Medical College in Ahmedabad, India in March 2005. He completed his orthopaedic surgery residency in June 2009, at B. J. Medical College in Ahmedabad, India.

Department News

Department's Shoulder Blog reaches new heights

Many in the Department are already familiar with the [Shoulder Arthritis and Rotator Cuff Tears blog](#) created by **Dr. Frederick Matsen III** in March 2011. The blog has just passed a remarkable milestone: 300,000 views and counting! Readership spans the globe as patients seek information on the two most important clinical conditions of the shoulder.

One of the blog's newest entries, entitled "The Future of Shoulder Surgery- the UW Shoulder Fellowship," recounts the candidate interviews for the 2015-16 Shoulder Fellowship and welcomes its newest faculty members, **Drs. Albert Gee** and **Jason Hsu**.



2015-16 Shoulder Fellowship interviewees at dinner

Congratulations to Dr. Matsen and everyone who has been a part of this!

UW Orthopaedics keeping adventures alive

From scuba diving around the world to skydiving in Fiji, John Minder of Fairbanks, Alaska lives an athletic and adventurous life – and over the past two decades these active pursuits have led to many visits to his trusted physicians at UW Medicine.

John first came to UW Medicine after seeking additional treatment following an injury to his rotator cuff muscle playing racquetball. **Dr. Rick Matsen** performed a successful surgery and so when John was experiencing knee pain a year later he sought advice from Dr. Matsen, who referred him to Dr. Peter Simonian. As his active lifestyle continued, John turned to [UgdlbYgi fl Ycb to](#) assist with some developing neck problems. According to John, "between the three of them, they have put me back together 8 or 9 times".

John Minder is the CEO and President of Great Northwest Inc., a general construction firm he founded in 1976. It is one of the largest independently owned and operated civil construction firms in Interior Alaska. He believes his company's strength lies in its employees and is very proud of the company's safety record. Great Northwest Inc. "maintains strong community involvement and, with a low profile, gives back a lot to the community".



John believes UW Medicine is a great place for patient care. As an advocate and an annual donor he explains "that is why I recommend it to everyone and why I give back and continue to give back every year to do whatever I can to repay the care and professionalism I have received over the years."

For information about supporting UW Medicine, please contact Jenny Poast, Director for philanthropy, at 206-685-8411 or jpoast@uw.edu.

Department News



Dr. Peng Liu (below) from the People's Republic of China was an official visitor to the UW Medicine Spine Service for 3 months. He appears to have acclimated rapidly to American customs.



UW Orthopaedics was well represented at the Annual AO meetings in Davos, Switzerland.

WSOA Meeting

Our department had a successful outing at a recent Washington State Orthopaedics Association meeting. '03 Trauma ACE Carla Smith (below) received the lifetime achievement award for her humanitarian work abroad.



Recent Presentations



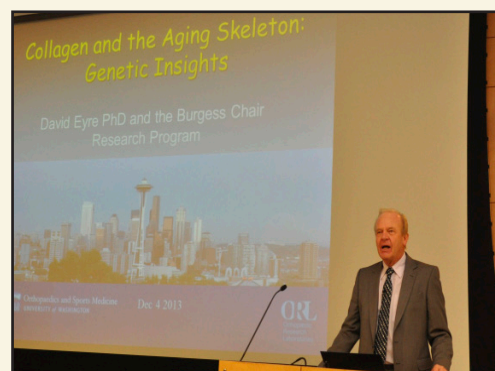
The 12th Annual Spine Summit in Seattle chaired by **Drs. Carlo Bellabarba** and Fangyi Zhang was another sellout. Distinguished Visiting Professors were Drs. Oheneba Boachie-Adjei, HSS, New York (seen with his son **Yaw**), Jack Zigler, Texas Back Institute, Kevin Foley, Memphis, TN and Joseph Cheng, Vanderbilt, TN. The topic was "Measuring the Value of Spine Care". As always the ISIS Hands-on lab sessions (below) were very well attended.



Tim Alton, R4, (above) won first place in the Resident Research Awards at the Washington State Orthopaedics Association for his work on Radiographic Follow up of APC-II Pelvic Ring Injuries Treated with Symphyseal Plating and Iliosacral Fixation. Congrats Tim!



The visit of Dr. Marcel Dvorak (above), Professor and Chief of Spine Surgery, Vancouver, BC who lectured on the current state of trials in spinal cord injury was one of many highlights in our monthly interdisciplinary Spine Grand Rounds this year.



Dr. David Eyre (above), Professor and Ernest M. Burgess Endowed Chair for Orthopaedic Investigation, presented an overview of the astonishing bandwidth of his lab's work on identifying the genetic foundations of the aging of our skeleton during Orthopaedic Grand Rounds.

The WSOA president-elect Dr. Alan Greenwald, Yakima (seen below with our residency program director **Dr. Doug Hanel**) made a formal visit to our Department in November in recognition of our very positive collaboration with this successful State society.



Department News



Steve Zieniewicz (right), the Executive Director UWMC, **Patty O'Leary** Crutcher, our Director of Sports Spine and Orthopaedic Health, with her husband **Craig**.



UWMC OR Manager Dan Kaiser with his wife at the Annual Holiday Party held at the UW Arboretum Visitors Center.



Administrative Assistant Leslie Mey planned the Annual Holiday Party, and **Dr. Howard Chansky**



Eyre Lab Holiday Party

Front row (L to R): *Adah Hudson with Mabel & Eli, Rhys Fernandes, Sue Eyre, Marion Avril-Dumpit with Allison, Ron Dumpit*

Middle row (L to R): *Jason Taylor, Mary Ann Weis, Jyoti Rai, Rick Weis, Rachel Werther, Christina Wu, James Wu, Aysel Fernandes, Russell Fernandes, David Eyre, David Hudson*

Back row (L to R): *Geoffrey Traeger, Kae Ellingsen*

The Department is proud of its many festive holiday traditions. Take a look at the joyous moments from this year's holiday season!



Seasons Greetings

from all of us

at the University of Washington

Department of Orthopaedics and Sports Medicine

HMC Cookie Exchange



L to R: *Christine Pallasigui, Jen McEwen, Tia Edwards, Julie Bould, Lucy Flaman, Janet Wierenga, Janet Grant, Sarah Jordan*

BB 10th Floor Holiday Party

The holiday party on the BB 10th Floor was especially festive due to Calina's surprise anniversary presentation. Staff members were treated to Pagliacci pizza and salad plus a smorgasbord of desserts!



Faculty & Staff News

Dr. Wagner honored at Temple University

In November **Dr. Ted Wagner** went to Temple University School of Medicine to celebrate its annual Class Reunion and Alumni Awards, and where more than 150 alumni returned to reconnect and learn about new developments. Dr. Wagner (Class of 1968) celebrated his 45th Reunion and was presented with the prestigious Alumni Service Award.

Dr. Wagner (pictured on the left) sat with friend and mentor Dr. George Bagby (Class of 1946) who attended specifically for Dr. Wagner.



Happy 10th Anniversary Calina Garcia!



Montlake Manager Calina Garcia was taken by surprise at the annual BB 10th Floor Holiday Party and presented with her anniversary plaque by **HMC Manager Jen McEwen** and **Director Ken Karbowski**. Congratulations Calina!

Dr. Wagner joins Global Health

Dr. Ted Wagner was recently appointed joint Clinical Professor of Global Health. Dr. Wagner has a passion for global health as he has traveled the world extensively throughout his career pursuing outreach missions in education and practice. Ted's pursuit of Orthopaedic medicine has taken him to Bangladesh, China, Indonesia, and Syria (to name a few). He is particularly interested in pursuing study of the global burden of spine disease. He will be quite an asset to the Global Health Department. Congrats Ted!

Dr. Dunbar continues UW presence in Indonesia



L to R: *Dr. Dunbar, Dr. Rizal Pohan (Indonesian Orthopaedic Association President), Dr. Mark Hammerberg (former HMC Trauma ACE) and Dr. Tedjo Rukmuyo (organizing committee chairman for the IOA Annual meeting)*

Dr. Bob Dunbar and former HMC Trauma ACE **Mark Hammerberg** ('02-03) have just returned from teaching fracture treatment techniques in Yogyakarta, Indonesia, a country where there are only about 600 orthopaedic surgeons (compared to about 26,000 in the US) and even fewer specializing in spine surgery. The program was a joint venture of The American Academy of Orthopaedic Surgeons (AAOS) and the Indonesian Orthopaedic Association (IOA) and it was held in conjunction with the IOA Annual Meeting. Dr. Dunbar is a member of the AAOS International Committee, which is responsible for roughly 6-8 of these courses per year. Both men delivered 6 lectures, visited a local hospital, and had Residents present patients to them. Dr. Dunbar also spoke at the meeting's Opening & Closing Ceremonies.

Faculty & Staff News

Football fever runs rampant!



Calling all football hooligans! **Director Ken Karbowski** and **Montlake Secretary Senior Sarah Pressl** proudly represent club FC Bayern München on game day. With the 2014 World Cup in Brazil less than 170 days away, now is the time to choose national team allegiances.



Administrative Assistant **Janet Grant** celebrated her 15th anniversary. Congratulations Janet!

Kenny Gundle, R4, attended the AAOS/OREF/ORS Clinician Scholar Career Development Program in September of 2013 in Rosemont, Illinois. He is pictured (right) with Eric Makhni, a medical school classmate and fellow participant.



Also in September, **Dr. Gundle** presented research at the International Society of Limb Salvage (ISOLS) meeting in Bologna, Italy, which coincided with his 1 year wedding anniversary with his wife (left).



Finally, **Dr. Gundle** has been nominated to participate in the 2014 Resident Leadership Forum at the Palais des Congres de Montreal in June. Congratulations on all of these accomplishments Kenny!

Dr. Ronald Kwon went to Tulane University for the Biomedical Engineering Department seminar series and gave a talk entitled *From Fluid Flow to Zebrafish: Musculoskeletal Discovery through Mechanobiology*.

In September of 2013, **Dr. Paul Manner** was a member of the Writing Panel, a group of select clinicians who met to develop and evaluate *Appropriate Use Criteria on Optimizing the Management of Full-Thickness Rotator Cuff Tears* (RC AUC). Dr. Manner and his colleagues independently reviewed these materials to ensure that they were representative of patient scenarios that clinicians are likely to encounter in daily practice. The December issue of the Journal of the AAOS features their [findings](#).

Congratulations to **Dr. Lee Pace** (Resident Class of 2010) and his wife on the birth of their son! Adam Leon Pace was born on 11/21/13 at 5:04AM weighing in at 8 lbs. 1 oz. and 21 inches long. Mom and Adam are doing well!



Congratulations to **Amanda Schwanz** who has completed her Masters in Public Administration from Seattle University!

Dr. Nicholas Vedder gave combined Orthopedics-Plastic Surgery Grand Rounds at the University of Pennsylvania on November 7th.

Bahaa Wanly was awarded the Federal Bureau of Investigation Director's Community Leadership Award and he will be formally recognized in Washington D.C. this April. More information on this honor can be found [here](#). Please join the Department in congratulating Bahaa on this remarkable honor!

We'd like to wish a very Happy Birthday to **Janet Wierenga's** Aunt Ruby Gronningen, who recently turned 100 years old! She does crossword puzzles every day and loves keeping score during baseball games. Happy Birthday Ruby and may we all be in such great shape when we are your age!





OSSMIG Officers **Ansab Khwaja** (right) and **Sean Sterrenberg** (left) gave two presentations recently, using models to teach basic knee anatomy as well as how to perform exams. Sharing musculo-skeletal knowledge and sparking interest in medicine through community outreach is a tradition that OSSMIG hopes to continue at the UWSOM.

Tech Talk

Changes to email accounts

4 Score and 7 Megabytes ago our UW emails had no limits. We are now capped at 25MB for sending and receiving email, but what does that really mean? Here's a comparison to help you better understand these changes. 25MB would be: a 1,500 page text email, a standard 60 page word document, 3,750 pages of spreadsheets, or 6,250 pages of random text.

A possible problem we will run into is the adding of photos to most document types. If you're using a nice camera, those images can be around 8MB per photo, and even your standard iPhone will take a 1.5MB photo fairly easily. It's important to shrink these images before emailing them or adding them to PowerPoint presentations or Word documents. The good news is that PowerPoint can help you with this.

On a Mac: Open PowerPoint 2011, go to file -> Reduce File Size.

On a PC: Step 1 - Click on the picture to bring up the Picture toolbar.

Step 2- Click the compress picture button.

Step 3 - On the Compress Pictures menu: -> Apply to: All pictures in document -> Change resolution: Web/Screen -> Options: Compress pictures and Delete cropped areas of pictures -> Click OK.

With the holiday season upon us, remember that as UW Staff and Faculty we are lucky to get many free or highly discounted software titles for our home computer and qualify for education prices at Apple.com and other places. We are also able to get discounts on personal cell phones.

For more information look here: <http://www.washington.edu/itconnect/connect/phones/cell-phones/#preferred>

It's important to remember that if you're using your home machine or cellular phone for UW business (even email) you are responsible for ensuring that it's secure and safe to use. If you have questions on how to ensure that your phone / home computer is safe and secure please contact acherone@uw.edu to schedule a free once-over with one of our techs!

Publications

Publications – Peer Reviewed

Alton TB, Patel A, **Bellabarba CB, JR**, **Bransford R**, **Lee MJ**. Spinal Epidural Abscesses: Risk Factors, Medical vs Surgical Management, A Retrospective Review of 128 Cases. *Spine J.* 2013 Nov 11. doi:pii: S1529-9430(13)01652-5. 10.1016/j.spinee.2013.10.046. [Epub ahead of print]

Ausk BJ, **Huber P**, **Srinivasan S**, **Bain SD**, **Kwon RY**, McNamara EA, Poliachik SL, Sybrowsky CL, **Gross TS**. Metaphyseal and diaphyseal bone loss in the tibia following transient muscle paralysis are spatiotemporally distinct resorption events. *Bone.* 2013 Dec;57(2):413-22. doi: 10.1016/j.bone.2013.09.009. Epub 2013 Sep 21.

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Beingessner DM, Donegan D. Elbow fracture dislocation. *Orthopedics.* 2013 Oct 1;36(10):788-90. doi: 10.3928/01477447-20130920-09. No abstract available.

Publications

Beingessner DM, Scolaro JA, Orec RJ, **Nork SE**, **Barei DP**. Open reduction and intramedullary stabilisation of subtrochanteric femur fractures: A retrospective study of 56 cases. *Injury*. 2013 Dec;44(12):1910-5. doi: 10.1016/j.injury.2013.08.013. Epub 2013 Aug 20.

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Nguyen HM, Ruppender N, Zhang X, Brown LG, **Gross TS**, et al. (2013) Cabozantinib Inhibits Growth of Androgen-Sensitive and Castration-Resistant Prostate Cancer and Affects Bone Remodeling. *PLoS ONE* 8(10): e78881. doi:10.1371/journal.pone.0078881

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Worton LE, **Ausk BJ**, **Downey LM**, **Bain SD**, **Gardiner EM**, **Srinivasan S**, **Gross TS**, **Kwon RY**. Systems-Based Identification of Temporal Processing Pathways during Bone Cell Mechanotransduction. *PLoS One*. 2013 Sep 11;8(9):e74205. doi: 10.1371/journal.pone.0074205.

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