



Orthopaedic Surgery Quarterly Review

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2009 Upcoming Events

- Faculty Meeting – 11/16, 12/21
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- Office closed: 11/26, 12/25, 1/1

Happy Birthday!!!

OCTOBER

6-Madhav Karunakar 12-Richard Peindl
28-Anthony Skalak 30-Jenna Berger

NOVEMBER

6-Helen Gruber 25-Pam Osborn
28-Harvey Montijo

DECEMBER

21-Edward Hanley

CONGRATULATIONS!!!

☺ **Basmatie Littles** gave birth to son, James Gregory Littles, III on Oct. 3rd. He weighed 6 lbs, 6 ozs, and was 18½ in.

☺ **Dr. Joanne Labriola** gave birth to Madeline Eiliana on Oct. 19th. She weighed 8lbs, 1 oz.



The Department of Orthopaedic Surgery

Edward N. Hanley, Jr., MD, Chairman
 James F. Kellam, Vice Chair
 Brian K. Brighton, MD
 Michael J. Bosse, MD
 Daniel T. Davis, MD
 Steven L. Frick, MD
 Helen E. Gruber, PhD
 Madhav A. Karunakar, MD
 Jeffrey S. Kneisl, MD
 Joshua C. Patt, MD
 Joanne E. Labriola, MD
 David R. Mauerhan, MD
 Richard Peindl, PhD
 Stephen H. Sims, MD
 Yubo Sun, PhD
 Shankari Somayaji, PhD

Visiting Professors in Orthopaedic Surgery - August 23-24, 2009

Kyle Jeray, MD and Michael Archdeacon, MD

The first visiting professorship of the 2009-2010 academic year brought two visiting scholars with expertise in orthopaedic trauma. Dr Jeray is the Associate Chairman and head of orthopaedic trauma at the Greenville Hospital System in South Carolina, and Dr. Archdeacon is Vice Chairman and chief of orthopaedic trauma at the University of Cincinnati. Both are leaders in the Orthopaedic Trauma Association, as well as the American Academy of Orthopaedic Surgeons, where both have been honored as AAOS Leadership Fellows.

Our visitors were treated to a Southern BBQ dinner at Mac's with a group of residents, trauma fellows and attendings on Sunday night. Monday grand rounds then included talks by both Dr Jeray - Evolution of Management of Displaced Clavicle Fractures in Adults- and Dr. Archdeacon - Selecting Entry Portals for Intramedullary Nailing of Femoral Shaft Fractures. Following grand rounds, we held a case discussion conference dealing with complex orthopaedic trauma controversies. We thank Drs. Jeray and Archdeacon for visiting and sharing their knowledge.

OMeGA Visiting Professorship - Stephen L. Kates, MD

The Department of Orthopaedic Surgery welcomed Stephen Kates, MD October 19, 2009 as visiting professor, sponsored by a grant from the AOA Orthopaedic Medical Education Grants Association

(OMeGA). Dr. Kates is Associate Professor in the Department of Orthopaedic Surgery at the University of Rochester School of Medicine and Dentistry in Rochester, NY. He did his undergraduate and medical school work at Northwestern University in Chicago, followed by two years of general surgery residency. He then went to Rochester where he completed his residency in orthopaedic surgery under Mac Evarts, MD. Following his residency Dr. Kates remained in Rochester, practicing in a private practice from 1989-2008. During that time he developed an interest in geriatric trauma, beginning a geriatric fracture service in the mid-1990s. He joined the University of Rochester faculty group in 2008, and now serves as the Associate Residency Program Director. He currently is working at Highland Hospital primarily, a hospital in the University of Rochester's residency program that complements the larger academic medical center. He is the co-director (with a geriatrician) of a very innovative, interdisciplinary geriatric fracture care program. He presented grand rounds on "Building a Geriatric Fracture Center: A Step by Step Approach". He reviewed the development of their program, sharing data and pertinent publications. Following grand rounds, he led a case discussion session with our residents and fellows, reviewing some challenging geriatric fracture problems. We were honored to host Dr. Kates and appreciate him sharing his knowledge and expertise on geriatric fracture care with us. We hope that his visit will promote the development of a similar geriatric fracture center approach here in Charlotte.

Daniel Riew MD of Washington University - Visiting Spine Professor

Daniel Riew MD, Professor and Chief of Cervical Spine Surgery at Washington University in St. Louis served as the OrthoCarolina/CMC Department of Orthopaedic Surgery Visiting Spine Professor on Thursday, October 22, 2009. Alden Milam MD introduced Dr. Riew for his presentation on "Cervical Deformity Correction" at the morning conference. Dr. Riew is an internationally known expert on the diagnosis and treatment of cervical spine problems. His presentation detailed surgical solution to a variety of complex deformities of the neck. After a discussion session, case presentations were made by CMC residents and OrthoCarolina spine fellows. Dr. James Starman then took Dr. Riew on a tour of the CMC clinical and research facilities. We thank Dr. Bruce Darden and Dr. Alden Milam for organizing and facilitating Dr. Riew's visit. It was noted at the conference that the 2010 annual meeting of the Cervical Spine Research Society will be held at the Westin hotel in Charlotte in December of 2010.

Orthopaedic Trauma Association Holds Successful Meeting in San Diego

The 25th Annual Orthopaedic Trauma Association meeting held October 7-10, 2009 in San Diego, CA, was well attended by trauma physicians from all over the world. Former trauma fellow, Mike Mazurek MD was one of the hosts for this event. OTA past president, **Michael Bosse, MD**, participated in the research portion of the Young Practitioners Forum and took part as Faculty on several symposiums. **Dr. Steven Frick** moderated a scientific session on "Pediatrics and Injury Prevention" where **Dr. Chris Bray** presented a paper on "On-Call Coverage Pediatric Orthopaedic Emergencies: Description of an Effective Call System to Optimize Pediatric Patient Care. **Dr. Brandon Bruce** presented the

paper, "Predicting Future Displacement of Non-Operatively Managed Sacral Fractures: Can It Be Done?", and **Dr. Madhav Karunakar** presented a paper on "Does Stress Induced Hyperglycemic Increase the Risk of Perioperative Infectious Complications in Nondiabetic Orthopaedic Trauma Patients?"

On October 9th, the Department of Orthopaedic Surgery-Trauma hosted their annual Orthopaedic Trauma Alumni Reception for trauma fellows and their wives at Lou & Mickey's Restaurant in beautiful downtown San Diego. A great time was had by all.

Annual OSCAR MILLER DAY Focuses on Pediatric and Adolescent Treatment

The 29th Annual Oscar Miller Day Symposium sponsored by OrthoCarolina, was held October 16, 2009 at the Blake Hotel in Charlotte. Dr. Michael Wattenbarger chaired the event. The focus for this year's event was "Current Concepts in the Evaluation and Treatment of Pediatric and Adolescent Orthopaedic Conditions". Guest faculty was Dr. Michael Millis of Boston, Mass. who presented, "Femoral Acetabular Impingement-Evaluation and Treatment", and Dr. Stewart Walsh of New Zealand who presented, "Current Trends in ACL Reconstruction in the Adolescent Athlete." Other speakers included Dr. Chris Bray who presented, "Does Stress Induced Hyperglycemic Increase the Risk of Perioperative Infectious Complications in Nondiabetic Orthopaedic Trauma Patients?" and Dr. Brian Brighton who presented, "Lower Extremity Fracture Management". Dr. Steven Frick gave a presentation entitled, "Initial Evaluation and current Treatment Trends of Clubfoot" and was the moderator for Session V: Hip II.

In the news...

In the September 2009 edition of *Orthopedics today*, Dr. David Mauerhan sounds off on House

and Senate health care reform. Dr. Mauerhan notes that it is crucial that Congress takes a thoughtful approach to reform and not rush legislation.



Bobby Davis recognized for 30 years of service to Orthopaedics at CMC
On September 14, 2009, the

Department of Orthopaedic Surgery at CMC officially recognized the contributions of Bobby Davis to patient care and resident education. Bobby retired in September after 30 years of service in Orthopaedic Services. He showed countless numbers of residents how to correctly apply splints and casts, and was presented with a plaque acknowledging him as the "Master of the Plaster". We are grateful for his work and his friendship, and wish him well in retirement.

CMC Orthopaedic Surgery Resident Program Recipient of Educational Grants

Steven L. Frick MD, program director of the CMC Orthopaedic Surgery Residency Training Program, has been notified of several educational grants from the AOA and OREF.

A \$5,000 AOA OMeGA Residency Education Grant was given for enhancement of the Visiting Professor Series.

Three grants were received from the Orthopaedic Research and Education Foundation: \$2,000 from the JBJS Resident Journal Club program was obtained by Bryan Loeffler MD; a \$4,100 OREF Residency Enhancement Grant for two residents to attend educational programs for academic development; and a \$3,750 Residency Enhancement Grant for a Special Initiatives Program for professionalism workshop.

Many thanks to all who assisted in the procurement of this supportive educational funding.

Peer Reviewed Publications:

Cannada LK, Viehe T, **Cates CA**, Norris RJ, Zura RD, Dedmond B, Obremesky W, **Bosse MJ**: A Retrospective Review of High-Energy Femoral Neck-Shaft Fractures, Southeastern Fracture Consortium, *J Orthop Trauma*, 23(4):254-60, 2009.

Cobb WS, **Peindl RD**, Zerey M, Carbonell AM, Heniford BT: Mesh Terminology 101, *Hernia*, 13:1-6, 2009.

Cohen BE: Hallux Sesamoid Disorders, *Foot and Ankle Clinics*, 14(1):91-104, 2009.

Dalury DF, **Mason JB**, Murphy JA, Adams MJ: Analysis of the Outcome in Male and Female Patients Using a Unisex Total Knee Replacement System, *JBJS*, 91(3):357-360, 2009.

Das Roy L, Pathangey LB, Tinder TL, Schettini JL, **Gruber HE**, Mukherjee P: Breast cancer associated metastasis is significantly increased in a model of autoimmune arthritis. *Breast Cancer Research*; 2009 ; 11(4)R56. <http://breast-cancer-research.com/content/aa/4/R56>.

Fehring TK, Odum SM, Hughes J, **Springer BD**, **Beaver WB**: Difference Between the Sexes in the Anatomy of the Anterior Condyle of the Knee, *JBJS*, 91A(10):2335-2341, 2009.

Fehring TK: An Outstanding Scientific Knee Paper from the Specialty Societies, "Joint Replacement Access in 2016: A Supply-Side Crisis", *JBJS*, 91A(Suppl 5):62-63, 2009.

Gruber HE, **Hanley EN**, **Yubo S**: "Digital Histologic Images: Practical Pointers for Successful Electronic Submission to Biomedical Journals", *Biotechnic & Histochemistry*, EPub first on line, May 5, 2009.

Gruber HE, **Hanley EN**: "Ultrastructure of Inclusion Bodies in Annulus Cells in the Degenerating Human Intervertebral Disc", *Biotechnic & Histochemistry*, EPub first on line 84(3):85-94, 2009.

Gruber HE, **Ingram JA**, **Zinchenko N**, **Hanley EN**: Practical Histologic Methodologies for Use with Cultured Cells, *Biotechnic & Histochemistry*, EPub first on line, 1-4, 2009.

Gruber HE, **Hoelscher GL**, **Ingram JA**, **Loeffler B**, Chow, Y, Halligan W, **Hanley EN**.

Prostaglandin E1 and misoprostol increase epidermal growth factor production in 3D-culture human annulus cells. *Spine Journal*, 9:760-766, 2009.

Gruber HE, Gordon B, Williams C, **Ingram JA**, Norton HJ, **Hanley EN Jr.**: A New Small Animal Model for the Study of Spine Fusion in the Sand Rat. *Laboratory Animals*, 43:272-277, 2009

Hamid N, **Loeffler BJ**, Braddy W, **Kellam JF**, **Cohen BE**, **Bosse MJ**: Outcome after Fixation of Ankle Fractures with an Injury to the Syndesmosis: The Effect of The Syndesmosis Screw, *JBJS*, 91B(8):1069-1073, 2009.

Harris AM, Althausen PL, **Kellam JF**, **Bosse MJ**, Castillo R, Lower Extremity Assessment Project (LEAP) Study Group: "Complications Following Limb-Threatening Lower Extremity Trauma", *J Orthop Trauma*, 23(1):1-6, 2009.

Lewallen DG, **Fehring TK**, Dennis DA, Scuderi GR: Revision Total Arthroplasty: Surgical Techniques, *JBJS*, 91A(Suppl 5):69-71, 2009.

Lonner JH, **Fehring TK**, et al: Revision Total Knee Arthroplasty: The Preoperative Evaluation, *JBJS*, 91A(Suppl 5):64-68, 2009.

Madigan L, Vaccaro AR, **Spector LR**, **Milam RA**: Management of Symptomatic Lumbar Degenerative Disk Disease, *JAAOS*, 17(2):102-111, 2009.

Mann RA, Ahrens JE, Amendola A, **Anderson RB**, Berlet GC, et al: Prospective Controlled Trial of STAR Total Ankle Replacement Versus Ankle Fusion: Initial Results, *Foot and Ankle Internatl*, 30(7):579-596, 2009.

McCormick JJ, **Anderson RB**: The Great Toe: Failed Turf Toe, Chronic Turf Toe, and Complicated Sesamoid Injuries, *Foot and Ankle Clinics*, 14(2):135-150, 2009.

McCormick JJ, **Anderson RB**: Turf Toe Injuries and Traumatic Hallux Valgus in the Athlete, *Brazilian Foot and Ankle*, 3(11):2-10, 2009.

Piasecki DP, et al: Glenoid Bone Deficiency in Recurrent Anterior Shoulder Instability: Diagnosis and Management, *JAAOS*, 17(8):482-493, 2009.

Richardson DR, Willers J, **Anderson RB**, **Cohen BE**, **Davis WH**: Evaluation of the Hallux Morbidity of Single-incision Flexor Hallucis Longus Tendon Transfer, *Foot and Ankle Internatl*, 30(7):627-30, 2009.

Rude RK, Singer FR, **Gruber HE**: Skeletal and Hormonal Effects of Magnesium Deficiency, *J Amer College of Nutrition*, 28(2):131-141, 2009.

Roy L, Pathangey LB, Tinder TL, Schettini JL, **Gruber HE**, Mukherjee P: Breast cancer associated metastasis is significantly increased in a model of autoimmune arthritis. *Breast Cancer Research*; 2009 ; 11(4)R56. <http://breast-cancer-research.com/content/aa/4/R56>.

Saltzman CL, Mann RA, Ahrens JE, Amendola A, **Anderson RB**: Prospective Controlled Trial of STAR Total Ankle Replacement Versus Ankle Fusion: Initial Results, *Foot and Ankle International*, 30(7):579-596, 2009.

Scannell BP, **Loeffler BJ**, **Bosse MJ**, **Kellam JF**, **Sims SH**: Efficacy of Intraoperative Red Blood Cell Salvage and Autotransfusion in the Treatment of Acetabular Fractures, *J Orthop Trauma*, 23(5):340-345, 2009.

Springer BD, **Fehring TK**, **Mason JB**, Odum S: Why Do Revision Total Hip Arthroplasties Fail?, *CORR*, 467(1):166-73, 2009.

Michael Bosse, MD Co-PI on 18.4M Grant

Congratulations to **Dr. Michael Bosse** who is the co-principal investigator of an \$18.4 million grant awarded to Johns Hopkins Bloomberg School of Public Health by the US Department of Defense to establish an Extremity Trauma Clinical Research Consortium. Dr. Bosse will be assisting Ellen McKenzie, PhD, principal investigator, on this project working on establishing a clinical research network and infrastructure to address critical needs in severe limb injuries sustained on the battlefield. We are proud that Carolinas Medical Center will serve as one of the centers for this Consortium.

Grant Funding:

Sun Y (PI), Mauerman DR, Hanley EN, Jr: Evaluation of metal Ion-citrate analog complexes as potential disease modifying drugs for arthritis. Smith Arthritis Fund, Mecklenburg County Medical Society. \$1,400, 11/01/2009–10/31/2010.

Presentations:

Patt JC: Introduction to sarcoma for Oncology Core Course. CMC-Nursing Oncology Core, Charlotte NC, Sept.18, 2009.

Loeffler BJ (*Third Place, Resident Paper Awards*), **Kellam JF**, **Sims SH**, **Bosse, MJ:** Donor site morbidity after iliac crest bone graft. NCOA Annual Meeting, Pinehurst, NC, Sept.25-27, 2009.

Kneisl JS: Oncologic limb salvage vs. amputation decision making. Medical Education Conference-Carolinas Rehabilitation, Carolinas Medical Center, Charlotte, NC, Oct. 9, 2009.

Delemarter RB, **Murrey DB**, Janssen M, Goldstein J, Zigler JE, Goldstein J, Tay B, **Darden BV:** Results from the prospective, randomized multi-center IDE Trial of Prodisc-C versus ACDF with 4 year follow-up and continued access patients. EuroSpine, Warsaw, Poland, Oct. 21-24, 2009.

Gruber HE*, **Norton HJ**, **Hanley EN:** Disc cell senescence in vivo: Increased cell senescence is associated with decreased cell proliferation in the human annulus. North American Spine Society, San Francisco, CA, Nov. 13, 2009.

Labriola JE*, et al: Radiographic comparison of pegged and keeled glenoid components using modern cementing techniques: A prospective randomized study. NCOA Annual Meeting, Pinehurst, NC. Sept. 25-27, 2009.

Hicks-Little C, Hubbard T, **Peindl R**, **Scannell B***, Huet Y, Yengo C, **Mason J**, **Springer B**, **Fehring T**, **Griffin W**, Cordova M. A Lower Extremity Kinematic Analysis of Stair Ascent and Descent in Osteoarthritic Knees. (poster presentations) National Athletic Trainers' Association Annual Meeting, June 2009.

Bray C*, **Scannell B**, **Bosse M**, **Clark D**, **Casey V**, **Wattenbarger M**, **Frick S:** On-call Coverage for Pediatric Orthopaedic Emergencies: Description of An Effective Call System

to Optimize Pediatric Patient Care. OTA Annual Meeting, San Diego, CA, Oct. 7-10, 2009.

Summer Student Laura Buchanan receives Cannon Research Award



Orthopaedic Research Biology had the opportunity this year to have summer students **Laura Buchanan** and **Matt Dobler** present at the Cannon Summer Research Scholars Day on August 5th. Laura received the second place award from Dr. Klein for her presentation "The Relationship between Pregnancy-Associated Plasma Protein-A (PAPP-A) and Human Disc Degeneration" at the Summer Research Scholars Research Day on August 5th. Co-authors on this project were Drs. Helen Gruber, Jim Norton, Edward Hanley, Jane Ingram and Natalia Zinchenko. Laura will be going on to her second year of medical school at Wake Forest University School of Medicine. Congratulations to Laura for her excellent work.

Matt Dobler, who worked with Dr. Sun and Patrick...also presented a paper entitled, "Potential Disease Candidate Genes in Osteoarthritis". Matt has gone on to work as the Athletic Trainer for the UNC Charlotte Softball team, and he'll also be applying for graduate school with hopes of attending Wake Forest's Physician's Assistant Program starting Fall, 2010.

Both students were excited about their opportunity to learn more about research. We wish them luck in the future and they will both be missed!

New Faces Join Research!
Shankari Somayaji, PhD was born and brought up in South

India. She got her Bachelors in Microbiology and her Masters in Chemistry back in India as well. She graduated from UNC Charlotte with a PhD in Biology in 2009. Currently, she works in Dr. Helen Gruber's lab as a Senior Research Analyst. She married in 2002 and is expecting her first child (a boy!) in Feb 2010. She loves reading, listening to music and nature watching.

Frank Riley grew up in the coastal city of Belfast, Maine located on Penobscot Bay. He received his BA Degree in Biology in 2001 from the University of Maine and obtained his Masters in Applied Medical Sciences at the University of Southern Maine. While at the University of Southern Maine he studied microbial and viral diversity of extreme environments in Maine and Kenya and worked with rural Maine high school students on inquiry-based research projects through the National Science Foundation GK12 Fellowship Program. After graduating from the University of Southern Maine in July he and girlfriend, Andrea moved to Charlotte. He is a research tech II in Dr. Gruber's lab studying adipose tissue-derived human mesenchymal stem cells. He enjoys reading and outdoor activities.

Ryan Phillips was born and raised in Charlotte. He attended college at University of North Carolina at Charlotte where he attained a degree in Finance and did a post-bac in Biology. He is a research technician in Dr. Gruber's lab with the long-term goal of becoming a physician who is involved in clinical and translational research. Ryan is an Eagle Scout and recently is enjoying a little sky-diving. He is an avid reader and loves camping and sports. He is a huge Carolina Panthers and UNC fan. Ryan is single.

Atiya Franklin is a Research Tech II in Dr. Sun's lab. She was born in Paterson, NJ, but was raised in Charlotte. She attended

the University of North Carolina at Greensboro and graduated in December 2008 with a BS Degree in Biology. She is the oldest of four children. She enjoys photography, reading, movies and plays. She also writes poetry.

**SPOTLIGHT on
"EMPLOYEE SERVICE
EXCELLENCE"**

- Drs. **Michael Bosse** and **Brian Scannell** are in the spotlight this quarter. Both received a WOW card for demonstrating excellence in the care, commitment, and communication given to our orthopaedic patients.
- **Julie Colantoni** (PGY-1) received a WOW card for her commitment and teamwork getting a patient ready for discharge while on different service and on-call.
- Dr. Hanley displayed his thanks to all support staff in the orthopaedic department by presenting them with a WOW card.

**LET'S KEEP BUILDING
STRONG AND HEALTHY
COMMUNITIES**

Thanks to all orthopaedic physicians and staff that participated in the "Help Kids Succeed" School Tools/Healthy Snack Drive this year. Our staff purchased 5 backpacks and donated school supplies to support *Classroom Central*, plus gave donations to help supply the *Second Harvest Food Bank* with healthy snacks for school children. Show your community how much you care by giving to the CHS "Combined" Giving Campaign.
Support the ASC, CMN, and UNITED WAY. Why wait?...Make your pledge TODAY.

For Your Information...

Are you looking for someone who can notarize your most important document? Look no further! Our very own **Sandy Wilkinson**, office assistant in the Orthopaedic Engineering Research office is a licensed notary and is happy to assist you. You can contact her at 704-355-7084.

ANNOUNCEMENT

- **GET YOUR FLU SHOT NOW!** It is vital that healthcare workers and staff get the seasonal flu vaccine. If you think you have the flu, tell your supervisor and stay home, except to get medical care. For more information go to "STOP the FLU" on Synapse home page or visit www.flu.gov.
- **OPEN ENROLLMENT BEGINS** October 21st.
- Mark your calendars for the **2010 Housestaff Graduation Banquet** to be held at the Hilton Charlotte Center City on Saturday, June 19, 2010.
- **Dr. Stephen Sims**, will participate as Faculty member at the AONA-Principles and Techniques of Operative Fracture Management Course. Jan. 14-17, 2010. Hyatt Regency Phoenix, Phoenix AZ.

The Orthopaedic Surgery Quarterly Review is published by the Department of Orthopaedic Surgery, Carolinas Medical Center, Charlotte, NC. Send corrections and news items to sylvia.davis@carolinashealthcare.org