Dear Friends, Colleagues and Alumni,

The Department of Orthopaedic Surgery & Rehabilitation at Vanderbilt University Medical Center welcomes 2018 with unbridled optimism and renewed energy. It will be a year filled with opportunity, growth and focus. We have high expectations for expanding our clinical and academic enterprises while continuing to serve our community with unselfish determination. I anticipate providing details later this year. We thank you for your interest and hope to pique your curiosity.

The first VUMC Orthopaedia issue each year is our annual publication on patient safety and quality. Please find our 2017 excellent results (pages 3-6) for patient outcomes on our spine and arthroplasty services. We are proud of the entire team for making our efforts such a success.

The remainder of this issue highlights several key faculty members and alumni throughout the past year. Sadly, we lost another esteemed alum in November. Dr. Allen Anderson died in a farming accident. He was only 67 years old, healthy and with a growing family. Our condolences are extended to his wife Candy, three sons, three siblings and five grandchildren. We will miss him greatly. Allen bridged the ‘town & gown’ gap like few could. He graduated from our orthopaedic residency program in 1983 and his son Chris, also graduated from our residency program in 2012.

The department, faculty and staff wish you and all your loved ones a Happy and Healthy New Year. Please stay safe and hopefully we can meet and laugh at the AAOS reception in New Orleans on March 9, 2018 or in Nashville for the Hillman Lectureship April 4, 2018.

Sincerely,

Herbert S. Schwartz, M.D.

Professor and Chairman
Dan Spengler M.D. Chair in Orthopaedics
Vanderbilt Department of Orthopaedic Surgery
MCE South Tower, Suite 4200
Nashville, TN 37232-8774
Phone: (615) 322-0543, Fax: (615) 875-1079
herbert.s.schwartz@vanderbilt.edu
OUTCOMES

VANDERBILT ORTHOPAEDIA

OUTCOMES: SPINE

ANATOMICAL REGION

- Cervical (325): 28.8%
- Lumbar (803): 71.2%

TYPES OF CERVICAL SURGERIES

- Posterior Laminectomy & Fusion (86): 34.7%
- Anterior Cervical Discectomy & Fusion (155): 62.5%

OUTCOMES: LUMBAR SPINE SURGERY

- Back Pain: Baseline 6.8, 12-Month 4.2
- Leg Pain: Baseline 6.4, 12-Month 2.9

- Back-Related Disability (ODI%): Baseline 45.3, 12-Month 26.9
- Quality of Life: Baseline 0.55, 12-Month 0.73

OUTCOMES: LUMBAR SPINE SURGERY

- Primary (828): 31.3%
- Revision (312): 68.7%

PRIMARY & REVISION SURGERY

TYPES OF LUMBAR SURGERY

- Laminectomy (171): 71.2%
- Laminectomy & Fusion (372): 27.5%
- Microdiscectomy (67): 10.8%

- Laminectomy (171): 71.2%
- Laminectomy & Fusion (372): 27.5%
- Microdiscectomy (67): 10.8%

PATIENT SATISFACTION WITH CARE

- Surgeon: 96
- Nursing Staff: 93
We are proud of the entire team for making our efforts such a success.

- Herbert S. Schwartz, M.D.

Allen F. Anderson, M.D., who completed his residencies in surgery and orthopaedics at Vanderbilt University, passed away at his family’s farm on Nov. 12, 2017. He was 67. A graduate of the University of Tennessee College of Medicine, Anderson practiced with Tennessee Orthopaedic Alliance and was a national leader in the field of orthopaedics and sports medicine. He served as president of the American Orthopedic Society for Sports Medicine and as chairman of the International Knee Documentation Committee, which sets global standards to evaluate the results of treatment. He was also a member of the Executive Committee of the Herodicus Society, the Board of Directors of the International Cartilage Repair Society, and the Board of Directors of the International Society of Arthroscopy, Knee Surgery and Orthopedic Sports Medicine. Additionally, he served as associate editor of the *Orthopaedic Journal of Sports Medicine* and *The American Journal of Sports.*

A specialist in knee injury and ligament reconstruction, Anderson published more than 100 academic articles, 26 book chapters, and obtained a patent for a pediatric ACL reconstruction system he invented. Among his many awards, Anderson was recognized as one of America’s Top Physicians 2004-2012 from Consumer’s Research Council, was elected to Best Doctors in America by Peers 2007-2008, and was the Nashville Predators, Paul Rummo, D.O., associate professor of orthopaedics and rehabilitation.

He is survived by his wife Candy, three sons (Brian, David, and Chris), two daughters-in-law, five grandchildren, two sisters, one brother, and many nieces, nephews, and cousins.

Alumni News: **Dr. Rick Wright Named AOA First President-Elect**

Rick W. Wright, M.D., speaking at 39th Annual Combined Hillman and Vanderbilt Orthopaedic Society (VOS) Meeting in 2014

Rick Wright, M.D., who completed his residency in orthopaedics at Vanderbilt University, was named first president-elect of the American Orthopaedic Association during its annual meeting in June 2017. He will be installed as the 2018-2019 AOA president in June 2018. Wright is the Jerome J. Gilden Distinguished Professor and Executive Vice Chairman of the Department of Orthopaedic Surgery at Washington University School of Medicine in St. Louis.

A specialist in knee ligament healing and clinical problems involving the shoulder, Wright is a founding member of MOON (Multi-center Orthopaedic Outcomes Network), a multi-center sports medicine group studying knee ACL injuries and shoulder injuries with a prospective database. He is also a member of ROCK (Osteochondritis Dissecans Study Group) and is principal investigator and Washington University is the coordinating center for MARS (Multi-center ACL Revision Study).

Alumni News: **Kibler Edits First Book Focused on Disorders of the Scapula**

Ben Kibler, M.D., F.A.C.S.M., who completed his medical training and residency at Vanderbilt University, is the editor of the first book to focus exclusively on disorders of the scapula.

Disorders of the Scapula Their Role in Shoulder Injury: A Clinical Guide to Evaluation and Management, co-edited by Aaron D. Sciaccia, Ph.D., L.A.T., A.T.C., P.E.S., is a concise but comprehensive summary of the function, biomechanics, evaluation, and management of injuries and dysfunctions of the scapula. The book describes the role of the scapula in shoulder pathology, including rotator cuff disease, shoulder instability, clavicle injuries, joint separation and arthrosis, and includes chapters on basic and complex rehabilitation strategies for scapular injury.

Faculty News: **Schoenecker Receives Endowed Chair**

Jonathan Schoenecker, M.D., Ph.D., associate professor of orthopaedic surgery and rehabilitation, was named the Jeffrey W. Mast Chair in Orthopaedics Trauma and Hip Surgery on Oct. 23.

Schoenecker’s research laboratory is dedicated to defining the integrated role of coagulation and inflammation on orthopaedic-related wound healing. His unique focus stems from his surgical training in musculoskeletal diseases in combination with his basic science training in coagulation and bone biology. He completed his medical degree and his Ph.D. in pathology at Duke University, and his residency in orthopaedics at Vanderbilt University.


Faculty News: **Caring for the Preds**

On June 28, representatives from the Nashville Predators joined Vanderbilt University Medical Center leaders for a special reception to recognize the team’s historic season and the medical care provided by Vanderbilt. Vanderbilt Sports Medicine provides comprehensive medical coverage for the Predators, and Vanderbilt LifeFlight Event Medicine provides emergency medical treatment and first aid at all games. The event celebrated contributions of all Vanderbilt clinicians and specifically recognized the leadership of John Kuhn, M.D., Kenneth Schermerhorn Chair in Orthopaedics and Rehabilitation, and Paul Rummo, D.O., associate professor of orthopaedics and rehabilitation.

L-r: John Kuhn, M.D., David Poile, General Manager of the Nashville Predators, Paul Rummo, D.O.
Faculty News: Jahangir Appointed to Metro Nashville Board of Health

Alex Jahangir, M.D., M.M.H.C., associate professor of orthopaedic surgery, was appointed to the Metro Nashville Board of Health by Nashville Mayor Megan Barry, and was approved by the city’s Metro Council.

“I am honored by the opportunity given to me. An effective public health system is an important component of the success of great cities such as Nashville,” Jahangir said. “I look forward to working with my fellow board members, as well as [health director] Dr. [William] Paul and the dedicated staff of the Metro Public Health Department.”

The six-member Board of Health governs the department, which is charged with protecting, improving, and sustaining the health of Metropolitan Nashville.

Pediatric Orthopaedics Ranked 13th in Nation by US News & World Report

The Pediatric Orthopaedic specialty at Monroe Carell Jr. Children’s Hospital at Vanderbilt has been ranked 13th in the nation by U.S. News & World Report in their 2017-2018 Best Children’s Hospital rankings. This is an improvement over their rank as 14th in the nation last year, and this is the 11th consecutive year that Children’s Hospital at Vanderbilt has been named among the nation’s leaders in pediatric health care.

Orthopaedic Outreach Day Provides Hand Surgery for Uninsured Patients

An Orthopaedic Outreach Day on Aug. 5 provided surgery to nine people with debilitating hand conditions, including carpal tunnel, trigger finger, ganglion cysts, and ulnar nerve malfunction. The patients received treatment as part of the Touching Hands Project, an initiative of the American Society for Hand Surgery, which provides free hand care to those in need. This was only the second Touching Hands Project in the United States; previous projects have been held internationally.

Dozens of VUMC employees volunteered to help during Vanderbilt Orthopaedic Outreach Day.

The Vanderbilt event required months of planning, and nearly 30 employees volunteered their time on a Saturday that should have been their day off. Donald H. Lee, M.D., professor of orthopaedic surgery and rehabilitation, and Mihir Desai, M.D., assistant professor of orthopaedic surgery and rehabilitation, performed procedures on patients. Another physician, Andres Rodriguez Buitrago, M.D., who practices in Colombia but was in the U.S. for research work at Vanderbilt University School of Medicine, served as a translator. Volunteers also included anesthesiologists, nurses, a registration specialist, a valet, a care partner, and many others.

“It has been a marvelous opportunity for us as a staff to come together as a community and as a family here together at Vanderbilt,” said Danny Ball, the operating room manager of the clinic where the surgeries were performed. "There are needs right here in our community. This is an opportunity for us to give back.”

Patient referrals came from The Shade Tree Clinic, a free health clinic staffed by Vanderbilt. The Shade Tree team included Robert Miller, M.D., professor of clinical medicine and medical director of the clinic; James Fiechtl, M.D., assistant professor of orthopaedic surgery and rehabilitation; Sandra Gebhart, M.D., orthopaedic resident; and second-year medical student Kaitlyn Reasoner.

Read more here.

Research News: Archer Serves as Vanderbilt PI on Multi-Site Clinical Trial to Reduce Opioid Use

Kristin Archer, Ph.D., D.P.T., associate professor and vice chair of orthopaedics and rehabilitation, will serve as principal investigator at Vanderbilt University Medical Center (VUMC) for a clinical trial examining strategies to reduce opioid use among patients with chronic pain.

Funding for the trial comes from a five-year, $9 million Patient-Centered Outcomes Institute (PCORI) grant, of which Vanderbilt will receive $1.7 million. Archer will be working with Gurjeet Birdie, M.D., assistant professor of medicine and co-investigator on the project, to over-
NIH funded MARS study Awarded 5 year Renewal: Vanderbilt Sports Medicine is Coordinating Center

The Multicenter ACL Revision Study (MARS) group, led by Rick Wright, M.D., (Washington University, St. Louis, MO) was recently awarded a $3.2 million dollar, NIH 5 year renewal for R01 AR060846, Revision ACL Reconstructions: A Comparative Effectiveness Treatment Study.

The MARS group was established in 2006 with the active endorsement, collaboration, and initial funding from the leading orthopaedic sports medicine specialty society — the American Orthopaedic Society for Sports Medicine (AOSSM). Under the leadership of Laura Huston, M.S., associate director of Sports Medicine Research, Vanderbilt’s Sports Medicine Research group serves as the data coordinating center for this grant.

This study represents an 83 surgeon (52 site) multicenter consortium, encompassing the rare combination of both academic (56%) and private practice (44%) sites participating in this research endeavor. The goal of this long-term study is to assess the 10-year progression of outcomes following revision ACL reconstruction, and to determine how the initial factors at the time of revision surgery may influence and predict disease progression. The initial grant (R01 AR060846), allowed this consortium to enroll over 1,200 patients and obtain both short (2-year) and midterm (6-year) follow-up. The focus of this current grant is to characterize the 10-year natural history of this unique dataset, quantified by 3 complementary methodologies: patient-reported outcomes, radiologic and physical exam measures. This grant builds upon the findings demonstrated at 2 and 6 years to determine if these continue to hold true at long-term follow-up.

Co-investigators are John “Jed” Kuhn, M.D., professor and director of Vanderbilt Sports Medicine and a leader in the Multi-center Orthopaedic Outcomes (MOON) shoulder group and Kristin Archer, Ph.D., D.P.T., associate professor of orthopaedics and physical medicine and rehabilitation, and vice chair of Research. Physical therapy investigators on the study are Brian Richardson, P.T., M.S., S.C.S., C.S.C.S., assistant manager of Vanderbilt Outpatient Rehabilitation and Rebecca Dickinson, P.T., D.P.T., C.O.M.T., clinical coordinator for sports medicine.

Vanderbilt Orthopaedic Trauma, Core Civilian Site in PCORI Pragmatic Clinical Studies Initiative Funds Rotator Cuff Research at Vanderbilt

Nitin Jain, M.D., M.S.P.H., associate professor of physical medicine and rehabilitation and orthopaedics, has received PCORI funding for a large pragmatic trial to determine whether surgery or non-operative therapy works better for a common age-related injury that costs the health care systems billions of dollars — rotator cuff tears. The randomized clinical trial will involve a dozen sites across the nation and will enroll 700 patients. Patients who agree to participate will be randomized for either surgery or non-operative therapy. The study will compare outcomes, according to age and the size of the rotator cuff tear. It will include physicians with an established record of recommending either treatment option. Physical therapists involved in the study will follow standardized treatment protocols for patients in both arms of the study.

Vanderbilt Orthopaedic Trauma, Core Civilian Site in PCORI Pragmatic Clinical Studies Initiative Funds Rotator Cuff Research at Vanderbilt

William Obremskey, M.D., M.P.H., M.M.H.C., professor of orthopaedics and rehabilitation, leads the Orthopaedic Trauma Research team and is the site principal investigator for this study.

In 2017, PREVENTion of Clot in Orthopaedic Trauma (PREVENT CLOT): A Randomized Pragmatic Trial Comparing the Complications and Safety of Blood Clot Prevention Medicines Used in Orthopaedic Trauma Patients, was funded by the Patient Centered Outcomes Research Institute (PCORI), under the leadership of Robert O’Toole, M.D., Principal Investigator, at the University of Maryland School of Medicine. The study is being conducted in collaboration with the Major Extremity Trauma Rehabilitation Consortium (METRC) at 18 trauma centers across the United States and Canada, including military centers that are taking care of service members who were injured in the line of duty.

The purpose of this research study is to see what medicine is better to use for preventing death and clinically important blood clots in the lungs in patients who sustain trauma. There are two types of medicine that will be compared in this study: Low Molecular Weight Heparin (Lovenox/Enoxaparin) and Aspirin. The goal is to find the simplest, most effective medication for orthopaedic trauma patients. Outcomes measured include: 1. death from pulmonary embolism and other causes, 2. venous thromboembolism events, 3. out-of-pocket costs and burden to patients, 4. bleeding and surgical site infections after initiation of chemotherapy.

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Foundation of Orthopaedic Trauma Funds Acetabular Fracture Study

Cory Collinge, M.D., professor of orthopaedics and rehabilitation, and Adam Lee, M.D., former Vanderbilt Orthopaedic trauma fellow, were awarded funds to support their study titled: Assessment of Force Used During Stress Examination of Posterior Wall Acetabular Fractures Using Hand-Held Dynamometry.

Lee says, “Stability of posterior wall acetabular fractures of intermediate size (<50% of the wall’s width) has been difficult to predict with imaging modalities alone.” Stress examination under anesthesia has become the standard for assessing stability and need for operative intervention in these indeterminate fractures. Most agree that gross instability is an indication for operative fixation; however, it is not clear if subtle instability or mild subluxation is an indication for operative intervention. Further, there is no standard procedure for assessment of stability during the stress exam. Lee and Collinge seek to assess the force used to perform the stress exam for indeterminate posterior wall acetabular fractures by several acetabular expert surgeons and to show the relationship between the amount of force and the degree of instability in patients with these injuries.

The study will consist of two phases. The first phase will test the force used for fluoroscopic stress exam under anesthesia by acetabular fracture surgeons for indeterminate-sized posterior wall acetabular fractures using a hand-held dynamometer. In the second phase, a dynamometer will be distributed to five acetabular fracture experts at centers with significant acetabular volume. Forces used during fluoroscopic stress exam of indeterminate-sized posterior wall acetabular fractures will be collected and compared to subluxation measured on fluoroscopy and to the subluxation seen on the non-injured hip with the same applied force.
AO Trauma Fellow Research Grant Awarded

Nicholas Dantzker, M.D., orthopaedic trauma fellow, has received a research grant from the AO Trauma Foundation titled: Bone Graft Composition with a Native Long Bone vs. a Previously Reamed Long Bone. Cereijo’s research study seeks to identify the macroscopic, cellular and biochemical characteristics of bone graft obtained via Reamer/Irrigator/Aspirator (R/A) in a native long bone vs a previously reamed long bone. The primary aim of this study is to compare the cellular and biochemical activity of bone graft harvested from native long bone (primary R/A graft) and previously reamed long bone (Re-R/A graft) to identify any differences in biologic potency.

Cereijo says, “To our knowledge, there are no studies in the literature that compare the biologic activity of reamed graft harvest from native long bone versus previously reamed long bone. We believe that identifying bone graft with the highest biologic potency could assist surgeons weighing the risks and benefits of various bone graft harvesting techniques when treating patients with problem fractures or recalcitrant nonunions, which may ultimately lead to improved outcomes with less long-term morbidity, and need for additional operations for future patients.”

Cory Collinge, M.D., fellowship director, and William Obremskey, M.D., M.P.H., M.M.H.C., are mentors for this research project.

Dantzker Awarded OREF Resident Research Grant

In October, Nicholas Dantzker, M.D., PGY-3, was awarded a one year Resident Research Award from OREF, Intra-articular doxycycline: A Novel Treatment of Adhesive Capsulitis, to study a new novel treatment for adhesive capsulitis, commonly known as frozen shoulder. The project is a randomized double blind controlled trial comparing intraarticular doxycycline to intraarticular corticosteroid injection.

Dantzker proposes that the results of this trial could have a significant impact on the way physicians treat frozen shoulder, a condition that affects 2-5% of the adult population and is responsible for significant pain and loss of function. It will give insight into potentially new treatment algorithms which will give patients the best possible outcomes. This research will be conducted under the mentorship of John Kuhn, M.D., Kenneth D. Schermerhorn professor of orthopaedics and rehabilitation.


PUBLICATIONS

VANDERBILT ORTHOPAEDIA


Vanderbilt Orthopaedics

Nashville
Medical Center East, South Tower
1215 21st Ave. S.
Nashville, TN 37232
(615) 93-ORTH0

Gallatin
300 Steam Plant Rd., Suite 420
Gallatin, TN 37066
(615) 936-7846

Mt. Juliet
Providance Medical Pavilion
5002 Crossings Cir., Ste. 230
Mt. Juliet, TN 37122
(615) 779-2710

Vanderbilt Bone and Joint
206 Bedford Way
Franklin, TN 37064
(615) 790-3290

302 South Royal Oaks Boulevard
Franklin, TN 37064
(615) 790-3290

343 Franklin Road, Suite. 108
Brentwood, TN 37027
(615) 790-3290

1003 Reserve Boulevard, Suite. 130
Spring Hill, TN 37174
(615) 790-3290

Vanderbilt Pediatric Orthopaedics
Monroe Carell Jr. Children's Hospital at Vanderbilt
2200 Children's Way, Ste. 4202
Nashville, TN 37232
(615) 343-5875

Vanderbilt Spine
One Hundred Oaks
719 Thompson Lane, Ste. 23108
Nashville, TN 37204
(615) 875-5100

NorthCrest Medical Center
500 Northcrest Dr., Ste. 501
Springfield, TN 37172
(615) 384-2665

Vanderbilt Adolescent Sports Medicine
One Hundred Oaks
719 Thompson Lane, Ste. 350
Nashville, TN 37204
(615) 936-8200

VanderbiltHealth.com/orthopaedics

Vanderbilt Pediatric Orthopaedics
Monroe Carell Jr. Children's Hospital at Vanderbilt
2200 Children's Way, Ste. 4202
Nashville, TN 37232
(615) 343-5875

Vanderbilt Spine
One Hundred Oaks
719 Thompson Lane, Ste. 23108
Nashville, TN 37204
(615) 875-5100

NorthCrest Medical Center
500 Northcrest Dr., Ste. 501
Springfield, TN 37172
(615) 384-2665

Vanderbilt Adolescent Sports Medicine
One Hundred Oaks
719 Thompson Lane, Ste. 350
Nashville, TN 37204
(615) 936-8200

VanderbiltHealth.com/orthopaedics