

## OREF RESEARCH GRANTS AND AWARDS FUNDED FOR 2011

**OREF/Zachary B. Friedenberg, MD  
Clinician Scientist Grant****Quanjun Cui, MD**

University of Virginia

*Cell-based Bone Tissue Engineering for Fractures and Osteonecrosis***Funding made possible by the Dr. Zachary B. and Mrs. Kathleen  
Friedenberg Endowment Fund****OREF Career Development Grants****Chitra L. Dahia, PhD**

Cincinnati Children's Hospital Medical Center

*Control of Intervertebral Disc Growth and Development***Funding made possible by Stryker Orthopaedics****Bang H. Hoang, MD**

University of California, Irvine

*Targeting Neuropilin-2 for Osteosarcoma Growth and Metastasis***OREF Clinical Research Award****Donald D. Anderson, PhD**

University of Iowa

*The Pathomechanical Etiology of Post-traumatic Osteoarthritis**Following Intra-articular Fractures***OREF/MTF Research Grant****Danielle S. W. Benoit, PhD**

University of Rochester

*Tissue Engineered Periosteum to Promote Allograft Integration and Healing***Funding made possible by the Musculoskeletal Transplant Foundation****OREF/Goldberg Research Grant in Arthritis****Reuben Gobezie, MD**

Case Western Reserve University

*Molecular Mechanisms of Synovial Tissue Contribution to the**Pathophysiology of Osteoarthritis***Funding made possible by the Dr. Victor and  
Mrs. Harriet Goldberg Endowment Fund****OREF/POSNA Research Grant in  
Pediatric Orthopaedics****Sevan Hopyan, MD, PhD**

The Hospital for Sick Children

*The Embryological Basis of Congenital Femoral and Tibial Deficiency***AAHKS/OREF Research Grant in  
Adult Reconstruction****Amanda D. Marshall, MD**

University of Texas at San Antonio

*The Size Dependent Effects of Polyethylene Particles on Mesenchymal  
Stem Cell Behavior***OREF/ASES/Rockwood Clinical Research  
Grant in Shoulder Care****John E. Kuhn, MD**

Vanderbilt University

*Impact of Postoperative Management on Patient Outcomes and Healing  
of Rotator Cuff Repairs***Funding made possible by the Dr. and  
Mrs. Charles Rockwood Family Endowment Fund****OREF Young Investigator Grants****Robert H. Brophy, MD**

Washington University

*Metabolic Activity of the Meniscus: Potential Marker for and Predictor  
of Osteoarthritis***Funding made possible by Zimmer Holdings, Inc.****Kevin W. Farmer, MD**

University of Florida, Gainesville

*Intra-operative Soft-tissue Tension Measurements During**Reverse Total Shoulder Arthroplasty***Funding made possible by Zimmer Holdings, Inc.****Wellington K. Hsu, MD**

Northwestern University

*Characterization of the Inhibitory Effects of Dioxin on Bone Healing***Funding made possible by Zimmer Holdings, Inc.****James P. Lawrence, MD**

Albany Medical College/Albany Medical Center

*The Effect of Chronic Cyclic Loading of Nimodipine on the Vertebral  
Endplate and Diffusion of the Intervertebral Disc***Theodore T. Manson, MD**

University of Maryland

*Acute Total Hip Arthroplasty for Geriatric Acetabular Fractures***Funding made possible by Zimmer Holdings, Inc.****Ahmad Nassr, MD**

Mayo Clinic

*Vertebral Fracture Prediction Finite Element Model of the Human Osteoporotic  
Spine Using Novel Computational and Experimental Validation Approaches***Funding made possible by Zimmer Holdings, Inc.**

## OREF RESEARCH GRANTS AND AWARDS FUNDED FOR 2011

### Mara L. Schenker, MD

University of Pennsylvania

*Revisiting the Six-hour Rule in Open Fracture Management: The Effects of Antibiotics and Debridement on Soft Tissue Infections*

Funding made possible by Zimmer Holdings, Inc.

### Wakenda Tyler, MD

University of Rochester

*Angiopoietin Mediated Tumor Growth in a Metastatic Renal Cell Carcinoma Model*

### OREF/AAHKS Resident Clinician Scientist Training Grant in Total Joint Arthroplasty

#### Denis Nam, MD

Hospital for Special Surgery

*Fluid Pressure Induced Osteolysis—Osteoclast Activation and Bone Resorption in Total Joint Arthroplasty*

Funding made possible by Zimmer Holdings, Inc.

### Resident Clinician Scientist Training Grants

#### Nicole S. Belkin, MD

University of Pennsylvania

*In Vivo Full-thickness Cartilage Defect Repair with Stem-cell Laden Hyaluronic Acid Hydrogels*

Recipient of the MTF/Charles H. Herndon Resident Clinician Scientist Training Grant

Funding made possible by the Musculoskeletal Transplant Foundation

#### Christopher K. Kepler, MD

Thomas Jefferson University

*Proinflammatory Cytokine Profile of Intervertebral Disc Tissues Stratified by Disc Region from Patients with Discogenic Axial Back Pain Confirmed by Discography*

Funding made possible by the Ira A. Roschelle Family Foundation

#### Sandeep Mannava, MD

Wake Forest University Health Sciences

*The Effect of Age on Tendon-to-bone Healing: A Biomechanical and Histological Assessment of Surgically Repaired Rotator Cuffs*

Funding made possible by Biomet Orthopedics

#### Dennis S. Meredith, MD

Hospital for Special Surgery

*$\mu$ CT Analysis of Bone Mineral Composition and Microarchitecture in a Bisphosphonate-treated Patient Cohort with Fragility Fractures*

Funding made possible by the Ira A. Roschelle Family Foundation

### Austin V. Stone, MD

Wake Forest University Health Sciences

*The Role of HIF-2 $\alpha$  and NF- $\kappa$ B in Meniscus Degeneration*  
CORR/Association of Bone and Joint Surgeons Resident Clinician Scientist Training Grant

Funding made possible by the Association of Bone and Joint Surgeons

### Brian C. Werner, MD

University of Virginia

*Human Adipose Stem Cells with Osteogenic Peptide in a Novel Nanofiber Scaffold for Spine Fusion*

Recipient of the MTF/Charles H. Herndon Resident Clinician Scientist Training Grant

Funding made possible by the Musculoskeletal Transplant Foundation

### OREF/DePuy Resident Research Project Grants

#### Jennifer J. Beck, MD

Loyola University Medical Center

*Effect of Platelet-rich Plasma on Surgically Repaired Rat Rotator Cuff Tears*

#### David A. Black, MD

University of Mississippi

*Improvement of Tendon Using Mannose-6-phosphate versus Platelet-rich Plasma*

#### Benjamin G. Bruce, MD

Rhode Island Hospital

*Cytokine and Metalloprotease Intracellular Signaling Pathways in Human Subacromial Bursal Cells*

#### David B. Bumpass, MD

Washington University

*A Prospective Study to Evaluate Lumbar Neuroforaminal Stenosis Using a Novel Oblique Fast Spin-echo Magnetic Resonance Imaging Technique*

#### Peter D. Fabricant, MD

Hospital for Special Surgery

*The Impact of Scoliosis Surgery on the Adolescent Athlete*

#### Orrin I. Franko, MD

University of California, San Diego

*Mechanotransduction in Murine Skeletal Muscle*

#### Varun Gajendran, MD

Stanford University

*The Use of a Fibronectin-Aggregan Complex and Cytokines from Intervertebral Discs to Predict Outcomes Following Spinal Fusion Surgery for Discogenic Low Back Pain Syndromes*

#### Simon Görtz, MD

University of California, San Diego

*The Effect of Pulsatile Lavage on Osteochondral Allografts*

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## OREF RESEARCH GRANTS AND AWARDS FUNDED FOR 2011

**Jennifer E. Hagen, MD**

University of Washington  
*The Lateral Tibial Plateau: Predicting and Preventing Failures in ACL Reconstruction*

**Richard W. Kang, MD**

Rush University Medical Center  
*Novel 3-D Quantification of the Cam Lesion for Patients with Femoracetabular Impingement*

**William D. Lack, MD**

University of Iowa  
*Perioperative Effects of Therapeutically Dosed Aspirin on Bone Healing in a Rabbit Ulna Diaphyseal Defect Model*

**Frank M. McCormick, MD**

Massachusetts General Hospital  
*Combating Fatigue in Orthopedic Residency Programs*

**Gregory N. Nelson, MD**

Washington University  
*Impact of Elderly Patient Activity Level on Patient-rated Wrist Function after Distal Radius Malunion*

**Deepan N. Patel, MD**

NYU Hospital for Joint Diseases  
*Deep Venous Thrombosis Prophylaxis Following Knee Arthroscopy: A Prospective, Controlled, Randomized Study*

**Samantha Piper, MD**

University of California, San Francisco  
*Does Thermal Stress Potentiate Bupivacaine Cytotoxicity in Human Articular Cartilage in Vitro*

**OREF/Synthes Resident Research Project Grants****Christian N. Anderson, MD**

Vanderbilt University  
*Biomechanical Evaluation of Physal Sparing Fixation Methods in ACL Avulsion Fractures*

**Jesse Lee Chrastil, MD**

University of Utah  
*Opioid-induced Androgen Deficiency: Can our Current Postoperative Pain Management Induce a Poor Healing Environment?*

**David S. Margolis, MD, PhD**

University of Arizona  
*Sciatic Nerve Conduction in a Murine Model Following rhBMP-2 Induced Peripheral Neuropathy*

**Michael A. Sirota, MD**

Union Memorial Hospital  
*Stability of Fracture Fixation in Condyle Fractures in the Proximal Phalanges of the Hand*

**Paul A. Toogood, MD**

University of California, San Francisco  
*A Biochemical Comparison between Superior and Anterior Plating Positions for Mid-shaft Clavicle Fractures*

**OREF/Exactech Resident Research Project Grants****Mohammed M. Ahmed, MD**

Saint Louis University  
*Biomechanical Comparison of an all Soft-tissue Technique vs. Interference Screw Fixation for Subpectoral Tenodesis of the Long Head of the Biceps*

**Heather A. Campion, MD**

University of Iowa  
*Evaluation of Outcomes of Complex Idiopathic Clubfeet*

**Geoffrey S. Maracek, MD**

Northwestern University  
*The Effect of Axillary Hair on Surgical Antisepsis Around the Shoulder*

**Philip M. Sinatra, MD**

Saint Louis University  
*Contribution of Tension-reducing Rotator Cuff Sutures on Plate Fixation of Proximal Humerus Fractures*

**Corinne VanBeek, MD**

Columbia University  
*Corticosteroid Injections for Adhesive Capsulitis: Injection Location, Accuracy and Efficacy*

**OREF/MAKO Resident Research Project Grants****David T. Braun, MD**

Allegheny-Singer Research Institute  
*Correlation of Size of Hamstring Quadrupled Graft with Catastrophic Failure Load: A Direct Comparison of Three Graft Sizes with a Standard Patellar Tendon Graft*

**Brian M. Schulz, MD**

Columbia University  
*The Effect of Knee Flexion Angle During Graft Tensioning in Medial Patellofemoral Ligament Reconstruction*

## OREF RESEARCH GRANTS AND AWARDS FUNDED FOR 2011

### OREF Resident Research Project Grants

#### Charles M. Chan, MD

SUNY at Stony Brook

*Arthroscopic Imaging of the Rotator Cuff Using Intravascular Ultrasound*

Funded by Biomet Orthopedics

#### Mary K. Mulcahey, MD

Rhode Island Hospital

*Immunolocalization of Growth Factors and Cytokines in the Injured Glenoid*

*Labrum after Shoulder Dislocation*

Funded by Biomet Orthopedics

### ORS/OREF Travel Awards in Orthopaedic Research Translation

#### Alan Ivkovic, MD, PhD

University Hospital Center

Zagreb, Croatia

#### Amanda D. Marshall, MD

University of Texas, San Antonio

#### Chidara Ushiku, MD

Tokyo, Japan

### Educational Grants

American Academy of Orthopaedic Surgeons

American Orthopaedic Association

ORS/OREF Seventh Annual Grant Writing Workshop

ORS/OREF/AAOS Grant Writing Workshop

## OREF CLINICIAN DEVELOPMENT PROGRAM (CDP) GRANTS FUNDED FOR 2011

### GME FELLOWSHIP GRANTS

#### Adult Reconstruction

OREF Clinician Development Program fellowship grants for 2011-2012 awarded in adult reconstruction are made possible by pooled support provided by DePuy Orthopaedics, Biomet, Smith & Nephew and Stryker.

Anderson Clinic

Baylor College of Medicine

Brigham & Women's Hospital

Colorado Joint Replacement/Rocky Mountain Adventist Healthcare Foundation

Columbia University–New York Presbyterian Hospital

Duke University

Emory University

Foundation for Orthopaedic Research and Education

Hospital for Special Surgery

Indiana University

Massachusetts General Hospital

Mayo Clinic

Mayo Clinic Florida

Methodist Hospital–Houston, TX

New England Baptist Hospital

New York University Hospital for Joint Diseases

OrthoCarolina/  
OrthoCarolina Research Institute

Rothman Institute at  
Thomas Jefferson University

Rush University Medical Center

Sinai Hospital of Baltimore, Center for Joint Preservation and Replacement,  
Rubin Institute for Advanced Orthopaedics

Stanford University

University of California, Davis

University of Colorado, Denver

University of Louisville

University of Minnesota

University of Pennsylvania

University of Utah

Wake Forest University

Washington University

### Foot and Ankle Care

OREF Clinician Development Program fellowship grants for 2011-2012 awarded in foot and ankle care are made possible by pooled support provided by DePuy Orthopaedics and DJO.

Baylor University–Dallas, TX

Foundation for Orthopedic Athletic and Reconstructive Research

Hospital for Special Surgery

University of Iowa

### Hand Care

OREF Clinician Development Program fellowship grants for 2011-2012 awarded in hand care are made possible by support provided by DePuy Orthopaedics.

Hamot Medical Center

Massachusetts General Hospital

Union Memorial Hospital

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## OREF CLINICIAN DEVELOPMENT PROGRAM (CDP) GRANTS FUNDED FOR 2011

### Orthopaedic Oncology

OREF Clinician Development Program fellowship grants for 2011-2012 awarded in orthopaedic oncology are made possible by support provided by Biomet.

Emory University  
Massachusetts General Hospital

### Orthopaedic Trauma Care

OREF Clinician Development Program fellowship grants for 2011-2012 awarded in orthopaedic trauma care are made possible by pooled support provided by DePuy Orthopaedics, Synthes, Biomet and Stryker.

Carolinas Medical Center  
Foundation for Orthopaedic Research and Education  
Hospital for Special Surgery  
Massachusetts General Hospital  
University of California, Davis  
University of California, San Francisco/  
San Francisco General Hospital & Trauma Center/Orthopaedic Trauma Institute  
University of Minnesota  
University of Southern California  
University of Washington/  
Harborview Medical Center  
Vanderbilt University

### Shoulder and Elbow Care

OREF Clinician Development Program fellowship grants for 2011-2012 awarded in shoulder and elbow care are made possible by pooled support provided by DePuy Orthopaedics and Biomet.

Brigham & Women's Hospital  
Foundation for Orthopaedic Research and Education  
Foundation for Orthopedic Athletic and Reconstructive Research  
Mayo Clinic  
Mount Sinai  
New York University Hospital for Joint Diseases  
University of Florida, Gainesville  
University of Texas at San Antonio

University of Washington  
Washington University  
William Beaumont Hospital

### Spine Care

OREF Clinician Development Program fellowship grants for 2011-2012 awarded in spine care are made possible by pooled support provided by DePuy Spine, Medtronic, Biomet and Stryker.

Boston Medical Center  
Brigham & Women's Hospital  
Cedars-Sinai Medical Center  
Children's Orthopaedic Surgery Foundation/Children's Hospital Boston (Harvard University)  
Cincinnati Children's Hospital Medical Center  
Cleveland Clinic  
Columbia University  
Emory University  
Foundation for Orthopaedic Research and Education/Moffitt Cancer Center/University of South Florida  
Foundation for Orthopedic Athletic and Reconstructive Research/Texas Medical Center  
Hospital for Special Surgery  
Johns Hopkins University—Adult Spine  
Johns Hopkins University—Pediatric Spine  
Massachusetts General Hospital  
New England Baptist Hospital  
New York University Hospital for Joint Diseases  
Oregon Health & Science University  
Orlando Health  
Orthopaedic Research Foundation/OrthoIndy  
Rady Children's Hospital/Children's Specialists Foundation/UCSD  
San Diego Center for Spinal Disorders/  
San Diego Spine Foundation  
San Francisco Spine Institute  
Shriners Hospital for Children Northern California/UC Davis Medical Center  
Shriners Hospital for Children, Philadelphia  
Southern Illinois University

Stanford University  
Texas Back Institute Research Foundation  
Texas Scottish Rite Hospital for Children  
Twin Cities Spine Center/  
The Fairview Foundation  
University of California, Davis  
University of California, San Diego  
University of California, San Francisco  
University of Colorado, Denver  
University of Tennessee—Campbell Clinic  
University of Virginia  
University of Washington  
Vanderbilt University  
Washington University  
William Beaumont Hospital  
Yale University

### Sports Medicine

OREF Clinician Development Program fellowship grants for 2011-2012 awarded in sports medicine are made possible by pooled support provided by DJO, Biomet and Stryker.

Brigham & Women's Hospital  
Children's Hospital Boston (Harvard University)  
Cincinnati SportsMedicine Research & Education Foundation  
Duke University  
Keller Army Community Hospital  
Kerlan Jobe Orthopaedic Foundation  
Ohio State University  
University of California, Davis  
University of Chicago  
University of New Mexico  
University of Texas at San Antonio/  
Nix Health Care Foundation  
University of Utah  
Vanderbilt University

## OREF CLINICIAN DEVELOPMENT PROGRAM (CDP) GRANTS FUNDED FOR 2011

### RESIDENCY ENHANCEMENT GRANTS

OREF Clinician Development Program residency enhancement grants for 2011-2012 are made possible by pooled support provided by Biomet, Smith & Nephew and Stryker.

#### Guest Speaker Grants

Atlanta Medical Center  
Banner Health  
Brooke Army Medical Center  
Drexel University  
DD Eisenhower Army Medical Center  
Geisinger Clinic  
Genesys Regional Medical Center  
Georgetown University Hospital  
Indiana University School of Medicine  
Madigan Army Medical Center  
Maimonides Medical Center  
Medical University of South Carolina  
Michigan State University–  
Kalamazoo Center for Medical Studies  
Montefiore Medical Center  
Naval Medical Center San Diego  
New York University Hospital for  
Joint Diseases  
Northwestern University  
Ohio State University  
Rush University  
Southern Illinois University  
St. Mary's Hospital  
SUNY Downstate Medical Center  
Union Memorial Hospital  
University of Arizona  
University of California, Los Angeles  
University of California, San Diego  
University of California, San Francisco  
University of Chicago  
University of Colorado, Denver  
University of Florida, Gainesville  
University of Hawaii  
University of Maryland  
University of Massachusetts  
University of Minnesota

University of Mississippi  
University of Missouri, Columbia  
University of Pennsylvania  
University of South Alabama  
University of Vermont  
University of Washington  
University of Wisconsin, Madison  
Vanderbilt University  
Wake Forest University  
Walter Reed National Military  
Medical Center  
West Virginia University

#### Scholarship Grants

Atlanta Medical Center  
Banner Health  
Baylor College of Medicine  
Brooke Army Medical Center  
Dartmouth College  
Drexel University  
DD Eisenhower Army Medical Center  
Geisinger Clinic  
Genesys Regional Medical Center  
Georgetown University Hospital  
Madigan Army Medical Center  
Maimonides Medical Center  
Medical College of Georgia  
Medical University of South Carolina  
Millcreek Community Hospital  
Montefiore Medical Center  
Naval Medical Center San Diego  
New York University Hospital for  
Joint Diseases  
Northwestern University  
Ohio State University  
Rush University  
St. Luke's-Roosevelt Hospital Center  
St. Mary's Hospital  
SUNY Downstate Medical Center  
SUNY Upstate Medical Center  
Union Memorial Hospital  
University Hospitals Richmond  
Medical Center

University of Arizona  
University of California, Los Angeles  
University of California, San Diego  
University of California, San Francisco  
University of Chicago  
University of Colorado, Denver  
University of Florida, Gainesville  
University of Hawaii  
University of Louisville  
University of Maryland  
University of Massachusetts  
University of Minnesota  
University of Mississippi  
University of Missouri, Columbia  
University of Pennsylvania  
University of Puerto Rico  
University of South Alabama  
University of Tennessee–Campbell Clinic  
University of Vermont  
University of Washington  
University of Wisconsin, Madison  
Vanderbilt University  
Wake Forest University  
Walter Reed National  
Military Medical Center  
West Virginia University

### CONTINUING MEDICAL EDUCATION (CME) GRANTS

OREF Clinician Development Program CME grants for 2011 are made possible by support provided by Smith & Nephew and Pfizer.

#### CME Grants in Hip and Knee Arthroplasty

##### American Academy of Orthopaedic Surgeons

AAHKS/AAOS Challenges and Controversies in Total Joint Arthroplasty

##### American Academy of Orthopaedic Surgeons

AAOS/AAHKS Advanced Surgical Techniques for Management of Knee Arthritis

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## OREF CLINICIAN DEVELOPMENT PROGRAM (CDP) GRANTS FUNDED FOR 2011

### American Academy of Orthopaedic Surgeons

AAOS/AAHKS Total Hip Arthroplasty: From Primary to Revision

### American Association of Hip and Knee Surgeons

Advances in Arthroplasty: AAHKS Twenty-first Annual Meeting

### Case Western Reserve University

Current Concepts in Joint Replacement, Spring 2011

### Duke University

Third Annual Emily Berend Adult Reconstruction Symposium

### Foundation for Orthopaedic Research and Education

Contemporary Surgical Skills Lab for Hip & Knee Arthroplasty

### Hospital for Special Surgery

Twenty-third Annual Holiday Total Knee Course

### Massachusetts General Hospital

Forty-first Advances in Arthroplasty Course

### Mid-America Orthopaedic Association

Back to Basics: Hip and Knee Arthroplasty Pre-meeting Course and the Twenty-ninth Annual Meeting

### North Carolina Orthopaedic Association

2011 Annual Meeting

### New York University Hospital for Joint Diseases

The Young Adult with Hip Pain

### Penn State College of Medicine

Second Annual Central Pennsylvania Hip and Knee Joint Replacement Symposium

### Rubin Institute for Advanced Orthopaedics/Sinai Hospital of Baltimore

Fifth Annual Hip Joint Course

### University of Texas at Houston

Hip and Knee Joint Preservation and Arthroplasty: Hot Topics and Controversies

### Wake Forest University Health Sciences

Second Annual Joint Replacement Conference

### CME Grants in Pain Management and/or Osteoarthritis

### American Academy of Orthopaedic Surgeons

AAOS/AAHKS Advanced Surgical Techniques for Management of Knee Arthritis

### American Academy of Orthopaedic Surgeons

What's Cooking with Fragility Fractures and Other Interesting Stuff

### American Association of Hip and Knee Surgeons

Advances in Arthroplasty: AAHKS Twenty-first Annual Meeting

### Cedars-Sinai Medical Center

Tenth Annual Symposium on Current Concepts in Spinal Disorders 2011

### Eastern Orthopaedic Association

Forty-second Annual Meeting

### Huntsville Hospital

2011 Best Practices in Orthopaedics Conference

### Louisiana State University Health Science Center

Arthritis Management for Primary Care

### Mid-America Orthopaedic Association

Twenty-ninth Annual Meeting

### National Association of Orthopaedic Nurses

NAON Research Session: Managing Pain—A Look at Our Progress and Our Challenges

### Orthopaedic Research Society

2011 Annual Meeting Workshop—A New Look at Osteoarthritis

### Society of Military Orthopaedic Surgeons

Fifty-third Annual Meeting

### Southern Orthopaedic Association

Twenty-eighth Annual Meeting

### Twin Cities Orthopaedic Foundation

Practical Orthopaedics for Primary Care Providers

### Western Orthopaedic Association

Seventy-fifth Annual Meeting

### ALL GRANTS AND AWARDS: 1955-2011

TOTAL: \$118,422,426

