

# 2015 Grants Awarded



1950

1970 1960

OREF

1990 1980

Celebrating  
60 years of  
supporting

excellence in  
orthopaedic

research.

2000

2010

# OREF RESEARCH GRANTS AND AWARDS FUNDED FOR 2015

## CAREER DEVELOPMENT GRANTS

### OREF CAREER DEVELOPMENT GRANT

Michael J. Gardner, MD  
Washington University  
*The Effects of Systemic Hedgehog Pathway Modulation on Fracture Healing*

### OREF/NSCF CAREER DEVELOPMENT GRANT IN STEM CELLS AND REGENERATIVE MEDICINE

Jeffery T. Spang, MD  
University of North Carolina at Chapel Hill  
*Development of a Functional Osteochondral Replacement Graft: 3-D Tissue Engineering and Biomimetic Stem Cell Guidance*

## OREF PROSPECTIVE CLINICAL RESEARCH GRANT

Ana-Maria Vranceanu, PhD  
Massachusetts General Hospital  
*A Randomized Controlled Trial Testing the Feasibility, Acceptability and Preliminary Effect of the Relaxation Response Cognitive Behavioral (RRCB) Mind Body Intervention Delivered via Videoconferencing Compared to Usual Medical Care, in Patients with Acute Trauma at Risk for Chronic Pain and Disability*

Funding made possible by the Mahendra Patel, MD Research Fund

## OREF CLINICAL RESEARCH AWARD

Stuart L. Weinstein, MD  
University of Iowa  
*The Evidence Base for the Prognosis and Treatment of Adolescent Idiopathic Scoliosis*

## RESEARCH GRANTS

### OREF/MTF RESEARCH GRANT

Aaron W. James, MD  
University of California, Los Angeles  
*Combining NELL-1 and Sonic Hedgehog Signaling for Improved Bone Regeneration*

### OREF/GOLDBERG RESEARCH GRANT IN ARTHRITIS

Michael P. Muldoon, MD  
Sharp HealthCare Hip Preservation Center  
*A Prospective Study Comparing Prevalence of Hypermobility in Hip Dysplasia and Arthritis Patient Populations in an Adult Reconstructive Practice*

Funding made possible by the  
Dr. Victor and Mrs. Harriet Goldberg Endowment Fund

### OREF/ASES/ROCKWOOD CLINICAL RESEARCH GRANT IN SHOULDER CARE

Vani J. Sabesan, MD  
Wayne State University  
*Biomechanical Assessment of Novel Augmented Glenoid Implants in Total Shoulder Arthroplasty Using Finite Element Analysis*

Funding made possible by the  
Dr. and Mrs. Charles Rockwood Family Endowment Fund

### RJOS/OREF/DEPUY RESEARCH GRANT IN WOMEN'S MUSCULOSKELETAL HEALTH

Ashley Levack, MD  
Hospital for Special Surgery  
*The Effect of Intravenous Tranexamic Acid on Blood Loss and Transfusion After Periacetabular Osteotomy: A Prospective, Double-Blinded, Randomized Controlled Trial*

### POSNA/OREF RESEARCH GRANT IN PEDIATRIC ORTHOPAEDICS

Jonathan J. Rios, PhD  
Texas Scottish Rite Hospital for Children  
*Uncoupling Cell Signaling and Mineralization Defects in Neurofibromin-Deficient Tibial Pseudoarthrosis*

### OREF/NSCF RESEARCH GRANTS IN STEM CELLS AND REGENERATIVE MEDICINE

Geoffrey S. Baer, MD  
University of Wisconsin  
*Genetically Modified MSCs to Explain Their Anti-Inflammatory Role in Regenerative Tendon Healing*

Brian T. Feeley, MD  
University of California, San Francisco  
*Defining the Role of Fibro/Adipocyte Precursor (FAP) Cells in Rotator Cuff Muscle Fatty Infiltration and Fibrosis*

## OREF PREVENTION OF MUSCULOSKELETAL YOUTH SPORTS INJURIES GRANT

James R. Slauterbeck, MD  
University of Vermont  
*Will FIFA 11+, An Injury Prevention Program, Decrease Lower Extremity Injuries in High School Athletics?*

## HHMI-OREF MEDICAL RESEARCH FELLOW GRANT

Soyun Michelle Hwang  
Mayo Clinic College of Medicine  
*PHLPP Inhibition and Osteoarthritis Disease Progression*

## ORS/OREF POSTDOCTORAL FELLOWSHIP GRANT

Ryan D. Ross, PhD  
Rush University Medical Center  
*Measuring Circulating Biomarkers to Diagnose Osteolysis Prior to Radiographic Loosening*

## NEW INVESTIGATOR GRANTS

Ljiljana Bogunovic, MD  
Washington University  
*The Safety of Antithrombotic Medications in Patients Undergoing Arthroscopic Surgery of the Knee*

**Funding made possible by Arthrex**

Albert O. Gee, MD  
University of Washington  
*Nano-Engineered Hybrid Scaffolds for Cartilage Tissue Regeneration*

**Funding made possible by Arthrex**

Laurence B. Kempton, MD  
Indiana University  
*Maximizing Value of Orthopaedic Trauma Care Through Surgeon-Based Cost Analysis Education*

**Funding made possible by Zimmer Holdings Inc.**

Thomas J. Kremen, MD  
Cedars-Sinai Medical Center  
*The Effect of Hamstring Tendon Autograft Harvest on the Restoration of Knee Stability in the Setting of Anterior Cruciate Ligament Rupture and Concurrent Medial Collateral Ligament Injury*

**Funding made possible by Arthrex**

Miltiadis H. Zgonis, MD  
University of Pennsylvania  
*Strain Transfer in the Knee Meniscus: Novel Mechanisms to Guide Treatment and Inform Tissue Engineering Strategies*

**Funding made possible by Arthrex**

## RESIDENT CLINICIAN SCIENTIST TRAINING GRANTS

David L. Bernholt, MD  
Washington University  
*Implementation of a Thromboelastography-Guided Transfusion Protocol in Pediatric Neuromuscular Scoliosis Surgery*

**Funding made possible by the Dr. Dane and Mrs. Mary Louise Miller Endowment Fund**

Christopher D. Collier, MD  
Case Western Reserve University  
*Opportunities for Drug Repurposing in Osteosarcoma: A Screen of FDA-Approved Oncology Drugs in Micrometastatic Models of Disease*

**Funding made possible by the John T. Hocker Charitable Foundation In Memory of John T. Hocker, MD**

Debbie Yen-Dao Dang, MD, PhD  
University of California, San Francisco  
*Interactions Between Cadherin 11 and  $\beta$ -Catenin During Fracture Healing*

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

**Funding made possible by the Musculoskeletal Transplant Foundation**

Kyle R. Duchman, MD  
University of Iowa  
*The Effects of Recombinant Human Parathyroid Hormone (rhPTH) Treatment Duration on Tendon-to-Bone Healing in a Rat Rotator Cuff Repair Model*

**Funding made possible by the Ira A. Roschelle Family Foundation**

Cody D. Hillin, MD  
University of Pennsylvania  
*Immobilization Angle Effect on Tendon Healing in Achilles Tendon Rupture*

**Funding made possible by the Dr. Dane and Mrs. Mary Louise Miller Endowment Fund**

Adam S. Olsen, MD  
University of Pittsburgh  
*Intervertebral Disc Degeneration: Treatment with a Novel, Photopolymerizable Scaffold Seeded with Mesenchymal Stem Cells*

**Funding made possible by the Ira A. Roschelle Family Foundation**

Austin J. Ramme, MD, PhD  
NYU Hospital for Joint Diseases  
*Subchondral Bone Microdamage: A New Therapeutic Target for PTOA Prevention Following ACL Injury*

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

**Funding made possible by the Musculoskeletal Transplant Foundation**

Rajin Shahriar, MD  
Wayne State University  
*A Novel Application of DepoFoam Bupivacaine for Post-Operative Pain Management in Shoulder Arthroplasty*

**Funding made possible by Thomas P. Sculco, MD**

## RESIDENT RESEARCH PROJECT GRANTS

### OREF/DEPUY RESIDENT RESEARCH PROJECT GRANTS

Hassan J. Azimi, MD

University of California, San Diego

*Mechanical and Structural Properties and Gene Expression Patterns in Full Thickness Rotator Cuff Tears: A Study of Diabetic Versus Non-Diabetic Patients*

Shannon E. Cassel, MD

University of Iowa

*Randomized Control Study Examining the Long-Term Effectiveness of Trigger Finger Injections with Triamcinolone vs. Dexamethasone*

Vahid Entezari, MD

Cleveland Clinic

*The Effect of Autograft Bone Augmentation of Center Peg on Early Radiographic Lucency Around Glenoid Component After Anatomical Shoulder Arthroplasty in Patients with Glenohumeral Osteoarthritis*

Andrew E. Hanselman, MD

West Virginia University

*Post-Traumatic Immunosuppression in Open Fractures and Supplementation with IL-12 Therapy*

Brandon P. Hirsch, MD

University of Miami

*Biomechanical Evaluation of Anterior Fixation Devices Designed for Lateral Access in the Treatment of Thoracolumbar Fractures*

Jason R. Kang, MD

Stanford University Hospital and Clinics

*The Effects of Varenicline (Chantix®) on Lumbar Spinal Fusion in a Rat Model*

Christopher G. Langhammer, MD, PhD

University of California, San Francisco

*Validation of a Low-Cost High-Fidelity Bench Model for Studying Surgical Skill Acquisition in Orthopaedic Surgery Residents*

Ishaan Swarup, MD

Hospital for Special Surgery

*The Effect of Intravenous  $\epsilon$ -Aminocaproic Acid on Blood Loss and Transfusion Requirements After Bilateral Varus Rotational Osteotomy (VRO): A Prospective, Double-Blinded, Randomized Controlled Trial*

Shaleen N. Vira, MD

NYU Hospital for Joint Diseases

*Analysis of Muscle Geometry and Fat Infiltration in Adult Spinal Deformity Patients*

Caroline N. Wolfe, MD

University of Michigan

*Targeted Inhibition of Myostatin to Prevent Muscle Atrophy After ACL Tear*

### OREF RESIDENT RESEARCH PROJECT GRANT

Benjamin S. Assenmacher, MD

Northwestern University

*Evaluation of Recombinant CXCL12 Isoforms as Biologics for Spinal Arthrodesis*

**Funding provided by gifts made in memory of Harry N. Herkowitz, MD**

### OREF/ORS RESIDENT RESEARCH PROJECT GRANT

Stephanie A. Russo, MD, PhD

University of Pittsburgh

*Therapeutic Taping for Scapular Winging: Efficacy of Different Approaches in Children with Brachial Plexus Birth Palsy*

### OREF/EXACTECH RESIDENT RESEARCH PROJECT GRANTS

Timothy T-W. Cheng, MD

University of California, San Diego

*Evaluation of Gene Expression and Signaling Pathways in Patients with Massive Rotator Cuff Tears in Response to Mechanical Stimuli*

Craig R. Louer, MD

Washington University

*Biomechanical Comparison of Sacroiliac Reconstruction Constructs Following Sarcoma Resection*

Emily J. M. Monroe, MD

Northwestern University

*Effect of Intrawound Vancomycin on Propionibacterium Acnes Eradication in a Rat Shoulder Model*

Jeremy D. Shaw, MD

University of California, San Francisco

*Methylene Blue Guided Debridement in Periprosthetic Joint Infection*

Morgan M. Swanstrom, MD

Hospital for Special Surgery

*Evidence of Scaphoid Avascular Necrosis on MR: Correlation with Histology*

### OREF/TAF RESIDENT RESEARCH PROJECT GRANTS

Harpreet S. Bawa, MD

University of Chicago

*Growth Factor Expression During Tendon Healing in Three Tendon Types*

**Funding provided by the Aircast Foundation**

Mark J. Gage, MD

NYU Hospital for Joint Diseases

*Which Surgical Treatment Method of Femoral Neck Fractures Allows for More Rapid Return to Function? A Study Using a Novel Method to Monitor Postoperative Activity*

**Funding provided by the Aircast Foundation**

## OREF/TAF RESIDENT RESEARCH PROJECT GRANTS (continued)

Amit Jain, MD

Johns Hopkins University School of Medicine  
*Duration of Antibiotic Prophylaxis in Orthopaedic Trauma: What is the Standard of Care?*

**Funding provided by the Aircast Foundation**

Daniel Koehler, MD

University of Iowa Hospitals and Clinics  
*Time-Driven Activity-Based Cost Analysis of Open vs. Endoscopic Carpal Tunnel Release*

**Funding provided by the Aircast Foundation**

Manish Noticewala, MD

Columbia University Medical Center  
*Pain, Function, and Performance Assessment in the Overhead Youth Athlete*

**Funding provided by the Aircast Foundation**

Brent G. Witten, MD

West Virginia University Research Corporation  
*Outpatient Compliance with Portable Pneumatic Compression Device*

**Funding provided by the Aircast Foundation**

## REGIONAL NEW INVESTIGATOR AWARDS

Eastern Orthopaedic Association

Southern Orthopaedic Association

Western Orthopaedic Association

## ORS/OREF TRAVEL AWARDS IN ORTHOPAEDIC RESEARCH TRANSLATION

Mohammad M. Alzahrani, MMBs, MSc  
McGill University

Mathew J. Failla, PT, MSPT, SCS  
University of Delaware

Natalie L. Leong, MD  
University of California, Los Angeles

Iain R. Murray, MBChB, PhD  
University of Edinburgh, United Kingdom

Alvin W. Su, MD, PhD  
Mayo Clinic

## ORS/OREF DISTINGUISHED INVESTIGATOR AWARD

Adele Boskey, PhD  
Hospital for Special Surgery

## OREF/CCJR CLINICAL PRACTICE AWARDS

William C. Schroer, MD (Spring Award)  
St. Louis Joint Replacement Institute  
*Total Hip Arthroplasty Outcomes Correlate Strongly with Spine Disability*

Carlos A. Higuera, MD (Winter Award)  
Cleveland Clinic  
*Chronic Suppression with Oral Antibiotics Increases Infection-Free Survivorship in Periprosthetic Joint Infections*

## MISCELLANEOUS GRANTS

AAOS/OREF/ORS Clinician Scholar Development Program

ORS/OREF Orthopaedic Basic Science Course

ORS/OREF/AAOS New Investigator Grant Writing Workshop

## OREF 2015 RESIDENT RESEARCH SYMPOSIA

Symposia held at:

California Orthopaedic Association Annual Meeting

Florida Orthopaedic Society Annual Meeting

University of Chicago

**Funding made possible by Zimmer, DePuy Synthes and Integra Foundation**

1950

1970 1960

OREF

1990 1980

Celebrating  
60 years of  
supporting

excellence in  
orthopaedic

research.

2000

2010

The Orthopaedic Research and Education Foundation (OREF) was founded in 1955 to ensure an expanding base of knowledge and effective, evidence-based treatment protocols for orthopaedic surgeons to continually improve patient care. Since 1955, OREF has awarded more than \$142 million in research and educational grants and awards that benefit all of orthopaedics. A not-for-profit 501(c)(3) organization, OREF welcomes contributions from individuals and organizations; gifts are tax-deductible to the extent allowed by law.

**For more information please visit [www.oref.org/grants](http://www.oref.org/grants)**

For information on how to apply for OREF Grants and Awards, please access **[www.oref.org/grants](http://www.oref.org/grants)**, or call or email:

**Ponda Barnes, MPH, CRA**  
**Vice President, Grants**  
**(847) 430-5109**  
**[barnes@oref.org](mailto:barnes@oref.org)**

**Mary Marino**  
**Grants Manager**  
**(847) 430-5108**  
**[marino@oref.org](mailto:marino@oref.org)**

**Carmen Metoyer**  
**Program Manager**  
**(847) 430-5111**  
**[metoyer@oref.org](mailto:metoyer@oref.org)**