

Kappa Delta & Orthopaedic Research Education Foundation Award History
1950-2020

1950 Winner(s)

Researcher(s): Dr Marshall R. Urist and Colleagues

Project: The Mechanism of Endosteal Bone Formation in Estrogen Treated Mice

1951 Winner(s)

Researcher(s): Dr Vernon P. Thompson and Dr Vernon D. Epstein

Project: Traumatic Dislocation of the Hip, A Survey of 204 Cases Covering a Period of Twenty-One Years

1952 Winner(s)

Researcher(s): Dr Robert A. Robinson

Project: An Electron Microscopic Study of the Crystalline Inorganic Component of Bone and its Relationship to the Organic Matrix

1953 Winner(s)

Researcher(s): Dr Charles F. Gregory and Dr George J. Garceau

Project: Bone Healing by Vital Staining Methods

1954 Winner(s)

Researcher(s): Dr Robert D. Ray

Project: The Development of Experimental Techniques and Their Application to Studies of Bone Growth and Metabolism

1955 Winner(s)

Researcher(s): Dr Charles W. Goff

Project: The Legg-Calve-Perthes Syndrome

1956 Winner(s)

Researcher(s): Dr Ignacio V. Ponseti

Project: Lesions of the Skeleton and Other Mesodermal Tissues which might be due to Aminoitrile Intake

1957 Winner(s)

Researcher(s): Dr Leonard F. Peltier

Project: An Appraisal of the Problem of Fat Embolism

1958 Winner(s)

Researcher(s): Dr W.F. Enneking

Project: The Effect of Total Body Irradiation on Bone Transplants in Parabiosed Animals

1959 Winner(s)

Researcher(s): Dr Melvin J. Glimcher

Project: Molecular Structure and Biological Specificity in Mineralization

1960 Winner(s)

Researcher(s): Dr William S. Smith

Project: A Correlated Clinical and Experimental Approach to the Etiology of Congenital Dislocation of the Hip

1961 Winner(s)

Researcher(s): Dr Kirk J. Anderson

Project: Experimental Investigations of Large and Small Fragment Bone Implants and Extracts of Heterogenous Bone

1962 Winner(s)

Researcher(s): Dr Robert C. Mellors

Project: Rheumatoid Arthritis and the Cellular Origin of Rheumatoid Factors

1963 Winner(s)

Researcher(s): Dr Mary S. Sherman and Dr Roshen Irani

Project: The Pathologic Anatomy of the Clubfoot

Researcher(s): Dr J. William Fielding

Project: Cineradiography

Researcher(s): Dr Paul H. Curtis, Jr, and Dr LeRoy Klein

Project: Possible Mechanisms of Articular Cartilage Destruction in Septic Arthritis

1964 Winner(s)

Researcher(s): Dr George W.N. Eggers

Project: Cystic Change in the Iliac Acetabulum

Researcher(s): Dr William F. Neuman, PhD

Project: The Current Status of the Mechanisms of Calcification

1965 Winner(s)

Researcher(s): Dr Jerome Gross

Project: Mechanism of Connective Tissue Remodeling

Researcher(s): Dr O. Donald Chrisman

Project: Biochemical Aspects of Osteoarthritis

Researcher(s): Dr Richard S. Riggins and Dr Yosef H. Pilch

Project: Studies of the Antigenicity of Fibrosarcoma

1966 Winner(s)

Researcher(s): Dr Carl E. Anderson

Project: Invasion and Resorption in Enchondral Ossification: An Electron Microscopic Study

1967 Winner(s)

Researcher(s): Dr Gerald A.M. Finerman and Dr Leon E. Rosenberg

Project: Regulation of Amino Acid Transport and Collagen Synthesis in Fetal Rat Bone

Researcher(s): Dr Robert L. Fisher and Dr Frances DeGeorge, MA

Project: Idiopathic Scoliosis: An Investigation of Genetic and Environmental Factors

1968 Winner(s)

Researcher(s): Dr James M. Burkhart

Project: Parathyroid and Thyroid Hormones in the Development of Immobilization Osteoporosis

Researcher(s): Dr G.V.B. Cochran

Project: Electromechanical Characteristics of Moist Bone

Researcher(s): Dr Wayne H. Akeson

Project: Experimental Arthroplasty of the Canine Hip: Extra cellular Matrix Composition in Non-Interpositional Arthroplasty and Cup Arthroplasty

1969 Winner(s)

Researcher(s): Dr Sandy C. Marks, Jr, DDS., PhD

Project: The Parafollicular Cell of the Thyroid Gland as the Source of a Potent Osteoblast-Stimulating Factor. Evidence from Experimentally Osteopetrotic Mice

Researcher(s): Dr Walter Abendschein and Dr George W. Hyatt

Project: Ultrasonics and Selected Physical Properties of Bone

Researcher(s): Dr J. Robert Close

Project: The Functions of the Muscles of the Thumb, the Middle and Index Fingers

1970 Winner(s)

Researcher(s): Dr William H. Harris and Dr Robert H. Heaney

Project: Growth Hormone: The Effect on Skeletal Renewal in the Adult Dog

Researcher(s): Dr Lawrence C. Rosenberg

Project: Chemical Basis for the Histologic Use of Safranin O in the Study of Articular Cartilage

Researcher(s): Dr Jorge Galante, Dr William Rostoker, PhD, Dr Roger Lueck, and Dr Robert D. Ray, PhD

Project: Sintered Fiber Metal Composites as a Basis for Attachment of Implants to Bone

1971 Winner(s)

Researcher(s): Dr Clive C. Solomons, PhD, Dr Edward A. Milar, Dr William E. Hathaway, and Dr John E. Ott

Project: Osteogenesis Imperfecta: New Perspectives in Diagnosis and Treatment

Researcher(s): Dr. Reginald R. Cooper

Project: Skeletal Muscle Alterations During Immobilization, Denervation, Regeneration and Embryonic Myogenesis

Researcher(s): Dr Joseph M. Lane, Dr Darwin J. Prockop, Dr Peter Dehm, PhD, and Dr Lincoln J. Parkes, DVM

Project: Inhibition of Collagen Synthesis in Chick Embryos by the Proline Analogue L-Azetidine-2-Carboxylic Acid

1972 Winner(s)

Researcher(s): Dr Burton W. Marsh, Dr Leo Flynn, and Dr William F. Enneking

Project: Immunologic Aspects of Osteosarcoma

Researcher(s): Dr Adrian E. Flatt

Project: Problems in the Treatment of Ulnar Drift

Researcher(s): Dr B. Lawrence Riggs

Project: Bone Turnover--Sex Hormone--Parathyroid Hormone Relationships in Post-Menopausal Osteoporosis

1973 Winner(s)

Researcher(s): Dr Eric L. Radin, Dr Igor L. Paul, SCD, and Dr Robert M. Rose, ScD

Project: Studies of Joint Function

Researcher(s): Dr F. Richard Convery, Dr Donald R. Gunn, FRCS, Dr J. David Hughes, and Dr Wayne E. Martin

Project: The Systemic Manifestations of Polymethyl Methacrylate

Researcher(s): Dr Stephen M. Krane, Dr Sheldon R. Pinnell, and Dr Richard W. Erbe

Project: Collagen Lysyl Hydroxylase Deficiency: A New Heritable Disorder of Connective Tissue

1974 Winner(s)

Researcher(s): Dr Carl T. Brighton

Project: Significance of Tissue Oxygen Tension, Glycolysis and Mitochondrial Calcium Release in Epiphyseal Plate Calcification

Researcher(s): Dr Edward D. Harris, Jr, and Dr Peter A. McCroskery, MS

Project: Degradation of Human Cartilage Collagen Fibrils by Rheumatoid Synovial Collagenase

Researcher(s): Dr. Frederic W. Rhinelander

Project: Circulation in Bone

1975 Winner(s)

Researcher(s): Dr David S. Howell, PhD, Dr David Simon, PhD, and Dr Julio C. Pita, PhD

Project: Role of Extracellular Matrix Vesicles in Initial Calcification of Healing Rachitic Cartilage

Researcher(s): Dr Jennifer Jowsey, PhD

Project: Morphological Studies of the Etiology and Treatment of Osteoporosis

Researcher(s): Dr Henry J. Mankin

Project: Metabolism of Articular Cartilage in Health and Disease

1976 Winner(s)

Researcher(s): Dr William H. Harris

Project: Post-Operative Thromboembolic Disease: The Results of a Concerted Attack on a Complex Problem

Researcher(s): Dr Augusto Sarmiento and Dr Loren Latta, P. Eng

Project: Factors Controlling the Behavior of Tibial Shaft Fractures--A Correlation of Laboratory and Clinical Studies

Researcher(s): Dr Augustus A. White, III, Dr Manohar M. Panjabi, PhD, Dr Edmund S. Crelin, PhD, and Dr Wayne O. Southwick

Project: A Quantitative Biomechanical Study of Fracture Repair

1977 Winner(s)

Researcher(s): Dr Frank R. Noyes and Dr Edward S. Grood, PhD

Project: Functional Properties of Knee Ligaments and Alterations Induced by Immobilization

Researcher(s): Dr Jacquelin Perry and Dr M. Mark Hoffer

Project: Pre and Post-Operative Studies of Muscle Activity in the Cerebral Palsied Child Using Dynamic Electromyography as an Aid in Planning Tendon Transfers

Researcher(s): Dr Aaron S. Posner, PhD

Project: The Relation of Synthetic Amorphus Calcium Phosphate to Bone Mineral Structure

1978 Winner(s)

Researcher(s): Dr Klaus E. Kuettner, PhD

Project: The Resistance of Cartilage to Normal and Neoplastic Invasion

Researcher(s): Dr. Robert W. Bright

Project: Surgical Correction of Partial Growth Plate Closure--Experience with 52 Children

Researcher(s): Dr John E. Kenzora, Dr Robert E. Steele, and Dr Zvi H. Yosipovitch

Project: Experimental Osteonecrosis of the Femoral Head in Adult Rabbits

1979 Winner(s)

Researcher(s): Dr Adele L. Boskey, PhD

Project: Calcium Acidic Phospholipid Phosphate Complexes in Tissue Mineralization

Researcher(s): Dr William T. Green, Jr

Project: Articular Cartilage Repair: Investigation by the Cell Culture of Isolated Chondrocytes

Researcher(s): Dr A. Seth Greenwald, PhD, and Dr Mary-Blair Matejczyk

Project: Comparative Mechanics of the Hip and Ankle

1980 Winner(s)

Researcher(s): Dr Thomas E. Whitesides, Jr, Dr Hiroshi Harada, and Dr Kazuo Morimoto

Project: Compartment Syndromes and the Role of Fasciotomy, its Parameters and Techniques

Researcher(s): Dr James A. Rand

Project: A Comparison of Open Intramedullary Nailing and Compression Plate Fixation on Fracture Site Blood Flow and Fracture Union

1981 Winner(s)

Researcher(s): Dr Van C. Mow, PhD, and Dr Cecil G. Armstrong, PhD

Project: Variations in the Intrinsic Mechanical Properties of Human Articular Cartilage with Age, Degeneration and Water Content

Researcher(s): Dr Marshall R. Urist

Project: New Bone Formation Induced in Post-Fetal Life by Bone Morphogenetic Protein"

Researcher(s): Dr Theodore R. Oegema, Jr, PhD

Project: Proteoglycan Synthesis and Structure in Human and Rabbit Nucleus Pulposus: A Possible Relationship to Function

Researcher(s): Dr Wilson C. Hayes, PhD

Project: Stress-Morphology Relationships in Trabecular Bone of the Patella

1982 Winner(s)

Researcher(s): Dr H. Clark Anderson

Project: Matrix Vesicle Calcification

Researcher(s): Dr Gary E. Friedlaender

Project: Apropos Bone Allografts

Researcher(s): Dr Alfred B. Swanson

Project: Bone Remodeling Phenomena in Flexible (Silicone) Implant Arthroplasty in the Hand--Long Term Study

Researcher(s): Dr Richard A. Brand, Dr Roy D. Crowninshield, PhD, and Richard C. Johnston

Project: Muscle and Joint Force Predictions and Their Uses

1983 Winner(s)

Researcher(s): Dr Savio L-Y Woo, PhD

Project: Internal Fixation Plates for Fracture Management--New Design Concepts

Researcher(s): Dr William J. Landis, PhD

Project: Studies of Mineralizing Tissues Using Anhydrous Techniques for Electron Optical and Microprobe Analysis

Researcher(s): Dr Robert H. Fitzgerald, Jr

Project: The Pharmacokinetics of Antibiotics in Normal and Osteomyelitic Bone

Researcher(s): Dr Thomas P. Andriacchi, PhD

Project: Interaction Between Knee Joint Mechanics and Patient Function Following Total Knee Replacement

1984 Winner(s)

Researcher(s): Dr Michael G. Ehrlich

Project: Degradative Enzyme Systems in Cartilage

Researcher(s): Dr Raymond T. Morrissy and Dr Darrel W. Haynes, PhD

Project: Acute Hematogenous Osteomyelitis: A Model with Trauma as an Etiologic Agent

Researcher(s): Dr Kai-Nan An, Ph.D., Dr. Edmund Y.S. Chao, Ph.D., Dr. William P. Cooney, III, and Dr. Ronald L. Lincheid

Project: Biomechanics of the Hand--A Basic Research Study

Researcher(s): Dr R. William Petty

Project: Influence of Skeletal Implant Materials on Infection

1985 Winner(s)

Researcher(s): Dr Richard H. Gelberman and Dr Paul R. Manske

Project: Flexor Tendon Repair

Researcher(s): Dr Clinton T. Rubin, PhD

Project: The Osteoregulatory Nature of Mechanical Stimuli

Researcher(s): Dr Christopher H. Evans, PhD

Project: Ferrographic and Biochemical Studies on the Wear Particles of Human and Prosthetic Joints

Researcher(s): Dr Victor M. Goldberg, Dr E. Power, Dr John W. Shaver, Dr Jaclyn M. Zika, PhD, Dr Gary Bos, and Dr Kingsbury G. Heiple

Project: Bone Grafting: The Barrier to Transplantation

1986 Winner(s)

Researcher(s): Dr Bruce Heppenstall, Dr Alexander Sapega, and Dr Bruce Chance, PhD

Project: Intracellular Energy Metabolism During Ischemia and Skeletal Muscle under Various Clinical Conditions with Articular Reference to ³¹P-NMR Spectroscopy as a New Investigative Diagnostic Technique

Researcher(s): Dr Andrew J. Weiland

Project: Fate of Vascularized Bone Grafts

Researcher(s): Dr Edith R. Schwartz, PhD

Project: Phosphorylation of Proteoglycans and Link Proteins in Human Articular Cartilage

Researcher(s): Dr William F. Blair, Dr Thomas D. Brown, PhD, and Dr E.R. Greene, PhD

Project: Pulsed Ultrasound Doppler Velocimetry in the Assessment of Microvascular Hemodynamics

1987 Winner(s)

Researcher(s): Dr Alan R. Hargens, PhD, Dr Wayne H. Akeson, and Dr Scott J. Mubarak

Project: Tissue Fluid Pressures: From Basic Research Tools to Clinical Application

Researcher(s): Dr. Steven P. Arnoczky, DVM

Project: The Meniscus: Its Repair and Replacement

Researcher(s): Dr Robert B. Salter

Project: The Biological Concept of Continuous Passive Motion of Synovial Joints: The First 16 Years of Basic Research and its Clinical Application

Researcher(s): Dr Jane B. Lian, PhD

Project: Osteocalcin: Properties, Synthesis, and Role in Bone Resorption

1988 Winner(s)

Researcher(s): Dr David L. Butler, PhD

Project: The Anterior Cruciate Ligament: Its Normal Response and Replacement Institution

Researcher(s): Dr Steven L. Teitelbaum

Project: The Cellular Mechanisms of Bone Resorption

Researcher(s): Dr Peter Grigg, PhD and Dr Allen H. Hoffman, PhD

Project: Neuronal Mechanoreceptors as a Probe for Tissue Mechanics

1989 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Timothy M. Wright, PhD, Donald L. Bartel, PhD, and Clare M. Rimnac, PhD

Project: Surface Damage in Polyethylene Total Joint Components

Elizabeth Winston Lanier Award

Researcher(s): Anthony R. Poole, PhD, Carolyn Webber, MSC, Henry J. Mankin, MD, Subhash Pal, PhD, and Lawrence C. Rosenberg, MD

Project: Protoglycans of Human Chondrosarcomas: Immunoanalysis Using Monoclonal Antibodies to Keratan Sulfate and A Fetal-Associated Epitope

Young Investigator Award

Researcher(s): Stephen B. Tripple, MD

Project: Growth Factor Regulation of Cartilage

1990 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Ernesto Canalis, MD

Project: The Role of Insulin-Like Growth Factor in the Local Regulation of Bone Remodeling

Elizabeth Winston Lanier Award

Researcher(s): Arnold I. Caplan, PhD

Project: Mesenchymal Stem Cells

Young Investigator Award

Researcher(s): Steven A. Goldstein, PhD, and Larry S. Matthews, MD

Project: The Mechanical, Morphologic, Architectural and Remodeling Characteristics of Trabecular Bone

1991 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Stanley J. Bigos, MD

Project: A Longitudinal Prospective Study of Industrial Back Injury Reporting

Elizabeth Winston Lanier Award

Researcher(s): A.H. Reddi, PhD

Project: Purification, Cloning and Expression of Osteogenin, A Protein Initiator of Bone Differentiation

Young Investigator Award

Researcher(s): W.P. Andrew Lee, MD

Project: Toward Clinical Realization of Vascularized Limb Tissue Allografts

1992 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Linda J. Sandell, PhD

Project: Expression of Collagen and Aggrecan Genes During Skeletal Development and Growth: Control at Transcription and Post-transcription

Elizabeth Winston Lanier Award

Researcher(s): Louis V. Avioli, MD

Project: A New Post Receptor Signalling Pathway for Parathyroid Hormone in the Osteoblast

Young Investigator Award

Researcher(s): Sharon Stevenson, DVM, PhD

Project: Critical Biological Determinants of Cortical Bone Allograft Incorporation: Quantifying a Complex Process and Structure

1993 Winner(s)

Ann Doner Vaughn Award

Researcher(s): J. Grodzinsky, ScD

Elizabeth Winston Lanier Award

Researcher(s): Gary S. Stein, PhD, and Jane B. Lian, PhD

Project: Molecular Mechanisms Regulating Osteoblast Growth and Differentiation

Young Investigator Award

Researcher(s): D. Rick Sumner, PhD, Thomas M. Turner, MD, Robert M. Urban, MD and Jorge O. Galante, MD

1994 Winner(s)

Ann Doner Vaughn Award

Researcher(s): James R. Urbaniak, MD, Anthony V. Seaber, and Long-En Chen, PhD

Project: Blood No Reflow in Skeletal Muscle After Replantation

Elizabeth Winston Lanier Award

Researcher(s): Robert J. Johnson, MD, Bruce D. Boynton, PhD, Braden C. Fleming, MS, Claude E. Nichols, MD, Per A. Renstrom, MD, PhD, Malcolm H. Pope, MD, SC, PhD, and James G. Howe, MD

Project: The Biomechanics of the Anterior Cruciate Ligament and Bone-Patella Tendon-Bone Graft in Vivo

Young Investigator Award

Researcher(s): Richard L. Lieber, PhD, and Jan Friden, MD, PhD

Project: Mechanism and Prevention of Skeletal Muscle Injury

1995 Winner(s)

Ann Doner Vaughn Award

Researcher(s): John M. Cavanaugh, MS, A. Cuneyt Ozataktay, MD, Toshihiko Yamahita, MD, Avram Avramov, MD, Thomas V. Getchell, PhD, and Albert I. King, PhD

Project: Mechanisms of Low Back Pain: A Neurophysiological and Neuroanatomical Study

Elizabeth Winston Lanier Award

Researcher(s): Randy N. Rosier, Regis J. O'Keefe, David G. Hicks, Paul R. Reynolds, and J. Edward Puzas

Project: Autocrine Regulation of Cartilage

Young Investigator Award

Researcher(s): Stephen P. Horowitz, MD

Project: The Biology of Aseptic Loosening of the Cemented Arthroplasty: An In-Vitro Study

1996 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Malcolm H. Pope, PhD, Marianne Magnusson, and David G. Wilder, PhD

Project: Low Back Pain and Whole Body Vibration

Elizabeth Winston Lanier Award

Researcher(s): Kathryn G. Vogel, Stephen P. Evanko, and James R. Robbins, MD

Project: What Proteoglycan Content Says About the Medical History of Tendon

Young Investigator Award

Researcher(s): Jon J.P. Warner, MD, Richard E. Debski, and Freddie H. Fu, MD

Project: A Dynamic Model for Motion and Stability of the Glenohumeral Joint

OREF Clinical Research Award

Researcher(s): Dale M. Daniel, Donald C. Fithian, Mary Lou Stone, Barbara E. Dobson, William F. Luetzow, MD, and Kenton R. Kaufman

Project: A Ten-Year Prospective Outcome Study of the ACL-Injured Patient

1997 Winner(s)

Ann Doner Vaughn Award

Researcher(s): William E. Garrett, MD, Anthony V. Seaber, Thomas M. Best, Richard R. Glisson, Pantelis K. Nikolaou, MD, and Dean C. Taylor, MD

Project: Muscle Strain Injury: Basic Science and Clinical Application

Elizabeth Winston Lanier Award

Researcher(s): James N. Weinstein, DO, MS, Kevin F. Spratt, G.F. Gebhart, Mamoru Kawakami, MD, Stephen T. Meller, Nobuhior Hayashi, Hwanmo Lee, and Ken-Inchi Chatani

Project: Lumbar Radiculopathy: An Animal Model with Relevance to Clinical Practice

Young Investigator Award

Researcher(s): Denis R. Clohisy, MD

Project: Cellular Mechanisms of Tumor Osteolysis

OREF Clinical Research Award

Researcher(s): Dale M. Daniel, Marc F. Swiontkowski, MD, Diane Martin, Ruth Engelberg, and Julie Agel

Project: The Development and Validation of a Musculoskeletal Extremity Health Status Instrument: The Musculoskeletal Functional Assessment Instrument

1998 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Henry A. McKellop, PhD

Project: Development of an Extremely Wear Resistant Ultra High Molecular Weight Polyethylene for Total Hip Replacements

Elizabeth Winston Lanier Award

Researcher(s): Bruce Caterson, PhD

Project: The Use of Monoclonal Antibody Technology to Study Cartilage in Health and Disease: A Retrospective and Historical Review

Young Investigator Award

Researcher(s): Farshid Guilak, PhD

Project: The Biomechanics of the Chondrocyte in Articular Cartilage

OREF Clinical Research Award

Researcher(s): Stuart L. Weinstein, MD

Project: Natural History and Long-Term Outcomes of Treatment of Pediatric Orthopaedic Conditions

1999 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Julia Bridge

Project: A Genetic Approach to Bone and Soft Tissue Tumors

Elizabeth Winston Lanier Award

Researcher(s): Thomas Einhorn, MD

Project: A Model of Experimental Fracture Healing for Basic and Applied Research

Young Investigator Award

Researcher(s): Scott Boden, MD

Project: The Biology of Lumbar Spine Fusion and the Use of Bone Graft Substitutes: Present, Future, and Next Generation...

OREF Clinical Research Award

Researcher(s): Andrew L. Koman, MD, Thomas L. Smith, Zhongyu Li, Beth Paterson Smith

Project: Peripheral Microvascular Control Mechanisms

2000 Winner(s)

Ann Doner Vaughn Award

Researcher(s): L.E. Dahners, MD, and G.E. Lester, PhD

Project: On Changes in Length of Dense Collagenous Tissue: Growth and Contracture

Elizabeth Winston Lanier Award

Researcher(s): R. Tracy Ballock, MD

Project: Regulation of Endochondral Ossification by Thyroid Hormone

Young Investigator Award

Researcher(s): Qian Chen, PhD

Project: Molecular Regulation of Chondrocyte Differentiation

OREF Clinical Research Award

Researcher(s): Benjamin A. Alman, MD, and Jay S. Wunder, MD

Project: Developmental Pathways in Musculoskeletal Neoplasia: Aggressive Fibromatosis and the Wingless (Wnt) Pathway

2001 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Scott P. Bruder, MD, PhD

Project: Bone Generation and Regeneration: From Embryonic Chicks to Human Clinical Therapy

Elizabeth Winston Lanier Award

Researcher(s): Myron Spector, PhD

Project: Expression of Muscle Action in Contraction of Chondrocytes, Osteoblasts, and Musculoskeletal Tissue Fibroblasts

Young Investigator Award

Researcher(s): Robert L. Sah, MD, ScD

Project: Articular Cartilage Tissue Engineering: Biological and Biomechanical Foundations

OREF Clinical Research Award

Researcher(s): Bruce J. Sangeorzan, MD, Allan Tencer, PhD, and Randy Ching, PhD

Project: Changes in the Talo-Calcaneal Joint in Pathological Conditions in the Hindfoot

2002 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Joshua J. Jacobs, MD; Anastasia K. Skipor, MD; Robert M. Urban; Nadim J. Hallab, PhD; Leslie Pattern, RN; and Jonathan Black, PhD

Project: Systemic Implications of Total Joint Replacement

Elizabeth Winston Lanier Award

Researcher(s): James G. Wright, MD; Gillian A. Hawker, MD; and Peter C. Coyte, PhD

Project: Area Variation and Unmet Need for Orthopaedic Surgical Procedures

Young Investigator Award

Researcher(s): Yousef Abu-Amer, PhD

Project: Regulation of Inflammatory Bone Loss Diseases: Unveiling Molecular Targets for Therapeutic Intervention

OREF Clinical Research Award

Researcher(s): Joseph D. Zuckerman, MD; and Kenneth J. Koval, MD

Project: Hip Fractures in the Elderly: A Comprehensive Clinical and Research Approach

2003 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Michael J. Bosse, MD; Ellen J. MacKenzie, PhD; James F. Kellam, MD; Andrew R. Burgess, MD; Lawrence Webb, MD; Marc F. Swiontkowski, MD; Roy Sanders, MD; Alan L. Jones, MD; Mark P. McAndrew, MD; Brendan M. Patterson, MD; Melissa McCarthy, ScD; Thomas G. Trivison, PhD; Renan C. Castillo, MS

Project: Limb Salvage or Amputation Following Severe Lower Extremity Trauma: The LEAP Study

Elizabeth Winston Lanier Award

Researcher(s): Clinton T. Rubin, PhD

Project: Revisiting Wolff's Law: The Physiologic Basis and Anabolic Potential of Low Magnitude, High Frequency Mechanical Signals

Young Investigator Award

Researcher(s): Edward M. Greenfield, PhD; Yanming Bi, PhD; Ashraf A. Ragab, MD; Victor M. Goldberg, MD; Jennifer L. Nalepka, BS; Joscelyn M. Seabold, MS

Project: Does Endotoxin Contribute to Aseptic Loosening?

OREF Clinical Research Award

Researcher(s): John J. Callaghan, MD; Douglas R. Pedersen, PhD; Richard C. Johnston, MD; Thomas D. Brown, PhD

Project: The Clinical Biomechanics of Wear in Total Hip Arthroplasty

2004 Winner(s)

Ann Doner Vaughn Award

Researcher(s): Brian D. Snyder, MD, PhD; John A. Hipp, PhD; Ara Nazarian, MSc

Project: Non-Invasive Prediction of Fracture Risk Due to Benign and Metastatic Skeletal Defects

Elizabeth Winston Lanier Award

Researcher(s): Joseph S. Torg, MD; Helene Pavlov, MD; Albert Burstein, PhD

Project: The Pathomechanics, Pathophysiology, and Prevention of Reversible and Irreversible Cervical Spinal Cord Injury: Results of a Thirty-Year Clinical Experience

Young Investigator Award

Researcher(s): Johnny Huard, PhD

Project: Gene Therapy and Tissue Engineering Based on Muscle-Derived Stem Cells: Potential for Musculoskeletal Tissue Regeneration and Repair

OREF Clinical Research Award

Researcher(s): Frank R. Noyes, MD; Edward Grood, PhD; Thomas Andriacchi, PhD; Sue Barber-Westin, BS

Project: Factors Affecting the Treatment of Anterior Cruciate Ligament-Deficient Knees with Lower Limb Malalignment and Associated Ligamentous Instabilities: A Correlated, Clinical, Biomechanical, and Dynamic Gait Analysis

2005 Winner(s)

Young Investigator Award

Researcher(s): Edward M. Schwarz, PhD

Project: Utility of Recombinant Adeno-Associated Virus Vectors for Orthopaedic Gene Therapy

Elizabeth Winston Lanier Award

Researcher(s): Darryl D. D'Lima, MD; Martin K. Lotz, MD; Clifford Colwell, Jr., MD

Project: Cartilage Injury Chondrocyte Apoptosis and Matrix Degradation: In Vitro, In Vivo, and Clinical Consequences

Ann Doner Vaughn Award

Researcher(s): Paul D. Robbins, PhD; Steven C. Ghivizzani, PhD

Project: Gene Delivery Approaches to the Treatment of Orthopaedic Disorders

OREF Clinical Research Award

Researcher(s): Mininder S. Kocher, MD, MPH; David Zurakowski, PhD; James R. Kasser, MD

Project: Septic Arthritis of the Hip in Children: An Evidenced-Based Approach to Improving Clinical Effectiveness

2006 Winner(s)

Young Investigator Award

Researcher(s): Ranjan Gupta, MD

Project: Schwann Cell Regulation of Chronic Nerve Injury

Elizabeth Winston Lanier Award

Researcher(s): Kristy Weber, MD, Michele Doucet, MS, Scott Kominsky, PhD

Project: Growth Factor Receptor Signaling Blockade in Renal Cell Carcinoma Bone Metastasis

Ann Doner Vaughn Award

Researcher(s): Tong-Chuan, He, MD, PhD, Rex C. Haydon, MD, PhD

Project: The Distinct Roles of Bone Morphogenetic Proteins in Mesenchymal Stem Cell Differentiation

OREF Clinical Research Award

Researcher(s): Kevin J. Bozic, MD, MBA, Patricia Katz, PhD, Jonathan Showstack, PhD, James Naessens, MPH, Harry E. Rubash, MD, Michael D. Ries, MD, Daniel J. Berry, MD

Project: Using Clinical and Economic Outcome Data to Influence Health Policy in the United States: The Case of Total Joint Replacement

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2007 Winner(s)

Young Investigator Award

Researcher(s): Constance R. Chu, MD

Project: Integrating Bench to Operating Room: Journey of a Clinician-Scientist

Elizabeth Winston Lanier Award

Researcher(s): Martha L. Gray, PhD, Deborah Burstein, PhD, Young-Jo Kim MD, PhD, Alice Maroudas, PhD

Project: Magnetic Resonance Imaging of Cartilage Glycosaminoglycan: Basic Principles, Imaging Technique, and Clinical Applications

Ann Doner Vaughn Award

Researcher(s): David L. Butler, PhD, Natalia Juncosa- Melvin, Ph.D, Gregory P. Boivin, D.V.M., Marc T. Galloway, M.D., Jason T. Shearn, Ph.D., Cynthia Gooch, B.S., Hani Awad, Ph.D.

Project: Functional Tissue Engineering for Tendon Repair: A Multidisciplinary Strategy using Mesenchymal Stem Cells, Bioscaffolds and Mechanical Stimulation

OREF Clinical Research Award

Researcher(s): Christian Gerber, MD, FRCSEd(hon)

Project: Rotator Cuff Disease: From Scientific Understanding to Patient Care

2008 Winner(s)

Young Investigator Award

Researcher(s): Chuan-ju Liu, PhD; Yi Luan, MD, PhD; Yan Zhang, MD, PhD; Ronald Damani Howell, BS; and Li Kong, MD

Project: ADAMTS-7 and ADAMTS-12: Two Novel Cartilage-Degrading Metalloproteinases

Elizabeth Winston Lanier Award

Researcher(s): Michele C. Battié, PhD; Tapio Videman, MD, PhD; Jaakko Kaprio, MD, PhD; Laura E. Gibbons, PhD; Kevin Gill, MD; Janna Saarela, MD, PhD; and Leena Peltonen, MD, PhD

Project: The Foundation of a New Paradigm of Disc Degeneration: The Twin Spine Study

Ann Doner Vaughn Award

Researcher(s): Karen M. Lyons, PhD and Vicki Rosen, PhD

Project: In Vivo Studies of BMP Pathway Activities in Chondrogenesis

OREF Clinical Research Award

Researcher(s): Hans-Christoph Pape, MD

Project: Effects of Changing Strategies of Fracture Fixation on Immunologic Changes and Systemic Complications After Multiple Trauma: Damage Control Orthopaedic Surgery

2009 Winner(s)

Young Investigator Award

Researcher(s): Stavros Thomopoulos, PhD

Project: Structure, Biomechanics, and Mechanobiology in the Attachment of Tendon to Bone

Elizabeth Winston Lanier Award

Researcher(s): Michael J. Yaszemski, MD, PhD and Lichun Lu, PhD

Project: Osteoinductive Injectable Degradable Polymeric Scaffolds for Osseous Defect Repair

Ann Doner Vaughn Award

Researcher(s): Hiroshi Kawaguchi, MD, PhD, Toru Akune, MD, PhD, Takashi Yamada, MD, PhD and Naoshi Ogata, MD, PhD

Project: Mouse Genetics Studies on Molecular Mechanisms Underlying Bone and Cartilage Disorders

OREF Clinical Research Award

Researcher(s): Lawrence C. Hurst, MD, Marie A. Badalamente, PhD and Edward D. Wang, MD

Project: Injectable Clostridial Collagenase: Striving Toward Nonoperative Treatment Options for Fibroproliferative Disorders

2010 Winner(s)

Young Investigator Award

Researcher(s): Brian K. Kwon, MD, PhD, FRCSC

Project: Cerebrospinal Fluid Pressure Monitoring and Biochemical Analysis in Acute Spinal Cord Injury - A Translational Approach

Elizabeth Winston Lanier Award

Researcher(s): Cornelia E. Farnum, DVM, PhD

Co-Author: Norman J. Wilsman, DVM, PhD

Project: Analyzing the Growth Plate in Four Dimensions - A Thirty-year Perspective on Growth Plate Dynamics

Ann Doner Vaughn Award

Researcher(s): Louis J. Soslowsky, PhD

Project: Understanding the Etiology, Pathogenesis, and Repair Response of Rotator Cuff Injuries: A Series of Interconnected Studies Developing and Using an Animal Model

OREF Clinical Research Award

Researcher(s): Mohit Bhandari, MD

Co-Authors: Gordon Guyatt, Stephen Walter, Emil Schemitsch, Dave Sanders, Marc Swiontkowski, and Paul Tornetta, III

Project: Setting a New Benchmark for Collaborative Trials in Trauma: The Rationale, Design, and Execution of the Study to Prospectively Evaluate Intramedullary Nails in Tibial Shaft Fractures (S.P.R.I.N.T.)

2011 Winner(s)

Young Investigator Award

Researcher(s): Young-Min Kwon, MD, PhD, FRCS, FRACS

Project: Evidence-Based Approach in Understanding 'Pseudotumour' in Metal-on-Metal Hip Replacements

Elizabeth Winston Lanier Award

Researcher(s): Howard S. An, MD

Co-Authors: Koichi Masuda, MD; Gabriella Cs-Szabo, PhD; Yejia Zhang, MD, PhD; Ana Chee, PhD; Gunnar B.J. Andersson, MD, PhD; Hee-Jeong Im, PhD; Eugene J-M.A. Thonar, PhD

Project: Intervertebral Disc Repair or Regeneration by Growth Factor and/or Cytokine Inhibitor Protein Injection

Ann Doner Vaughan Award

Researcher(s): Bang H. Hoang, MD

Co-Authors: Yi Guo, MD; Randall F. Holcombe, MD; Xiaolin Zi, MD

Project: Project: Toward Novel Therapeutic Intervention for Osteosarcoma: Clinical Implications of the WNT Pathway

OREF Clinical Research Award

Researcher(s): Donald D. Anderson, PhD

Co-Authors: J. Lawrence Marsh, MD; Thomas D. Brown, PhD

Project: The Pathomechanical Etiology of Post-traumatic Osteoarthritis Following Intra-articular Fractures

2012 Winner(s)

Young Investigator Award

Researcher(s): Xudong Joshua Li, MD, PhD

Project: GDF5 Modulation in Intervertebral Disc Degeneration

Elizabeth Winston Lanier Award

Researcher(s): Jay R. Lieberman, MD

Project: Regional Gene Therapy to Enhance Bone Repair

Ann Doner Vaughan Award

Researcher(s): Kurt P. Spindler, MD

Co-Authors: Richard D. Parker, MD, Jack T. Andrish, MD, Christopher C. Kaeding, MD, Rick W. Wright, MD, Robert G. Marx, MD, MSc, Eric C. McCarty, MD, Annunziato Amendola, MD, Warren R. Dunn, MD, MPH, Laura J. Huston, MS, Frank E. Harrell, Jr., PhD

Project: Prognosis and Predictors of ACL Reconstructions using the MOON Cohort: A Model for Comparative Effectiveness Studies

OREF Clinical Research Award

Researcher(s): Thomas D. Brown, PhD

Co-Authors: Jacob M. Elkins, MS, Douglas R. Pedersen, PhD, John J. Callaghan, MD

Project: Impingement and Dislocation in Total Hip Arthroplasty: Mechanisms and Consequences
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2013 Winner(s)

Young Investigator Award

Researcher(s): Elise F. Morgan, PhD

Project: Control of Bone Healing by Mechanical Factors

Elizabeth Winston Lanier Award

Researcher(s): Richard L. Lieber, PhD

Co-Authors: Samuel R. Ward, PT, PhD, Jan Friden, MD, PhD

Project: Design of Human Skeletal Muscles: Implications For Orthopaedic Surgery
[More on the winners](#)

Ann Doner Vaughan Award

Researcher(s): Martha M. Murray, MD

Co-Author: Braden C. Fleming, PhD

Project: The Biology of ACL Injury and Repair

OREF Clinical Research Award

Researcher(s): Robert F. LaPrade, MD, PhD

Co-Authors: Steinar Johansen, MD, Lars Engebretsen, MD, PhD, Chad J. Griffith, MD / Benjamin R. Coobs, MD, Andrew G. Geeslin, MD

Project: Improving Outcomes for Posterolateral Knee Injuries Running Title: The Posterolateral Corner of the Knee

2014 Winner(s)

Young Investigator Award

Researcher(s): Brian Feeley, MD

Project: Understanding the development of muscle atrophy and fatty infiltration in massive rotator cuff tears

Elizabeth Winston Lanier Award

Researcher(s): Freddie H. Fu, MD

Project: Anatomic Anterior Cruciate Ligament Reconstruction: A Changing Paradigm

Ann Doner Vaughan Award

Researcher(s): Ken Yamaguchi, MD, MBA

Co-Authors: Sharlene A. Teefey, MD, Jay D. Keener, MD, Leesa Galatz, MD

Project: Natural History of Rotator Cuff Disease: Relationship to Surgical Indications

OREF Clinical Research Award

Researcher(s): James N. Weinstein, MD, MS

Co-Authors: Adam M. Pearson, MD, MS, Jon D. Lurie, MD, MS, Tor D. Tosteson, ScD, Anna N.A. Tosteson, ScD, William A. Abdu, MD, MS, Sohail K. Mirza, MD, MPH

Project: The Spine Patient Outcomes Research Trial (SPORT)

2015 Winner(s)

Young Investigator Award

Researcher(s): Robert L. Mauck, PhD

Co-Authors: Dawn M. Elliott, PhD and Jason A. Burdick, PhD

Project: Engineering Dense Connective Tissues: Mechanical, Material, and Mechanobiologic Considerations

Ann Doner Vaughn Award

Researcher(s): Steven A. Olson, MD

Co-Authors: Farshid Guilak, PhD, Virginia Kraus, MD, PhD, Bridgette Furman, BS, and Janet Huebner, MS

Project: Early Inhibition of Proinflammatory Cytokines Prevents Post-Traumatic Arthritis: Insights from the Natural History of Arthritis Developing after Intra-Articular Fracture

More on the winners

Elizabeth Winston Lanier Award

Researcher(s): William D. Bugbee, MD

Co-Authors: Andrea L. Pallante-Kichura, PhD, Simon Görtz, MD, Robert Sah, MD, ScD, and David Amiel, PhD

Project: Osteochondral Allograft Transplantation in Cartilage Repair: Graft Storage Paradigm, Translational Models, and Clinical Applications

More on the winners

OREF Clinical Research Award

Researcher(s): Stuart L. Weinstein, MD

Co-Authors: Lori A. Dolan, PhD

Project: The Evidence Base for the Prognosis and Treatment of Adolescent Idiopathic Scoliosis

2016 Winner(s)

Young Investigator Award

Researcher: Louis DeFrate, ScD

Project: The effects of ACL graft placement on in vivo knee function and cartilage thickness distributions

Ann Doner Vaughn Award

Researcher: Francis Lee, MD, PhD

Project: Targeting Innate Immune Inflammatory Pathways in Osteolytic Disorders: Unmasking the Two Faces of Osteoprogenitor Cells

Elizabeth Winston Lanier Award

Researcher: Edward Wojtys, MD

Co-Author: James A. Ashton-Miller, PhD

Project: On Knee Function and ACL Injury

OREF Clinical Research Award

Researcher: Timothy Hewett, PhD

Co-Authors: Gregory D. Myer, PhD; Kevin R. Ford, PhD; Mark Paterno, PhD; Carmen Quatman, MD, PhD

Project: Mechanisms and Prevention of ACL Injuries: Cutting ACL Injury Risk with Finely Sharpened Tools

2017 Winners

Kappa Delta Young Investigator Award

Researcher: Robin Queen, PhD, FACSM

Project: Using Lower Extremity Biomechanics in Patients with Ankle Osteoarthritis and Ankle Arthroplasty to Direct Clinical Care

Kappa Delta Ann Doner Vaughn Award

Researcher: Matthew Dobbs, MD

Co-Author: Christina Gurnett, MD, PhD

Project: Advancing Precision Medicine for Clubfoot Treatment through Basic Research

Kappa Delta Elizabeth Winston Lanier Award

Researcher: Scott W. Wolfe, MD

Co-Author: Joseph J. Crisco, III, PhD

Project: Kinematics of the Normal and Injured Wrist: The Importance of the Midcarpal Joint

OREF Clinical Research Award

Researcher: Henrik Malchau, MD, PhD

Co-Authors: Göran Garellick, MD, PhD; Daniel Berry, MD; William H. Harris, MD, ScD

Project: Arthroplasty Implant Registries Over The Past Five Decades: Development, Current and Future Impact

2018 Winners

Kappa Delta Young Investigator Award

Researcher: Nelly Andarawis-Puri, PhD

Co-Author: Evan L. Flatow, MD

Project: Promoting Effective Tendon Healing and Remodeling

Kappa Delta Ann Doner Vaughn Award

Researcher: Johnny Huard, PhD

Project: Adult Stem Cells, Blood Vessels, and Angiogenesis: Major Determinants for Musculoskeletal Tissue Repair After Injury, Disease, and Aging

Kappa Delta Elizabeth Winston Lanier Award

Researcher: Paul E. Beaulé, MD, FRCSC

Co-Authors: George Grammatopoulos, MD, FRCS, PhD; Andrew Speirs, PhD; Geoffrey Ng, PhD; Sasha Carsen, MD; Hanspeter Frei, PhD; Gerd Melkus, PhD; Kawan Rakhra, MD; Mario Lamontagne, PhD

Project: Unravelling the Hip Pistol Grip / CAM Deformity: Origins to Joint Degeneration

OREF Clinical Research Award

Researcher: Gregory B. Maletis, MD

Co-Authors: Tadashi T. Funahashi, MD; Maria C.S. Inacio, PhD; Liz Paxton, MA

Project: Optimizing Anterior Cruciate Ligament Reconstruction: Individualizing the Decision Making Process Using Data from the Kaiser Permanente ACLR Registry

2019 Winners

Kappa Delta Young Investigator Award

Researchers: Sherry Liu, PhD

Co-Authors: Chantal M. de Bakker, PhD and Yihan Li, MS

Project: Understanding Functional Adaptation of Maternal Bone to Reproduction and Lactation

Kappa Delta Ann Doner Vaughn Award

Researchers: Rick Wright, MD

Co-Authors: Amanda K. Haas, MA, Christina R. Allen, MD, Daniel E. Cooper, MD, Thomas M. DeBerardino, MD, Michael J. Stuart, MD, Brett A. Lantz, MD, Kurt P. Spindler, MD, and MARS Group

Project: Predictors of Clinical Outcome Following Revision Anterior Cruciate Ligament Reconstruction

Kappa Delta Elizabeth Winston Lanier Award

Researchers: Constance R. Chu, MD

Co-Authors: Ashley A. Williams, MS, Jennifer C. Erhar-Hledik, PhD, Matthew R. Titchenal, PhD, Yongxian Qian, PhD, and Thomas P. Andriacchi, PhD

Project: Visualizing Pre-Osteoarthritis: Integrating MRI UTET2*with Mechanics and Biology to Combat Post-Traumatic Osteoarthritis

OREF Clinical Research Award

Researchers: L. Andrew Koman, MD

Co-Authors: Beth Paterson Smith, PhD and Thomas L. Smith, PhD

Project: Musculoskeletal Uses of Botulinum Toxins: A 30 year Translational Journey at Wake Forest School of Medicine

2020 Winners

Kappa Delta Young Investigator Award

Researchers: Alice Huang, PhD

Co-Authors: Leesa Galatz, MD, Ronen Schweitzer, PhD

Project: Cell and molecular mechanisms of tendon development, regeneration, and scar formation

Kappa Delta Ann Doner Vaughn Award

Researchers: Marc Swiontkowski, MD

Co-Authors: Mohit Bhandari, MD, FAITH Steering Committee

Project: Finding Answers to the "Unsolved Fracture": A 10-year journey - The Rationale, Design, and Execution of the Fixation Alternatives in the Treatment of Hip Fractures

Kappa Delta Elizabeth Winston Lanier Award

Researchers: Carl Deirmengian, MD

Co-Authors: Keith Kardos, PhD

Project: The Discovery, Development, Characterization, and FDA Clearance of the Alpha-Defensin Test for Periprosthetic Joint Infection

OREF Clinical Research Award

Researchers: Braden C. Fleming, PhD

Co-Authors: Paul D. Fadale, MD, Michael J. Hulstyn, MD, Robert M. Slavoy, MD, Glenn A. Tung, MD, Gary J. Badger, MS

Project: Long-term Outcomes of ACL Reconstruction Surgery