

CURRICULUM VITAE
Elizabeth Shane, M.D.



This Curriculum Vitae was updated on 01/12/2024

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Personal Data:

Name: Elizabeth Shane
Birthplace: New York City, New York
Citizenship: United States, Canada

Academic Training:

6/65-5/69 B.S. Biology, Dalhousie University, Halifax, Canada
9/71-6/75 M.D. (Honors), University of Toronto, Toronto, Canada

Traineeships:

7/75-6/76 Intern in Medicine, Toronto General Hospital, University of Toronto
7/76-6/78 Resident in Medicine, Medical Service, Columbia-Presbyterian Medical Center, New York
7/78-6/81 Fellowship, Endocrinology & Metabolism, Presbyterian Hospital and the College of Physicians & Surgeons

Board Qualifications:

Diplomate, American Board of Internal Medicine, 1978
Diplomate, Subspecialty Board, Endocrinology & Metabolism, 1981

Professional Organizations and Societies:

American Society for Bone and Mineral Research, 1979-
Endocrine Society, 1979-
American Federation of Clinical Research, 1979-
International Society of Heart and Lung Transplantation, 1995-1997
American Association of Clinical Endocrinologists, 1997-
International Society of Clinical Densitometry, 1997-
International Bone and Mineral Society, 1997-2016
Association of American Physicians, Elected 2013

Academic Appointments:

1981-1982 Instructor in Clinical Medicine, College of Physicians & Surgeons, Columbia University
1982-1991 Assistant Professor of Medicine, College of Physicians & Surgeons, Columbia University
1991-1998 Associate Professor of Clinical Medicine, College of Physicians & Surgeons, Columbia University
1998-2006 Professor of Clinical Medicine, College of Physicians and Surgeons, Columbia University
2002-2006 Associate Program Director, Irving Center for Clinical Research, Columbia University
2002-2004 Acting Course Director, Third Year Clinical Clerkship in Internal Medicine
2006- Professor of Medicine at the Columbia University Medical Center
2007-2017 Chair, Committee on Recruitment and Retention for Clinical and Epidemiological Research, Department of Medicine, Columbia University, College of Physicians & Surgeons, New York
2010-2017 Vice-Chair for Clinical and Epidemiological Research, Columbia University, Department of Medicine

2010-2017 Co-Director, Department of Medicine, Young Faculty Mentoring Program
 2015-2020 Associate Dean of Student Research, Vagelos College of Physicians & Surgeons, New York, NY
 2020-2022 Senior Associate Dean of Student Research, Vagelos College of Physicians & Surgeons, New York, NY
 2015-2022 Director, MD/Masters of Biomedical Sciences Dual Degree Program, College of Physicians & Surgeons, New York, NY
 2018- Director, Research Bone Imaging, Division of Endocrinology, Department of Medicine, Vagelos College of Physicians & Surgeons, New York, NY
 2022- Emerita Professor of Medicine
 2022- Special Lecturer in Medicine

Hospital Appointments:

1979-1980 Fellow, General Clinical Research Center, Presbyterian Hospital, New York, NY
 1981-1982 Assistant Physician, Presbyterian Hospital, New York, NY
 1982-1991 Assistant Attending Physician in Medicine, Presbyterian Hospital, New York, NY
 1991-1998 Associate Attending Physician in Medicine, Presbyterian Hospital, New York, NY
 1998-2022 Attending Physician in Medicine, Presbyterian Hospital, New York, NY

Honors:

New Investigator Research Award (NIH), 1981-84
 Research Career Development Award (NIH), 1984-86
 President, American Society for Bone and Mineral Research, 2005-06
 Shirley Hohl Award, American Society for Bone and Mineral Research, 2008
 Irving Institute for Clinical and Translational Research, Inaugural Mentor of the Year Award, 2012
 Association of American Physicians, Elected 2013
 ASBMR, Frederic C. Bartter Award for Outstanding Contributions to Clinical Investigation, 2013
 ASBMR, Boy Frame Award to Outstanding Physician Scientist, Clinician and Mentor, 2014
 Ney Professorship, John Hopkins University, 2015
 Ewig Clinical Scholar, Department of Medicine, Columbia University Medical Center, 2016
 ASBMR, Paula Stern Award for Outstanding Mentorship, 2018
 American College of Rheumatology, Oscar Gluck Award, 2019
 Vagelos College of Physicians & Surgeons, Distinguished Service Award for the Clinical Sciences

Invited Lectureships –1998-Present:

1998 Bone Density and Organ Transplantation, 4th Annual Scientific Meeting, International Society for Clinical Densitometry, Orlando, FL
 1999 Natural History and Pathogenesis of Transplantation Osteoporosis, Endocrine Society Annual Meeting, San Diego, CA
 2000 Secondary Causes of Osteoporosis, NIH Consensus Development Conference on Osteoporosis Prevention, Diagnosis and Therapy, Bethesda, MD
 2000 Post-Transplant Bone Disease, Transplant 2000 Clinical Symposium, Chicago, IL
 2000 Transplantation Osteoporosis, World Congress on Osteoporosis 2000, Chicago, IL
 2000 Osteoporosis after Heart and Lung Transplantation, Transplant Bone Disease Meeting, Barcelona, Spain
 2003 Management of Osteoporosis in the Transplant Patient, The Endocrine Society 85th Annual Meeting, Philadelphia, PA
 2003 Post-Transplantation Bone Disease, American Society for Bone and Mineral Research, 25th Annual Meeting, Minneapolis, MN
 2003 Transplant Bone Disease, The Endocrine Society, Clinical Endocrinology Update, Miami, FL
 2004 Osteoporosis in Organ Transplant Patients, The Endocrine Society 86th Annual Meeting New Orleans, LA

2004 Diagnosis and Management of Postmenopausal Osteoporosis, East Hampton Healthcare Foundation Symposium, East Hampton, NY

2004 Meet the Professor, Transplant Osteoporosis, American Society for Bone and Mineral Research, 26th Annual Meeting, Seattle WA

2004 Effects of AEDs on Bone Health, Endocrine, Metabolic & Reproductive Issues in Neurology & Psychiatry, New Orleans, LA

2005 Post-Transplantation Bone Disease, National Osteoporosis Foundation 6th International Symposium on Osteoporosis, Washington, D.C.

2005 Osteoporosis After Organ Transplantation: Pathogenesis and Prevention, NIH Inter-Institute Endocrine Grand Rounds, Bethesda, Maryland

2005 Low Bone Formation in Premenopausal Women with Idiopathic Osteoporosis, ASBMR NIAMS Joint Meeting: Bone Quality: What is it and Can We Measure It? Bethesda, MD

2005 Transplant Osteoporosis; The Endocrine Society 87th Annual Meeting, San Diego, CA

2005 How Long to Treat with Bisphosphonates? American Society for Bone and Mineral Research, 27th Annual Meeting, Nashville, TN

2005 Osteoporosis in Premenopausal Women. Endocrinology Grand Rounds, Mayo Clinic, Rochester, MN

2005 Osteoporosis in Premenopausal Women: Is it a Real Entity? NYU Langone Medical Center, Endocrine Grand Rounds, New York, NY

2005 Osteoporosis in Premenopausal Women. University of Toronto Bone & Mineral Group, Toronto General Hospital, Toronto, Canada

2005 Post Transplantation Bone Disease: Pathogenesis and Management. Endocrinology Grand Rounds: University of Pittsburgh, Pittsburgh, PA

2006 Osteoporosis in Premenopausal Women. NIH Inter-Institute Endocrine Grand Rounds, Bethesda, MD

2006 Fractures in Premenopausal Women: What We Know About Pathogenesis and Management. New York Orthopaedic Hospital Grand Rounds, Columbia University Medical Center, New York, NY

2006 Osteoporosis in Premenopausal Women. Endocrinology Grand Rounds: University of Wisconsin Medical School, Madison, WI

2006 Secondary Causes of Osteoporosis. International Osteoporosis Foundation World Congress on Osteoporosis, Toronto, Ontario

2006 Pathogenesis of Transplantation Osteoporosis, Newfoundland Conference on Parathyroid Hormone, Newfoundland, Canada

2006 Bone Quality in Premenopausal Women with Unexplained Fragility Fractures. New York City Bone Seminar, New York, NY

2007 Teriparatide for the Treatment of Glucocorticoid Induced Osteoporosis. Columbia University Medical Center Rheumatology Grand Rounds, New York, NY

2007 Low BMD in Premenopausal Women. International Society for Clinical Densitometry Annual Meeting, Tampa, FL

2007 Transplantation and Bone. National Osteoporosis Foundation Annual Meeting, Washington, DC

2007 Pathogenesis and Management of Transplantation Osteoporosis. Endocrinology Grand Rounds, University of Pittsburgh, Pittsburgh, PA

2007 Osteoporosis after Organ Transplantation. The Endocrine Society 89th Annual Meeting, Toronto, Canada

2007 Rapid Bone Loss: A Preventable Complication of Heart, Liver and Lung Transplantation International Bone and Mineral Society, 17th Scientific Meeting, Montreal, Canada

2007 Meet the Professor. Premenopausal Osteoporosis. American Society for Bone and Mineral Research, 29th Annual Meeting, Honolulu, HI

2007 Osteoporosis in Organ Transplant Patients. XII Congreso De La SEIOMM, Valencia, Spain

2007 Update on Osteoporosis in Premenopausal Women. Long Island Bone Association, Woodbury, New York

2008 Transplant Osteoporosis. 35th European Symposium on Calcified Tissues, Barcelona, Spain

2008 Overview on Osteoporosis as it Relates to Liver Transplantation. Columbia University Medical Center, Department of Surgery, Abdominal Organ Transplant & Hepatobiliary Surgery, New York, NY

2009 To Treat or Not To Treat: Clinical Management of Premenopausal Women. International Society for Clinical Densitometry/International Osteoporosis Foundation Joint Meeting, Orlando, FL

2009 Transplant Bone Disease. International Society for Clinical Densitometry/International Osteoporosis Foundation Joint Meeting, Orlando, FL

2009 Premenopausal Bone Loss. St. Michael's Hospital Metabolic Bone Outreach Symposium; Toronto, Ontario

2009 Premenopausal Women and Osteoporosis. National Osteoporosis Foundation 8th International Symposium on Osteoporosis: Translating Research into Clinical Practice, Washington, DC

2009 Transplantation Osteoporosis: Pathogenesis and Management. Endocrinology Grand Rounds: University of Connecticut Health Center, Farmington, Ct.

2009 Premenopausal and Pregnancy Associated Osteoporosis. American Society for Bone and Mineral Research 31st Annual Meeting, Denver, Colorado

2009 Bone Health in the Older HIV+ Patient. NIAID Musculoskeletal Health Symposium, HIV and Aging, Bethesda, MD

2010 Transplantation Osteoporosis: Pathogenesis and Prevention. Hospital for Special Surgery, Rheumatology Grand Rounds, NY, NY

2010 Osteoporosis in Premenopausal Women. 11th Annual University of Cincinnati Bone Day, Cincinnati, Ohio

2010 Osteoporosis in Transplant Patients. 11th Annual University of Cincinnati Bone Day, Cincinnati, Ohio

2010 ASBMR Task Force Report on Atypical Femoral Fractures. American Society for Bone and Mineral Research 32nd Annual Meeting, Toronto, Canada

2010 Premenopausal Osteoporosis. New York University School of Medicine, Boning Up On Osteoporosis, New York, NY

2010 Atypical Femur Fractures and Bisphosphonates. Long Island Bone & Rheumatology Association, Plainview, New York

2011 Atypical Femoral Fractures: A Report from the ASBMR Task Force. International Society for Clinical Densitometry Annual Meeting, Miami, FL

2011 Bone Health in Older HIV Infected Women. Visiting Professor, Boston University Medical Center, Division of Infectious Diseases

2011 Prevention of Bone Loss After Heart and Liver Transplantation. Columbia University Medical Center, Transplant Research Symposium, New York, NY

2011 Idiopathic Osteoporosis in Premenopausal Women. University of Chicago Scientific Symposium, Bone Research: From Present Into the Future, Chicago, IL

2011 Transplantation Osteoporosis. Endocrinology Grand Rounds: Northwestern Univ, Chicago, IL

2011 Bone Health in the HIV Infected Patient. HIV Aging Workshop, Baltimore, MD

2011 Bisphosphonates, Atypical Fractures and Osteonecrosis of the Jaw. American College of Rheumatology Basic Research Conference, Chicago, IL

2011 Post Transplant CKD-MBD: An Update from the Heart. American Society of Nephrology, Philadelphia, PA

2011 Bone Loss and Fractures After Transplantation: A Randomized Trial and a Meta-Analysis. Columbia University Medical Center, Transplant and Translation Immunology Speaker Series, New York, NY

2012 Premenopausal Osteoporosis: How Should It Be Managed? Third International Symposium, Advances in Osteoporosis, Barcelona, Spain

2012 The Puzzle of Premenopausal Idiopathic Osteoporosis. Massachusetts General Hospital, Endocrine Grand Rounds, Boston, MA

2012 Complications of Long Term Bisphosphonate Therapy. Columbia University Medical Center, OB-GYN Grand Rounds, New York, NY

2012 Osteoporosis in Premenopausal Women. St. Luke's-Roosevelt Hospital; Endocrine Grand Rounds, New York, NY

2012 Bisphosphonates for Postmenopausal Osteoporosis: Do The Benefits Outweigh The Risks? Pri-Med NYC Conference and Exhibition, Current Clinical Issues Primary Care

2012 Atypical Subtrochanteric and Femoral Shaft Fractures: Role of Bisphosphonates Meet the Professor: The Endocrine Society 94th Annual Meeting, Houston, Texas

- 2012 Idiopathic Osteoporosis in Premenopausal Women. Hospital for Special Surgery, Rheumatology Grand Rounds, New York, NY
- 2012 Osteonecrosis of the Jaw & Atypical Femoral Shaft Fracture: An Update. Northern California Institute for Bone Health, Oakland CA
- 2012 Transplantation Bone Disease. Northern California Institute for Bone Health, Oakland CA
- 2012 Idiopathic Osteoporosis in Premenopausal Women: Pathogenesis and Management McGill University Health Center Endocrine Grand Rounds, Royal Victoria Hospital, Montreal, Quebec
- 2012 Post transplant renal/bone/endocrine interactions. International Society of Nephrology Nexus Symposium "Bone and Kidney," Copenhagen, Denmark
- 2012 Benefits and Risks of Long-Term Bisphosphonate Therapy. Harvard Medical Center, Institute for Aging Research, Roslindale, MA
- 2012 The Puzzle of Premenopausal Idiopathic Osteoporosis. Mt. Sinai School of Medicine, Endocrine Grand Rounds, New York, NY
- 2012 Idiopathic Osteoporosis in Premenopausal Women. Meet the Professor. American Society for Bone and Mineral Research 34th Annual Meeting, Minneapolis, Minnesota
- 2012 Idiopathic Osteoporosis in Premenopausal Women. Winthrop Hospital, Endocrine Grand Rounds, Mineola, New York
- 2012 Benefits and Risks of Long-Term Bisphosphonate Therapy. Endocrine Essentials Live, The Endocrine Society, New York
- 2013 Risks and Benefits of Bisphosphonate Therapy for Postmenopausal Osteoporosis Endocrine Grand Rounds, Yale University, New Haven, Ct
- 2013 Idiopathic Osteoporosis in Premenopausal Women: Clues to Pathogenesis and Management. University of Toronto, Inter-City Transplant Rounds, Toronto, Canada
- 2013 Long Term Bisphosphonates: Risks and Benefits. University of Toronto, Inter-City Endocrine Rounds, Toronto, Canada
- 2013 Benefits and Risks of Long-term Bisphosphonates for Osteoporosis. Winthrop Hospital, Endocrine Grand Rounds, Mineola, New York
- 2013 Idiopathic Osteoporosis in Young Adults. International Society for Clinical Densitometry, Annual Meeting, Tampa Florida
- 2013 Idiopathic Osteoporosis in Premenopausal Women. Mayo Clinic Endocrine Grand Rounds, Rochester, Minnesota
- 2013 Update on Atypical Femoral Fractures. Osteoporosis Expert Meeting, Bangkok, Thailand
- 2013 Osteoporosis after Organ Transplantation: Pathogenesis and Prevention. Toronto General Hospital, Transplantation Grand Rounds
- 2013 Transplantation Osteoporosis: Pathogenesis and Management. University of Alabama Center for Metabolic Bone Disease Symposium
- 2013 Idiopathic Osteoporosis in Premenopausal Women. Meet the Professor: The Endocrine Society 95th Annual Meeting, San Francisco, CA
- 2013 Atypical Femoral Fractures. International Bone & Mineral Society Sun Valley Workshop, Sun Valley, ID
- 2013 Update on Idiopathic Osteoporosis in Premenopausal Women. Orthopaedic Rounds, Columbia University Medical Center, New York, NY
- 2014 Update on Atypical Femur Fractures. Metropolitan Bone Club, New York, NY.
- 2014 Transplant Osteoporosis. Keynote Speaker: 2014 Annual Canadian Multicentre Osteoporosis Study Meeting, Montreal, Canada
- 2014 Idiopathic Osteoporosis in Premenopausal Women. American Association of Clinical Endocrinologists Annual Meeting, Las Vegas, NV
- 2014 Osteoporosis in Young People. International Congress of Endocrinology/ The Endocrine Society Joint Meeting, Chicago, IL
- 2014 Osteoporosis in Premenopausal Women: To Treat or Not to Treat? Sante Fe Bone Symposium

- 2014 Clinical Roundtable: Low BMD in Premenopausal Women. American Society for Bone and Mineral Research 2014 Annual Meeting, Houston Tx 09/2014
- 2014 Controversies in the Long-term Care of the Patient with Osteoporosis. North American Menopause Society 25th Annual Meeting, Washington, DC
- 2014 Update on Idiopathic Premenopausal Osteoporosis. New York University School of Medicine, Bone Up On Osteoporosis 2014, New York, NY 10/2014
- 2014 Osteoporosis in Young Women. American College of Rheumatology 2014 Annual Meeting, Boston, MA
- 2015 Idiopathic Osteoporosis in Premenopausal Women. Winthrop University Research Center, 04/15
- 2015 Evaluation and Management of Low Bone Density in Premenopausal Women. Women's Health 2015 Congress, Washington DC, 04/15
- 2015 Idiopathic Osteoporosis in Premenopausal Women. Duke University. 07/15
- 2015 Idiopathic Osteoporosis in Premenopausal Women: What have we Learned About Pathogenesis and Management? Ney Professorship. John Hopkins University. 9/2015
- 2015 Low BMD and Fractures in Young People. ASBMR. 10/2015
- 2015 Understanding NIH Career Development K Awards: Opportunities and Challenges. ASBMR 10/2015
- 2016 Osteoporosis in Premenopausal Women. Meet the Professor. The Endocrine Society 04/16
- 2016 Updates in Pathogenesis and Management of Premenopausal Idiopathic Osteoporosis. Hospital for Special Surgery Bone Rounds. 06/16
- 2017 ASBMR Webinar: Atypical Femur Fractures: Addressing the Problem from a Patient-Centered Perspective: Patients' Perspectives on the Problem of AFFs 01/17
- 2017 Osteoporosis in Premenopausal Women; Endocrine Grand Rounds, Brown University 06/17
- 2017 Pathogenesis and Management of Premenopausal Idiopathic Osteoporosis; Harvard Skeletal Symposium 06/17
- 2017 NIH Career Development K Awards: Opportunities and Challenges; Harvard Skeletal Symposium 06/17
- 2017 Pathogenesis and Management of Premenopausal Idiopathic Osteoporosis; Endocrine Grand Rounds, Mount Sinai-Beth Israel 10/17
- 2017 Long-term aspects of osteoporosis treatment; Columbia University, Parathyroid-Thyroid Conference 11/17
- 2018 Pathogenesis and Management of Premenopausal Idiopathic Osteoporosis; Endocrine Grand Rounds, Mount Sinai Medical Center 01/18
- 2018 Spaceflight and Bone: Temporary Loss or Lasting Damage, P&S Space Club, 12/18
- 2018 Osteoporosis in the United States, NIH Pathways to Prevention Conference, NIH, October 30, 2018
- 2019 Premenopausal Osteoporosis: Relatively Uncommon, Clinically Variable, Challenging to Manage, American College of Rheumatology, Oscar Gluck Award, 10/19
- 2019 Premenopausal Osteoporosis: Relatively Uncommon, Clinically Variable, Challenging to Manage, Division of Rheumatology, New York University, 12/19
- 2020 Atypical Femur Fractures & Other Adverse Effects of Antiresorptive Therapy. American College of Rheumatology Convergence 2020, 11/20
- 2020 Atypical Femur Fractures: An Update. Osteoporosis, Parathyroid and Thyroid Disease Columbia Medicine CME, 11/20

Departmental and University Committees:

- 1981-2013 Resident Selection Committee, Department of Medicine
- 1998-2002 Faculty Council, College of Physicians and Surgeons
- 1998-2022 Executive Committee, Department of Medicine
- 2006-2008 Columbia University Medical Center K12 Advisory Committee
- 2008-2017 Chair, Committee on Recruitment and Retention, Clinical and Epidemiological Research
- 2011 Search Committee, Chief of Medicine, St. Luke's Roosevelt Hospital
- 2012 Search Committee, Chief of Medicine, Harlem Hospital
- 2013-2017 Chair, Executive Committee for Clinical and Epidemiological Research, Department of Medicine
- 2013-2022 P&S Admissions Committee, College of Physicians and Surgeons
- 2014 Chair, Search Committee, Chief, Division of General Medicine, CUMC

2015-2022	Chair, MD/MS Dual Degree Program, Chair Advisory Committee
2016	Co-chair, Committee on Research Administration and Procurement, College of Physicians & Surgeons, New York, NY
2016-2017	Member, LCME Subcommittee on Institutional Resources
2017-2022	Member, Vagelos College of Physicians & Surgery Faculty Honors & Awards Committee

Teaching:

Endocrinology Attending Physician, 1981-
 Medical Service Attending Physician, 1981-1990
 Major Clinical Year Clerkship in Medicine, Preceptor 1981-2017
 Metabolic Bone Diseases Clinic: Attending Physician 1981-
 Physical Diagnosis 1982-1968
 Human Physiology, First Medical Year 1990-2016
 Advanced Physiology, Fourth Medical Year 2011-2014
 Medical Scholar Seminars Course Director, First Medical Year 2015-2022
 Research at P&S Course Director, First and Second Medical Year 2015-2022
 Fundamentals Lecture, Pathogenesis & Management of Postmenopausal Osteoporosis, 09/17, 09/18

Honors, Distinctions, Leadership Activities

1984-1989	Research Career Development Award (NIH)
1984-1988	AFCR (Eastern Section): Councillor
1986-1999	ASBMR, Education Committee
1991-2005	ASBMR, Annual Meeting Program Committee
1995-1998	ASBMR, Councillor
1999-2003	National Institutes of Health, NCRR: GCRC Review Committee
2001	ASBMR, Program Co-Chair, 23rd Annual Meeting
2004-2007	ASBMR, Executive Committee
2005-2006	ASBMR, President
2005	Chair, ASBMR Task Force on Ethics in Publishing Clinical Trials
2006-2007	Chair, ASBMR Task Force on Bisphosphonate-Associated Osteonecrosis of the Jaw
2006-2007	National Institutes of Health, NIAMS: Panelist, NIAMS Training Grant and Career Development Award Program Evaluation
2007-2011	Federation of Associated Societies of Experimental Biology (FASEB): Board of Directors
2008	ASBMR, Shirley Hohl Award
2008	NIH, NIAMS: Ad Hoc Reviewer Special Review Committee
2009	NIH, NIAID: Invited Speaker, Musculoskeletal Health, HIV and Aging Workshop
2009	NIH, NIAMS: Ad Hoc Reviewer Special Review Committee
2009	NIH, NIAMS: Panelist, Roundtable on Enhancing Clinical Trials in Bone Diseases
2010	NIH, NIAMS: Ad Hoc Reviewer Special Review Committee
2009-2010	Co-Chair, ASBMR Task Force on Bisphosphonate-Associated Atypical Femur Fractures
2012-2013	Co-Chair, Second ASBMR Task Force on Bisphosphonate-Associated Atypical Femur Fractures
2015	FDA: Osteoporosis Workshop; Panelist
2015-2019	ASBMR; Chair, Ethics Advisory Committee
2017	ASBMR; Panelist; Multi-stakeholder Initiative; Secondary Fracture Prevention1991,
2018	ASBMR; Paula Stern Achievement Award
2017-	Indiana University Core Center for Clinical Research in Musculoskeletal Health External Advisory Board
2020-	Endocrine Society, Conflict/Duality of Interest Advisory Group

2021- Chair, DSMB for NIAMS “Limited duration anabolic therapy for postmenopausal osteoporosis” (1 R21 AR079718-01)

National Committees:

1990 NIH/NIDDK, Consensus Development Conference on Diagnosis and Management of Asymptomatic Primary Hyperparathyroidism. National Institutes of Health, NIDDK. Presentation: “Other Medical Therapeutic Agents”. October 29-31, 1990.

1992-95 Fracture Intervention Trial, Data Safety Monitoring Board, University of California, San Francisco

1992 NIH/NIDDK: RFA-NIH-DK-20, Hormonal Regulation of Bone in Health and Disease, Ad Hoc Reviewer

1995 Workshop: Training Clinical Researchers in Arthritis and Musculoskeletal and Skin Diseases, NIH/NIAMS. Participant.

1999 Osteoporosis/Fracture Delphi Group, NIH/NIAMS, Panel Member

1996 NIH/NIAMS: Bone Biology and Bone Disease Research - Current Status and Prospects for the Future. Roundtable Panelist.

1997 NIH/NIAMS: Ad Hoc Reviewer, Special Emphasis Panel Review Committee.

1997 NIH: Orthopedic and Musculoskeletal Study Section Ad Hoc Reviewer.

1997 NIH: National Center for Research Resources. Ad Hoc Reviewer, University of Texas, San Antonio General Clinical Research Center.

1998 NIH: National Center for Research Resources. Ad Hoc Reviewer, Mayo Foundation. General Clinical Research Center, Rochester, Minnesota.

2000-2004 National Osteoporosis Foundation, Scientific Advisory Board.

2001-2004 National Osteoporosis Foundation, Scientific Advisory Board, Education Committee.

2000 NIH/NIAMS: Consensus Development Conference on Diagnosis and Treatment of Osteoporosis; Presentation: Secondary Causes of Osteoporosis.

2002 National Osteoporosis Foundation: Organizing Committee. 5th International Symposium: Clinical Advances in Osteoporosis.

2002 NIH/ NIDDK. Workshop: Asymptomatic Primary Hyperparathyroidism.

2003 The Surgeon General’s Report on Osteoporosis and Bone Health; Contributing Author.

2004 NIH: National Center for Research Resources. Ad Hoc Reviewer, Mayo Foundation. General Clinical Research Center, Rochester, Minnesota.

2004 NIH: National Center for Research Resources. Ad Hoc Reviewer, Beth Israel-Deaconess Medical Center. General Clinical Research Center, Boston, MA.

2006 NIH/ASBMR: Contemporary Diagnosis and Treatment of Vitamin D-Related Disorders, Organizing Committee

2010 NIH/NIAMS: Roundtable on Clinical Research

2012 NIH/NIAMS: Roundtable on K Awards

2013-2017 National Institutes of Health, NIAMS Advisory Council

Industry Advisory Committees:

NPS Pharmaceuticals: Clinical Advisory Committee, 1995-1996.
Procter and Gamble-Aventis, 1999-2001
Eli Lilly & Company, 2002-2004
Radius Pharmaceutical, 2014

Editorial:

Editorial Board, Journal of Bone and Mineral Research, 1991-1997, 2009-2013
Associate Editor, Journal of Bone and Mineral Research, 2013-2018
Associate Editor, Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism (First Edition) published by the American Society of Bone and Mineral Research, 1990 and Second Edition, 1993; Third Edition, 1996; Fourth Edition, 1999; Fifth Edition, 2003; Sixth Edition, 2006.
Associate Editor, Journal of Clinical Endocrinology and Metabolism, 1998-2004
Editor: The Bone Disease of Organ Transplantation, Elsevier, San Diego, 2005
Editorial Board, Bone, 2007-2017

Journals reviewed for 1993-2024:

New England Journal of Medicine
American Journal of Medicine
JAMA
Annals of Internal Medicine
Bone and Mineral
Bone
Calcified Tissue International
Endocrinology
Journal of Clinical Investigation
Proceedings of the National Academy of Sciences
Journal of Clinical Endocrinology and Metabolism
Osteoporosis International
Journal of Bone and Mineral Research
European Journal of Endocrinology
Transplantation
Journal of Heart and Lung Transplantation
American Journal of Kidney Diseases
Lancet
Lancet Diabetes and Endocrinology
The Medical Letter
Up-to-Date

FEDERAL GRANT SUPPORT:**ACTIVE**

1R01AG65154 -01 (Khosla, Rosen, Shane, Black, Multi-PI)	01/01/2021-12/31/2025	2.4 calendar
Total Award Amount (including Indirect Costs):		\$14,342,454
Beta1-selective blockade for prevention of postmenopausal bone loss: A randomized controlled trial		
The goals are to determine the effect of beta-1 selective blockade on bone loss in postmenopausal women.		

R01AR080106 (Walker, PI)	7/2022-6/2027	0.6 calendar
NIH/NIAMS		\$4,060,655
Serotonin and Skeletal Health		

The goal of this proposal is to determine the tissue, cellular and molecular mechanisms by which serotonin and SSRIs affect the musculoskeletal system in humans.

Role: Co-I

1R01AR071295-A1 (Guo, Shane, Lane, Multi-PI) 06/2023-05/2028 1.2 calendar
NIH/NIAMS

Total Award Amount (Including Indirect Costs): \$3,998,223

Subchondral Trabecular Plate and Rod Abnormalities in Human Osteoarthritis

The major goals of this study are to elucidate the bone microarchitectural characteristics of knee osteoarthritis and to develop and validate an innovative and early imaging biomarker for detecting and quantifying subchondral bone microstructure in osteoarthritis.

INDUSTRY GRANT SUPPORT

Active:

Prolia IIT-20177429 (PI: Shane) 03/18/18-12/31/24 0.6 calendar
Amgen

Total Award Amount (including Indirect Costs): \$450,390

Bisphosphonates for Prevention of Post-Denosumab Bone Loss in Premenopausal Women with Idiopathic Osteoporosis

The goal of this grant is to determine the extent to which bisphosphonates prevent loss of bone mass in otherwise healthy premenopausal women with idiopathic osteoporosis who have completed a two-year course of teriparatide and one to three years of denosumab.

Amgen Investigator Initiated Study Protocol number 20197285 (PI: Cohen, Shane) 0.6 calendar
Romosozumab for Premenopausal Idiopathic Osteoporosis \$1,500,000

Total Award Amount (including Indirect Costs): \$1,584,666

Major Goals: The major goals of this study are to elucidate the effect of romosozumab followed by denosumab on bone mass and remodeling in otherwise healthy premenopausal women with idiopathic osteoporosis.

Role: Co-I

FEDERAL GRANT SUPPORT:

PENDING:

RFA-FD-22-001 09/2024-08/2028 0.6 calendar

FDA Office of Orphan Product Development

Pregnancy and Lactation Associated Osteoporosis: A Prospective Natural History Study to Optimize Therapy

Total Award Amount (Including Indirect Costs): \$1,599,991

Role: Co-I

Federal Grant Support:

COMPLETED:

1R01FD006007 (PI: Cohen) 09/01/18-08/31/23 0.6 calendar
NIH/FDA

Total Award Amount (including Indirect Costs): \$1,933,106

Pregnancy and lactation associated osteoporosis: Bone microstructure and metabolism, genotypic characteristics, natural history and biomarkers of disease severity

The goals of this study are to define the natural history of PLO and its phenotype, including clinical features, hormonal characteristics, skeletal structure and remodeling, and predictors of disease

Role: Co-I

R01 FD003902-06 (PI: Shane, Cohen) 09/15/11-12/31/20 1.80 calendar

Food and Drug Administration		\$313,066
Teriparatide for Idiopathic Osteoporosis in Premenopausal Women: A Phase 2 Study		
The major goals of this study are to elucidate the effect of teriparatide on bone mass and remodeling in otherwise healthy premenopausal women with idiopathic osteoporosis.		
R01 FD005114-01A2 (PI: Shane, Cohen)	07/01/16-06/30/20	1.80 calendar
Food and Drug Administration		\$280,317
Phase 2B Study of Denosumab to Prevent Bone Loss in Idiopathic Osteoporosis in Premenopausal Women Treated with Teriparatide		
The goal of the proposed research is to characterize the effects of denosumab on bone mass and remodeling in otherwise healthy premenopausal women with idiopathic osteoporosis who have completed a two-year course of teriparatide.		
R01 AI-095089 (Yin, PI)	05/01/11-04/30/17	0.6 calendar
NIH/NIAID		\$463,147
HIV and the menopausal transition: effects on musculoskeletal outcomes		
The goal of the proposed research is to evaluate the effects of the menopausal transition on bone mass and turnover, muscle mass and strength in HIV+ women, and to determine the relationships between estrogen deficiency and T cell activation and circulating bone cell precursors.		
Role: Co-Investigator		
R01 AR058004 (Guo, Shane)	07/01/10-04/30/17	1.2 calendar
NIH/NIAMS		\$155,216
Clinical Bone Mechanics Using HR-pQCT and μ MRI		
The major goals of this study are to cross-validate microstructural and biomechanical measurements of two clinical imaging modalities HR-pQCT and μ MRI with gold standard μ CT and examine their predictive power in differentiating subjects with and without fracture.		
Role: Co-Principal Investigator		
2K24 AR052665 (Shane)	09/01/10-08/31/16	5.0 calendar
NIH/NIAMS		\$167,416
Idiopathic Osteoporosis in Premenopausal Women		
The major goals of this project are to study the pathogenesis and histologic features of osteoporosis in premenopausal women and to utilize the similarly titled RO1 grant, AR49896, and other funded studies as a vehicle for training and mentoring junior investigators.		
Role: Principal Investigator		
R01 DK084986 (Silverberg)	07/01/10-04/30/17	1.0 calendar
NIH/NIDDK		\$388,543
Vitamin D Deficiency in Primary Hyperparathyroidism		
An application to identify the components of skeletal structure, metabolism and dynamics attributable to primary hyperparathyroidism as distinct from vitamin D deficiency		
Role: Co-Investigator		
R44 AG036879-04 (PI: Kaufman)	04/01/10-03/31/11	
NIH/NIA		
Ultrasonic Assessment of the Forearm		
Role (Site PI)		
The overall goal of this project is to establish ultrasound as a safe, effective non-invasive method for assessing fracture risk and to commercialize a novel desktop ultrasound device for fracture risk assessment.		

5RO1 49896 (PI: Shane)

03/01/05-02/28/11

NIH/NIAMS

Idiopathic Osteoporosis in Premenopausal Women

The major goals of this study are to elucidate the pathogenesis and histologic features of idiopathic osteoporosis in otherwise healthy premenopausal women with low bone density or unexplained low trauma fractures.

NIH/NIAMS

U01 AR 055068-04 (PI: Shane)

09/01/07-08/31/11

Ultra-high Resolution pQCT as a Biomarker of Bone Strength in Osteoporosis Trials

The goal of this study is to evaluate the utility of a novel high resolution CT scanner, the Xtreme CT in assessing bone strength in women with normal kidney function and with moderate chronic kidney disease

NIH/NIAMS

RO1 AR 46124 (PI: Shane)

04/01/00-03/31/04

Prevention of Osteoporosis After Cardiac Transplantation

The major goals of this project are to compare the safety and efficacy of two therapeutic interventions, alendronate and calcitriol, in the prevention of bone loss during the first year following cardiac transplantation.

NIH/NIAMS

RO1AR41391/01-05 (PI: Shane)

05/31/93-04/30/00

Osteoporosis After Cardiac Transplantation

The major goals of this project were characterize the natural history and pathogenesis of bone loss and fracture after cardiac transplantation.

NIH/NIDDK

10/01/03-0930//06

RO1 63666 (PI: Arpadi)

Effect of Vitamin D Supplementation on Bone Mass in HIV-Infected Children

The major goals of this project are to assess the effects of vitamin D supplementation on bone mass and remodeling in HIV-infected children.

Role: Co-investigator

Mentored Federal Grant Support:

COMPLETED:

NIH/NCI

1K07CA095597 (PI: Hershman)

Osteoporosis Prevention In Early Stage Breast Cancer

07/01/02-6/30/07

The goal of this study is to investigate the safety and efficacy of intravenous zoledronic acid for prevention of bone loss in early stage breast cancer.

Role: Mentor

NIH/NIAID

K23 AI059884 (PI: Yin)

05/01/04-4/30/10

Bone mass and mineral metabolism in HIV+ postmenopausal women

The goal of this study is to quantify the prevalence and rate of significant bone loss in HIV infected postmenopausal women and to define the pathogenesis of HIV associated bone loss. This grant also provides for mentorship and further training as an independent patient-oriented researcher.

Role: Mentor

NIH/NIAMS

1K23AR053113 (PI: Pack) 12/01/05-11/30/10
Bone and Hormonal Health in Premenopausal Women with Epilepsy
The goal of this study is to investigate the effects of epilepsy and antiepileptic drug treatment on bone and hormonal health in premenopausal women with epilepsy.
Role: Mentor

NIH//NIAMS
K23 AR 054127 (PI: Cohen) 04/01/07-3/31/12
Bone Quality in Premenopausal Women With Idiopathic Fragility Fractures
The major goals of this grant are to study the pathogenesis and histologic features of osteoporosis in premenopausal women and to train Dr. Cohen to be an independent investigator.
Role: Mentor

NIH/NIDDK 07/01/08-6/30/13
1K23 DK080139 (PI: Nickolas)
Bone Quality and Mechanical Competence in Chronic Kidney Disease
The goal of this study is to investigate the effects of chronic kidney disease on bone structure and strength in patients with stages 3 through 5 chronic kidney disease.
Role: Mentor

NIH/NIDDK
1K23 DK084337 (PI: Stein) 07/01/09-06/30/14
PTH and Chronic Kidney Disease: Effects on the Postmenopausal Skeleton
The major goals of this study are to investigate the effects of primary and secondary hyperparathyroidism on the skeleton of postmenopausal women.
Role: Mentor

NIH/NIAMS
5K23 AR 061993 (PI: Sharma)
HIV and Adiposity in Women: Effects on Bone Metabolism 09/01/12-08/31/17
The goal of this study is to define the interactions between visceral adiposity and bone metabolism in premenopausal women with HIV Infection.
Role: Co-Mentor

NIH/NIAMS
K99R00 1K99AR067883-01 (PI: Nishiyama) 05/01/15-04/30/20
Fracture Prediction By Machine Learning And 3D Finite Element Models From DXA
The goal of this study is to develop 3D finite element models from routine DXA scans of the proximal femur and investigate whether such scans, with and without support vector models improve fracture risk prediction.
Role: Mentor

Industry Grant Support

Completed:

Novartis (PI: Shane, Investigator-Initiated) 09/01/05-08/31/11
Investigator Initiated Protocol
Alendronate Versus Zoledronic Acid For The Prevention of Bone Loss After Cardiac Transplantation
The major goals of this project are to compare the safety and efficacy of two therapeutic interventions, alendronate and zoledronic acid, in the prevention of bone loss during the first two years after cardiac transplantation.

Eli Lilly & Company (PI: Shane, Investigator-Initiated) 08/01/08-07/31/11

Teriparatide For Treatment of Idiopathic Osteoporosis in Premenopausal Women

The major goals of this study are to assess the effects of 18 months of teriparatide on areal and volumetric bone mass at central and peripheral sites, two- and three-dimensional quantitative histomorphometry of transiliac crest bone biopsies, and markers of bone remodeling activity in premenopausal women with unexplained osteoporosis.

Merck Research Labs (PI: Shane)

11/01/09-10/31/11

A Phase IIb, Randomized, Double-Blind, Placebo- and Active-Controlled, Dose-Range-Finding Study to Evaluate the Effects of MK-5442 on Bone Mineral Density (BMD) in the Treatment of Osteoporosis in Postmenopausal Women Previously Treated with an Oral Bisphosphonates

The major goal of this study is to investigate the effects of a calciolytic drug, MK-552 on bone mineral density in postmenopausal osteoporosis.

Prolia IIT-AAAN0161 (PI: Shane, Investigator-Initiated)

01/01/2015-12/31/2018

Amgen

\$371,148

Phase 2B Study of Denosumab to Prevent Bone Loss in Idiopathic Osteoporosis in Premenopausal Women Treated with Teriparatide

The goal of the proposed research is to characterize the effects of denosumab on bone mass and remodeling in otherwise healthy premenopausal women with idiopathic osteoporosis who have completed a two-year course of teriparatide. This grant provides study drug and supports advanced imaging and biochemical analyses for 1R01 FD005114-01A2 (Shane).

Role: Principal Investigator

PUBLICATIONS

A. Original, Peer Reviewed Articles

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4. Shane E, Gammon DE, Bilezikian JP: Guanine nucleotide-induced shift in binding affinity for beta-adrenergic agonists in rat reticulocyte and turkey erythrocyte membranes. *Biochem Pharmacol* 1981. March1; 30(5):531-535, PMID: 6112005
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13. Shane E, Avioli RC, Greene VS, Yeh M, Owens JM, Bell NH, Bilezikian JP: Enhancement of parathyroid hormone-responsive renal cortical adenylate cyclase by a cytosol protein activator from rat reticulocytes. *J Bone Min Res* 1986. Feb; 1(1):41-50, PMID: 3503532
14. Silverberg SJ, Shane E, Clemens TL, Dempster DW, Segre GV, Lindsay R, Bilezikian JP: The effect of oral phosphate on major indices of skeletal metabolism in normal subjects. *J Bone Min Res* 1986. Aug; 1(4):383-388, PMID: 3503552
15. Jacobs TP, Gordon AC, Clemens TL, Gundberg CM, Silverberg SJ, Shane E, Reich L: Neoplastic hypercalcemia: Physiologic response to intravenous etidronate disodium. *Am J Med* 1987. Feb 23; 82(2A):42-50. PMID: 3030098
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