

# Curriculum Vitae and Bibliography

## Matthew T Drake, MD, PhD

### Personal Information

Citizenship: United States of America  
Work Address: Mayo Clinic Rochester  
200 First St SW  
Rochester, MN 55905-0001  
507-284-4738  
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### Present Academic Rank and Position

**Consultant** - Division of Endocrinology, Diabetes, Metabolism, Nutrition,  
Department of Internal Medicine, Mayo Clinic, Rochester, Minnesota  
**Teaching/Examining Privileges in Clinical & Translational Sci.** - Mayo Clinic 12/2010 - Present  
Graduate School of Biomedical Sciences, Mayo Clinic College of Medicine and  
Science 07/2013 - Present  
**Associate Professor of Medicine** - Mayo Clinic College of Medicine and Science 02/2015 - Present  
**Consultant (Joint Appointment)** - Division of Hematology, Department of 03/2017 - Present  
Internal Medicine, Mayo Clinic, Rochester, Minnesota

### Education

Harvard College - AB, Biology 1989 - 1993  
Washington University - MD/PhD, Medicine Molecular and Cell Biology 1994 - 2001  
Duke University Medical Center - Resident, Internal Medicine/Endocrinology 2001 - 2004  
Duke University Medical Center - Clinical Research Fellowship, Postdoctoral  
Fellow 2004 - 2006  
Mayo School of Graduate Medical Education, Mayo Clinic College of Medicine - 2006 - 2007  
Clinical Research Fellowship, Endocrinology

### Additional Education

European Calcified Tissue Society Training Workshop: Cancer and Bone - A  
guide for in vivo experiments 09/2012  
University of L'Aquila, Department of Biotechnological and Applied Clinical  
Sciences, L'Aquila, Italy  
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) 12/2012  
Forum for Clinical Mentored K Awardees  
National Institutes of Health, Bethesda, Maryland

### Certification

#### Board Certifications American Board of Internal Medicine (ABIM)

Internal Medicine 2004 - 2014  
Endocrinology, Diabetes, and Metabolism 2007 - 2017

#### Mayo Clinic Quality Academy

Mayo Clinic Quality Fellow: Bronze Level Certification 2011

## Licensure

Minnesota 49132 (Medical) 01/2006 - Present

## Honors and Awards

**Magna Cum Laude, A.B. in Biology** - Harvard College 1993

**Summa Cum Laude Thesis** - Harvard College 1993

**Fellowship** - Foundation Jean Dausset - CEPH 07/1993 - 07/1994

**Medical Scientist Training Program** - Washington University School of Medicine 08/1994 - 06/2001

**Physician Scientist Training Program** - Washington University School of Medicine 2001

**Clinical Investigator Pathway** - Multi-Specialty MOC Portfolio Program: Clinical Investigator Pathway, American Board of Medical Specialties 07/2001 - 08/2007

**Young Investigator Award** - American Society for Bone and Mineral Research 2009

**New Investigator Award** - Mayo Clinic Department of Medicine 2010

## Previous Professional Positions and Major Appointments

**Senior Associate Consultant** - Division of Endocrinology, Diabetes, Metabolism, Nutrition, Department of Internal Medicine, Mayo Clinic, Rochester, Minnesota 10/2007 - 12/2010

**Assistant Professor in Medicine** - Mayo Clinic College of Medicine and Science 06/2008 - 01/2015

## Service

### Community Memberships and Services

Soft Bones Foundation  
Advisory Board Member 2012 - Present

## Professional Memberships and Societies

### Professional Memberships and Services

Advances in Mineral Metabolism  
Member 2007 - Present

Board of Directors  
Board Member 2014 - Present

American Society for Bone and Mineral Research  
Member 2004 - Present

Abstract Selection Committee  
Abstract Selection Reviewer 2010 - 2014

Cancer and Bone  
Session Chair 09/2011

Grants in Aid Program (GAP)  
Grant Application Reviewer 07/2014

Osteoporosis Pathophysiology

Session Chair	10/2012
Professional Practice Committee Member	2011 - 2014
Task Force on Cell Based Therapies Independent Content Reviewer	2014 - Present
Task Force on Managing Osteoporosis Patients after Long-Term Bisphosphonate Treatment	04/2013 - Present
American Society of Hematology Member	2009 - Present
Endocrine Society Member	2004 - Present
Task Force on Osteoporosis in Men Member	2011 - 2012
International Bone and Mineral Society Member	2007 - Present
International Myeloma Society Member	2010 - Present
International Myeloma Working Group Member	2009 - Present
Minnesota Medical Association Member	2006 - Present
Zumbro Valley Medical Society Member	2006 - Present

### Study Sections

Department of Defense Congressionally Directed Medical Research Program Scientific Reviewer	2010 - 2012
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### Journal Responsibilities

#### Journal Editorial Responsibilities

Journal of Bone and Mineral Research Editorial Board Member	2015 - Present
Journal of Clinical Endocrinology & Metabolism Editorial Board Member	2013 - Present

#### Journal Other Responsibilities

American Journal of Hematology Ad Hoc Reviewer
Archives of Internal Medicine Ad Hoc Reviewer
Blood Ad Hoc Reviewer
Blood Cancer Journal Ad Hoc Reviewer

Bone

Ad Hoc Reviewer

Cancer

Ad Hoc Reviewer

Clinical Biochemistry

Ad Hoc Reviewer

Clinical Lymphoma and Myeloma

Ad Hoc Reviewer

Diabetes

Ad Hoc Reviewer

European Journal of Hematology

Ad Hoc Reviewer

Expert Review of Endocrinology and Metabolism

Ad Hoc Reviewer

Journal of Bone and Mineral Research

Ad Hoc Reviewer

Journal of Clinical Endocrinology & Metabolism

Ad Hoc Reviewer

Journal of Clinical Oncology

Ad Hoc Reviewer

Journal of Clinical Pharmacology

Ad Hoc Reviewer

Journal of Musculoskeletal and Neuronal Interactions

Ad Hoc Reviewer

Journal of Rheumatology

Ad Hoc Reviewer

Leukemia

Ad Hoc Reviewer

Leukemia & Lymphoma

Ad Hoc Reviewer

Leukemia Research

Ad Hoc Reviewer

Mayo Clinic Proceedings

Ad Hoc Reviewer

Molecular and Cellular Endocrinology

Ad Hoc Reviewer

Nature Reviews - Endocrinology

Ad Hoc Reviewer

Nature Reviews Rheumatology

Ad Hoc Reviewer

Osteoporosis International

Ad Hoc Reviewer

PLoS ONE

Ad Hoc Reviewer

Proceedings of the National Academy of Sciences  
Ad Hoc Reviewer

Rheumatology  
Ad Hoc Reviewer

The Lancet Diabetes & Endocrinology  
Ad Hoc Reviewer

## Education Interests and Accomplishments

### Curriculum and Course Development

Endocrine Grand Rounds 08/2012 - 08/2013  
Director

### Teaching

Endocrine Fellowship Journal Club 02/2014  
Faculty advisor

Endocrine Fellowship Journal Club 07/2014  
Faculty advisor

Endocrine Fellowship Clinical Conference 08/2014  
Faculty advisor

### Mentorship

Ng, Alvin (Postdoctoral Fellow) 03/2008 - 05/2009  
**Description:**  
**Current Status:** Physician/scientist Singapore General Hospital  
**Outcome:**

Zhang, Wei (Postdoctoral Fellow) 09/2010 - 03/2014  
**Description:**  
**Current Status:**  
**Outcome:**

Quan, Jinxing (Postdoctoral Fellow) 02/2014 - Present  
**Description:**  
**Current Status:** Research fellow, Mayo Clinic  
**Outcome:**

## Institutional/Departmental Administrative Responsibilities, Committee Memberships and Other Activities

### Mayo Clinic

Mayo Clinic Center for Translational Science Activities

Associate Member 2008 - Present

Mayo Clinic Committees  
Institutional Review Board  
Board Member 2011 - Present

### Mayo Clinic in Rochester

Department of Internal Medicine  
Division of Endocrinology, Diabetes, Metabolism, Nutrition  
Career Development Award Review Committee

Ad Hoc Reviewer	2014 - 2015
Division of Endocrinology, Diabetes and Metabolism Fellowship Selection Committee	
Member	2014 - Present
Hospital Core Group	
Member	2007 - Present
Metabolic Bone Disease Core Group	
Member	2007 - Present
Chair	2015 - Present
Mayo Clinic Comprehensive Metabolomics Resource Core (MCCMRC)	
Grant Reviewer	2014
Mayo Clinic Rochester Committees	
Radiation Safety Committee	
Board Member	2014 - Present
Vice Chair	2015 - Present

## Presentations Extramural

### National or International

#### Invited

Effects of Intermittent Parathyroid Hormone Treatment on Osteoprogenitor Cells in Postmenopausal Women 4th Bone Research Seminar Tokyo, Japan	02/2010
Optimizing Bone-Related and Anti-Tumor Properties of Bisphosphonates for Patients with Multiple Myeloma. Lymphoma & Myeloma Congress New York, New York	10/2010
Measurement of Sclerostin and DKK-1 in Serum: What Insights Has This Provided? European Calcified Tissue Society Stockholm, Sweden	05/2012
Circulating Sclerostin as a Marker of Bone Health and Disease Plenary Symposium American Society for Bone and Mineral Research Annual Meeting	10/2013
Bone Mineral Metabolism in Chronic Kidney Disease Nephrology Update - West Lake Forum Hangzhou, China	03/2014
Monoclonal Gammopathy Associated Bone Loss Dresden University Medical Center Dresden, Germany	04/2014
Controversies in Pharmaceutical Management of Osteoporosis Therapy American Association of Clinical Endocrinologists Annual Meeting	05/2014

#### Oral

Bisphosphonates and Bone Health Mayo Clinical Reviews: Internal Medicine Update	10/2008
Impact of vitamin D deficiency on the clinical presentation and prognosis of patients with newly diagnosed multiple myeloma Advances in Mineral Metabolism Annual Meeting	04/2009

Effects of Intermittent PTH Treatment on Gene Expression in Vivo in Osteoblast Progenitor Cells in Bone Marrow of Postmenopausal Women American Society for Bone and Mineral Research Annual Meeting	09/2009
Increases in Serum DKK1 are Associated with Alterations in Skeletal Microstructure in Monoclonal Gammopathy of Undetermined Significance (MGUS) American Society for Bone and Mineral Research Annual Meeting	09/2009
Predicting Fracture Risk Mayo Clinical Reviews: Internal Medicine Update	10/2009
Intermittent PTH Treatment Decreases Circulating Sclerostin Levels in Postmenopausal Women American Society for Bone and Mineral Research Annual Meeting	10/2010
Suppression of FSH in Postmenopausal Women has No Effect on Bone Resorption Markers American Society for Bone and Mineral Research Annual Meeting	10/2010
Bone Turnover Markers Mayo Clinic Endocrine Course Mallorca, Spain	04/2012
Skeletal Health in Cancer Patients Mayo Clinic Endocrine Course Mallorca, Spain	04/2012
Osteoporosis in Men Endocrine Society Annual Meeting San Francisco, California	06/2013
The Clinical Spectrum of Hypophosphatasia Soft Bones Patient Education Meeting San Diego, California	02/2014
Bone loss in monoclonal gammopathy of undetermined significance. Advances in Mineral Metabolism Annual Meeting	04/2014
<b>Regional</b>	
<b>Invited</b>	
Current Issues in Osteoporosis: Long-term Complications of Bisphosphonates and Use of Denosumab Annual Midwest Regional American Association of Clinical Endocrinologists Meeting	11/2010
Improving Quality of Care in the Treatment of Patients with Osteoporosis Northern Michigan Regional Hospital Grand Rounds Petoskey, Michigan	11/2010
Vitamin D Deficiency States: Detection and Treatment Strategies Mayo Clinic Health Solutions Disease Management Continuing Education	11/2010
Understanding Bone Disease Across the Monoclonal Gammopathy Spectrum University of Arkansas Medical Sciences Winthrop P. Rockefeller Cancer Institute Grand Rounds	02/2011
Skeletal Health Across the Monoclonal Gammopathy Spectrum Washington University School of Medicine St. Louis, Missouri	12/2011

Skeletal Structural Changes and Fracture Risk in Monoclonal Gammopathy of Undetermined Significance Central Society for Clinical and Translational Research Annual Meeting Chicago, Illinois	04/2014
<b>Oral</b>	
Parathyroid Hormone: From Basic Biology to Clinical Practice Mayo Clinic Endocrine Grand Rounds	05/2008
Cancer Associated Bone Disease Mayo Clinic Endocrine Grand Rounds	04/2009
Alterations in skeletal microstructure in MGUS are associated with increases in serum levels of Dickkopf1 and macrophage inflammatory protein 1-alpha Mayo Clinic Endocrine Research Seminar	03/2010
Management of Bone Disease in Multiple Myeloma International Myeloma Foundation Patient & Family Seminar Portland, Oregon	05/2010
Management of Bone Disease in Multiple Myeloma International Myeloma Foundation Patient & Family Seminar Redwood City, California	03/2011
Suppression of FSH in postmenopausal women has no effect on bone resorption markers Mayo Clinic Endocrine Grand Rounds	03/2011
Management of Bone Disease in Multiple Myeloma International Myeloma Foundation Patient & Family Seminar Dallas, Texas	06/2011
Optimizing Bone Health in Multiple Myeloma International Myeloma Foundation Patient & Family Seminar Boston, Massachusetts	08/2012
Optimizing Bone Health in Multiple Myeloma International Myeloma Foundation Patient & Family Seminar Philadelphia, Pennsylvania	08/2013
Monoclonal gammopathy-associated bone loss Mayo Clinic Kogod Center on Aging - New and Exciting Research Developments	10/2013
Optimizing Bone Health in Multiple Myeloma International Myeloma Foundation Patient & Family Seminar Atlanta, Georgia	05/2014

### **Clinical Practice, Interests, and Accomplishments**

Disorders of skeletal and mineral metabolism, cancer-associated bone loss

### **Research Interests and Accomplishments**

Mechanisms underlying and skeletal architectural changes occurring with age-related bone loss, mechanisms underlying skeletal metastasis and malignancy-associated bone loss.

### **Research Grants Awarded**

#### **Active Grants**



**Federal**

- Co-Investigator Canonical and noncanonical Wnt signaling in osteoclast functions - Dr. 06/2015 - 05/2020  
Khosla's Portion: Canonical and noncanonical Wnt signaling in osteoclast functions. Funded by National Institute of Arthritis and Musculoskeletal and Skin Diseases. (R01 AR 65402)
- Co-Investigator Canonical and noncanonical Wnt signaling in osteoclast functions - Dr. 06/2015 - 05/2020  
Oursler's Portion: Canonical and noncanonical Wnt signaling in osteoclast functions. Funded by National Institute of Arthritis and Musculoskeletal and Skin Diseases. (R01 AR 65402)
- Co-Investigator Project 1: Physiology of Bone Metabolism in an Aging Population. 06/2015 - 04/2020 Funded by National Institute on Aging. (P01 AG 04875)
- Co-Investigator Dr. Khosla's budget - Aim 2: Osteoclast Regulation of Bone Formation. 07/2015 - 06/2020 Funded by National Institute of Arthritis and Musculoskeletal and Skin Diseases. (R01 AR 67129)
- Co-Investigator Epidemiology of Age-Related Bone Loss and Fractures. Funded by 06/2016 - 05/2021 National Institute of Arthritis and Musculoskeletal and Skin Diseases. (R01 AR 27065)

**Foundation**

- Co-Investigator Assessment of fracture risk with radiologic bone mineral densities and 07/2018 - 06/2020 serological markers in children and young adults with bleeding disorders. Funded by Hemostasis & Thrombosis Research Society

**Industry**

- Program Bimagrumab in patients after surgical treatment of hip fracture. Funded 11/2015 - 11/2017 Director / by Novartis. (CBYM338D2201)  
Principal Investigator
- Co-Investigator Prevalence of Hypophosphatasia in Patients with Fibromyalgia at the 05/2017 - 04/2019 Mayo Clinic . Funded by Alexion Pharmaceuticals, Inc.
- Co-Investigator Internal Amendment #2: A Phase 1b Study to Assess the Anti- 05/2017 - 11/2018 fatigability Effect of CK-2127107 in Elderly Male and Female Subjects with Limitations in Mobility: Resubmission\_Amendment #2: A Phase 1b Study to Assess the Anti-fatigability Effect of CK-2127107 in Elderly Male and Female Subjects with Limitations in Mobility. Funded by Astellas Pharma Global Development, Inc. (APGD). (3318-CL-3001)

**Completed Grants****Federal**

- Program Pathogenesis of Monoclonal Gammopathy Bone Disease. Funded by 08/2010 - 07/2015 Director / National Institute of Arthritis and Musculoskeletal and Skin Diseases. Principal Investigator (K08 AR 59138)
- Co-Investigator Prevalence and Progression of Monoclonal Gammopathies. Funded by 03/2009 - 04/2014 National Cancer Institute. (R01 CA 107476)
- Co-Investigator Pathophysiology Osteoporosis in Aging Men Proj 1: Physiology of Bone Metabolism in an Aging Population. Funded by National Institute on Aging. (P01 AG 04875)

**Federal sub award**

Program Risk Factors for MGUS Progression: Risk Factors for MGUS 09/2015 - 08/2016  
 Director / Progression (MCA Multiple Myeloma SPORE). Funded by National  
 Principal Cancer Institute. (CA 186781) Investigator

**Foundation**

Principal Multiple Myeloma and Bone: Understanding the Destruction. Funded 09/2007 - 08/2008  
 Investigator by Multiple Myeloma Research Foundation

**Industry**

Co-Investigator A 29 week, randomized, double-blind, placebo-controlled, multi-center, 09/2014 - 02/2016  
 parallel group dose range finding study to assess the effect of monthly  
 doses of bimagrumab 70, 210 and 700 mg on skeletal muscle strength  
 and function in older adults with Sarcopenia . Funded by Novartis.  
 (Protocol BYM338E2202)

**Mayo Clinic**

Principal Molecular Basis for Bone Destruction in Multiple Myeloma. Funded by 01/2007 -  
 Investigator 12/2009 Mayo Career Development Award Funding

Principal Testosterone Levels and Sexual Function in Women. Funded by Mayo 03/2008 - 02/2009  
 Investigator Clinical and Translational Science Award Small Grants Award

Principal Bone Microarchitecture at the Ultra-Distal Radius in Monoclonal 03/2008 - 02/2010  
 Investigator Gammopathy of Undetermined Significance and Multiple Myeloma. Funded by Mayo  
 Hematologic Malignancies Program

Program Pathogenesis of Monoclonal Gammopathy Bone Disease. Funded by 07/2010 -  
 Director / 06/2012 Early Career Supplement Award  
 Principal  
 Investigator

Co-Investigator Bisphosphonate-Related Insufficiency Fractures. Funded by SGP - 01/2009 -  
 12/2009 Small Grants Program <\$10K

Co-Investigator Pilot Study of Teriparatide for Postsurgical Hypoparathyroidism - SGP. 07/2010 - 07/2012  
 Funded by SGP - Small Grants Program <\$10K

Co-Investigator Measurement of Semaphorin 3A and Other Osteoanabolic Molecules in 04/2013 - 04/2015  
 a Single Patient with High Bone Density Associated with Metastatic Oligodendroglioma .  
 Funded by SGP - Small Grants Program <\$10K

Co-Investigator Assessment of Bone Microstructure by High Resolution Peripheral 07/2014 - 07/2016  
 Quantitative CT (HRpQCT) Scanning in Adults with Low-Trauma  
 Fractures Who Have Normal or Near-Normal Bone Density. Funded by  
 SGP - Small Grants Program <\$10K

**Bibliography****Peer-reviewed Articles**

1. **Drake MT**, Baldassare JJ, McConkey CL, Gonzalez EA, Martin KJ. Parathyroid hormone increases the expression of receptors for epidermal growth factor in UMR 106-01 cells. *Endocrinology*. 1994 Apr; 134(4):1733-7. PMID: 8137737
2. Iida-Klein A, Guo J, **Drake MT**, Kronenberg HM, Abou-Samra AB, Bringham FR, Segre GV. Structural requirements of parathyroid hormone/parathyroid hormone-related peptide receptors for phospholipase C activation and regulation of phosphate uptake. *Miner Electrolyte Metab*. 1995; 21(1-3):177-9. PMID: 7565444

3. Iida-Klein A, Guo J, Takemura M, **Drake MT**, Potts JT Jr, Abou-Samra A, Bringhurst FR, Segre GV. Mutations in the second cytoplasmic loop of the rat parathyroid hormone (PTH)/PTH-related protein receptor result in selective loss of PTH-stimulated phospholipase C activity. *J Biol Chem*. 1997 Mar 14; 272(11):6882-9. PMID: 9054374
4. Zhu Y, **Drake MT**, Kornfeld S. ADP-ribosylation factor 1 dependent clathrin-coat assembly on synthetic liposomes. *Proc Natl Acad Sci U S A*. 1999 Apr 27; 96(9):5013-8. PMID: 10220410 PMID: 21808
5. **Drake MT**, Downs MA, Traub LM. Epsin binds to clathrin by associating directly with the clathrin-terminal domain. Evidence for cooperative binding through two discrete sites. *J Biol Chem*. 2000 Mar 3; 275(9):6479-89. PMID: 10692452
6. **Drake MT**, Zhu Y, Kornfeld S. The assembly of AP-3 adaptor complex-containing clathrin-coated vesicles on synthetic liposomes. *Mol Biol Cell*. 2000 Nov; 11(11):3723-36. PMID: 11071902 PMID: 15032
7. Zhu Y, **Drake MT**, Kornfeld S. Adaptor protein 1-dependent clathrin coat assembly on synthetic liposomes and Golgi membranes. *Methods Enzymol*. 2001; 329:379-87. PMID: 11210557
8. **Drake MT**, Traub LM. Interaction of two structurally distinct sequence types with the clathrin terminal domain beta-propeller. *J Biol Chem*. 2001 Aug 3; 276(31):28700-9. Epub 2001 May 29. PMID: 11382783 DOI: 10.1074/jbc.M104226200
9. Green AD, Colon-Emeric CS, Bastian L, **Drake MT**, Lyles KW. Does this woman have osteoporosis? *JAMA*. 2004 Dec 15; 292(23):2890-900. PMID: 15598921
10. Shenoy SK, **Drake MT**, Nelson CD, Houtz DA, Xiao K, Madabushi S, Reiter E, Premont RT, Lichtarge O, Lefkowitz RJ. beta-arrestin-dependent, G protein-independent ERK1/2 activation by the beta2 adrenergic receptor. *J Biol Chem*. 2006 Jan 13; 281(2):1261-73. Epub 2005 Nov 09. PMID: 16280323 DOI: 10.1074/jbc.M506576200
11. **Drake MT**, Shenoy SK, Lefkowitz RJ. Trafficking of G protein-coupled receptors. *Circ Res*. 2006 Sep 15; 99(6):570-82. PMID: 16973913 DOI: 10.1161/01.RES.0000242563.47507.ce
12. Wisler JW, DeWire SM, Whalen EJ, Violin JD, **Drake MT**, Ahn S, Shenoy SK, Lefkowitz RJ. A unique mechanism of beta-blocker action: Carvedilol stimulates beta-arrestin signaling. *Proc Natl Acad Sci U S A*. 2007 Oct 16; 104(42):16657-62. Epub 2007 Oct 9. PMID: 17925438 PMID: 2034221 DOI: 10.1073/pnas.0707936104
13. **Drake MT**, Violin JD, Whalen EJ, Wisler JW, Shenoy SK, Lefkowitz RJ. beta-arrestin-biased agonism at the beta2-adrenergic receptor. *J Biol Chem*. 2008 Feb 29; 283(9):5669-76. Epub 2007 Dec 17. PMID: 18086673 DOI: 10.1074/jbc.M708118200
14. **Drake MT**, Clarke BL, Khosla S. Bisphosphonates: mechanism of action and role in clinical practice. *Mayo Clin Proc*. 2008 Sep; 83(9):1032-45 PMID: 18775204 PMID: 2667901 DOI: 10.4065/83.9.1032
15. Lee I, **Drake MT**, Traub LM, Kornfeld S. Cargo-sorting signals promote polymerization of adaptor protein-1 in an Arf-1.GTP-independent manner. *Arch Biochem Biophys*. 2008 Nov 1; 479(1):63-8. Epub 2008 Aug 20. PMID: 18762162 PMID: 2614314 DOI: 10.1016/j.abb.2008.08.009
16. Kennel KA, **Drake MT**. Adverse effects of bisphosphonates: implications for osteoporosis management. *Mayo Clin Proc*. 2009 Jul; 84(7):632-7; quiz 638 PMID: 19567717 PMID: 2704135 DOI: 10.1016/S0025-6196(11)60752-0
17. Ng AC, Kumar SK, Rajkumar SV, **Drake MT**. Impact of vitamin D deficiency on the clinical presentation and prognosis of patients with newly diagnosed multiple myeloma. *Am J Hematol*. 2009 Jul; 84(7):397-400 PMID: 19415724 PMID: 2895403 DOI: 10.1002/ajh.21412
18. **Drake MT**. Bone disease in multiple myeloma. *Oncology (Williston Park)*. 2009 Dec; 23(14 Suppl 5):28-32. PMID: 20128326
19. **Drake MT**, Ng AC. Vitamin D deficiency in multiple myeloma. *European journal of Clinical and Medical Oncology*. 2010; 2(1). PMID: 0

20. **Drake MT**, Cremers SC. Bisphosphonate therapeutics in bone disease: the hard and soft data on osteoclast inhibition. *Mol Interv*. 2010 Jun; 10(3):141-52. PMID: 20539033 DOI: 10.1124/mi.10.3.5
21. Undale A, Srinivasan B, **Drake M**, McCready L, Atkinson E, Peterson J, Riggs BL, Amin S, Modder UI, Khosla S. Circulating osteogenic cells: characterization and relationship to rates of bone loss in postmenopausal women. *Bone*. 2010 Jul; 47 (1):83-92 Epub 2010 Mar 31 PMID: 20362080 PMCID: 2891408 DOI: 10.1016/j.bone.2010.03.018
22. Berenson JR, Anderson KC, Audell RA, Boccia RV, Coleman M, Dimopoulos MA, **Drake MT**, Fonseca R, Harousseau JL, Joshua D, Lonial S, Niesvizky R, Palumbo A, Roodman GD, San-Miguel JF, Singhal S, Weber DM, Zangari M, Wirtschafter E, Yellin O, Kyle RA. Monoclonal gammopathy of undetermined significance: a consensus statement. *Br J Haematol*. 2010 Jul; 150(1):28-38. Epub 2010 May 09. PMID: 20507313 DOI: 10.1111/j.1365-2141.2010.08207.x
23. Kennel KA, **Drake MT**, Hurley DL. Vitamin D deficiency in adults: when to test and how to treat. *Mayo Clin Proc*. 2010 Aug; 85 (8):752-7; quiz 757-8 PMID: 20675513 PMCID: 2912737 DOI: 10.4065/mcp.2010.0138
24. **Drake MT**, Maurer MJ, Link BK, Habermann TM, Ansell SM, Micallef IN, Kelly JL, Macon WR, Nowakowski GS, Inwards DJ, Johnston PB, Singh RJ, Allmer C, Slager SL, Weiner GJ, Witzig TE, Cerhan JR. Vitamin D insufficiency and prognosis in non-Hodgkin's lymphoma. *J Clin Oncol*. 2010 Sep 20; 28 (27):4191-8 Epub 2010 Aug 16 PMID: 20713849 PMCID: 2953973 DOI: 10.1200/JCO.2010.28.6674
25. Terpos E, Dimopoulos MA, Sezer O, Roodman D, Abildgaard N, Vescio R, Tosi P, Garcia-Sanz R, Davies F, Chanan-Khan A, Palumbo A, Sonneveld P, **Drake MT**, Harousseau JL, Anderson KC, Durie BG, International Myeloma. The use of biochemical markers of bone remodeling in multiple myeloma: a report of the International Myeloma Working Group. *Leukemia*. 2010 Oct; 24(10):1700-12. Epub 2010 Sep 02. PMID: 20811404 DOI: 10.1038/leu.2010.173
26. **Drake MT**, Srinivasan B, Modder UI, Peterson JM, McCready LK, Riggs BL, Dwyer D, Stolina M, Kostenuik P, Khosla S. Effects of parathyroid hormone treatment on circulating sclerostin levels in postmenopausal women. *J Clin Endocrinol Metab*. 2010 Nov; 95 (11):5056-62 Epub 2010 July 14 PMID: 20631014 PMCID: 2968729 DOI: 10.1210/jc.2010-0720
27. **Drake MT**, McCready LK, Hoey KA, Atkinson EJ, Khosla S. Effects of suppression of follicle-stimulating hormone secretion on bone resorption markers in postmenopausal women. *J Clin Endocrinol Metab*. 2010 Nov; 95 (11):5063-8 Epub 2010 July 07 PMID: 20610587 PMCID: 2968737 DOI: 10.1210/jc.2010-1103
28. Burrus TM, **Drake MT**, Sanderson SO, Keegan BM. A case of endocrinologic crisis in a woman with subacute blindness. *Neurology*. 2010 Nov 2; 75(18 Suppl 1):S65. PMID: 21041775 DOI: 10.1212/WNL.0b013e3181fb35c6
29. Undale A, Srinivasan B, **Drake M**, McCready L, Atkinson E, Peterson J, Riggs BL, Amin S, Modder UI, Khosla S. Corrigendum to "Circulating osteogenic cells: Characterization and relationship to rates of bone loss in postmenopausal women" [*Bone* 47 (2010) 83-92]. *Bone*. 2011; 48(3):671.
30. Shanafelt TD, **Drake MT**, Maurer MJ, Allmer C, Rabe KG, Slager SL, Weiner GJ, Call TG, Link BK, Zent CS, Kay NE, Hanson CA, Witzig TE, Cerhan JR. Vitamin D insufficiency and prognosis in chronic lymphocytic leukemia. *Blood*. 2011 Feb 3; 117 (5):1492-8 Epub 2010 Nov 03 PMID: 21048153 PMCID: 3056589 DOI: 10.1182/blood-2010-07-295683
31. **Drake MT**, Srinivasan B, Modder UI, Ng AC, Undale AH, Roforth MM, Peterson JM, McCready LK, Riggs BL, Khosla S. Effects of intermittent parathyroid hormone treatment on osteoprogenitor cells in postmenopausal women. *Bone*. 2011 Sep; 49 (3):349-55 Epub 2011 May 11 PMID: 21600325 PMCID: 3143310 DOI: 10.1016/j.bone.2011.05.003
32. Fowler JA, Lwin ST, **Drake MT**, Edwards JR, Kyle RA, Mundy GR, Edwards CM. Host-derived adiponectin is tumor-suppressive and a novel therapeutic target for multiple myeloma and the associated bone disease. *Blood*. 2011 Nov 24; 118(22):5872-82. Epub 2011 Sep 08. PMID: 21908434 PMCID: 3228502 DOI: 10.1182/blood.2011-01-330407

33. Pardanani A, **Drake MT**, Finke C, Lasho TL, Rozell SA, Jimma T, Tefferi A. Vitamin D insufficiency in myeloproliferative neoplasms and myelodysplastic syndromes: clinical correlates and prognostic studies. *Am J Hematol*. 2011 Dec; 86(12):1013-6. PMID: 22086864 DOI: 10.1002/ajh.22181
34. Ng AC, Khosla S, Charatcharoenwithaya N, Kumar SK, Achenbach SJ, Holets MF, McCready LK, Melton LJ 3rd, Kyle RA, Rajkumar SV, **Drake MT**. Bone microstructural changes revealed by high-resolution peripheral quantitative computed tomography imaging and elevated DKK1 and MIP-1alpha levels in patients with MGUS. *Blood*. 2011 Dec 15; 118 (25):6529-34 Epub 2011 Oct 31 PMID: 22042700 PMCID: 3242716 DOI: 10.1182/blood-2011-04-351437
35. Zhang W, **Drake MT**. Potential role for therapies targeting DKK1, LRP5, and serotonin in the treatment of osteoporosis. *Curr Osteoporos Rep*. 2012 Mar; 10 (1):93-100 PMID: 22210558 DOI: 10.1007/s11914-011-0086-8
36. Murad MH, **Drake MT**, Mullan RJ, Mauck KF, Stuart LM, Lane MA, Abu Elnour NO, Erwin PJ, Hazem A, Puhan MA, Li T, Montori VM. Clinical review. Comparative effectiveness of drug treatments to prevent fragility fractures: a systematic review and network meta-analysis. *J Clin Endocrinol Metab*. 2012 Jun; 97 (6):1871-80 PMID: 22466336 DOI: 10.1210/jc.2011-3060
37. **Drake MT**, Murad MH, Mauck KF, Lane MA, Undavalli C, Elraiyah T, Stuart LM, Prasad C, Shahrour A, Mullan RJ, Hazem A, Erwin PJ, Montori VM. Clinical review. Risk factors for low bone mass-related fractures in men: a systematic review and meta-analysis. *J Clin Endocrinol Metab*. 2012 Jun; 97 (6):1861-70 Epub 2012 Mar 30 PMID: 22466344 DOI: 10.1210/jc.2011-3058
38. Watts NB, Adler RA, Bilezikian JP, **Drake MT**, Eastell R, Orwoll ES, Finkelstein JS, Endocrine Society. Osteoporosis in men: an Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab*. 2012 Jun; 97(6):1802-22. PMID: 22675062 DOI: 10.1210/jc.2011-3045
39. Ng AC, **Drake MT**, Clarke BL, Sems SA, Atkinson EJ, Achenbach SJ, Melton LJ 3rd. Trends in subtrochanteric, diaphyseal, and distal femur fractures, 1984-2007. *Osteoporos Int*. 2012 Jun; 23 (6):1721-6 Epub 2011 Sept 10 PMID: 21909727 PMCID: 3266989 DOI: 10.1007/s00198-011-1777-9
40. Kelly JL, **Drake MT**, Fredericksen ZS, Asmann YW, Liebow M, Shanafelt TD, Feldman AL, Ansell SM, Macon WR, Herr MM, Wang AH, Nowakowski GS, Call TG, Habermann TM, Slager SL, Witzig TE, Cerhan JR. Early life sun exposure, vitamin D-related gene variants, and risk of non-Hodgkin lymphoma. *Cancer Causes Control*. 2012 Jul; 23: (7)1017-29. PMID: 22544453 PMCID: 3589750 DOI: 10.1007/s10552-012-9967-0
41. **Drake MT**, Khosla S. Male osteoporosis. *Endocrinol Metab Clin North Am*. 2012 Sep; 41 (3):629-41 Epub 2012 June 17 PMID: 22877433 PMCID: 3602974 DOI: 10.1016/j.ecl.2012.05.001
42. Clarke BL, **Drake MT**. Clinical utility of serum sclerostin measurements. *Bonekey Rep*. 2013; 2:361 Epub 2013 June 05 PMID: 24578825 PMCID: 3936109 DOI: 10.1038/bonekey.2013.95
43. Lapid MI, **Drake MT**, Geske JR, Mundis CB, Hegard TL, Kung S, Frye MA. Hypovitaminosis D in psychogeriatric inpatients. *J Nutr Health Aging*. 2013 Mar; 17 (3):231-4 PMID: 23459975 DOI: 10.1007/s12603-0120383-7
44. Mikhael JR, Dingli D, Roy V, Reeder CB, Buadi FK, Hayman SR, Dispenzieri A, Fonseca R, Sher T, Kyle RA, Lin Y, Russell SJ, Kumar S, Bergsagel PL, Zeldenrust SR, Leung N, **Drake MT**, Kapoor P, Ansell SM, Witzig TE, Lust JA, Dalton RJ, Gertz MA, Stewart AK, Rajkumar SV, Chanan-Khan A, Lacy MQ, Mayo Clinic. Management of newly diagnosed symptomatic multiple myeloma: updated Mayo Stratification of Myeloma and Risk-Adapted Therapy (mSMART) consensus guidelines 2013. *Mayo Clin Proc*. 2013 Apr; 88: (4)360-76. PMID: 23541011 DOI: 10.1016/j.mayocp.2013.01.019
45. Berkseth KE, Tebben PJ, **Drake MT**, Hefferan TE, Jewison DE, Wermers RA. Clinical spectrum of hypophosphatasia diagnosed in adults. *Bone*. 2013 May; 54(1):21-7. Epub 2013 Jan 22. PMID: 23352924 DOI: 10.1016/j.bone.2013.01.024
46. Leedahl DD, Cunningham JL, **Drake MT**, Mundis CB, Kung S, Frye MA, Lapid MI. Hypovitaminosis D in psychiatric inpatients: clinical correlation with depressive symptoms, cognitive impairment, and prescribing practices. *Psychosomatics*. 2013 May-Jun; 54(3):257-62. Epub 2012 Dec 01. PMID: 23206373 DOI:

10.1016/j.psym.2012.07.005

47. Terpos E, Morgan G, Dimopoulos MA, **Drake MT**, Lentzsch S, Raje N, Sezer O, Garcia-Sanz R, Shimizu K, Turesson I, Reiman T, Jurczynszyn A, Merlini G, Spencer A, Leleu X, Cavo M, Munshi N, Rajkumar SV, Durie BG, Roodman GD. International Myeloma Working Group recommendations for the treatment of multiple myeloma-related bone disease. *J Clin Oncol*. 2013 Jun 20; 31(18):2347-57. Epub 2013 May 20. PMID: 23690408 PMCID: 4878084 DOI: 10.1200/JCO.2012.47.7901
48. Ng AC, Melton LJ 3rd, Atkinson EJ, Achenbach SJ, Holets MF, Peterson JM, Khosla S, **Drake MT**. Relationship of adiposity to bone volumetric density and microstructure in men and women across the adult lifespan. *Bone*. 2013 Jul; 55 (1):119-25 Epub 2013 Feb 18 PMID: 23428401 PMCID: 3650114 DOI: 10.1016/j.bone.2013.02.006
49. **Drake MT**. Osteoporosis and cancer. *Curr Osteoporos Rep*. 2013 Sep; 11 (3):163-70 PMID: 23877475 PMCID: 3783531 DOI: 10.1007/s11914-013-0154-3
50. Kennel KA, **Drake MT**. Vitamin D in the cancer patient. *Curr Opin Support Palliat Care*. 2013 Sep; 7 (3):272-7 PMID: 23912386 PMCID: 3899831 DOI: 10.1097/SPC.0b013e3283640f74
51. Fujita K, Roforth MM, Demaray S, McGregor U, Kirmani S, McCready LK, Peterson JM, **Drake MT**, Monroe DG, Khosla S. Effects of estrogen on bone mRNA levels of sclerostin and other genes relevant to bone metabolism in postmenopausal women. *J Clin Endocrinol Metab*. 2014 Jan; 99 (1):E81-8 Epub 2013 Dec 20 PMID: 24170101 PMCID: 3879677 DOI: 10.1210/jc.2013-3249
52. Farr JN, Zhang W, Kumar SK, Jacques RM, Ng AC, McCready LK, Rajkumar SV, **Drake MT**. Altered cortical microarchitecture in patients with monoclonal gammopathy of undetermined significance. *Blood*. 2014 Jan 30; 123 (5):647-9 Epub 2013 Nov 13 PMID: 24227822 PMCID: 3907752 DOI: 10.1182/blood-2013-05-505776
53. Roforth MM, Fujita K, McGregor UI, Kirmani S, McCready LK, Peterson JM, **Drake MT**, Monroe DG, Khosla S. Effects of age on bone mRNA levels of sclerostin and other genes relevant to bone metabolism in humans. *Bone*. 2014 Feb; 59:1-6 Epub 2013 Oct 29 PMID: 24184314 PMCID: 3877168 DOI: 10.1016/j.bone.2013.10.019
54. Fujita K, Roforth MM, Atkinson EJ, Peterson JM, **Drake MT**, McCready LK, Farr JN, Monroe DG, Khosla S. Isolation and characterization of human osteoblasts from needle biopsies without in vitro culture. *Osteoporos Int*. 2014 Mar; 25 (3):887-95 Epub 2013 Oct 11 PMID: 24114401 PMCID: 4216562 DOI: 10.1007/s00198013-2529-9
55. Farr JN, **Drake MT**, Amin S, Melton LJ 3rd, McCready LK, Khosla S. In vivo assessment of bone quality in postmenopausal women with type 2 diabetes. *J Bone Miner Res*. 2014 Apr; 29 (4):787-95 PMID: 24123088 PMCID: 3961509 DOI: 10.1002/jbmr.2106
56. **Drake MT**, Farr JN. Inhibitors of sclerostin: emerging concepts. *Curr Opin Rheumatol*. 2014 Jul; 26 (4):447-52 PMID: 24807403 PMCID: 4138969 DOI: 10.1097/BOR.0000000000000073
57. Inwards DJ, Fishkin PA, LaPlant BR, **Drake MT**, Kurtin PJ, Nikcevich DA, Wender DB, Lair BS, Witzig TE. Phase I trial of rituximab, cladribine, and temsirolimus (RCT) for initial therapy of mantle cell lymphoma. *Ann Oncol*. 2014 Oct; 25 (10):2020-4 Epub 2014 July 23 PMID: 25057177 PMCID: 5808677 DOI: 10.1093/annonc/mdu273
58. **Drake MT**. unveiling skeletal fragility in patients diagnosed with MGUS: no longer a condition of undetermined significance? *J Bone Miner Res*. 2014 Dec; 29 (12):2529-33 PMID: 25319751 PMCID: 4268401 DOI: 10.1002/jbmr.2387
59. Farr JN, Roforth MM, Fujita K, Nicks KM, Cunningham JM, Atkinson EJ, Therneau TM, McCready LK, Peterson JM, **Drake MT**, Monroe DG, Khosla S. Effects of Age and Estrogen on Skeletal Gene Expression in Humans as Assessed by RNA Sequencing. *PLoS One*. 2015; 10 (9):e0138347 Epub 2015 Sept 24 PMID: 26402159 PMCID: 4581624 DOI: 10.1371/journal.pone.0138347
60. Al Bawardy BF, Simonetto DA, **Drake MT**. 62-year-old man with persistent postoperative nausea and vomiting. *Mayo Clin Proc*. 2015 Feb; 90(2):280-3. PMID: 25659244 DOI: 10.1016/j.mayocp.2014.06.023

61. Roforth MM, Farr JN, Fujita K, McCready LK, Atkinson EJ, Therneau TM, Cunningham JM, **Drake MT**, Monroe DG, Khosla S. Global transcriptional profiling using RNA sequencing and DNA methylation patterns in highly enriched mesenchymal cells from young versus elderly women. *Bone*. 2015 Jul; 76:49-57 Epub 2015 Mar 27 PMID: 25827254 PMCID: 4447531 DOI: 10.1016/j.bone.2015.03.017
62. **Drake MT**, Clarke BL, Lewiecki EM. The Pathophysiology and Treatment of Osteoporosis. *Clin Ther*. 2015 Aug; 37 (8):1837-50 Epub 2015 July 07 PMID: 26163201 DOI: 10.1016/j.clinthera.2015.06.006
63. Stan MN, Haglund EG, **Drake MT**. Early Hypoparathyroidism Reversibility with Treatment of Riedel's Thyroiditis. *Thyroid*. 2015 Sep; 25: (9)1055-9. PMID: 26200816 DOI: 10.1089/thy.2015.0212
64. Shah M, Bancos I, Thompson GB, Richards ML, Kasperbauer JL, Clarke BL, **Drake MT**, Stan MN. Teriparatide Therapy and Reduced Postoperative Hospitalization for Postsurgical Hypoparathyroidism. *JAMA Otolaryngol Head Neck Surg*. 2015 Sep; 141: (9)822-7. PMID: 26312597 DOI: 10.1001/jamaoto.2015.1497
65. Siontis B, Kumar S, Dispenzieri A, **Drake MT**, Lacy MQ, Buadi F, Dingli D, Kapoor P, Gonsalves W, Gertz MA, Rajkumar SV. Positron emission tomography-computed tomography in the diagnostic evaluation of smoldering multiple myeloma: identification of patients needing therapy. *Blood Cancer J*. 2015 Oct 23; 5:e364 PMID: 26495861 PMCID: 4635196 DOI: 10.1038/bcj.2015.87
66. Adler RA, El-Hajj Fuleihan G, Bauer DC, Camacho PM, Clarke BL, Clines GA, Compston JE, **Drake MT**, Edwards BJ, Favus MJ, Greenspan SL, McKinney R Jr, Pignolo RJ, Sellmeyer DE. Managing Osteoporosis in Patients on Long-Term Bisphosphonate Treatment: Report of a Task Force of the American Society for Bone and Mineral Research. *J Bone Miner Res*. 2016 Jan; 31 (1):16-35 PMID: 26350171 PMCID: 4906542 DOI: 10.1002/jbmr.2708
67. Nicks KM, Fujita K, Fraser D, McGregor U, **Drake MT**, McGee-Lawrence ME, Westendorf JJ, Monroe DG, Khosla S. Deletion of Estrogen Receptor Beta in Osteoprogenitor Cells Increases Trabecular but Not Cortical Bone Mass in Female Mice. *J Bone Miner Res*. 2016 Mar; 31 (3):606-14 Epub 2015 Oct 13 PMID: 26418452 PMCID: 4822412 DOI: 10.1002/jbmr.2723
68. **Drake MT**. Commentary. *Clin Chem*. 2016 May; 62 (5):687-8 PMID: 27127242 DOI: 10.1373/clinchem.2015.248757
69. Elraiyah T, Ahmed AH, Wang Z, Farr JN, Murad MH, **Drake MT**. Predictors of teriparatide treatment failure in patients with low bone mass. *Bone Rep*. 2016 Jun; 4:17-22 Epub 2015 Nov 17 PMID: 28326338 PMCID: 4926837 DOI: 10.1016/j.bonr.2015.11.001
70. Farr JN, Fraser DG, Wang H, Jaehn K, Ogradnik MB, Weivoda MM, **Drake MT**, Tchkonja T, LeBrasseur NK, Kirkland JL, Bonewald LF, Pignolo RJ, Monroe DG, Khosla S. Identification of Senescent Cells in the Bone Microenvironment. *J Bone Miner Res*. 2016 Nov; 31 (11):1920-1929 Epub 2016 Oct 24 PMID: 27341653 PMCID: 5289710 DOI: 10.1002/jbmr.2892
71. Sfeir JG, **Drake MT**, LaPlant BR, Maurer MJ, Link BK, Berndt TJ, Shanafelt TD, Cerhan JR, Habermann TM, Feldman AL, Witzig T. Validation of a vitamin D replacement strategy in vitamin D-insufficient patients with lymphoma or chronic lymphocytic leukemia. *Blood Cancer J*. 2017 Feb 3; 7 (2):e526 Epub 2017 Feb 03 PMID: 28157213 PMCID: 5386343 DOI: 10.1038/bcj.2017.9
72. Lwin ST, Fowler JA, **Drake MT**, Edwards JR, Lynch CC, Edwards CM. A loss of host-derived MMP-7 promotes myeloma growth and osteolytic bone disease in vivo. *Mol Cancer*. 2017 Feb 28; 16 (1):49 PMID: 28241871 PMCID: 5330156 DOI: 10.1186/s12943-017-0616-9
73. **Drake MT**, Khosla S. Hormonal and systemic regulation of sclerostin. *Bone*. 2017 Mar; 96:8-17 Epub 2016 Dec 10 PMID: 27965160 PMCID: 5329134 DOI: 10.1016/j.bone.2016.12.004
74. **Drake MT**, Clarke BL, Oursler MJ, Khosla S. Cathepsin K Inhibitors for Osteoporosis: Biology, Potential Clinical Utility, and Lessons Learned. *Endocr Rev*. 2017 Aug 1; 38 (4):325-350 PMID: 28651365 PMCID: 5546879 DOI: 10.1210/er.2015-1114

75. Lapid MI, Kung S, Frye MA, Biernacka JM, Geske JR, **Drake MT**, Jankowski MD, Clarke BL. Association of the serotonin transporter-linked polymorphic region genotype with lower bone mineral density. *Transl Psychiatry*. 2017 Aug 22; 7 (8):e1213 PMID: 28892067 PMCID: 5611748 DOI: 10.1038/tp.2017.184
76. Tracy SI, Maurer MJ, Witzig TE, **Drake MT**, Ansell SM, Nowakowski GS, Thompson CA, Inwards DJ, Johnston PB, Micallef IN, Allmer C, Macon WR, Weiner GJ, Slager SL, Habermann TM, Link BK, Cerhan JR. Vitamin D insufficiency is associated with an increased risk of early clinical failure in follicular lymphoma. *Blood Cancer J*. 2017 Aug 25; 7 (8):e595 PMID: 28841207 PMCID: 5596381 DOI: 10.1038/bcj.2017.70
77. Hillengass J, Mouloupoulos LA, Delorme S, Koutoulidis V, Mosebach J, Hielscher T, **Drake M**, Rajkumar SV, Oestergaard B, Abildgaard N, Hinge M, Plesner T, Suehara Y, Matsue K, Withofs N, Caers J, Waage A, Goldschmidt H, Dimopoulos MA, Lentzsch S, Durie B, Terpos E. Whole-body computed tomography versus conventional skeletal survey in patients with multiple myeloma: a study of the International Myeloma Working Group. *Blood Cancer J*. 2017 Aug 25; 7 (8):e599 PMID: 28841211 PMCID: 5596388 DOI: 10.1038/bcj.2017.78
78. Farr JN, Xu M, Weivoda MM, Monroe DG, Fraser DG, Onken JL, Negley BA, Sfeir JG, Ogrodnik MB, Hachfeld CM, LeBrasseur NK, **Drake MT**, Pignolo RJ, Pirtskhalava T, Tchkonja T, Oursler MJ, Kirkland JL, Khosla S. Targeting cellular senescence prevents age-related bone loss in mice. *Nat Med*. 2017 Sep; 23 (9):1072-1079 Epub 2017 Aug 21 PMID: 28825716 PMCID: 5657592 DOI: 10.1038/nm.4385
79. **Drake MT**, Collins MT, Hsiao EC. The Rare Bone Disease Working Group: report from the 2016 American Society for Bone and Mineral Research Annual Meeting. *Bone*. 2017 Sep; 102:80-84 Epub 2017 Jan 20 PMID: 28115283 DOI: 10.1016/j.bone.2017.01.021
80. Ammann EM, **Drake MT**, Haraldsson B, Wallace RB, Johnson KC, Desai P, Lin EM, Link BK. Incidence of hematologic malignancy and cause-specific mortality in the Women's Health Initiative randomized controlled trial of calcium and vitamin D supplementation. *Cancer*. 2017 Nov 1; 123 (21):4168-4177 Epub 2017 June 27 PMID: 28654155 PMCID: 5650536 DOI: 10.1002/cncr.30858
81. Kumar S, **Drake MT**, Schleck CD, Johnson ML, Alexander JA, Katzka DA, Iyer PG. Incidence and predictors of osteoporotic fractures in patients with Barrett's oesophagus: a population-based nested casecontrol study. *Aliment Pharmacol Ther*. 2017 Dec; 46 (11-12):1094-1102 Epub 2017 Oct 05 PMID: 28980336 PMCID: 5683094 DOI: 10.1111/apt.14345
82. **Drake MT**, Fenske JS, Blocki FA, Zierold C, Appelman-Dijkstra N, Papapoulos S, Khosla S. Validation of a novel, rapid, high precision sclerostin assay not confounded by sclerostin fragments. *Bone*. 2018 Jun; 111:36-43 Epub 2018 Mar 14 PMID: 29550267 PMCID: 5924723 DOI: 10.1016/j.bone.2018.03.013
83. Sfeir JG, **Drake MT**, Atkinson EJ, Achenbach SJ, Camp JJ, Tweed AJ, McCready LK, Yu L, Adkins MC, Amin S, Khosla S. Evaluation of cross-sectional and longitudinal changes in volumetric bone mineral density in postmenopausal women using single- versus dual-energy quantitative computed tomography. *Bone*. 2018 Jul; 112:145-152 Epub 2018 Apr 25 PMID: 29704696 PMCID: 5970096 DOI: 10.1016/j.bone.2018.04.023
84. **Drake MT**. Hypothyroidism in Clinical Practice. *Mayo Clin Proc* 2018 Sep; 93 (9):1169-1172 PMID: 30193671 DOI: 10.1016/j.mayocp.2018.07.015
85. Khosla S, **Drake MT**, Volkman TL, Thicke BS, Achenbach SJ, Atkinson EJ, Joyner MJ, Rosen CJ, Monroe DG, Farr JN. Sympathetic beta1-adrenergic signaling contributes to regulation of human bone metabolism. *J Clin Invest*. 2018 Nov 1; 128 (11):4832-4842 Epub 2018 Oct 02 PMID: 30153111 PMCID: 6205387 DOI: 10.1172/JCI122151
86. Sfeir JG, **Drake MT**, Sonawane VJ, Sinaki M. Vertebral compression fractures associated with yoga: a case series. *Eur J Phys Rehabil Med*. 2018 Dec; 54 (6):947-951 Epub 2018 Apr 24 PMID: 29687967 DOI: 10.23736/S1973-9087.18.05034-7
87. Cremers S, **Drake MT**, Ebetino FH, Bilezikian JP, Russell RGG. Pharmacology of bisphosphonates. *Br J Clin Pharmacol*. 2019 Jan 16 [Epub ahead of print] PMID: 30650219 DOI: 10.1111/bcp.13867
88. Bedatsova L, **Drake MT**. The skeletal impact of cancer therapies. *Br J Clin Pharmacol*. 2019 Feb 5 Epub



2019 Feb 05 PMID: 30723928 DOI: 10.1111/bcp.13866

### Book Chapters

1. **Drake MT**, Khosla S. Role of sex steroids in the pathogenesis of osteoporosis. In: Primer on the metabolic bone diseases and disorders of mineral metabolism. Seventh ed. 2009. p. 208-13.
2. **Drake MT**, Khosla S. The Role of Sex Steroids in the Pathogenesis of Osteoporosis. In: Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism. Eighth ed. 2013. p. 367-375.
3. **Drake MT**. Myeloma bone disease. In: Gertz MA; Rajkumar SV editor. Multiple myeloma: diagnosed and treatment. New York: Springer; 2014. p. 211-23.
4. Sfeir JG, **Drake MT**. Ectopic parathyroid adenoma. In: Kearns AE; Wermers RA, Hyperparathyroidism: a clinical casebook. 2016. p. 65-74.
5. Sfeir JG, **Drake MT**. Normocalcemic primary hyperparathyroidism. In: Kearns AE; Wermers RA, Hyperparathyroidism: a clinical casebook. 2016. p. 157-67.

### Editorials

1. **Drake MT**, McCready LK, Hoey KA, Atkinson EJ, Khosla S. Effects of suppression of follicle-stimulating hormone secretion on bone resorption markers in postmenopausal women. *Obstet Gynecol Surv.* 2011 May; 66(5):289-90.
2. **Drake MT**, Smith SA. Optimizing Insulin Delivery in Patients With Diabetes Mellitus: Still Room for Improvement. *Mayo Clin Proc* 2016 Sep; 91 (9):1155-7
3. Robling AG, **Drake MT**, Papapoulos SE. Sclerostin: From bedside to bench, and back to bedside. *Bone* 2017 Mar; 96:1-2 Epub 2017 Jan 20
4. Kotwal A, **Drake MT**. Our Evolving Understanding of the Relationship Between Diabetes and Bone. *Am J Med Sci* 2017 Oct; 354 (4):333-334 Epub 2017 Sept 01
5. Stan MN, **Drake MT**. Failing Kidneys and Thyroid Dysfunction-An Undesirable Synergy. *Mayo Clin Proc* 2018 May; 93 (5):555-557
6. **Drake MT**, Cremers S, Russell RG, Bilezikian JP. Drugs for the treatment of metabolic bone diseases. *Br J Clin Pharmacol* 2019 Apr 4 Epub 2019 Apr 04

### Commentaries

1. **Drake MT**, Khosla S. Bone-targeted replacement therapy for hypophosphatasia. *J Bone Miner Res.* 2008 Jun; 23(6):775-6. PMID:18318644 DOI:10.1359/jbmr.080305
2. **Drake MT**, Rajkumar SV. Effects of bortezomib on bone disease in multiple myeloma. *Am J Hematol.* 2009 Jan; 84(1):1-2. PMID:19030185 DOI:10.1002/ajh.21324
3. **Drake MT**. Vitamin D and the goldilocks principle: too little, too much, or just right? *J Clin Endocrinol Metab* 2014 Apr; 99 (4):1164-6 PMID:24702014 DOI:10.1210/jc.2014-1350

### Abstracts

1. **Drake MT**, Shuster L, Hoey KA, Peterson JM, McDaniel L, Atkinson EJ, Singh RJ, Khosla A. Comparison of mass spectroscopy versus immunoassay for the measurement of testosterone levels across the female lifespan. *Endocrine Society Annual Meeting.* 2008:2-267.
2. Charatcharoenwitthaya N, Kumar S, Rajkumar SV, Kyle RA, Achenbach SJ, Holets MF, McCready LK, Amin S, **Drake MT**. Microstructural changes at the ultradistal radius in monoclonal gammopathy of undetermined significance. *J Bone Miner Res.* 2008 Sep; 23(Suppl S):S300.

3. **Drake MT**, Maurer MJ, Link BK, Micallef IN, Habermann TM, Kelly JL, Macon WR, Nikcevich D, Colgan JP, Allmer C, Slager SL, Weiner GJ, Witzig TE, Cerhan JR. Vitamin D deficiency is associated with inferior event-free and overall survival in diffuse large B-cell lymphoma. *Blood*. 2009 Nov 20; 114(22):773-4.
4. Wermers R, Hefferan T, Berkseth K, Jewison D, **Drake M**, Yaszemski M, Tebben P. Bone Histomorphometry in Hypophosphatasia Diagnosed in Adults. *ASBMR Annual Meeting*. 2010; MO0443:263.
5. **Drake M**, Srinivasan B, McGregor U, Peterson J, McCready L, Riggs B, Dwyer D, Stolina M, Kostenuik P, Khosla S. Intermittent PTH treatment decreases circulating sclerostin levels in postmenopausal women. *ASBMR Annual Meeting*. 2010:1169.
6. Ng A, **Drake M**, Sems S, Achenbach S, Atkinson E, Melton LJ, Clarke B. Non-hip femoral fractures in patients on bisphosphonate therapy: a population-based study from Olmsted County, Minnesota. *ASBMR Annual Meeting*. 2010:1200.
7. **Drake M**, McCready L, Hoey K, Atkinson E, Khosla S. Suppression of FSH secretion in postmenopausal women has no effect on bone resorption markers. *ASBMR Annual Meeting*. 2010.
8. Sinaki M, Hurley D, Wermers R, Tebben P, Kennel K, **Drake M**. Vertebral Compression Fractures Resulting from Strenuous Recreational Exercise: When Good Intentions Crumble. *J Bone Miner Res*. 2010 Oct; 25 (Suppl 1):S467.
9. Shanafelt T, **Drake M**, Mauer M, Allmer C, Rabe K, Slager S, Weiner G, Call T, Link B, Zent CS, Kay NE, Hanson C, Witzig TE, Cerhan J. Vitamin D insufficiency and prognosis in chronic lymphocytic leukemia (CLL). *Blood*. 2010 Nov 19; 116(21):999.
10. Ng AC, Melton LJ, Atkinson EJ, Achenbach SJ, **Drake MT**, Khosla S, Amin S. Relationship of adiposity to volumetric BMD and microstructural parameters in men and women across the adult lifespan. *Osteoporos Int*. 2010 Dec; 21(Suppl 5):S729.
11. Zeldenrust S, **Drake M**, Gertz M. Vitamin D levels in patients undergoing PBSCT. 13th International Myeloma Workshop. 2011.
12. Zhang W, Dingli D, Russell S, **Drake M**. CCL3/MIP-1 $\alpha$ ; overexpression induces diffuse bone loss in a mouse model of human multiple myeloma. *ASBMR Annual Meeting*. 2012:SU0446.
13. Berkseth K, Tebben P, **Drake M**, Wermers R. Hypophosphatasia Diagnosed in Adults: Differential Features Based on Sex, Presence of Fractures, and Symptoms at Presentation. *J Bone Miner Res*. 2012; 27 (Suppl 1):SA0354.
14. **Drake M**. Measurement of sclerostin and DKK-1 in serum: what insights has this provided? *Bone*. 2012 May; 50:S23-4.
15. Inwards DJ, Fishkin P, LaPlant BR, **Drake MT**, Kurtin P, Nikcevich D, Wender D, Lair B, Witzig TE. Phase I trial of rituximab, cladribine and temsirolimus (rct) for initial therapy of mantle cell lymphoma. *Blood*. 2012 Nov 16; 120(21).
16. **Drake MT**, Zhang W, Kumar SK, Jacques R, Ng A, McCready LK, Rajkumar SV, Farr JN. Altered cortical microarchitecture and bone metabolism in patients with monoclonal gammopathy of undetermined significance. 13th International Conference on Cancer Induced Bone Disease. 2013.
17. Roforth M, McGregor U, Kirmani S, McCready L, Peterson J, **Drake M**, Monroe D, Khosla S. Effects of age on molecular pathways regulating bone formation in humans: a key role for Notch and Ror $\alpha$  signaling. *ASBMR Annual Meeting*. 2013:FR0010.
18. Roforth M, Fujita K, Demaray S, McGregor U, Kirmani S, McCready L, Peterson J, **Drake M**, David Monroe D, Khosla S. Estrogen reduces bone sost mRNA and circulating sclerostin levels in postmenopausal women. *ASBMR Annual Meeting*. 2013:1028.
19. Fujita K, Roforth M, Peterson J, Kirmani S, **Drake M**, McCready L, Monroe D, Khosla S. Isolation and characterization of human osteoblasts from needle biopsies without in vitro culture. *ASBMR Annual Meeting*. 2013:SA0203.

20. Zhang W, Peterson J, Kassem M, **Drake M**. Suppression of osteoblastogenesis in human MSCs co-cultured with human multiple myeloma cells. ASBMR Annual Meeting. 2013:MO0469.
21. Farr JN, Zhang W, Jacques RM, Ng A, McCready LK, **Drake MT**. Altered cortical microarchitecture and bone metabolism in patients with monoclonal gammopathy of undertermined significance. American Society for Bone and Mineral Research Meeting Baltimore, MD. 10/6/2013.
22. Lapid M, Kung S, **Drake MT**, Cha SS, Jankowski MD, Frye MA, Clarke BL. Relationship between serotonin transporter and bone loss. European Psychiatry. 2014; 29.

23. Parker A, Albertie M, Diehl N, **Drake M**. Evaluation of the prevalence of hypovitaminosis d and vitamin d awareness in African Americans living in a metropolitan southern community. *Cancer Epidemiol Biomarkers Prev*. 2014 Nov; 23(11).
24. Ravindran A, Lackore KA, Glasgow AE, **Drake MT**, Go RS. Monoclonal gammopathy of undetermined significance (mgus): indications for pre-diagnostic testing, subsequent diagnoses, and follow-up practice *Blood*. 2018 Nov 29; 132(Suppl 1):2224

### Letters

1. Ng AC, Kumar SK, Russell SJ, Rajkumar SV, **Drake MT**. Dexamethasone and the risk for adrenal suppression in multiple myeloma. *Leukemia*. 2009 May; 23(5):1009-11. Epub 2009 Jan 08. PMID:19151775  
DOI:10.1038/leu.2008.373

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