

MAUREEN J. DEVLIN

Instructor in Orthopedic Surgery, Center for Advanced Orthopedic Studies
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EDUCATION

2007	PhD	Anthropology	Harvard University
2004	MA	Anthropology	Harvard University
2000	MA	Anthropology	George Washington University
1996	AB <i>cum laude</i>	Anthropology	Harvard University

APPOINTMENTS

2011- Instructor in Orthopedic Surgery, Center for Advanced Orthopedic Studies, Beth Israel Deaconess Medical Center and Harvard Medical School

2007-2010 Postdoctoral fellow, Center for Advanced Orthopedic Studies, Beth Israel Deaconess Medical Center and Harvard Medical School

2003-2007 Assistant Tutor, Biological Anthropology/Human Evolutionary Biology, Harvard University

GRANTS, FELLOWSHIPS, AND AWARDS

2010-2012 Individual National Research Service Award, *Role of perinatal diet in developmental programming of skeletal strength* (NICHD 1F32HD060419-01), sponsored by Mary Bouxsein and Clifford Rosen

2009-2011 Co-Investigator: *Effect of perinatal diet on developmental programming of the skeleton* (NIAMS 1RC1AR058389-01, \$471,749)

2009-2010 Institutional National Research Service Award (5T32DK007028-35, PI: J. Avruch, Massachusetts General Hospital)

2009 Young Investigator Award, American Society of Bone and Mineral Research, Bone, Brain and Fat Topical Meeting

2006-2007 Dissertation Fellowship, Harvard University

2004-2007 NSF Doctoral Dissertation Improvement Grant, *The effect of interactions between estradiol and mechanical loading on human longitudinal and periosteal bone growth*, (BCS-0434894, \$9,815), sponsored by Daniel E. Lieberman

2006 Cora du Bois Fellowship, Harvard University

2005-2006 GSAS Fellowship, Harvard University

2004 Juan Comas Student Prize, American Association of Physical Anthropology

2003-2005 Certificates of Distinction in Teaching, Harvard University

2003-2004 Chapman Fellowship, Harvard University

PUBLICATIONS

Peer-reviewed manuscripts

- Devlin MJ** and Bouxsein ML. (in press) Pre- and peri-natal nutrition and its influences. *Bone* special issue, Interactions between bone and adipose tissue and metabolism (invited review).
- Devlin MJ.** (in press) Why does starvation make bones fat? *American Journal of Human Biology* (invited review).
- Devlin MJ.** (2011) Estrogen, exercise, and the skeleton. *Evolutionary Anthropology* 20:54–61.
- Devlin MJ,** Cloutier AM, Thomas N, Panus DA, Lotinun S, Pinz I, Preda M, Baron R, Rosen CJ, and Bouxsein ML. (2010) Caloric restriction leads to high marrow adiposity and low bone mass in growing mice. *Journal of Bone and Mineral Research* 25(9): 2078-2088. Epub 2010 Mar 12. PMID: 20229598
- Devlin MJ,** Stetter CM, Lin HM, Beck TJ, Legro RS, Petit MA, Lieberman DE, Lloyd T. (2010) Peripubertal estrogen levels and physical activity affect femur geometry in young adult women. *Osteoporosis International* 21(4): 609-17. Epub 2009 Jul 3. PMID: 19575140
- Kawai M, **Devlin MJ,** Rosen C. (2009) Fat Targets for Skeletal Health. *Nature Reviews Rheumatology*. 5(7):365-72. Epub 2009 May 26. PMID: 19468288
- Bouxsein ML, **Devlin MJ,** Glatt V, Dhillon H, Pierroz DD, Ferrari SL. (2009) Mice lacking β -adrenergic receptors have increased bone mass, but are not protected from deleterious skeletal effects of ovariectomy. *Endocrinology*. 150(1):144-52. PMID: 19263097 [Available on 2010/01/01]
- Devlin MJ,** Lieberman DE. (2007) Variation in estradiol level affects cortical bone growth in response to mechanical loading in sheep. *Journal of Experimental Biology* 210:602-613. PMID: 17267646
- Pontzer H, Lieberman DE, Momin E, **Devlin MJ,** Polk JD, Hallgrímsson B, Cooper DM. (2006) Trabecular bone in the bird knee responds with high sensitivity to changes in load orientation. *Journal of Experimental Biology* 209(Pt 1):57-65. PMID: 16354778
- Lieberman DE, Krovitz GE, Yates FW, **Devlin MJ,** St. Claire M. (2004) Effects of food processing on masticatory strain and craniofacial growth in a retrognathic face. *J. Hum. Evol.* 46(6):655-77. PMID: 15183669
- Lieberman DE, **Devlin MJ,** Pearson OM. (2001) Articular surface area responses to mechanical loading: effects of exercise, age and skeletal location. *Am. J. Phys. Anthropol.* 116(4):266-277. PMID: 11745078

Manuscripts in prep.

- Devlin MJ,** Grasemann C, Cloutier AM, Palmert M, Bouxsein ML. Maternal perinatal diet induces developmental programming of bone architecture. In prep. for *Journal of Bone and Mineral Research*.
- Devlin MJ,** Cloutier AM, Sprague S, and Bouxsein ML. Effects of high fat diet on trabecular and cortical bone microarchitecture in growing female FVB/J and C57Bl/6J mice. In prep. for *Bone*.

Devlin MJ, Cloutier AM, Thomas N, Panus DA, Lotinun S, Pinz I, Preda M, Baron R, Rosen CJ, and Bouxsein ML. High fat diet-induced hyperleptinemia does not alter trabecular bone microarchitecture in growing Adr β 2-KO or WT mice. In prep. for *Bone*.

Published abstracts

Devlin MJ, Grasemann C, Cloutier AM, Palmert M, Bouxsein ML. (2010) Maternal perinatal diet induces developmental programming of bone architecture. *J Bone Miner Res* 25(S1).

Kawai M, Bornstein S, Lotinun S, **Devlin MJ**, Bouxsein ML, Horowitz MC, Baron R, Rosen CJ. (2010) The Misty mouse which has minimal brown adipose tissue (BAT) has markedly reduced bone mass and altered microarchitecture. *J Bone Miner Res* 25(S1).

Devlin MJ, Cloutier AM, Pinz I, Rosen CJ, Bouxsein ML. (2010) Why does starvation make bones fat? *Am. J. Phys. Anthropol.*, S50: 71-72.

Devlin MJ, Cloutier AM, Thomas NA, Pinz I, Preda M, Rosen CJ, Bouxsein ML. (2009) Greater Skeletal Response to Caloric Restriction in FVB vs. C57Bl/6J Mice *J Bone Miner Res* 24(S1).

Roberts B, **Devlin M**, Thomas N, Brimer D, Proctor A, Bouxsein M. (2009) Use of a novel microindentation system demonstrates age- and strain related differences in cortical bone material properties in C3H/HeJ and C57Bl6/J mice. *J Bone Miner Res* 24(S1).

Devlin MJ, Panus DA, Thomas N, Rosen CJ, and Bouxsein ML. (2009) Energy source, caloric intake, and bone acquisition during growth: implications for human skeletal phenotype. *Am. J. Phys. Anthropol.*, S48:174.

Devlin M, Panus D, Bouxsein M. (2009) Blunted skeletal response to PTH retreatment in mice following an interruption in dosing. *Bone* 44:S68-S98.

Devlin MJ, Panus D, Rosen CJ, Bouxsein ML. (2008) Both excess and restricted energy availability negatively influence acquisition of trabecular bone mass and microarchitecture during growth. *J Bone Miner Res* 23(S1):501.

Devlin MJ, Lieberman DE. (2007) Complex interactions between estrogen, strain, and exercise-induced periosteal bone growth. *Am. J. Phys. Anthropol.*, S44:99.

Devlin MJ, Lieberman DE, Ledoux, N. (2006) Estradiol, strain, and periosteal bone growth. *Am. J. Phys. Anthropol.*, S42:83.

Devlin MJ, Lieberman DE, Ledoux, N. (2006) Effects of estradiol and strain on periosteal bone growth. *Int. Comp. Biol.*, 2006 SICB Meetings Supplement.

Devlin MJ, Lieberman DE, Olsen BR, Fukai N. (2005) Estradiol, estrogen receptor alpha, and osteogenic responses to mechanical loading. *Am. J. Phys. Anthropol.*, S40:94-95.

Devlin MJ, Lieberman DE, Olsen BR, Fukai N. (2005) The role of estradiol in mechanotransduction. *Int. Comp. Biol.*, 2005 SICB Meetings Supplement.

Devlin MJ. (2004) Variation in estradiol level affects diaphyseal bone growth in response to mechanical loading. *Am. J. Phys. Anthropol.*, S38:86-87.

Devlin MJ, Pontzer H, Lieberman DE, Polk JD. (2003) Trabecular bone orientation in flexed versus extended postures in guinea fowl: a test of Wolff's Law. *Am. J. Phys. Anthropol.*, S36:88-89.

Devlin MJ, Lieberman DE, Krovitz G. (2002) Experimental test of the effects of masticatory forces on facial growth. *Am. J. Phys. Anthropol.*, S34:62.

Devlin MJ. (2001) Wolff's Law in sheep's clothing: limb joint response to experimentally induced mechanical loading. *Am. J. Phys. Anthropol.*, S32:58.

Devlin MJ, Lieberman DE, Pearson OM. (2000) An experimental test of articular surface response to mechanical loading. *Am. J. Phys. Anthropol.*, S30:138-139.

Book Reviews

Devlin MJ. (2005) Review of *The skeleton: biochemical, genetic and molecular interactions in development and homeostasis*, Ed. Edward Massaro and John Rogers. *Trends Endocrinol Met.*, 16(1):4.

Devlin MJ. (2004) Review of *Human Growth and Development*, Ed. Noël Cameron. *J. Anat.* 204(6):521-2.

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Peer reviewer for: *American Journal of Human Biology; American Journal of Physiology-Endocrinology and Metabolism; Bone; Endocrinology; Growth; Human Reproduction; Journal of Anatomy; Journal of Clinical Endocrinology & Metabolism; Journal of Endocrinology; Journal of Morphology*

Member: American Association of Physical Anthropology; American Society for Bone and Mineral Research; Endocrine Society

TEACHING

2003-2005 Teaching Fellow, Biological Anthropology, Harvard University
Introduction to Human Evolution (Science B-27) Spring 2005
Advanced Structure and Physiology of the Vertebrates (Biology 121a), Spring 2005
Human Anatomy (Anthropology 1420), Fall 2003, Fall 2004

1998-2001 Teaching Assistant, Biological Anthropology, George Washington University
Introduction to Biological Anthropology, Fall 1998, Spring 1999, Fall 1999, Spring 2000