CURRICULUM VITAE

Daniel Eric Lieberman

Address:
Department of Human Evolutionary Biology
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Education:
1993 Ph.D. Anthropology, Harvard University
1990 A.M., Anthropology, Harvard University
1987 M. Phil., Biological Anthropology, Cambridge University
1986 A.B., *Summa cum Laude*, Anthropology, Harvard College

Current Research and Teaching Positions:
Chair and Professor, Department of Human Evolutionary Biology, Harvard University
Edwin M Lerner II Professor of Biological Sciences
Affiliate, Department of Organismic and Evolutionary Biology, Harvard University
Curatorial Board, Peabody Museum, Harvard University
Treasurer, American School of Prehistoric Research, Harvard University

Previous Appointments:
2009-2018 Chair, Department of Human Evolutionary Biology, Harvard University
2001-2009 Professor of Anthropology, Harvard University
1998-2001 Associate Professor of Anthropology, George Washington University
1995-1998 Assistant Professor of Anthropology, Rutgers University
1992-1995 Junior Fellow, Society of Fellows, Harvard University
1992 Instructor in Anthropology, Harvard University
1990-1992 Assistant Senior Tutor, Dunster House, Harvard University
1988-1992 Tutor in Anthropology, Dunster House, Harvard University

Professional Affiliations:
Scientific Executive Committee, L. S. B. Leakey Foundation
Research Affiliate, Turkana Basin Institute, Kenya
American Association for the Advancement of Science
American Association of Physical Anthropologists
Paleoanthropology Society
Society for Integrative and Comparative Biology
International Institute for Race Medicine
Cambridge Science Society

Honors and Awards:

Member, American Academy of Arts and Science, 2020
Giner de los Rios Professor, Universidad de Alcalá, Spain, 2019
Harvard College Professor, 2010-2015
IgNobel Prize, Physics, 2009
Everett Mendelsohn Excellence in Mentoring Award, Harvard University, 2009
Junior Fellowship, Society of Fellows, 1993-1996
Harvard University Certificate of Distinction in Teaching, 1990, 1991, 1992
Harvard University Merit Fellowship, 1990-1991
National Science Foundation Graduate Fellowship, 1987-1990
Frank Knox III Memorial Fellowship, 1986-1987
Phi Beta Kappa, 1986
National Merit Scholar, 1982

Grants (PI unless otherwise noted):
2021-2024 JCT Foundation. Harvard Physical Activity Study
2019-2022 Hintze Family Charitable Foundation. The evolution of physical inactivity.
2016-2019 Hintze Family Charitable Foundation. An evolutionary medical study of inflammation and exercise.
2010-2015 NSF Hominid 1032255. A new history and geography of human genes informed by ancient DNA (collaborator; PI, David Reich)
2010-2011 National Science Foundation BCS-0961943. The effects of forelimb anatomy on throwing performance: a biomechanical analysis (DDIG: N. Roach)
2010-2011 National Science Foundation BCS 0044456. The effects of food processing on mechanical properties and masticatory chewing performance (DDIG: K. Zink)
2005-2007 National Science Foundation BCS 00443994. Head stabilization during human running.
2003-2005 National Science Foundation BCS 0423894. Interactions between estradiol and mechanical loading on human longitudinal and periosteal bone growth" (DDIG: M Devlin)
2003-2005 National Science Foundation BCS 0433795. Effects of interactions between leg length and energy cost and speed during walking and running (DDIG: H. Pontzer)
2000-2006 National Science Foundation IGERT 99-87590. Integrative Human Evolutionary Biology.
2000-2001 National Institutes of Health SBIR DE13875-01. The hyrax as a model for facial biomechanics and growth.
2000-2002 National Science Foundation BCS-0003143. Temporal resolution of oxygen and carbon stable isotope measurements in tooth enamel (DDIG, F. Wiedemann)
2001-2002 National Science Foundation BCS-00107474 Constraints on Primate Craniofacial Growth and Form (DDIG, R. McCarthy)
2000 National Science Foundation 98-137 Scanning Electron Microscope for Systematic Biology.
1999-2002 GWU Research Enhancement Fund. The Evolution of Diet in *Homo*.
1997-1999 National Science Foundation IBN 96-03833. Variation in cortical bone responses to exercise-induced loading
1997-1999 American Federation for Aging Research. Effects of age and exercise on cortical bone growth and porosity

1996-1997 Busch Biomedical Research Foundation. Modeling vs. remodeling responses to loading in cortical bone
1993 Irene Levi Sala CARE Foundation Excavations of Nahal Ein Gev I
1993 American School of Prehistoric Research Survey of West Turkana"
1993 George Putnam Grant. Late Pliocene-Early Pleistocene Fauna and Hominid Sites in West Turkana, Kenya"
1992-1993 Milton Fund, Harvard Medical School. Generalized vs isolated responses to strain in cortical bone in *Dasypus*
1990-1992 National Science Foundation BNS 9015973. Seasonality and Human Evolution in the Southern Levant (Dissertation Improvement Grant)
1990-1992 Wenner-Gren Foundation. Seasonality and Human Evolution in the Southern Levant
1990-1992 L.S.B. Leakey Foundation. Seasonality and Human Evolution in the Southern Levant
1989-1990 CARE Foundation. Determination of Levantine site seasonality from cementum analysis.

PUBLICATIONS

Books (single authored)
Lieberman DE (2021) *Exercised: Why Something We Never Evolved to Do is Healthy and Rewarding.* New York: Penguin Random House. (US Version)
Lieberman DE (2020). *Exercised: The Science of Physical Activity, Rest and Health* London: Allen Lane (UK Version)
Lieberman, DE (2013) *The Story of the Human Body: Evolution, Health and Disease*. New York: Pantheon Press.
Lieberman, DE (2011) *The Evolution of the Human Head*. Cambridge, MA: Harvard University Press

Books (edited)
Lieberman D. E., Smith R. J., Kelley J., (2005) *Interpreting the Past: Essays on Human, Primate and Mammal Evolution.* Boston: Brill Academic Publishers.
Shea J. J., Lieberman D. E. (2009) *Transitions in Prehistory: Essays in Honor of Ofer Bar-Yosef* . Oxford: Oxbow Publications.

Published original research articles:
1. Vaisnys J.R., Lieberman D.E., Pilbeam D. R. (1984) An alternative method of estimating the cranial capacity of Olduvai Hominid 7. *American Journal of Physical Anthropology* 65: 71-81.
2. Lieberman D.E., Pilbeam D.R., Wood, B. (1988) A probabilistic approach to the problem of sexual dimorphism in Homo habilis: a comparison of KNM-ER 1470 and KNM-ER 1813. *Journal of Human Evolution* 17: 503-511.
3. Débard E., Bar-Yosef O., Chech M., Eisenmann V., Faure M., Guerin C., Lieberman D. E., Tchernov E. (1989) Nouvelle mission archéologique et paléontologique d'Oubéidiyeh (Israël): premiers résultats. *Paléorient* 15: 231-237.

4. Lieberman D.E., Deacon T.W., Meadow R.H. (1990) Computer image enhancement and analysis of cementum increments as applied to teeth of *Gazella gazella*. *Journal of Archaeological Science* 17: 519-533.
5. Lieberman D.E. (1991) Seasonality and gazelle hunting at Hayonim Cave: New evidence for "sedentism" during the Natufian. *Paléorient 17*: 47-57.
6. Lieberman D.E. Meadow R.H. (1992) The biology of cementum increments: with an archaeological perspective *Mammal Review* 17:1-25.
7. Lieberman D.E. (1993) Variability in the seasonal hunting of gazelle in the Levant by hunter-gatherers: from the Mousterian to the Natufian. In G. L. Peterkin, H. M. Bricker and P. Mellars (eds.) *Hunting and Animal Exploitation in the Later Palaeolithic and Mesolithic of Eurasia*. Archaeological Papers of the American Anthropological Association, No. 4. pp. 207-219.
8. Lieberman D.E. (1993) The rise and fall of hunter-gatherer seasonal mobility: the case of the southern Levant. *Current Anthropology* 34: 599-631.
9. Lieberman D.E. (1993) Life history variables preserved in dental cementum microstructure. *Science* 261: 1162-1164.
10. Lieberman D.E., Bar-Yosef O. (1994) On sedentism and cereal gathering in the Natufian. *Current Anthropology* 35: 431-434.
11. Lieberman D.E, Shea J.J. (1994) Behavioral differences between archaic and modern humans in the Levantine Mousterian. *American Anthropologist* 96: 300-332.
12. Lieberman D.E. Seasonality estimates from Hatoula. (1994) In M. Lechevallier and A. Ronen (eds.) *Le Gisement de Hatoula en Judée Occidentale, Israël*. Paris: Mémoires et Travaux du Centre de Recherche Français de Jerusalem, No 8, pp. 125-128.
13. Lieberman D.E. (1994) The biological basis for seasonal increments in dental cementum and their application to archaeological research. *Journal of Archaeological Science* 21: 525-539.
14. Yalcinkaya I, Leotard,J.M., Kartal M., Otte M., Bar-Yosef O., Caimi I., Gautier A., Gilto E., Goldberg P., Koslowski J., Lieberman D.E, Lopez-Bayon I., Pawlikowski M., Thiebault S., Ancion V., Patou M., Barbier A., Bonjean D. (1995) Les occupations tardiglaciares du site d'Ökuzini (sud-ouest de la Turquie). Résultats préliminaires. *L'Anthropologie* 100: 562-585.
15. Stutz A.J., Lieberman D.E., Spiess A. (1995) Tooth cementum and hunting economy from the Middle to the Upper Paleolithic in the Mosan Basin. In M. Otte and L. G. Straus (eds.) *Le Trou Magrite*. Liège: ERAUL. pp. 167-187.
16. Lieberman D.E. (1995) Cementum increment analyses of teeth from Wadi Hisma: estimations of site seasonality. In D. O. Henry (ed.) *The Prehistoric Cultural Ecology and Evolution: Insights from southern Jordan*. New York: Plenum Press. pp. 391-398.
17. Lieberman D.E. (1995) Testing hypotheses about recent human evolution from skulls: Integrating morphology, function, development and phylogeny. *Current Anthropology* 36: 159-197.
18. Lieberman D.E., Wood B.A., Pilbeam D.R. (1996) Homoplasy and early *Homo:* An analysis of the evolutionary relationships of *H. habilis sensu stricto* and *H. rudolfensis*. *Journal of Human Evolution* 30: 97-120.
19. Lieberman D.E. (1996) How and why recent humans grow thin skulls: experimental

data on systemic cortical robusticity. *American Journal of Physical Anthropology* 101: 217-236.

20. Lieberman D.E. (1997) Making behavioral and phylogenetic inferences from fossils: considering the developmental influence of mechanical forces. *Annual Review of Anthropology* 26: 185-210.
21. Lieberman, D.E. Churchill S.E. (1998) Evoluzione del genere *Homo*. *Frontiere della Vita*, Vol 1. W. Gilbert and G.T. Valenti (eds.) Rome: Istituto del Enciclopedia Italiana, pp. 283-298.
22. Lieberman D.E. (1998) Natufian "sedentism" and the importance of biological data for estimating reduced mobility. In T.R. Rocek and O. Bar-Yosef (eds.) *Seasonality and Sedentism: Archaeological perspectives from Old and New World sites*. Cambridge, MA: Peabody Museum Bulletin, No 6, pp. 75-92.
23. Lieberman D.E. (1998) Neanderthal and early modern human mobility patterns: comparing archaeological and anatomical evidence. In T. Akazawa, K. Aoki, and O. Bar-Yosef (eds.) *Neanderthals and Modern Humans in Western Asia*. New York: Plenum Press. pp. 263-275.
24. Lieberman D.E. Crompton A.W. (1998) Responses of bone to stress. In E. Wiebel, C.R. Taylor and L. Bolis (eds.) *Principles of Biological Design: The optimization and symmorphosis debate*. Cambridge: Cambridge University Press. pp. 78-86.
25. Lieberman D.E. (1998) Sphenoid shortening and the evolution of modern human cranial shape. *Nature* 393: 158-162.
26. Lieberman D.E. (1999) Homology and hominid phylogeny: problems and potential solutions. *Evolutionary Anthropology* 7: 142-151.
27. Spoor F., Dean M.C., O'Higgins P., Lieberman D.E. (1999) Anterior sphenoid in modern humans. *Nature* 397: 572.
28. Lieberman D.E., McCarthy R.C. (1999) The ontogeny of basicranial angulation in humans and chimpanzees and its implications for reconstructing pharyngeal dimensions. *Journal of Human Evolution* 36: 487-517.
29. Lieberman D.E. (2000) Growth studies: Mammal teeth. In L. Ellis (ed.) *Archaeological Method and Theory: An Encyclopedia*. New York: Garland Press. pp. 273-276.
30. Lieberman D.E., Mowbray K.M., Pearson O.M. (2000) Basicranial influences on overall cranial shape. *Journal of Human Evolution* 38: 291-315.
31. Lieberman D.E. (2000) Ontogeny, homology, and phylogeny in the Hominid craniofacial skeleton: the problem of the browridge. In P. O'Higgins and M. Cohn (eds.) *Development, Growth and Evolution: implications for the study of hominid skeletal evolution*. London: Academic Press, pp. 85-122.
32. Lieberman D.E., Crompton A.W. (2000) Why fuse the mandibular symphysis? A comparative analysis. *American Journal of Physical Anthropology* 112: 517-540.
33. Lieberman D.E., Ross CR, Ravosa M.J. (2000) The primate cranial base: ontogeny, function and integration. *Yearbook of Physical Anthropology* 43: 117-169.
34. Lieberman D.E., McCarthy R.C., Hiiemae K.M., Palmer J.B. (2000) Ontogeny of larynx and hyoid descent in humans: implications for deglutition and vocalization. *Archives of Oral Biology* 46: 117-128.
35. Wood B.A., Lieberman D.E. (2001) Craniodental variation in *Paranthropus boisei*: A developmental and functional perspective. *American Journal of Physical*

Anthropology 116: 13-25.
36. McCarthy R.C., Lieberman D.E. (2001) The Posterior Maxillary (PM) plane and anterior cranial architecture in primates. *Anatomical Record* 264: 247-260.
37. Lieberman D.E., Pearson O.M. (2001) Trade-off between modeling and remodeling responses to loading in the mammalian limb. *Bulletin of the Museum of Comparative Zoology*. 156: 269-282.
38. Lieberman D.E., Devlin M. Pearson O.M. (2001) Articular surface area responses to mechanical loading: effects of exercise, age and skeletal location. *American Journal of Physical Anthropology* 116: 266-277
39. Lieberman D.E. (2001) Another face in our family tree. *Nature*. 410: 419-420.
40. Lieberman D.E. (2001) Principles of biomechanics. *Encyclopedia of Life Sciences*. www.els.net
41. Lieberman, D.E. (2001) The musculo-skeletal system. *Encyclopedia of Life Sciences*. www.els.net
42. Lieberman D.E, McBratney B.M, Krovitz, G.E. (2002) The evolution and development of craniofacial form in *Homo sapiens*. *Proceedings of the National Academy of Sciences* 99: 1134-1139.
43. Hiiemae K. M, Palmer J.B., Medicis S.W., Hegener J, Jackson B.S., Lieberman D.E. (2002) Hyoid and tongue surface movements in speaking and eating. *Archives of Oral Biology* 47: 11-27.
44. McGrath J, El-Saadi O., Grim V., Cardy S., Chaple B., Chant D., Lieberman D.E., Mowry, B. (2002) Minor physical anomalies and quantitative measures of the head in psychosis. *Archives of General Psychiatry*. 59: 458-464.
45. Lieberman D.E. (2002) Whither human growth and development? (Review) *Evolutionary Anthropology* 11: 246-248.
46. Lieberman D.E., Pearson O.M., Polk J.D., Demes B., Crompton A.W. (2003) Optimization of bone growth and remodeling in response tapered mammalian limbs *Journal of Experimental Biology*. 206: 3125-38.
47. McBratney-Owen B.M., Lieberman, D.E. (2003) Postnatal ontogeny of facial position in *Homo sapiens* and *Pan troglodytes*. In *Patterns of Growth and Development in the Genus* Homo. Thompson J, Krovitz G, Nelson A, eds. Cambridge: Cambridge Univ Press. Pp. 45-72.
48. Lieberman D.E., McBratney B., Krovitz G.E. (2003) Cranial base flexion and *H. erectus* skulls. *Science*. 300: 249. (letter)
49 Lieberman D.E., Polk J.D., Demes B. (2004) Predicting long bone loading from cross-sectional geometry *American Journal of Physical Anthropology* 123: 156-71.
50. Lieberman D.E., Krovitz G., Devlin M., Yates F., St. Clair M. (2004) Effects of food processing on masticatory strain and craniofacial growth in a retrognathic face. *Journal of Human Evolution* 46: 655-677.
51. Lieberman D.E., Krovitz G.E, McBratney-Owen B. (2004) Testing hypotheses about tinkering in the fossil record: the case of the human skull. *Journal of Experimental Zoology* (*Mol. Dev. Evol*.) 302B: 284-301.
52. Lieberman D.E. (2004) Humans and primates: new model organisms for evolutionary developmental biology. *Journal of Experimental Zoology* (*Mol. Dev. Evol*.) 302B: 195.
53. Ratiu P., Talos I.F., Haker S., Lieberman D.E., Everett P. (2004) The tale of Phineas

Gage, digitally remastered. *Journal of Neurotrauma*. 21:637-43
54. Bramble D.M., Lieberman D.E. (2004) Endurance Running and the Evolution of Homo. *Nature* 432: 345-352.
55. Pearson O.M., Lieberman D.E. (2004) The aging of "Wolff's Law": Ontogeny and responses to mechanical loading in cortical bone. *Yearbook of Physical Anthropology* 47: 63-99.
56. Belfer-Cohen A., Davidzon A., Goring-Moris A.N., Lieberman D., Spiers M. (2004) Nahal Ein Gev I: A late Upper Palaeolithic site by the Sea of Galilee, Israel. Paléorient 30: 25-46.
57. Lieberman, D.E. (2005) Sexual and geographic variation in the skull. *Gray's Anatomy, 39th Ed*. Edinburgh: Elsevier.
58. Zollikofer C.P.E., Ponce de León M.S, Lieberman D.E, Guy F., Pilbeam D., Likius A., Mackaye H. T., Vignaud P., Brunet, M. (2005) Virtual Cranial Reconstruction of *Sahelanthropus tchadensis. Nature* 434: 755-759
59. Brunet M., Guy F., Pilbeam D., Lieberman D.E, Vignaud P., Ponce de León M.S, Zollikofer C.P.E., Likius A., Mackaye H. T. (2005) New material of the Earliest Hominid from the Upper Miocene of Chad. *Nature*. 434:752-755
60. McGrath JJ, Keeping D, Saha S, Chant DC, Lieberman DE, O'Callaghan MJ. (2005) Seasonal fluctuations in birth weight and neonatal limb length; does prenatal vitamin D influence neonatal size and shape? *Early Hum Dev*. 81:609-18.
62. McIntyre MH, Ellison PT, Lieberman DE, Demerath E, Towne B. (2005) The development of sex differences in digital formula from infancy in the Fels Longitudinal Study. *Proc Biol Sci*. 272:1473-9.
63. Lieberman, DE. Bar Yosef, O (2005) Apples and Oranges: Morphological versus Behavioral Transitions in the Pleistocene. In *Interpreting the Past: Essays on Human, Primate and Mammal Evolution.* Lieberman DE, Smith RJ, Kelley J, eds. Boston: Brill Academic Publishers. Pp. 275-296.
64. Lieberman, DE. (2005) Further fossil finds from Flores. *Nature* 437: 957-958.
65. Pontzer H, Lieberman DE, Momin E, Devlin MJ, Polk JD, Hallgrimsson B, Cooper DM. (2006) Trabecular bone in the bird knee responds with high sensitivity to changes in load orientation. J Exp Biol. 209:57-65
66. Lieberman DE., Raichlen DA. Pontzer H, Bramble D, Cutright-Smith E. (2006). The human gluteus maximus and its role in running. J Exp Biol. 209:2143-2155
67. Crompton AW, Lieberman DE, Aboelela S (2006) Tooth orientation during occlusion and the functional significance of condylar translation in primates and herbivores. In Amniote Paleobiology: Perspectives on the Evolution of Mammals, Birds, and Reptiles. Carrano MT., Gaudin TJ, Blob RW, Wible JR, eds. Chicago: Univ. Chicago Press, pp 367-388.
68. Lieberman DE, Bramble DM. (2007) The evolution of marathon running: capabilities in humans. Sports Med. 37:288-90.
69. Lieberman DE, Carlo J, Ponce de Leon M, Zollikofer CP (2007) A geometric morphometric analysis of heterochrony in the cranium of chimpanzees and bonobos. J Hum Evol. 52:647-62.
70 Devlin MJ, Lieberman DE (2007) Variation in estradiol level affects cortical bone growth in response to mechanical loading in sheep. J Exp Biol. 210:602-13.
71. Hallgrimsson B, Lieberman, DE, Lie W, Ford-Hutchinson AF, Jirik FR (2007)

Epigenetic interactions and the structure of phenotypic variation in the cranium. Evol Dev. 9:76-91.

72. Lieberman DE, Hall BK. (2007) The evolutionary developmental biology of tinkering: an introduction to the challenge. Novartis Found Symp. 284: 1-19.
73. Hallgrimsson B, Lieberman DE, Young NM, Parsons T, Wat S. (2007) Evolution of covariance in the mammalian skull. Novartis Found Symp. 284: 164-8.
74. Lieberman DE, Bramble DM, Raichlen DA, Shea JJ. (2007) The evolution of endurance running and the tyranny of ethnography: a reply to Pickering and Bunn J Hum Evol. 53: 439-42.
75. Lieberman DE. (2007) Palaeoanthropology: homing in on early Homo. Nature. 449: 291-2.
76. Crompton AW, Barnet J, Lieberman DE, Owerkowicz T, Skinner J, Baudinette RV (2007) Control of jaw movements in two species of macropodines (Macropus eugenii and Macropus rufus). Comp Biochem Physiol A Mol Integr Physiol. 150:109-23
77. Whitcome KK, Shapiro LJ, Lieberman DE. (2007) Fetal load and the evolution of lumbar lordosis in bipedal hominins. Nature 450: 1075-8.
78. Stutz, A. and Lieberman, DE (2007) Cementum increment analysis of ungulate teeth from the Kebara Cave faunal assemblages: discriminating seasonal signals from their diagenetic mimics. In *Kebara Cave, Mt Carmel, Israel: The Middle and Upper Paleolithic Archaeology*. Bar-Yosef O, Meignen L., eds. Cambridge, MA: American School of Prehistoric Research Bulletin (no 49), pp. 261-278.
79. Lieberman DE, Hallgrímsson B, Liu W, Parsons TE, Jamniczky HA. (2008) Spatial packing, cranial base angulation, and craniofacial shape variation in the mammalian skull: testing a new model using mice. J Anat. 212: 720-35
80. Bastir M, Rosas A, Lieberman DE, O'Higgins P. (2008) Middle cranial fossa anatomy and the origin of modern humans. Anatomical Record. 291: 130-40.
81. Lieberman DE, Hallgrimsson B, Liu W, Parsons TE, Jamniczky HA (2008) Spatial packing, cranial base angulation, and craniofacial shape variation in the mammalian skull: testing a new model using mice. J. Anat 212: 720-735
82. Lieberman DE (2008) Speculations about the selective basis for modern human craniofacial form. Evolutionary Anthropology 17: 55-68
83. Hallgrimsson B, Lieberman D.E. (2008) Mouse models and the evolutionary developmental biology of the skull. Integrative and Comparative Biology 48: 373-384
85. Crompton AW, Barnet J, Lieberman DE, Owerkowicz T, Skinner J, Baudinette RV (2008) Control of jaw movements in two species of macropodines (*Macropus eugenii* and *Macropus rufus*). Comparative Biochemistry and Physiology A: Molecular & Integrative Physiology 150: 109-123
86. Pontzer H, Holloway JH 3rd, Raichlen DA, Lieberman DE (2009) Control and function of arm swing in human walking and running. J Exp Biol. 212: 523-34.
87. Rolian CP, Lieberman DE, Hamill J, Scott JW, Werbel W (2009) Walking, running and the evolution of short toes in humans. *J. exp Biol*. 212: 713-721.
88. Lieberman DE, Bramble DM, Raichlen DA, Shea JJ (2009) Brains, brawn and the evolution of human endurance running capabilities. In *The First Humans: Origin and Early Evolution of the Genus Homo*. Grine FE, Fleagle JG, Leakey RE, eds. New York: Springer, pp. 77-98
89. Lieberman DE, Pilbeam, DR, Wrangham RW (2009) The transition from

Australopithecus to *Homo*. In *Transitions in Prehistory: Essays in Honor of Ofer Bar-Yosef* Shea JJ, Lieberman DE, eds. Oxford: Oxbow Publications, pp. 1-22.
90. Lieberman, DE (2009) *Homo floresiensis* from head to toe. *Nature* 459: 41-42.
91. 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: 609-17.
92. Rolian C, Lieberman DE, Hallgrímsson B. (2010) The coevolution of human hands and feet. *Evolution* 64:1558-68.
93. Lieberman DE, Venkadesan M, Werbel WA, Daoud AI, D'Andrea S, Davis IS, Mang'eni RO, Pitsiladis Y. (2010) Foot strike patterns and collision forces in habitually barefoot versus shod runners. *Nature*. 463: 531-5.
94. Paschetta C, de Azevedo S, Castillo L, Martínez-Abadías N, Hernández M, Lieberman DE, González-José R. (2010) The influence of masticatory loading on craniofacial morphology: A test case across technological transitions in the Ohio valley. *Am J Phys Anthropol*. 141: 297-314.
95. Burn AK, Herring SW, Hubbard R, Zink K, Rafferty K, Lieberman DE. (2010) Dietary consistency and the midline sutures in growing pigs. Orthod Craniofac Res. 13: 106-13.
96. Lieberman D. E. (2010) Four legs good, two legs fortuitous: Brains, brawn and the evolution of human bipedalism. In *In the Light of Evolution*. Ed. Jonathan B. Losos 55-71. Greenwood Village, CO: Roberts and Company.
97. Lieberman DE (2011) Epigenetic integration, complexity, and the evolvability of the head: Re-thinking the functional matrix hypothesis. In *Epigenetics: Linking Genotype and Phenotype in Development and Evolution* Eds, B Hallgrimsson and B.K Hall, pp. 271-289. Berkeley: University of California Press.
98. Rolian C, Lieberman DE, Zermeno JP (2011) Hand biomechanics during simulated stone tool use. *J Hum Evol*. 61:26-41
99. Raichlen DA, Armstrong H, Lieberman DE. (2011) Calcaneus length determines running economy: implications for endurance running performance in modern humans and Neandertals. *J Hum Evol*. 60: 299-308.
100. Barak MM, Lieberman DE, Hublin JJ. (2011) A Wolff in sheep's clothing: Trabecular bone adaptation in response to changes in joint loading orientation. *Bone* 49:1141-51.
101. Perl DP, Daoud AI, Lieberman DE. Effects of Footwear and Strike Type on Running Economy. (2012) *Med Sci Sports Exerc*. 44:1335-43.
102. Daoud AI, Geissler GJ, Wang F, Saretsky J, Daoud YA, Lieberman DE. (2012) Foot Strike and Injury Rates in Endurance Runners: a retrospective study. *Med Sci Sports Exerc*. 44: 1325-1334.
103. Lieberman, DE (2012) What we can learn about running from barefoot running: an evolutionary medical perspective. *Exerc. Sci Sports Review* 40: 63-72.
104. Lieberman DE (2012) Those feet in ancient times. *Nature*. 483: 550-1.
105. Roach NT, Lieberman DE, Gill TJ 4th, Palmer WE, Gill TJ 3rd. (2012) The effect of humeral torsion on rotational range of motion in the shoulder and throwing performance. *Journal of Anatomy*. 220: 293-301.
106. Kamberov YG, Wang S, Tan J, Gerbault P, Wark A, Tan L, Yang Y, Li S, Tang K, Chen H, Powell A, Itan Y, Fuller D, Lohmueller J, Mao J, Schachar A, Paymer M,

Hostetter E, Byrne E, Burnett M, McMahon AP, Thomas MG, Lieberman DE, Jin L, Tabin CJ, Morgan BA, Sabeti PC. (2013) Modeling recent human evolution in mice by expression of a selected EDAR variant. *Cell* 152: 691-702.
107. Roach NT, Venkadesan M, Rainbow MJ, Lieberman DE. (2013) Elastic energy storage in the shoulder and the evolution of high-speed throwing in *Homo*. *Nature* 498: 483-6.
108. Eng CM, Lieberman DE, Zink KD, Peters MA. (2013) Bite force and occlusal stress production in hominin evolution. *Am J Phys Anthropol*. 151: 544-57.
109. Ojiambo R, Gibson AR, Konstabel K, Lieberman DE, Speakman JR, Reilly JJ, Pitsiladis YP. (2013) Free-living physical activity and energy expenditure of rural children and adolescents in the Nandi region of Kenya. *Ann Hum Biol*. 40: 318-23.
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