

HERMAN PONTZER

Evolutionary Anthropology, Duke University
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Education

2006 Harvard University PhD Biological Anthropology
2003 Harvard University AM Biological Anthropology
1999 Penn State University BA Anthropology *with Honors*

Professional Appointments

2022 – Professor of Evolutionary Anthropology, Duke University
2022 – Science Advisor, Calorify Inc.
2019 – Research Professor of Global Health, Duke Global Health Institute
2018 – 22 Associate Professor of Evolutionary Anthropology, Duke University
2013 – 18 Associate Professor of Anthropology, Hunter College
2011 – 18 Graduate Center Faculty, City University of New York
2011 – 13 Assistant Professor of Anthropology, Hunter College
2006 – 10 Assistant Professor of Anthropology, Washington University

Service

2023 – Director of Graduate Studies, *Evolutionary Anthropology Dept., Duke University*
2022 – Advisor, *American Sports Institute*
2021 – Associate Editor, *Evolutionary Medicine and Public Health*
2021 – Member, Academic Programs Committee, Duke University
2019 – Editor, *Journal of Physiological Anthropology*
2019 – Executive Board member, *Triangle Center for Evolutionary Medicine (TriCEM)*
2019 – Member, Standing Committee on Misconduct in Research, Duke University
2018 – Management Group Member, International Atomic Energy Agency Doubly Labelled Water Database (<https://doubly-labelled-water-database.iaea.org/home>)
2011 – Co-Founder and Executive Board Member, *Hadza Fund* (hadzafund.org)
2018 – 22 Member, Evolutionary Anthropology Curriculum Committee, Duke University
2017 – 22 Professional Development Committee, *American Assoc. Phys. Anthropology*
2015, '16 National Science Foundation review panel, Physical Anthropology
2014 National Science Foundation review panel, Graduate Research Fellowships
2009, 13-16 Scientific Committee, *AAPA meetings*
2011 – 13 Associate Editor, *Journal of Human Evolution*

Grants

2023 – 26 Effects of Physical Activity on Human Pregnancy Energetics: Testing Maternal Metabolic Limits
National Science Foundation. Role: PI

- 2023 – 25 Measuring Energy Needs & Nutritional Status in Adolescent Girls in Nigeria
Bill & Melinda Gates Foundation. Role: PI
- 2022 – 25 Core C: External Network Core, Duke University Population Research Institute
National Institute of Aging. Role: PI
- 2022 – 24 Developing insertable cardiac monitors to assess social and environmental effects on
the autonomic stress response in a nonhuman primate model of aging
National Institute of Aging. Role: Co-PI (Elizabeth Archie, PI)
- 2019 – 24 CNH2-S: Long Term Perspectives on Water Security, Food Security, and Land
Management Among Pastoralists Experiencing Change.
National Science Foundation. Role: Co-PI (Matthew Douglas, PI)
- 2019 – 22 Mechanisms of metformin-induced weight loss with impaired glucose tolerance
North Carolina Translational and Clinical Sciences Institute. Role: Co-PI
- 2018 – 22 Development & Implementation of a Global Human Metabolic Physiology Database
National Science Foundation. Role: PI
- 2016 – 18 Tradeoffs in Childhood Energy Allocation & the Impact of Market Integration
NSF SBE Post-Doctoral Fellowship (Samuel Urlacher) Role: Co-PI & Mentor
- 2014 – 17 The Evolutionary Biology and Health Consequences of Human Inactivity
National Science Foundation. Role: Co-PI (David Raichlen, PI)
- 2013 – 15 Total Energy Expenditure in Apes Measured Using Doubly Labeled Water
National Science Foundation. Role: PI
- 2013 – 14 Energy Expenditure and Life History Among Hominoids
Wenner-Gren Foundation. Role: PI
- 2012 – 13 Hominoid Daily Energy Expenditure
L.S.B. Leakey Foundation Research Grant. Role: PI
- 2009 – 12 The Metabolic Cost of Living in Human Foragers.
National Science Foundation. Role: PI
- 2009 – 10 Hominin Gait Optimization & Analysis Using Evolutionary Dynamic Modeling
National Science Foundation. Role: Co-PI (William Smart, PI)
- 2009 – 10 Metabolic Cost of Living in Bonobos.
Wenner-Gren Foundation. Role: PI
- 2005 – 07 Energetics and Evolution of Bipedalism: Chimpanzee Biomechanics.
L.S.B. Leakey Foundation Research Grant. Role: Co-PI (David Raichlen, PI)

Awards and Recognition

- 2022 Thomas Langford Lectureship Award, Duke University
- 2022 Panelist, National Academy of Medicine Emerging Leaders Forum
- 2017 Outstanding Scholar Alumni Award, Schreyer Honors College, Penn State Univ.
- 2017 40 Under 40 Rising Stars in New York Food Policy, NYC Food Policy Center
- 2016 Presidential Award for Distinguished Scholarship, Hunter College
- 2008 – 10 Earle H. & Suzanne S. Harbison Faculty Fellowship, Washington Univ.
- 2006 Herrnstein Prize, Harvard Univ. Graduate School of Arts & Sciences

- 2006 Aleš Hrdlička Prize for Outstanding Student Paper, Am Assoc. Phys. Anthrop.
- 2006 D. Dwight Davis Prize for Outstanding Student Paper, Soc. Integ. & Comp. Biol.
- 2004 – 06 NSF-IGERT Fellowship. Harvard Biomechanics NSF-IGERT Program.
- 2002 – 05 Excellence in Teaching Award, Harvard University.
- 2000 – 03 NSF Graduate Fellowship. Biological Anthropology, Harvard University.

Publications

Books

- 2021 Pontzer, H. *Burn: New Research Blows the Lid Off How We Really Burn Calories, Lose Weight, and Stay Healthy*. Penguin Random House. 384 pages.
- 2012 Conroy, G.C., Pontzer, H. *Reconstructing Human Origins: A Modern Synthesis*. 3rd ed. New York: Norton. 672 pages.

Research Articles (*students)

- in press* Wood, B.M., Raichlen, D.A., Pontzer, H., Harris, J.A., Sayre, M.K., Paolo, B., Anyawire, M., Mabulla, A.Z.P. Beyond the here and now: Human hunter-gatherer socio-spatial complexity and the evolution of language. *Phil Trans Royal Soc B*
- in press* Rimbach, R., Petritz, O.A., Balko, J.A., Pontzer, H. Urban eastern gray squirrels (*Sciurus carolinensis*) show little seasonal variation in biochemical and hematological parameters. *Urban Ecosystems*.
- 2024 Flanagan, E.W., Sanchez-Delgado, G., Martin, C.K., Ravussin, E., Pontzer, H., Redman, L.M. No evidence for metabolic adaptation during exercise-related energy compensation. *iScience*. 27(6):109842.
- 2024 Sercel, A.J., Sturm, G., Gallagher, D., St-Onge, M-P., Kempe, C., Pontzer, H., Hirano, M., Picard, M. Hypermetabolism and energetic constraints in mitochondrial disorders. *Nature Metabolism*. 6(2):192-195.
- 2024 McGrosky, A., Swanson, Z.S., Rimbach, R., ... Pontzer, H. Total daily energy expenditure and elevated water turnover in a small-scale semi-nomadic pastoralist society from northern Kenya. *Annals of Human Biology*. 51(1):2310724.
- 2024 Rimbach, R., Pontzer, H., Increased physical activity is not related to markers of cardiometabolic health in two lemur species. *Am J Primatology*. 86, e23564.
- 2023 Pontzer, H. Evolutionary changes in physical activity, diet, and energy expenditure: implications for the prevention of obesity. In: Bray *et al.* eds. *Handbook of Obesity Treatment*, 3rd ed. Taylor & Francis.
- 2023 *Parker, C.H., *Sadir, S., Swanson, Z., McGrosky, A., *Hinz, E., Urlacher, S.S., Pontzer, H. Effect of influenza vaccination on resting metabolic rate and c-reactive protein concentrations in healthy young adults. *PLoS One*. 18(12): e0295540.
- 2023 Sayre, M.K., Anyawire, M., Paolo, B., Mabulla, A., Pontzer, H., Wood, B.M., Raichlen, D.A. Lifestyle and patterns of physical activity in Hadza foragers. *Am J Biol Anthropol*. 182(3):340-356.
- 2023 *Swanson, Z.S., Bethancourt, H., Nzunza, R., *Saunders, J., Ndiema, E., Braun, D.R., Rosinger, A.Y., Pontzer, H. The effects of lifestyle change on indicators of cardio-metabolic health in semi-nomadic pastoralists. *Evol. Med. Pub. Health*. 11:318-331.

- 2023 Best, A.W., McGrosky, A., *Swanson, Z., Rimbach, R., McConaughy, K., McConaughy, J., Ocobock, C., Pontzer, H. Total energy expenditure and nutritional intake in continuous multi-day ultramarathon events. *J Sp. Nutr. Ex. Met.* 33:342-348.
- 2023 Lea, A. *et al.* Applying an evolutionary mismatch framework to understand disease susceptibility. *PLoS Biology.* 21(9):e3002311.
- 2023 Dolan, E., Koehler, K., Areta, J., Longman, D.P., Pontzer, H. Energy constraint and compensation: insights from endurance athletes. *Comp Biochem Physiol A.* 285:111500
- 2023 Pontzer, H. The Provisioned Primate: Patterns of obesity across lemurs, monkeys, apes, and humans. *Phil Trans Roy Soc B.* 378:20220218.
- 2023 Speakman, J.R., Pontzer, H. Quantifying physical activity energy expenditure based on doubly labelled water and basal metabolism calorimetry: what are we actually measuring? *Curr Opin Clin Nutr Metab Care.* 26:401–408.
- 2023 Speakman, J.R., ... Pontzer, H., Rodeheffer, M.S., Rood, J., Schoeller, D.A., Wong, W.W. Total daily energy expenditure has declined over the past three decades due to declining basal expenditure, not reduced activity expenditure. *Nature Metab.* 5:579-588
- 2023 *Sadhir, S., Pontzer, H. Impact of energy availability and physical activity on variation in fertility across human populations. *J Physiological Anthro.* 42(1):1.
- 2023 *Swanson, Z.S., Nzunza, R., Bethancourt, H.J., *Saunders, J., ... Pontzer, H. Early childhood growth in Daasanach pastoralists of Northern Kenya: Distinct patterns of faltering in linear growth and weight gain. *Am J Human Biol.* 35(4):e23842.
- 2023 Ford, L., Bethancourt, H.J., *Swanson, Z., Nzunza, R., ... Pontzer, H., Rosinger, A.Y. Water Insecurity, Water Borrowing, and Psychosocial Stress Among Daasanach Pastoralists in Northern Kenya. *Water International.* 48:1, 63-86.
- 2023 McGrosky, A., Pontzer, H. The fire of evolution: energy expenditure and ecology in primates and other endotherms. *J Exp Biol.* 226 (5): jeb245272.
- 2023 Rimbach, R., *Butler, G., Gupte, P.R., Jäger, J., *Parker, C., Pontzer, H. Gray squirrels consume anthropogenic food waste most often during winter. *Mammalian Biol.* 4:1-13.
- 2022 Yamada, Y., Zhang, X., Henderson, M.E.T., Sagayama, H., Pontzer, H., *et al.* Variation in human water turnover associated with environmental and lifestyle factors. *Science.* 378 (6622): 909-915.
- 2022 Bethancourt, H.J., *Swanson, Z.S., Nzunza, R., Young, S.L., ...Ndiema, E.K., Pontzer, H., Rosinger, A.Y. The co-occurrence of water insecurity and food insecurity among Daasanach pastoralists in northern Kenya. *Public Health Nutr.* 9:1-11.
- 2022 Higgins, S., Pomeroy, A.N., Bates, L.C., Paterson, C., Barone Gibbs, B., Pontzer, H., Stoner, L. Sedentary Behavior and Cardiovascular Disease Risk: An Evolutionary Perspective. *Frontiers in Physiology.* 13:962791.
- 2022 Hora, M., Pontzer, H., Struška, M., Entin, P., Sládek, V. Comparing walking and running in persistence hunting. *Journal of Human Evolution.* 172: 103247.
- 2022 Halsey, L.G., Careau, V., Pontzer, H., *et al.* Variability in energy expenditure is much greater in males than females. *Journal of Human Evolution.* 171:103229
- 2022 Rimbach, R., Grant, A., Gupte, P.R., Newman, A., Stothart, M.R., Pontzer, H. Comfortably numb? A stress indicator decreases along a rural-urban gradient in eastern gray squirrels. *Urban Naturalist.* 54(9).

- 2022 Zhang, X., Yamada, Y., Sagayama, H.,... Pontzer, H., Speakman, J.R., Human total, basal and activity energy expenditures are independent of ambient environmental temperature. *iScience*. 25(8):104682
- 2022 Pontzer, H., McGrosky, A. Balancing growth, reproduction, maintenance, and activity in evolved energy economies. *Current Biology*. 32(12):R709-R719.
- 2022 *Klasson, C., *Sadhir, S., Pontzer, H. Daily Physical Activity is Negatively Associated with Thyroid Hormone Levels, Inflammation, and Immune System Markers among Men and Women in the NHANES Dataset *PLOS One*. 17(7):e0270221.
- 2022 Dunham, N., ... Rimbach, R., Pontzer, H. Balancing the scales: Preliminary investigation of total energy expenditure and daily metabolizable energy intake in Matschie's tree kangaroo (*Dendrolagus matschiei*). *PLOS One*. 17(6):e0270570.
- 2022 Rimbach, R.R., ... Pontzer, H. Total energy expenditure is repeatable in adults but not associated with short-term changes in body composition. *Nature Comm*. 13(1):99.
- 2022 Rosinger, A.Y., Bethancourt, H.J., *Swanson, Z., Nzunza, R., Lopez, K., ... Pontzer, H. Cross-cultural variation in thirst perception in hot-humid and hot-arid environments: Evidence from two small-scale populations. *Am J Hum Biol*. Early View e23715.
- 2021 Kraft, T.S., Venkataraman, V.V., Wallace, I.J., Crittenden, A.N., Holowka, N.B., Stieglitz, J., Harris, J., Raichlen, D.A., Wood, B.M., Gurven, M., Pontzer, H. The energetics of uniquely human subsistence strategies. *Science*. 374(6575):eabf0130.
- 2021 Bethancourt, H.J., *Swanson, Z., Nzunza, R., ... Pontzer, H., Rosinger, A.Y. Hydration in relation to water insecurity, heat index, and lactation status in two small-scale populations in hot-humid and hot-arid environments. *Am J Hum Biol*. 33(1):e23447.
- 2021 Ocobock, C., Soppela, P., Turunen, M., ... Rimbach, R., Pontzer, H. Reindeer herders from subarctic Finland exhibit high total energy expenditure and low energy intake during the autumn herd roundup. *Am J Hum Biol*. 34(4):e23676
- 2021 Westerterp, K. ... Pontzer, H., Rood, J., Schoeller, D.A., Wong, W.W., Speakman, J.R. Physical activity and fat-free mass during growth and in later life. *Am J Clin Nutr*. 114(5):1583-1589.
- 2021 Careau, V., Halsey, L.G., Pontzer, H., ... Speakman, J.R. Energy compensation and adiposity in humans. *Current Biology*. 31(20):4659-4666.
- 2021 Pontzer, H. *et al*. Daily energy expenditure through the human life course. *Science*. 373(6556): 808-812.
- 2021 Willis, E.A., Creasy, S.A., Saint-Maurice, P.F., Keadle, S., Pontzer, H., Schoeller, D., Troiano, R.P., Matthews, C.E. Physical activity and total daily energy expenditure in older US adults: constrained vs additive models. *Med Sci Sports & Exerc*. 54:98-105.
- 2021 Raichlen, D.A., Pontzer, H. Energetic and endurance constraints on great ape quadrupedalism and the benefits of hominin bipedalism. *Evol. Anth*. 30(4):253-261
- 2021 Rimbach, R., *Amireh, A., Allen, A., Hare, B.A., Guarino, E., *Kaufman, C., Salomons, H., Pontzer, H. Total energy expenditure of bottlenose dolphins (*Tursiops truncatus*) of different ages. *J. Exp. Biol*. 224(15):jeb242218
- 2021 *Kozma, E.E., Pontzer, H. Determinants of climbing energetic costs in humans. *J. Exp. Biol*. 224(13): jeb234567.

- 2021 Pontzer, H., Wood, B.M. Effects of evolution, ecology, and economy on human diet: Insights from hunter-gatherers and other small-scale societies. *Ann. Rev. Nutrition*.
- 2021 Jones, J.H., Pisor, A.C., Douglass, K.G., Bleige Bird, R., Ready, E., Hazel, A., Hackman, J., Kramer, K.L. ... Pontzer, H., Towner, M.C. How can evolutionary and biological anthropologists engage broader audiences? *Am. J. Human Biology*. e23592
- 2021 Pontzer, H., Hotter and sicker: external energy expenditure & the tangled evolutionary roots of anthropogenic climate change and chronic disease. *Am. J. Hum. Biol.* e23579.
- 2021 Pontzer, H., Brown, M.H., Wood, B.M., Raichlen, D.A. ... Ross, S.R. Evolution of water conservation in humans. *Current Biology*. 31(8):1804-1810.
- 2021 Speakman, J. R. ... Luke, A., Pontzer, H. Rood, J., Sagayama, H., Schoeller, D.A., Westerterp. K. R., Wong, W.W. A standard calculation methodology for human doubly labeled water studies. *Cell Reports Medicine*.
- 2021 Urlacher, S.S., Snodgrass, J.J., Dugas, L.R., Madimenos, F.C., Sugiyama, L.S., Liebert, M.A., Joyce, C.J., Pontzer, H. Childhood daily energy expenditure does not decrease with market integration and is not related to adiposity in Amazonia. *J. Nutrition*.
- 2021 Rosinger, A., Bethancourt, H.J., *Swanson, Z., Nzunza, R., *Saunders, J., *Dhanasekar, S., ... Pontzer, H. Drinking water salinity is associated with hypertension & hyperdilute urine among Daasanach pastoralists in North Kenya. *Sci. Total Env.* 770, 144667
- 2021 Wood, B.M., Harris, J., Raichlen, D.A., Pontzer, H., ... Jones, J.H. The ecology of gendered foraging predicts movement patterns and landscape use in a hunter-gatherer society. *Nature Human Behaviour*. 5, 436–446
- 2020 Pontzer, H., Rimbach, R., Paltan, J., Ivory, E. L., Kendall, C. J. Air temperature and diet influence body composition and water turnover in zoo-living African elephants (*Loxodonta africana*). *Royal Society Open Science*. 7201155
- 2020 Sayre, K., Pontzer, H., Alexander, G.E., Wood, B.M., Pike, I.L., Mabulla, A.Z.P., Raichlen, D.A. Aging and physical function in East African foragers and pastoralists *Phil Trans Roy Soc B*. 375(1811):20190608.
- 2020 Bethancourt H.J., *Swanson, Z.S., Nzunza, R., ... Pontzer, H., Rosinger, A.Y. Hydration in relation to water insecurity, heat index, and lactation status in two small-scale populations in hot-humid and hot-arid environments. *Am J Hum Biol*. e23447
- 2020 Raichlen, D.A., Pontzer, H., Zderic, T.W., Harris, J.A., Mabulla, A.Z.P., Hamilton, M.T., Wood, B.M. Sitting, squatting, and the evolutionary biology of human inactivity. *Proc. Nat'l. Acad. Sci. USA*. 117, 7115-7121.
- 2020 Wood, B.M., Pontzer, H., Harris, J.A., Mabulla, A.Z.P., ... Raichlen, D.A. Step counts from satellites: methods for integrating accelerometer and GPS data for more accurate measures of pedestrian travel. *J. Meas. Phys. Behav.* 3, 58-66.
- 2020 *Swanson, Z., Pontzer, H. Water turnover among human populations: effects of environment and lifestyle. *American Journal of Human Biology*. 32, e23365.
- 2020 Hora, M. Pontzer, H., Wall-Scheffler, C.M., Sládek, V. Dehydration and persistence hunting in *Homo erectus*. *Journal of Human Evolution*. 138, 102682.
- 2019 Stoner, L., Pontzer, H., Barone Gibbs, B., Moore, J.B., Castro, N., Skidmore, S., Williams, M.A., Hamlin, M.J., Faulkner, J. Fitness and fatness are both associated with cardiometabolic risk in pre-adolescents. *Journal of Pediatrics*. 217, 39–45.

- 2019 Urlacher, S.S., Snodgrass, J.J., Dugas, L.R., Sugiyama, L.S., Liebert, M.A., Joyce, C.J., Pontzer, H. Constraint and tradeoffs regulate energy expenditure during childhood. *Science Advances*. 5, eaax1065.
- 2019 Speakman, J.R., Pontzer, H., Rood, J., Sagayama, H., Schoeller, D.A., Westerterp, K.R., Wong, W.W., Yamada, Y., Loech, C., Alford, A. The IAEA international doubly-labelled water database: aims, scope and procedures. *Ann. Nutr. Metab.* 75, 114-118.
- 2019 *Thurber, C., Dugas, L.R., Ocobock, C., Carlson, B., Speakman, J.R., Pontzer, H. Extreme events reveal an alimentary limit on sustained maximal human energy expenditure. *Science Advances*. 5, eaaw0341.
- 2019 *Christopher, L., Madimenos, F., Bribiescas, R., Urlacher, S., Snodgrass, J.J., Sugiyama, L., Pontzer, H. High energy requirements and water throughput of adult Shuar forager-horticulturalists of Amazonian Ecuador. *Am. J. Hum. Biol.* 31, e23223.
- 2019 Horiuchi, M., Handa-Kirihara, Y., Fukuoka, Y., Pontzer, H. Sex differences in respiratory and circulatory cost and arterial oxygen saturation during hypoxic walking. *Scientific Reports*. 9, 9550.
- 2019 Raichlen, D.A., Webber, J.T., Pontzer, H. The evolution of the human endurance phenotype. In: Lightfoot, J.T., Hubal, M.J., Roth, S.M. eds. *Routledge Handbook of Sport and Exercise Systems Genetics*. New York: Taylor and Francis. Pp. 135-147.
- 2019 Rosinger, A.Y., Pontzer, H., Raichlen, D.A., ... Sands, J.M. Human age-related decline in urine concentrating ability may not be universal: Hydration biomarkers from the US and two small-scale societies. *Am. J. Phys. Anthro.* 168, 705-716.
- 2019 Ocobock, C., Overbeck, A., Carlson, C., Royer, C., Mervenne, A., *Thurber, C., ... Pontzer, H. Sustained high levels of physical activity lead to improved performance among "Race Across the USA" athletes. *Am. J. Phys. Anthro.* 168, 789-794
- 2018 Pontzer, H. Method and rationale for recalculating dilution spaces to a single, common time point in doubly labeled water studies. *Eur. J. Clin. Nutr.* 72, 1620-1624.
- 2018 Pontzer, H., Raichlen, D.A., Wood, B.M. Hunter-gatherers as models in public health. *Obesity Reviews*. 19 (Suppl 1), 24-35.
- 2018 Pontzer, H. Energy constraint as a novel mechanism linking exercise and health. *Physiology*. 33, 384-393.
- 2018 *Gagnon, C., Steiper, M., Pontzer, H. Elite swimmers do not exhibit a Body Mass Index (BMI) tradeoff across a wide range of event distances. *Proceedings of the Royal Society B*. 285, 20180684.
- 2018 Urlacher, S.S., Ellison, P.T., Sugiyama, L.S., Pontzer, H., Eick, G., ... Snodgrass, J.J. Tradeoffs between immune function and childhood growth among Amazonian forager-horticulturalists. *Proc. Nat'l. Acad. Sci. USA*. 115, E3914-E3921
- 2018 *Kozma, E.E., *Webb, N.M., Harcourt-Smith, W.E.H., ... Pontzer, H. Hip extensor mechanics and the evolution of walking and climbing capabilities in humans, apes, and fossil hominins. *Proc. Nat'l. Acad. Sci. USA*. 115, 4134-4139.
- 2018 *Finestone, E.M., Brown, M.H., Ross, S.R., Pontzer, H. Great ape walking kinematics: Implications for hominoid evolution. *Am. J. Phys. Anthro.* 166, 43-55.

- 2017 Pontzer, H., Raichlen, D.A., *Basdeo, T., Harris, J.A, Mabulla, A.Z.P., Wood, B.M. Mechanics of archery among Hadza hunter-gatherers. *Journal of Archeological Science: Reports*. 16, 57-64.
- 2017 Pontzer, H., Locomotor ecology and evolution in chimpanzees and humans. In: Muller, M., Wrangham, R.W., and Pilbeam, D.R. (eds). *Chimpanzees in Human Evolution*. Harvard Univ. Press.
- 2017 Pontzer, H., Economy and endurance in human evolution. *Current Biology*. 27, R613-R621.
- 2017 *Sparrow, L.M., Pellatt, E., Yu, S.S., Raichlen, D.A., Pontzer, H., Rolian, C. Gait changes in a line of mice artificially selected for longer limbs. *PeerJ*. 5:e3008.
- 2017 Horiuchi, M., Fukuoka, Y., Handa, Y., Abe, D., Pontzer, H. Measuring the energy of ventilation and circulation during human walking using induced hypoxia. *Scientific Reports*. 7, 4938.
- 2017 Pontzer, H. The crown joules: energetics, ecology, and evolution in humans and other primates. *Evolutionary Anthropology*. 26, 12-24.
- 2017 Hora, M., Soumar, L., Pontzer, H., Sládek, V. Body size and lower limb posture during walking in humans. *PLoS ONE*. 12, e0172112.
- 2017 *Edwards, W., Lonsdorf, E.V., Pontzer, H. Total energy expenditure in captive capuchins (*Sapajus apella*). *American Journal of Primatology*. 79, 5.
- 2017 Raichlen, D.A., Pontzer, H., Harris, J.A., Mabulla, A.Z.P., Marlowe, F.M., Snodgrass, J.J., ... Wood, B.M. Physical activity patterns and biomarkers of cardiovascular disease risk in hunter-gatherers. *American Journal of Human Biology*. 29, e22919
- 2016 Pontzer, H., Brown, M.H., Raichlen, D.A., Dunsworth, H., Hare, B., Walker, K.K., Luke, A., Dugas, L.R., Durazo-Arvizu, R., ... Ross, S.R. Metabolic acceleration and the evolution of human brain size and life history. *Nature*. 533, 390-392.
- 2016 Pontzer, H. A unified theory for the metabolic cost of legged locomotion. *Biology Letters*. 12, 20150935.
- 2016 Gurven, M.D., Trumble, B.C., Stieglitz, J., Yetish, G., Cummings, D., ... Pontzer, H. High resting metabolic rate among Amazonian forager-horticulturalists experiencing high pathogen burden. *American Journal of Physical Anthropology*. 161, 414-425.
- 2016 Pontzer, H., Durazo-Arvizu, R., Dugas, L., Plange-Rhule, J., Bovet, P., ... Luke, A. Constrained total energy expenditure and metabolic adaptation to physical activity in adult humans. *Current Biology*. 26, 1-8.
- 2016 *Laird, M.F., Vogel, E., Pontzer, H. Chewing efficiency and occlusal functional adaptation. *Journal of Human Evolution*. 93, 1-11.
- 2015 Yetish, G., Kaplan, H., Gurven, M., Wood, B., Pontzer, H., Manger, P.R., Wilson, C., McGregor, R., Siegel, J. Natural sleep and its seasonal variations in three pre-industrial societies. *Current Biology*. 25, 2862-2868.
- 2015 Pontzer, H. Energy expenditure in humans and other primates: a new synthesis. *Annual Review of Anthropology*. 44, 169-187.
- 2015 Pontzer, H. Constrained total energy expenditure and the evolutionary biology of energy balance. *Exercise and Sport Sciences Reviews*. 43, 110-116.

- 2015 Pontzer, H., Raichlen, D.A., Wood, B.M., Emery Thompson, M., Racette, S.B., Mabulla, A.Z.P., Marlowe, F.M. Energy expenditure and activity among Hadza hunter-gatherers. *American Journal of Human Biology*. 27, 628-37.
- 2015 *Warrener, A.G., Lewton, K.L., Pontzer, H., Lieberman, D.E. A wider pelvis does not increase locomotor cost in humans, with implications for the evolution of childbirth. *PLoS ONE*. 10, e0118903.
- 2014 Pontzer, H., Raichlen, D.A., Gordon, A.D. Schroepfer-Walker, K.K., Hare, B., Dunsworth, H.M., Wood, B.M., ... Ross, S.R. Primate energy expenditure and life history. *Proceedings of the National Academy of Sciences USA*. 111, 1433-7.
- 2014 Wood, B.M., Pontzer, H., Raichlen, D.A., Marlowe, F.W. Mutualism and manipulation in Hadza-honeyguide interactions. *Evolution & Human Behavior*. 35, 540-546.
- 2014 Raichlen, D.A., Wood, B.M., Gordon, A.D., Mabulla, A.Z.P., Marlowe, F.W., Pontzer, H. Evidence of Lévy walk foraging patterns in human hunter-gatherers. *Proceedings of the National Academy of Sciences USA*. 111, 728-33.
- 2014 Pontzer, H., *Suchman, K., Raichlen, D.A., Wood, B.M., Mabulla, A.Z.P., Marlowe, F.M. Foot strike patterns and hind limb joint angles during running in Hadza hunter-gatherers. *Journal of Sport and Health Science*. 3, 95-101.
- 2014 Pontzer, H., Raichlen, D.A., Rodman, P.S. Bipedal and quadrupedal locomotion in chimpanzees. *Journal of Human Evolution*. 66, 64-82.
- 2014 Pontzer, H., Antón, S.C., Lordkipanidze, D. Dmanisi hominins and archaeology. In: Smith, C. (ed.) *Encyclopedia of Global Archaeology*. pp 2146-2149.
- 2014 Raubenheimer, D., Rothman, J.M., Pontzer, H. Macronutrient contributions of insects to the diets of hunter-gatherers: a geometric analysis. *Journal of Human Evolution*. 71, 70-76.
- 2013 Raichlen, D.A., Pontzer, H., Shapiro, L.J. A new look at the Dynamic Similarity Hypothesis: the importance of swing phase. *Biology Open*. 0, 1-5.
- 2013 Barak, M.M., Lieberman, D.E., Raichlen, D., Pontzer, H., Warrener, A.G., Hublin, J.J. Trabecular evidence for a human-like gait in *Australopithecus africanus*. *PLoS ONE*. 8, e77687.
- 2013 Foster, A.D., Raichlen, D.A., Pontzer, H. Muscle force production during bent-knee, bent-hip walking in humans. *Journal of Human Evolution*. 65, 294-302.
- 2012 Pontzer, H., Raichlen, D.A., Wood, B.M., Racette, S.B., Mabulla, A.Z., Marlowe, F.W. Hunter-gatherer energetics and modern human obesity. *PLoS ONE*. 7, e40503.
- 2012 Pontzer, H. Relating ranging ecology, limb length, and locomotor economy in terrestrial animals. *Journal of Theoretical Biology*. 296, 6-12.
- 2012 Pontzer, H. Ecological energetics in early *Homo*. *Current Anthropology*. S346-S358.
- 2012 Dunsworth, H.M., *Warrener, A., Deacon, T., Ellison, P., Pontzer, H. Metabolic hypothesis for human altriciality. *Proceedings of the National Academy of Sciences USA*. 109, 15212-15216.
- 2012 Pontzer, H. Overview of hominin evolution. *Nature Education Knowledge*. 3, 8.
- 2011 Pontzer, H., Raichlen, D.A., Sockol, M.D. From treadmill to tropics: calculating ranging cost in chimpanzees. In: D'Aout, K. and Vereecke, E.E. (eds) *Studying Primate Locomotion: Linking Laboratory and Field Research*. Springer. pp 289-309.

- 2011 Pontzer, H., Scott, J.R., Lordkipanidze, D., Ungar, P.S. Dental microwear texture analysis and diet in the Dmanisi hominins. *Journal of Human Evolution*. 61, 683-687.
- 2011 *Orkin, J., Pontzer, H. The Narrow Niche hypothesis: gray squirrels shed new light on primate origins. *American Journal of Physical Anthropology*. 144, 617-24.
- 2010 Pontzer, H., Raichlen, D.A., Shumaker, R.W., *Ocobock, C., Wich, S.A. Metabolic adaptation for low energy throughput in orangutans. *Proceedings of the National Academy of Sciences USA*. 107, 14048-14052.
- 2010 Pontzer, H., Rolian, C., Rightmire, G.P., Jashashvili, T., Ponce de León, M.S., Lordkipanidze, D., Zollikofer, C.P.E. Locomotor anatomy and biomechanics of the Dmanisi hominins. *Journal of Human Evolution*. 58, 492-504.
- 2010 *Cowgill, L.W., *Warrener, A., Pontzer, H., *Ocobock, C. Waddling and toddling: the biomechanical effects of an immature gait. *American Journal of Physical Anthropology*. 143, 52-61.
- 2009 Pontzer, H., Allen, V., Hutchinson, J.R. Biomechanics of running indicates endothermy in bipedal dinosaurs. *PLoS ONE*. 4, e7783.
- 2009 Pontzer, H., Kamilar, J.M. Great ranging associated with greater reproductive investment in mammals. *Proceedings of the National Academy of Sciences, USA*. 106, 192-196.
- 2009 Raichlen, D.A., Shapiro, L.J., Pontzer, H., Sockol, M.D. Understanding increased hind limb weight support in chimpanzees and the evolution of primate kinetics. *American Journal of Physical Anthropology*. 138, 395-402.
- 2009 Pontzer, H., *Holloway, J., Raichlen, D.A., Lieberman, D.E. Control and function of arm swing in human walking and running. *Journal of Experimental Biology*. 212, 523-534.
- 2009 Pontzer, H., Raichlen, D.A., Sockol, M.D. The metabolic cost of walking in humans, chimpanzees, and early hominins. *Journal of Human Evolution*. 56, 43-54.
- 2008 Raichlen, D.A., Pontzer, H., Sockol, M.D. The Laetoli footprints and early hominin kinematics. *Journal of Human Evolution*. 54, 112-117.
- 2008 Carter, M.L., Pontzer, H., Wrangham, R.W., Kerbis Peterhans, J. Skeletal pathology in *Pan troglodytes schweinfurthii* in Kibale National Park, Uganda. *American Journal of Physical Anthropology*. 135, 389-403.
- 2007 Sockol, M.D., Raichlen, D.A., Pontzer, H. Chimpanzee locomotor energetics and the origin of human bipedalism. *Proceedings of the National Academy of Sciences, USA*. 30, 12265-12269.
- 2007 Lordkipanidze, D., Jashashvili, T., Vekua, V., Ponce de Leon, M.S., Zollikofer, C.P.E., Rightmire, G.P., Pontzer, H., Ferring, R., Oms, O., Tappen, M., et al. Postcranial evidence from early *Homo* from Dmanisi, Georgia. *Nature*. 449, 305-310.
- 2007 Pontzer, H. Limb length and the scaling of locomotor cost in terrestrial animals. *Journal of Experimental Biology*. 210, 1752-1761.
- 2007 Pontzer, H. Predicting locomotor cost in terrestrial animals: a test of the LiMb model in humans and quadrupeds. *Journal of Experimental Biology*. 210, 484-494.
- 2006 Lieberman, D.E., Raichlen, D.A., Pontzer, H., Bramble, D.M., Cutright-Smith, E. The human gluteus maximus and its role in running. *Journal of Experimental Biology*. 209, 2143-2155.

- 2006 Pontzer, H., Wrangham, R.W., The ontogeny of ranging in wild chimpanzees. *International Journal of Primatology*. 27, 295-309.
- 2006 Pontzer, H., Lieberman, D.E., Momin E., Devlin, M., Polk, J.D., Hallgrímsson, B., Cooper, D.M.L. Trabecular bone in the knee responds with high sensitivity to changes in load orientation. *Journal of Experimental Biology*. 209, 57-65.
- 2005 Pontzer, H. A new model predicting locomotor cost from limb length via force production. *Journal of Experimental Biology*. 208, 1513-1524.
- 2004 Pontzer, H., Wrangham R.W. Climbing and the daily energy cost of locomotion in wild chimpanzees: Implications for hominoid locomotor evolution. *Journal of Human Evolution*. 46, 315-333.

Popular Articles

- 2023 Pontzer, H. New human metabolism research upends conventional wisdom about how we burn calories. *Scientific American*. January 1.
- 2021 Pontzer, H. Metabolism myths: 7 things we get wrong about diet and exercise. *New Scientist*. February 24.
- 2020 Pontzer, H., Raichlen, D.A. How to sit. *New Scientist*. July 18, 28-32.
- 2019 Pontzer, H. Step on it. *New Scientist*. June 15, 34-37.
- 2019 Pontzer, H. Evolved to exercise. *Scientific American*. January, 22-29.
- 2018 Pontzer, H. Alternative energy: Physiological evolution in the human lineage. *Natural History*. September, 37-39.
- 2017 Pontzer, H. The exercise paradox. *Scientific American*. February, 26-31.
- 2015 Pontzer, H. Calories! Calories! Read all about it! *NYCEP Blog*.
<http://blog.nycep.org/calories-calories-read-all-about-it>
- 2012 Pontzer, H. Debunking the hunter-gatherer workout. *New York Times*. August 24. Sunday Review.
- 2012 Pontzer, H. Lessons from the Hadza: poor diets wreck efforts to prevent obesity and diabetes. *Diabetes Voice*. 57, 26-29.

Commentary

- 2023 Pontzer, H. Exercise is essential for health but a poor tool for weight loss: a reply to Allison and colleagues. *International Journal of Obesity*.
- 2020 Pontzer, H. Ranging ecology: The view from above. *Current Biology*. 30, R1361–R1389.
- 2019 Gurven, M., Trumble, B., Stieglitz, J., ... Pontzer, H. Methodological differences cannot explain associations between health, anthropometrics, and excess resting metabolic rate. *Am. J. Phys. Anthro.* 169, 197-198.
- 2016 Pontzer, H. Behavior: Knowing when to walk away, knowing when to run. *Current Biology*. 26, R717-8.
- 2016 Yetish, G., Kaplan, H., Gurven, M., Wood, B., Pontzer, H., Manger, P.R., Wilson, C., McGregor, R., Siegel, J.M. Response to de la Iglesia et al. *Current Biology*. 26, R273-4.

Invited Book Reviews

- 2017 Pontzer, H. Review of *Demography and Evolutionary Ecology of Hadza Hunter Gatherers*. Blurton Jones, N. *American Journal of Human Biology*.
- 2014 Pontzer, H. Review of *Early Hominin Paleoecology*. Sponheimer, M., Lee-Thorp, J.A., Reed, K.E., and Ungar, P.S. (eds). *American Journal of Human Biology*.
- 2010 Pontzer, H. Review of *The Human Lineage*, by M. Cartmill and F.H. Smith. *Quarterly Review of Biology*. 85, 91.

Invited Colloquium Presentations

- 2024 Healthy as a Hunter-Gatherer: Evolutionary Insights from Small-Scale Societies
Dean's Lecture, Rutgers University
- 2024 Energy across Time
Arizona State University
- 2024 Healthy as a Hunter-Gatherer: Evolutionary Insights from Small-Scale Societies
Virginia Tech University
- 2023 Intersection of ecology, lifestyle and evolutionary biology in the development of cardiometabolic disease
Central Michigan University
- 2023 Exercise and Aging in Energetics
Eli Lilly
- 2022 Exercise and Aging in Energetics
Novo Nordisk
- 2021 Evolution, Activity, and Aging in Human Energy Expenditure
Frank Marlowe Memorial Lecture, UCLA
- 2021 Daily Energy Expenditure Across the Lifespan
Oregon Health & Science University
- 2021 Evolution, Activity, and Aging in Human Energy Expenditure
Brigham & Women's Hospital/Boston Children's Hospital Endocrine Grand Rounds
- 2021 Evolution, Activity, and Aging in Human Energy Expenditure
Duke Endocrinology Grand Rounds
- 2021 The Links Between Energy Expenditure, Exercise and Diet (keynote)
Nutrition Live 2021, American Society for Nutrition
- 2021 The Evolution of Human Metabolism
CARTA: The Evolution of Human Physical Activity
- 2021 Evolutionary Perspectives on Physical Activity and Nutrition
Healthy Longevity Series, National University of Singapore
- 2021 Evolutionary Perspectives on Physical Activity and Nutrition (keynote)
UK Nutrition Research Partnership Workshop, Imperial College & Univ. Birmingham
- 2021 Age, Activity & Adrenaline: Sorting out the Determinants of Daily Energy Expenditure
Roehampton University
- 2020 High Energy Apes on a Hot Planet: Challenge of Fueling an Energy-Hungry Hominin
Paleoanthropology Seminar Series, Smithsonian Natural History Museum
- 2020 Diet, Exercise and Metabolic Health: Insights from Hunter-Gatherers
DeWitt Goodman Seminar Series, Columbia University
- 2020 The Exercise Paradox: Why Losing Weight through Physical Activity is So Difficult

- Roche Diabetes Care Network Meeting*
- 2020 The Exercise Paradox: Metabolic Adaptation in Evolutionary & Ecological Perspective
Peter W. Hochachka Memorial Lecture, University of British Columbia
- 2019 What is the Role of Exercise in Weight Loss and Weight Loss Maintenance?
Grand Rounds, University of North Carolina Department of Medicine
- 2019 Healthy as a Hunter-Gatherer: Paleofact & Paleofantasy in Modern Metabolic Medicine
Workshop on Physiology of the Weight-Reduced State, National Institutes of Health
- 2019 Energy Constraint as a Mechanism Linking Exercise and Health
National Obesity Research Center, University of Michigan
- 2019 Evolutionary Biology of Energetics and Exercise in Human Health
East Carolina Diabetes and Obesity Institute, East Carolina University
- 2018 Evolved Constraint on Daily Energy Expenditure as Mechanism Linking Exercise & Health.
National Institute of Environmental Health Sciences
- 2018 Energy Expenditure, Exercise, and Metabolic Health
Royal Netherlands Academy of Arts and Sciences (KNAW) colloquium
- 2018 Energy Constraint as a Novel Mechanism Linking Exercise and Health
UNC Chapel Hill, Endocrinology Seminar
- 2018 Energetics, Activity, and Health in Hunter-Gatherers and Other Traditional Populations
National Institutes of Health, NIDDK Grand Rounds
- 2018 The Exercise Paradox
Roche Accu-Chek Network Meeting
- 2018 Evolutionary Origins of Obesity: Lifestyle, Energetics, and Adiposity in Humans and other Apes.
New York Univ., Center for Healthful Behavior Change
- 2017 Energetics & Evolution in Humans and other Primates
Rutgers University, Dept. of Ecology, Evolution, and Natural Resources
- 2017 The Crown Joules: Energetics & Evolution in Humans and other Primates
Fairleigh Dickinson University, Biology Dept.
- 2017 Energetics & Evolution in Humans and other Primates
Northeastern Ohio Medical University
- 2017 The Crown Joules: Energetics & Evolution in Humans and other Primates
Duke University, Evolutionary Anthropology Dept.
- 2017 Energetics, Diet & Activity in Living Hunter-Gatherers
University of Colorado, Denver Medical School
- 2017 The Crown Joules: Energetics & Evolution in Humans and other Primates
Harvard University, Human Evolutionary Biology
- 2016 Calories & Consequences: Energetics and Ecology in Primate Evolution
Duke University, Evolutionary Anthropology Dept.
- 2016 Energetics, Diet & Activity in Living Hunter-Gatherers
Purdue University, Dept. of Nutrition Science
- 2016 Calories & Consequences: Energetics and Ecology in Primate Evolution
Northwestern University, Dept. of Anthropology
- 2016 Metabolic Evolution and Adaptive Strategies in Humans and other Primates

SUNY Stony Brook, Behavioral Ecology Group

- 2016 Humans, the high energy ape
CARTA Origins of Homo Symposium
- 2015 Life in slow motion: Energetics, aging, and evolution in humans & other primates
Univ. of Calgary, Dept. of Anthropology
- 2015 Ecological energetics in human evolution
UC Santa Barbara, Dept. of Anthropology
- 2014 Brains, babies and bipedalism: The evolution of the human metabolic strategy
George Washington University, Center for the Advanced Study of Human Paleobiology
- 2014 Healthy as a Hadza: Hunter gatherer energetics and modern human obesity
Loyola University Medical School
- 2014 Hunter gatherer energetics and modern human obesity
Beth Israel Medical Center Division of Endocrinology. Grand Rounds.
- 2014 Brains, babies and bipedalism: The evolution of the human metabolic strategy
Harvard University, Dept. of Human Evolutionary Biology
- 2014 Operating requirements for the human body
Dartmouth College, Dept. of Anthropology
- 2013 Life in slow motion: Energetics, aging, and evolution in humans & other primates
New York Academy of Science
- 2013 Primate energetics and life history
American Museum of Natural History, Comparative Biology Seminar
- 2013 Doubly labeled water measures of energy expenditure in humans & other primates
Albert Einstein College of Medicine
- 2013 Walking tour of human evolution
Max Planck Institute for Evolutionary Anthropology. Leipzig, Germany
- 2013 Primate energetics and life history
Yale University, Dept. of Anthropology
- 2013 Walking tour of human evolution
University of Connecticut, Dept. of Anthropology
- 2012 Hunter-gatherer energetics and modern human obesity
Obesity Research Center, Columbia University & St. Luke's Hospital
- 2012 Life in slow motion: Primate energetics and life history
SUNY Stony Brook, Dept. of Anthropology
- 2012 Metabolism and life history in apes, humans, and fossil hominins
University of New Mexico, Dept. of Anthropology
- 2011 Humans, the high energy ape
Arizona State University, Dept. of Anthropology
- 2011 Hunter gatherer energetics and the evolution of the human metabolic strategy
Rutgers University, Dept. of Anthropology
- 2010 Evolved metabolic strategies in humans and other apes
University of California Davis, Dept. of Anthropology
- 2010 Evolved metabolic strategies in humans and other apes

- University of California Santa Cruz, Dept. of Anthropology*
- 2009 Ape energetics and the Human Paradox
University of Missouri, Dept. of Anthropology
- 2009 Are orangutans the most efficient ape? Daily energy expenditure in hominoids.
Yale University, Dept. of Anthropology
- 2008 Mechanics and energetics of terrestrial locomotion.
Somatics of Dance Lecture Series, Washington University
- 2008 Walking energetics in humans and chimpanzees: are humans the only efficient ape?
Washington University Physical Therapy Research Group
- 2006 The effect of leg length on locomotor performance.
5th World Congress of Biomechanics. Session Chair: Dr. Alberto Minetti
- 2006 Limb design and locomotor performance in humans and other animals
Stanford NeuroMuscular Biomechanics Lab
- 2005 Limb length and locomotor cost, from ants to elephants.
SUNY Stony Brook Functional Morphology Group

Public Lectures & Other Outreach

- 2023 Darwin Day Lecture, *Penn State University*.
- 2022 Thomas Langford Lecture, *Duke University*.
- 2022 BF Skinner Lecture. *Association for Behavior Analysis International* annual meeting.
- 2022 Keynote Speaker, *Leakey Foundation* Founders Day event.
- 2022 University Speaker, *Whitworth University*.
- 2021 Everything I Needed to Know about Physiology I Learned from Hunter-Gatherers
Gastronauts
- 2021 How to Take Charge of Your Metabolism, Diet, and Health
TEDx Gateway
- 2021 The Evolution of Human Metabolism
CARTA: The Evolution of Human Physical Activity
- 2021 Misunderstood Science of Human Metabolism
New Scientist Online Lecture Series
- 2020 Healthy as a Hunter-Gatherer: Sorting Paleo-Fact from Paleo-Fiction
Periodic Tables, Duke Univ. Science & Society, Durham NC
- 2019 Stand Up Science
Host & Organizer: Shane Mauss. Kings Theater, Raleigh NC
- 2019 Healthy as a Hunter-Gatherer: Paleofact & Paleofiction in Modern Metabolic Medicine
Precision Wellness Symposium, University of Arizona
- 2018 Lies Your FitBit Told You: the New Science of Human Metabolism.
NC Museum of Natural Sciences, Science Cafe
- 2018 Sole Survivors of a Remarkable Family: Recent Discoveries in Human Evolution
Explorers Club, New York City
- 2018 Metabolic Acceleration in the Genus *Homo*: Brains, Babies, and Bipedalism
Energetics of the Hominins Symposium, Collège de France

- 2017 Adapt to Endure: the Limits of Human Energy Expenditure
Hilliard Discussion 7. Texas A&M University
- 2017 Flame Challenge: What is Energy?
World Science Festival, New York City (with Alan Alda)
- 2016 Brain 101: the Inside Story
American Museum of Natural History.
- 2016 Uncovering the Truth: Burning Calories
Studio 360, Story Collider and WNYC storytelling event. The Greene Space, New York.
- 2016 Where are you from? Exploring our hunter-gatherer past
Rockefeller University, Summer Science Research Program
- 2016 Energetics and the Ecology of Early *Homo*
CARTA Public Lecture, Origins of Homo Symposium.
- 2016 Where are we from?
Presentation on Hadza hunter-gatherers to Léman Manhattan Prep. School, New York.
- 2016 Negative results
Story for Horsetrade STEM Fest & Long Story Long. Kraine Theater, New York.
- 2016 Where are we from?
Presentation on Hadza hunter-gatherers to St. Mary's Area Middle School, PA.
- 2015 Consultant, Pine Grove STEM Magnet School. Jackson, CA
Worked with teacher Tim Keys on semester-long 5th/6th grade human ecology project
- 2015 Design requirements for the human body: Insights from hunter-gatherers
Meet the Scientist, American Museum of Natural History. Sackler Laboratory.
- 2014 Consultant, Boston Museum of Science
Hall of Human Life. Curator: Elizabeth Kong
- 2014 Brain Power: The other 90%. Do we only use 10% of our brain?
American Museum of Natural History. Salon Series
- 2013 The science behind the seven deadly sins: Sloth
Philadelphia Science Festival, Franklin Institute
- 2013 Featured Scientist, *Against All Odds: Inside Statistics*, #27 *Comparing Two Means*
Annenberg Learner, <http://www.learner.org/resources/series65.html>
- 2010 Out of Africa 1.0: the Dmanisi hominins
Darwin Day Public Address; Univ. of Arkansas, Little Rock
- 2009 Panel Discussant, *Chance Aesthetics* Public Exhibition
Mildred Kemper Art Museum, Washington University. Curator: Meredith Malone
- 2006 The evolution of bipedalism in humans
Science on Tap Public Lecture, Schlafly Bottleworks, St. Louis
- 2006 Consultant, Boston Museum of Science
Human Physiology and Anatomy Exhibit. Curator: Tim Kardatzke
- 2004 Science Advisor, National Geographic Television

Conference Presentations (*student, †invited)

- 2022 †Pontzer, H. Paleolithic perspectives on human diet and cardiometabolic health. *Royal Society Conference: Causes of obesity: theories, conjectures and evidence.*
- 2022 McGrosky, A., Swanson, S., ... Pontzer, H. Total daily energy expenditure and water turnover in a small-scale agro-pastoralist society from northern Kenya. *AABA Meetings.*
- 2022 Pontzer, H., Wood, B.M. What do Living and Recent Hunter-Gatherers Tell Us about Ancestral Diet and the Human Trophic Level? *AABA Meetings.*
- 2022 Sayre, M.K., Alexander, G.E., Cashdan, E., Pontzer, H., Vashro, L., Wood, B.M., Raichlen, D.A. Association between age and cognition in modern Hadza foragers. *AABA Meetings.*
- 2022 *Srishti, S., Pontzer, H. Survey of exercise behavior and pregnancy outcomes in highly active women. *AABA Meetings.*
- 2022 Swanson, Z.S., Nzunza, R., ... Pontzer, H. Variation in market integration and health affect early childhood growth in Daasanach pastoralists living in northern Kenya. *AABA Meetings.*
- 2021 †Pontzer, H. Hotter and sicker: the tangled evolutionary roots of climate change and malnutrition. *AAPA Meetings.*
- 2019 †Pontzer, H., Brown, M.H., Raichlen, D.A., Wood, B.M., Luke, A., Dugas, L.R., Ross, S.R. Water throughput in humans and apes. *Human Biology Association Meetings.*
- 2019 The energetic ecology of childhood: Tradeoffs in energy allocation and the impact of market integration on ontogeny and health. Urlacher, S.U., Snodgrass, J.J., Dugas, L.R., Madimenos, F.C., Sugiyama, L.S., Pontzer, H. *Human Biology Association Meetings.*
- 2019 Wood, B.M., Harris, J.A., Vashro, L., Sayre, M., Raichlen, D.A., Pontzer, H...Cashdan, E. Hadza hunter-gatherers exhibit gender differences in space use and spatial cognition consistent with the ecology of male and female targeted foods. *AAPA Meetings.*
- 2019 Sayre, M., Pontzer, H., Wood, B.A., Alexander, G.A., Raichlen, D.A., Influence of physical activity on aging and frailty in human foragers. *AAPA Meetings.*
- 2019 *Swanson, Z.S., Pontzer, H. Pontzer, Luke, A., Dugas, L.R., Steiper, M.E. The effect of the alpha-actinin 3 (ACTN3) R577X polymorphism and mtDNA on energy expenditure in modern humans. *AAPA Meetings.*
- 2019 *Kozma, E.E., Pontzer, H., Sanz, C., Morgan, D. Arboreal Positional Behavior in Humans, Chimpanzees, and Gorillas.
- 2018 †Pontzer, H. energy expenditure, exercise, and metabolic health. *Royal Netherlands Academy of Arts and Sciences, Academy Colloquium Metabolic Health: Translational Research on Energy Turnover.*
- 2018 Pontzer, H. Why is Exercise Essential? Constrained Energy Expenditure and the Mechanisms of Metabolic Health. *International Society for Evolutionary Medicine & Public Health (ISEMPH).*
- 2018 Urlacher, S.S., Snodgras, J.J., Dugas, L.R., Sugiyama, L.S., Pontzer, H. Childhood energy expenditure in evolutionary medicine perspective: Direct measures of energy use among Amazonian forager-horticulturalists. *ISEMPH.*
- 2018 Castillo, E.R., Urlacher, S.S., Gurven, M., Pontzer, H. What kills us and why? Comparing age-specific mortality profiles across human populations. *ISEMPH.*

- 2018 †Pontzer, H. Evolutionary origins of obesity. *Keystone Symposium: Bioenergetics and Metabolic Disease*.
- 2017 *Thurber, C., Dugas, L.R., Ocobock, C.J., Carlson, B., Melanson, E., Pontzer, H. Metabolic adaptation and the limits of sustained energy expenditure in humans. *Recent Advances & Controversies in Measuring Energy Metabolism*.
- 2017 †Pontzer, H. Physical activity, energy expenditure, and metabolic adaptation from hunter gatherers and other traditional populations. *The Obesity Society: Obesity Week*.
- 2017 †Pontzer, H. The exercise paradox. *Fribourg Obesity Research Conference, Switzerland*.
- 2017 †Pontzer, H. How much food do animals need to walk, run, and climb? This much. *AAPA Meetings, UpGoer5 Symposium*.
- 2017 *Schneider, A.L., Burghardt, N.S., Pontzer, H. Reduced immune investment with energy stress: evidence from a mouse model. *AAPA Meetings*.
- 2017 *Swanson, Z.S., Webb, N.M., Pontzer, H., DeSilva, J.M., Harcourt-Smith, W.E.H. Finite element modeling of talar loading in modern humans with application to the hominin fossil record. *AAPA Meetings*.
- 2017 Otarola-Castillo, E.R., Castillo E.R., Hora, M., Torquato, M.G., Warrener, A.G., Pontzer, H. walkR: a software package to analyze the biomechanics of human locomotion. *AAPA Meetings*.
- 2017 †*Kozma, E.E., Webb, N.M., Harcourt-Smith, W.E.H., D'Août, K., Brown, M.H., *Finestone, E., ... Pontzer, H. Mechanics of hip extension characterize arboreal-terrestrial trade-offs in hominin evolution. *AAPA Meetings*.
- 2016 Pontzer, H., Brown, M.H., Emery Thompson, M., Ross, S.R. Evolved metabolic strategies in great apes and humans. *International Primatology Society*.
- 2016 *Finestone, E.M., Brown, M.H., Ross, S.R., Pontzer, H. Spatiotemporal characteristics of over-ground walking in zoo-housed great apes. *International Primatology Society*.
- 2016 Pontzer, H., Brown, M.H., Emery Thompson, M., Ross, S.R. Chimpanzee energetics, ecology, and evolution. *Chimpanzees in Context Symposium*.
- 2016 †Pontzer, H. Insights into physical activity and metabolic adaptation from hunter gatherers and other traditional populations. *American College of Sports Medicine. Basic Science World Congress – Symposium*.
- 2016 *Finestone, E.M., Brown, M.H., Ross, S.R., Pontzer, H. Videographic analysis of kinematics in great apes: To what extent are gait and posture conserved? *AAPA Meetings*.
- 2016 *Thurber, C., Carlson, B., Ocobock, C., Dugas, L., Pontzer, H. Metabolic limits and adaptation in humans: daily energy expenditure in *Race Across the USA* athletes. *AAPA Meetings*.
- 2016 *Laird, M.F., Pontzer, H. Gape cycle kinematic variance and occlusal topography in modern humans. *AAPA Meetings*.
- 2016 Raichlen, D.A., Pontzer, H., Harris, J., Zderic, T.W., Hamilton, M.T., Wood, B. Sitting, squatting, and the evolution of human inactivity. *AAPA Meetings*.
- 2016 *Edwards, W., Pontzer, H., Lonsdorf, E. Energy expenditure and physical activity levels in captive tufted capuchins (*Cebus apella*). *AAPA Meetings*.

- 2016 Pontzer, H., Raichlen, D.A., Harris, J.A., Wood, B.M. Energetics and economics of foraging in humans and other apes. *AAPA Meetings*.
- 2016 *Kozma, E.E., Raichlen, D.A., Wood, B.M., Pontzer, H. Energetics and muscle use of human climbing. *AAPA Meetings*.
- 2016 *Thurber, C., Carlson, B., Ocobock, C., Dugas, L., Pontzer, H. Metabolic limits and adaptation in humans: daily energy expenditure in *Race Across the USA* athletes. *Human Biology Association*.
- 2015 *Laird, M.F., Pontzer, H., Vogel, E.R. Chewing efficiency variation with food material properties and masticatory morphology in humans. *AAPA Meetings*.
- 2015 †Pontzer, H. Locomotion in humans and other primates: Endurance, efficiency, and evolution. *International Congress for Physiological Anthropology*. Chiba, Japan.
- 2015 *Laird, M.F., Pontzer, H., Vogel, E.R. Chewing efficiency variation with food material properties and masticatory morphology in humans. *AAPA Meetings*.
- 2015 Trumble, B.C., ... H., Kaplan, H., Gurven, M. Energetic costs of testosterone: higher testosterone is associated with greater lean muscle mass and total energetic expenditure among Tsimane forager-horticulturalists. *AAPA Meetings*.
- 2015 Pontzer, H., Brown, M.H., Dunsworth, H.M., Ross, S.R. Humans, the high energy ape. *AAPA Meetings*.
- 2014 †Pontzer, H., Wood, B.M., Raichlen, D.A., Mabulla, A.Z.P., Marlowe, F.W. Ranging energetics and foraging strategies among Hadza hunter-gatherers. *Am. Anthro. Assoc.*
- 2014 †Pontzer, H., Brown, M.H., Ross, S.R. Total energy expenditure and life history in humans and other apes. *Recent Advances & Controversies in Measuring Energy Metabolism*.
- 2014 †Pontzer, H. Recent advances & future directions: measuring total energy expenditure in non-human apes. *Int'l Workshop on the Doubly Labeled Water Method*. Tokyo.
- 2014 †Pontzer, H. Recent advances & future directions: measuring total energy expenditure in traditional populations. *Int'l Workshop on the Doubly Labeled Water Method*. Tokyo.
- 2014 †Pontzer, H. A walking tour of human evolution. *World Congress of Biomechanics*.
- 2014 Pontzer, H., Raichlen, D.A., Schroepfer, K.K., Hare, B., Wood, B.M., Dunsworth, H.M., Irwin, M., Lonsdorf, E.V., Shumaker, R.W., Ross, S. Daily water throughput in humans and other primates. *AAPA Meetings*.
- 2013 †Pontzer, H., Raichlen, D.A., Wood, B.M., Mabulla, A.Z., Marlowe, F.W. Ranging costs and foraging strategies in Hadza hunter-gatherers. *10th International Congress on Vertebrate Morphology*.
- 2013 †Pontzer, H., Raichlen, D.A., Wood, B.M., Mabulla, A.Z., Marlowe, F.W. Ranging costs and foraging strategies in Hadza hunter-gatherers. *Conference on Hunting and Gathering Societies*.
- 2013 Pontzer, H., Raichlen, D.A., Gordon, A., Schroepfer, K.K., Hare, B., Wood, B.M., Dunsworth, H.M., Irwin, M., Lonsdorf, E.V., Ross, S. Primate energetics and life history. *AAPA Meetings*.
- 2012 †Pontzer, H. Relating foraging ecology to locomotor economy and limb length in living apes and fossil hominins. *AAPA Meetings*.

- 2012 *Laird, M.F., Pontzer, H. Biomechanical relationships between chewing efficiency and dental morphology in modern humans. *AAPA Meetings*.
- 2012 Schroeffer, K.K., Hare, B., Pontzer, H. Energy expenditure in semi free-ranging chimpanzees measured using doubly labeled water. *AAPA Meetings*.
- 2012 Raichlen, D.A., Pontzer, H., Wood, B.M., Mabulla, A.Z., Marlowe, F.W. Aerobic activity in the Hadza hunter-foragers of Tanzania. *AAPA Meetings*.
- 2011 Pontzer, H., Raichlen, D.A., Wood, B.M., Mabulla, A.Z., Marlowe, F.W. Hadza forager energetics and the evolution of the human metabolic strategy. *AAPA Meetings*. *AJPA*. S52, 242.
- 2011 *Ocobock, C., Pontzer, H., Gookin, J., Baynes, S. Daily energy expenditure in highly active humans in a natural temperate environment. *AAPA Meetings*. *AJPA*. S52, 227.
- 2011 Raichlen, D.A., Wood, B.M., Pontzer, H., Mabulla, A.Z., Marlowe, F.W. Levy walks in hunter-gatherers: when are random walks an optimal search strategy? *AAPA Meetings*. *AJPA*. S52, 246.
- 2011 Dunsworth, H., Pontzer, H., Deacon, T. Energetics—not pelvic constraints—determine human gestation length and altriciality. *AAPA Meetings*. *AJPA*. S52, 129.
- 2011 Wood, B.M., Raichlen, D.A., Pontzer, H., Jones, J.H., Mabulla, A.Z., Marlowe, F.W. Keeping their friends close? Contrasting models of social association in Hadza hunter-gatherers. *AAPA Meetings*. *AJPA*. 314.
- 2010 Pontzer, H., Raichlen, D.A., Wood, B.M. Hominoid daily energy expenditure and the Human Paradox. *AAPA Meetings*. *AJPA*. S50, 91.
- 2010 *Joganic, J.L., Pontzer, H., Verrelli, B.C. The hungry brain: An assessment of liver size correlation with brain size as it relates to energy storage trade-offs across primate evolution. *AAPA Meetings*. *AJPA*. S50, 135.
- 2010 *Ocobock, C., Pontzer, H., *Erez, T. Climatic and physiological constraints on human body size and shape. *AAPA Meetings*. *AJPA*. S50, 180.
- 2009 Pontzer, H., *Ocobock, C., Shumaker, R.W., Raichlen, D.A. Daily energy expenditure in orangutans measured using doubly labeled water. *AAPA Meetings*. *AJPA*. S48, 213.
- 2009 *Erez, T., Smart, W.D., Pontzer, H. A new computational method for simulation and optimization of hominin gait. *AAPA Meetings*. *AJPA*. S48, 125.
- 2009 Foster, A.D., Raichlen, D.A., Pontzer, H., Sockol, M.D. Muscle force production during bent-knee, bent-hip walking in humans. *AAPA Meetings*. *AJPA*. S48, 129.
- 2009 *Ocobock, C., Pontzer, H., *Atkinson, E., Shumaker, R.W., *Wittman, A.B. Locomotor developmental timing in humans and other apes. *AAPA Meetings*. *AJPA*. S48, 201.
- 2009 Pontzer, H., Kamilar, J.M. Great ranging associated with greater reproductive investment in mammals. *Soc. Integ. Comp. Biol. Meetings*.
- 2008 †Pontzer, H., Raichlen, D.A., Sockol, M.D. Endurance versus efficiency in humans and chimpanzees: a new look at the old problem of becoming bipedal. *Hominin Bipedalism Symposium, AAPA Meetings*.
- 2007 †Pontzer, H., Raichlen, D.A., Sockol, M.D., Locomotor energetics in chimpanzees, humans, and extinct hominins: contributions of muscular and skeletal anatomy. *8th International Congress on Vertebrate Morphology*.

- 2007 Pontzer, H., Raichlen, D.A., Lieberman, D.E. Is arm swing active or passive during human walking and running? *Soc. Integ. Comp. Biol. Meetings*.
- 2007 Pontzer, H., Raichlen, D.A., Sockol, M.D., Contributions of muscular and skeletal morphology to locomotor performance: How much can bones tell us about locomotion? *Primate Locomotion Symposium, American Assoc. Phys. Anthro. Meetings*.
- 2006 Pontzer, H. Hominin locomotor energetics and the emergence of the genus *Homo*. *Paleoanthropology Society Meetings*.
- 2006 Pontzer, H. Locomotor energetics and ranging ecology of fossil hominids. *AAPA Meetings. AJPA*. S42, 148. Awarded Aleš Hrdlička Prize.
- 2006 Pontzer, H. Linking locomotor energetics to limb design in terrestrial animals. *Soc. Integ. Comp. Biol. Meetings*. Awarded D. Dwight Davis Prize.
- 2005 Pontzer, H. The effect of limb length on locomotor performance. *Soc. Integ. Comp. Biol. Meetings*.
- 2005 Pontzer, H., Lieberman, D.E., Momin, E.N., et al. The effect of a "bent-knee" gait on trabecular orientation: an experiment test of Wolff's Law. *AJPA*. S40, 167.
- 2004 Pontzer, H. The effect of leg length on human locomotor performance. *AAPA Meetings. AJPA*. S38, 161.
- 2004 Wrangham, R.W., Pontzer, H. Chimpanzee juveniles constrain their mothers' gregariousness. *AAPA Meetings. AJPA*. S38, 211.
- 2003 Pontzer, H. Climbing behavior and locomotor energetics in wild chimpanzees: Implications for hominin locomotor evolution. *AAPA Meetings. AJPA*. S36, 170.

Conference & Symposium Organizing

- 2024 Organizer, *Population Ecology, Aging, and Health Network*, Duke University.
- 2022 Organizer, *Energetics in Anthropology Workshop*. Duke University.
- 2022 Co-Organizer, *Current and multidisciplinary perspectives on hominin diets and trophic level during the Pleistocene, 2022 AABA meeting* (with Miki Ben Dor)
- 2014 Co-Organizer, *Energetics in the Evolution of Human and Non-Human Primate Life Histories Symposium, 2015 AAPA meeting* (with Christopher Kuzawa)
- 2007 Co-Organizer, *Principles of Primate Locomotion Symposium, AAPA meetings* (with David Raichlen)
- 2002 – 04 Co-Organizer, New England Biological Anthropology Symposium

Advising

Postdoctoral Researchers

- Mayowa Adoboyega (2023 -)
- Delaney Knorr (2024 -)
- Amanda McGrosky (2021- 24)
- Rebecca Rimbach (2019 - 21)
- Eric Trexler (2023 -)
- Samuel Urlacher (2016 - 19)

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