

CURRICULUM VITAE
Stephen Manuel Roth

NOTARIZATION: I have prepared and read the following and certify that this is a current and accurate statement of my professional record.

Signature: _____



Date: _____

30 Oct 2020

CONTACT INFORMATION

School of Public Health
University of Maryland
College Park, MD 20742
Office Phone: 301-405-2504 / fax: 301-405-5578
Cell: 410-370-7601
Email: sroth1@umd.edu

EDUCATION

- | | |
|------|--|
| 2002 | Postdoctoral Research Fellow, Department of Human Genetics, Graduate School of Public Health, University of Pittsburgh, PA 15261. |
| 2000 | Ph.D. – Kinesiology (Exercise Physiology), Department of Kinesiology, College of Health and Human Performance, University of Maryland, College Park, MD 20742. |
| 1998 | M.A. – Kinesiology (Exercise Physiology), Dept. Kinesiology, University of Maryland, College Park, MD 20742. |
| 1996 | B.S. (with Honors), Dept. Health and Human Performance (Exercise Science major, Chemistry minor), University of Montana, Missoula, MT 59812. |

ACADEMIC AND ADMINISTRATIVE APPOINTMENTS

- | | |
|----------------|--|
| 2016 – present | Associate Dean for Academic and Faculty* Affairs, School of Public Health, University of Maryland (Faculty Affairs added in 2020) |
| 2016 – present | Director, Public Health Science Program, School of Public Health, University of Maryland |
| 2015 – present | Interim Director, Maryland Institute for Applied Environmental Health, School of Public Health, University of Maryland |
| 2015 – 2016 | Associate Dean for Educational Innovation, School of Public Health, University of Maryland |
| 2014 – present | Professor of Kinesiology
Director, Functional Genomics Laboratory
Department of Kinesiology, School of Public Health, University of Maryland. |
| 2014 – 2015 | Director of Outreach and Instructional Innovation, Teaching and Learning Transformation Center, Office of the Provost, University of Maryland (50% effort) |
| 2013 – 2014 | Associate Dean for Teaching and Learning, Center for Teaching Excellence, Office of Undergraduate Studies, University of Maryland (60% effort) |
| 2012 – 2015 | Associate Chair & Graduate Director, Department of Kinesiology |

2011 – 2013	Chair-elect (2011-12) and Chair, Senate and Senate Executive Committee, School of Public Health
2011 – 2012	Graduate Director, Department of Kinesiology (combined with Assoc. Chair role in 2012)
2009 – 2014	Associate Professor of Kinesiology Director, Functional Genomics Laboratory Department of Kinesiology, School of Public Health, University of Maryland.
2009 – 2011	Chair, Undergraduate Committee, Department of Kinesiology
2007 – 2012	Director, Honors Program, Department of Kinesiology
2005 – present	Affiliate Faculty, Neuroscience and Cognitive Science (NACS) Graduate Program, University of Maryland, College Park.
2003 – 2009	Assistant Professor of Kinesiology Director, Functional Genomics Laboratory and Exercise Physiology Research Labs Department of Kinesiology, School of Public Health, University of Maryland (previously the College of Health and Human Performance).
2000 – 2002	Postdoctoral Research Fellow (NIH/NRSA Postdoctoral Fellowship), Dept. of Human Genetics, Univ. Pittsburgh.
1999 – 2000	Pre-doctoral Research Fellow (NIH/NRSA Pre-doctoral Training Award), Dept. of Kinesiology, University of Maryland.
1997 – 1999	Exercise Physiology Laboratory Coordinator, Dept. of Kinesiology, University of Maryland.
1996 – 1999	Research Assistant, Dept. of Kinesiology, University of Maryland.
1995 – 1996	Research Assistant, Dept. of Health and Human Performance, University of Montana.

PUBLICATIONS (*denotes advisee/trainee of Dr. Roth; †denotes senior or lead author for multiple author works)
Publication Statistics: From Google Scholar database as of 10 Feb 2020. Authorship “h-index”: 49 (i.e., 49 papers cited 49 or more times; see Hirsch, *PNAS* 102: 16569-16572, 2005). Total citations: 8728.

Books:

- 1 **Roth, S.M.** (2007). *Genetics Primer for Exercise Science and Health*. Champaign IL: Human Kinetics. 177 pages. ISBN: 0736063439. (Korean translation, published in 2008)

Edited Books:

- 1 Pescatello, L.S., **S.M. Roth** (Co-editors). (2011) *Exercise Genomics* (in the *Molecular and Translational Medicine* series). Humana Press. 287 pages. ISBN: 9781607613541.
- 2 Lightfoot, T., M. Hubal, **S.M. Roth** (Co-editors). (2019) *Handbook of Sport and Exercise System Genomics*. Routledge. 542 pages. ISBN: 9781138504851

Refereed Book Chapters:

- 1 Franks, P.W., **S.M. Roth**[†]. Interaction between genetic factors and energy expenditure in complex metabolic disease. (Chapter 9, pp: 155-174). In: P.A. Donohoue (ed.), *Energy Metabolism and Obesity: Research and Clinical Applications* (*Contemporary Endocrinology* series). Humana Press. Clifton, NJ (2007). ISBN: 1588296717.
- 2 **Roth, S.M.** Genetic variation and skeletal muscle traits: implications for sarcopenia. (Chapter 10, pp: 223-257). In: G.L. Lynch (ed.), *Sarcopenia – Age-Related Muscle Wasting and Weakness. Mechanisms and Treatments*. Springer Science+Business Media B.V., Dordrecht (2011). ISBN: 9789048197125.

- 3 **Roth, S.M.** Genes and talent selection. (Chapter 31, pp: 362-372). In: C. Bouchard and E.P. Hoffman (eds.), *Genetic and Molecular Aspects of Sport Performance* (International Olympic Committee's *Encyclopaedia of Sports Medicine*). Wiley-Blackwell Publishing (2011). ISBN: 9781444334456.
- 4 Pescatello, L.S., **S.M. Roth**. A synopsis of exercise genomics research and a vision for its future translation into practice. (Chapter 9, pp: 227-250). In: Pescatello, L.S., S.M. Roth (eds.). *Exercise Genomics* (in the *Molecular and Translational Medicine* series). Humana Press (2011). ISBN: 9781607613541.
- 5 **S.M. Roth**[†], M.A. Thomis. Fundamental concepts in exercise genomics. (Chapter 1, pp: 1-22). In: Pescatello, L.S., S.M. Roth (eds.). *Exercise Genomics* (in the *Molecular and Translational Medicine* series). Humana Press (2011). ISBN: 9781607613541.
- 6 **S.M. Roth**[†], H. Wackerhage. Genetics, sport and exercise: background and methods. (Chapter 2, pp: 24-51). In: Wackerhage H. (ed.). *Molecular Exercise Physiology. An Introduction*. Routledge (2014). ISBN: 978-0415607889
- 7 **S.M. Roth**[†], H. Wackerhage. Genetics and endurance sports. (Chapter 5, pp: 112-132). In: Wackerhage H. (ed.). *Molecular Exercise Physiology. An Introduction*. Routledge (2014). ISBN: 978-0415607889
- 8 Venezia, A., **Roth, S.M.** The scientific and ethical challenges of using genetic information to predict sport performance. (Chapter 31, pp: 442-452). In: Lightfoot, T., M. Hubal, **S.M. Roth** (Co-editors). (2019) *Handbook of Sport and Exercise System Genomics*.
- 9 Lightfoot, T., M. Hubal, **S.M. Roth**. Afterword - closing the loop: observations and conclusions. (Chapter 36, pp: 494-502). In: Lightfoot, T., M. Hubal, **S.M. Roth** (Co-editors). (2019) *Handbook of Sport and Exercise System Genomics*.

Position Stands:

- 1 PanAmerican Confederation of Sports Medicine (COPAMEDE) Position Statement: Genetics in Sports Medicine. Prepared by **S.M. Roth**[†] and C. Bouchard for the COPAMEDE Scientific Commission. Approved and released by the COPAMEDE Executive Committee, April 2008. Published in *Medicine del Ejercicio (Journal of Uruguayan Sports Medicine)*, 21(4): 19-24, 2008.

Refereed Research Articles:

- 1 **Roth, S.M.**, G.F. Martel, F.M. Ivey, J.T. Lemmer, B.L. Tracy, D.E. Hurlbut, E.J. Metter, B.F. Hurley, M.A. Rogers[†]. Ultrastructural muscle damage in young vs. older men after high-volume, heavy-resistance strength training. *Journal of Applied Physiology* 86(6): 1833-1840, 1999.
- 2 Martel, G.F., D.E. Hurlbut, M.E. Lott, J.T. Lemmer, F.M. Ivey, **S.M. Roth**, M.A. Rogers, J.L. Fleg, B.F. Hurley[†]. Strength training normalizes resting blood pressure in 65- to 73-year-old men and women with high normal blood pressure. *Journal of the American Geriatrics Society* 47: 1215-1221, 1999.
- 3 Ferrell, R.E. [†], V. Conte, E.C. Lawrence, **S.M. Roth**, J.M. Hagberg, B.F. Hurley. Frequent sequence variation in the human myostatin (GDF8) gene as a marker for analysis of muscle-related phenotypes. *Genomics* 62: 203-207, 1999.
- 4 **Roth, S.M.**, G.F. Martel, F.M. Ivey, J.T. Lemmer, E.J. Metter, B.F. Hurley, M.A. Rogers[†]. High-volume, heavy-resistance strength training and muscle damage in young and older women. *Journal of Applied Physiology* 88: 1112-1118, 2000.
- 5 Ivey, F.M., **S.M. Roth**, R.E. Ferrell, B.L. Tracy, J.T. Lemmer, D.E. Hurlbut, G.F. Martel, E.L. Siegel, J.L. Fozard, E.J. Metter, J. L. Fleg, B.F. Hurley[†]. Effects of age, gender, and myostatin genotype on the hypertrophic response to heavy resistance strength training. *Journal of Gerontology: Medical Sciences* 55A(11): M641-M648, 2000.
- 6 **Roth, S.M.**, G.F. Martel, F.M. Ivey, J.T. Lemmer, E.J. Metter, B.F. Hurley, M.A. Rogers[†]. Skeletal muscle satellite cell populations in healthy young and older men and women. *The Anatomical Record* 260: 351-358, 2000.
- 7 **Roth, S.M.**, M.A. Schrager, R.E. Ferrell, S.E. Riechman, E.J. Metter, N.A. Lynch, R.S. Lindle, B.F. Hurley[†]. CNTF genotype is associated with muscular strength and quality in humans across the adult age span. *Journal of Applied Physiology* 90: 1205-1210, 2001.
- 8 **Roth, S.M.**, G.F. Martel, F.M. Ivey, J.T. Lemmer, B.L. Tracy, E.J. Metter, B.F. Hurley, M.A. Rogers[†]. Skeletal muscle satellite cell characteristics in young and older men and women after heavy resistance strength training. *Journal of Gerontology: Biological Sciences* 56A(6): B240-B247, 2001.
- 9 **Roth, S.M.**, R. Gajdosik, B.C. Ruby[†]. Effects of circulating estradiol on exercise-induced creatine kinase activity. *Journal of Exercise Physiology [Online]*, 4(2): 10-17, 2001.

- 10 **Roth, S.M.**, F.M. Ivey, G.F. Martel, J.T. Lemmer, D.E. Hurlbut, E.L. Siegel, E.J. Metter, J. L. Fleg, J.L. Fozard, M.C. Kostek, D.M. Wernick, and B.F. Hurley[†]. Muscle size responses to strength training in young and older men and women. *Journal of the American Geriatrics Society*, 49: 1428-1433, 2001.
- 11 Hurlbut, D.E., M.E. Lott, A.S. Ryan, R.E. Ferrell, **S.M. Roth**, F.M. Ivey, G.F. Martel, J.T. Lemmer, J.L. Fleg, and B.F. Hurley[†]. Does age, sex, or ACE genotype affect glucose and insulin responses to strength training? *Journal of Applied Physiology*, 92: 643-650, 2002.
- 12 **Roth, S.M.**, M.A. Schrager, E.J. Metter, S.E. Riechman, J.L. Fleg, B.F. Hurley, R.E. Ferrell[†]. *IGF2* genotype and obesity in men and women across the adult age span. *International Journal of Obesity*, 26(4): 585-587, 2002.
- 13 **Roth, S.M.**, R.E. Ferrell, D.G. Peters, E.J. Metter, B.F. Hurley, M.A. Rogers[†]. Influence of age, sex, and strength training on human muscle gene expression determined by microarray. *Physiological Genomics*, 10:181-190, 2002.
- 14 **Roth, S.M.**, G.F. Martel, R.E. Ferrell, E.J. Metter, B.F. Hurley, M.A. Rogers[†]. Myostatin gene expression is reduced in humans with heavy-resistance strength training: a brief communication. *Experimental Biology and Medicine*, 228: 706-709, 2003.
- 15 Sinha-Hikim, I., **S.M. Roth**, M.I. Lee, S. Bhasin[†]. Testosterone-induced muscle hypertrophy is associated with an increase in satellite cell number in healthy, young men. *American Journal of Physiology Endocrinology and Metabolism*, 285: E197-E205, 2003.
- 16 **Roth, S.M.**, E.J. Metter, M.R. Lee, B.F. Hurley, R.E. Ferrell[†]. The C174T polymorphism in the CNTF receptor (CNTFR) gene is associated with fat free mass in men and women. *Journal of Applied Physiology*, 95: 1425-1430, 2003.
- 17 Prior, S.J.* , J.M. Hagberg, D.A. Phares, M.D. Brown, L. Fairfull, R.E. Ferrell, **S.M. Roth**[†]. Sequence variation in hypoxia-inducible factor 1 α (*HIF1A*): Association with maximal oxygen consumption. *Physiological Genomics*, 15: 20-26, 2003.
- 18 **Roth, S.M.**, M.A. Schrager, M.R. Lee, E.J. Metter, B.F. Hurley, R.E. Ferrell[†]. Interleukin-6 (IL6) genotype is associated with fat free mass in men but not women. *The Journal of Gerontology: Biological Sciences*, 58A: 1085-1088, 2003.
- 19 Jacob, A.C.* , J.M. Zmuda, J.A. Cauley, E.J. Metter, B.F. Hurley, R.E. Ferrell, **S.M. Roth**[†]. Ciliary neurotrophic factor (CNTF) genotype and body composition. *European Journal of Human Genetics*, 12: 372-376, 2004.
- 20 Schrager, M.A., **S.M. Roth**, R.E. Ferrell, E.J. Metter, E. Russek-Cohen, N.A. Lynch, R.S. Lindle, B.F. Hurley[†]. Insulin-like growth factor-2 genotype, fat-free mass, and muscle performance across the adult life span. *Journal of Applied Physiology*, 97: 2176-2183, 2004.
- 21 Riechman, S.E., G. Balasekaran, **S.M. Roth**, R.E. Ferrell[†]. Association of interleukin-15 protein and interleukin-15 receptor genetic variation with resistance exercise training responses. *Journal of Applied Physiology*, 97: 2214-2219, 2004.
- 22 **Roth, S.M.**, J.M. Zmuda, J.A. Cauley, P.R. Shea, R.E. Ferrell[†]. Vitamin D receptor genotype is associated with fat free mass and sarcopenia in elderly men. *The Journal of Gerontology: Biological Sciences*, 59A: 10-15, 2004.
- 23 Delmonico, M.J., R.E. Ferrell, A. Meerasahib, G.F. Martel, **S.M. Roth**, M.C. Kostek, B.F. Hurley[†]. Blood pressure response to strength training may be influenced by angiotensinogen A-20C and angiotensin II type 1 receptor A1166C genotypes in older men and women. *Journal of the American Geriatrics Society*, 53: 204-210, 2005.
- 24 Kostek, M.C., M.J. Delmonico, J.B. Reichel, **S.M. Roth**, L. Douglass, R.E. Ferrell, B.F. Hurley[†]. Muscle strength response to strength training is influenced by insulin-like growth factor 1 (IGF1) genotype in older adults. *Journal of Applied Physiology*, 98: 2147-2154, 2005.
- 25 Walsh, S.* , J.M. Zmuda, J.A. Cauley, P.R. Shea, E.J. Metter, B.F. Hurley, R.E. Ferrell, **S.M. Roth**[†]. Androgen receptor CAG repeat polymorphism is associated with fat-free mass in men. *Journal of Applied Physiology*, 98: 132-137, 2005.
- 26 Halverstadt, A., D.A. Phares, **S.M. Roth**, R.E. Ferrell, A.P. Goldberg, J.M. Hagberg[†]. Interleukin-6 genotype is associated with high-density lipoprotein cholesterol response to exercise training. *Biochimica et Biophysica Acta (BBA) – Molecular and Cell Biology of Lipids*, 1734: 143-151, 2005.
- 27 Rabon-Stith, K.M., J.M. Hagberg, D.A. Phares, M.C. Kostek, M.J. Delmonico, **S.M. Roth**, R.E. Ferrell, J.M. Conway, A.S. Ryan, B.F. Hurley[†]. Vitamin D receptor FokI genotype influences bone mineral density response to strength training, but not aerobic training. *Experimental Physiology*, 90: 653-661, 2005.

- 28 Conwit, R.A., S. Ling, **S.M. Roth**, D. Stashuk, B. Hurley, R. Ferrell and E.J. Metter[†]. The relationship between ciliary neurotrophic factor (CNTF) genotype and motor unit physiology: preliminary studies. *BMC Physiology*, 5: 15, 2005.
- 29 Halverstadt, A., S. Walsh*, **S.M. Roth**, R.E. Ferrell, J.M. Hagberg[†]. Identification of a novel mutation combination in factor XIII deficiency: genetic update to the first reported case in the United States. *International Journal of Hematology*, 83: 144-146, 2006.
- 30 Prior, S.J.* , J.M. Hagberg, C. Paton, L. Douglass, M. Brown, J. McLenithan, **S.M. Roth**[†]. DNA sequence variation in the promoter region of the VEGF gene impacts VEGF gene expression and maximal oxygen consumption. *American Journal of Physiology Heart and Circulatory Physiology*, 290: H1848-H1855, 2006.
- 31 Martel, G.F., **S.M. Roth**, F.M. Ivey, J.T. Lemmer, B.L. Tracy, D.E. Hurlbut, E.J. Metter, B.F. Hurley, M.A. Rogers[†]. Age and sex affect muscle fibre adaptations to heavy resistance strength training. *Experimental Physiology*, 91: 457-464, 2006.
- 32 Paton, C.M., J. Brandauer, E.P. Weiss, M.D. Brown, F.M. Ivey, **S.M. Roth**, J.M. Hagberg[†]. Hemostatic response to postprandial lipemia before and after exercise training. *Journal of Applied Physiology*, 101: 316-321, 2006.
- 33 Hand, B.D., **S.M. Roth**, M.H. Roltsch, J.J. Park, M.C. Kostek, R.E. Ferrell, M.D. Brown[†]. AMPD1 gene polymorphism and the vasodilatory response to ischemia. *Life Sciences*, 79: 1413-1418, 2006.
- 34 Delmonico, M.J., M.C. Kostek, N.A. Doldo, B.D. Hand, S. Walsh*, J.M. Conway, C.R. Carignan, **S.M. Roth**, B.F. Hurley[†]. Alpha-actinin-3 (*ACTN3*) R577X polymorphism influences knee extensor peak power response to strength training in older men and women. *The Journal of Gerontology: Medical Sciences*, 62A (2): 206-212, 2007.
- 35 Walsh, S.* , E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. Activin RIIIB and follistatin haplotype associations with muscle mass and strength in humans. *Journal of Applied Physiology*, 102: 2142-2148, 2007. (PMCID: PMC2646094)
- 36 Yao, L., M.J. Delmonico, **S.M. Roth**, B.D. Hand, J. Johns, J. Conway, L. Douglass, B.F. Hurley[†]. Adrenergic receptor genotype influence on mid-thigh intermuscular fat response to strength training in middle-aged and older adults. *The Journal of Gerontology: Medical Sciences*, 62: 658-663, 2007. (PMCID: PMC2811276)
- 37 Park, J.-Y., I.K.G. Farrance, N.M. Fenty, J.M. Hagberg, **S.M. Roth**, D.M. Mosser, M.Q. Wang, H. Jo, T. Okazaki, S.R. Brant, M.D. Brown[†]. NFKB1 promoter variation implicates shear-induced NOS3 gene expression and endothelial function in prehypertensives and stage I hypertensives. *American Journal of Physiology Heart and Circulatory Physiology*, 293: H2320-H2327, 2007. (PMCID: PMC2614625)
- 38 Prior, S.J.* , **S.M. Roth**, X. Wang, C. Kammerer, I. Miljkovic-Gacic, C.H. Bunker, V.W. Wheeler, A.L. Patrick, J.M. Zmuda[†]. Genetic and environmental influences on skeletal muscle phenotypes as a function of age and sex in large, multi-generational families of African heritage. *Journal of Applied Physiology*, 103: 1121-1127, 2007. (PMCID: PMC2811418). [Invited Editorial on this paper in the same issue: P.W. Franks. Muscling in on the genetics of quantitative disease traits; pages 1111-1112.]
- 39 Hand, B.D., M.C. Kostek, R.E. Ferrell, M.J. Delmonico, L.W. Douglass, **S.M. Roth**, J.M. Hagberg, B.F. Hurley[†]. Influence of promoter region variants of insulin-like growth factor pathway genes on the strength-training response of muscle phenotypes in older adults. *Journal of Applied Physiology*, 103: 1678-1687, 2007. (PMCID: PMC2811278)
- 40 **Roth, S.M.**[†], S. Walsh*, D. Liu*, E.J. Metter, L. Ferrucci, B.F. Hurley. The *ACTN3* R577X nonsense allele is under-represented in elite-level strength athletes. *European Journal of Human Genetics*, 16: 391-394, 2008. (PMCID: PMC2668151)
- 41 Charbonneau, D.E.* , E.D. Hanson, A.T. Ludlow*, M.J. Delmonico, B.F. Hurley, **S.M. Roth**[†]. *ACE* genotype and the muscle hypertrophic and strength responses to strength training. *Medicine and Science in Sports and Exercise*, 40: 677-683, 2008.
- 42 Deeny, S.P., D. Poepfel, J.B. Zimmerman, **S.M. Roth**, J. Brandauer, S. Witkowski, J.W. Hearn, A.T. Ludlow*, J.L. Contreras-Vidal, J. Brandt, B.D. Hatfield[†]. Exercise, APOE, and working memory: MEG and behavioral evidence for benefit of exercise in epsilon4 carriers. *Biological Psychology*, 78: 179-187, 2008.
- 43 Liu, D.* , E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. *TNF* promoter polymorphisms associated with muscle phenotypes in humans. *Journal of Applied Physiology*, 105: 859-867, 2008. (PMCID: PMC2536817)
- 44 **Roth, S.M.**[†], S.M. Williams, L. Jiang, K.S. Menon, J.J. Jeka. Susceptibility genes for gentamicin-induced vestibular dysfunction. *Journal of Vestibular Research*, 18: 59-68, 2008. (PMCID: PMC2581796)
- 45 Ludlow, A.T.* , J.B. Zimmerman, S. Witkowski, J.W. Hearn, B.D. Hatfield, **S.M. Roth**[†]. Relationship between physical activity, telomere length, and telomerase activity. *Medicine and Science in Sports and Exercise*, 40: 1764-1771, 2008. (PMCID: PMC2581416)

- 46 Walsh, S.* , D. Liu*, E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. *ACTN3* genotype is associated with muscle phenotypes in women across the adult age span. *Journal of Applied Physiology*, 105: 1486-1491, 2008. (PMCID: PMC2584847)
- 47 Delmonico, M.J., J.M. Zmuda, B.C. Taylor, J.A. Cauley, T.B. Harris, T.M. Manini, A. Schwarz, R. Li, **S.M. Roth**, B.F. Hurley, D.C. Bauer, R.E. Ferrell, A.B. Newman[†]. Association of the *ACTN3* genotype and physical functioning with age in older adults. *Journal of Gerontology Medical Sciences*, 63A, 1227-1234, 2008.
- 48 Fenty-Stewart, N., J.Y. Park, **S.M. Roth**, J.M. Hagberg, S. Basu, R.E. Ferrell, M.D. Brown[†]. Independent and combined influence of *AGTR1* variants and aerobic exercise on oxidative stress in hypertensives. *Blood Pressure*, 18: 204-212, 2009.
- 49 Faulkner, K.A., J.A. Cauley, **S.M. Roth**, C. Kammerer, K. Stone, T.A. Hillier, K.E. Ensrud, M. Hochberg, M.C. Nevitt, J.M. Zmuda[†]. Familial resemblance and shared latent familial variance in recurrent fall-risk in older women. *Journal of Applied Physiology*, 108: 1142-1147, 2010.
- 50 Hanson, E.D.* , A.T. Ludlow*, A.K. Sheaff, J. Park, **S.M. Roth**[†]. *ACTN3* genotype does not influence muscle power. *International Journal of Sports Medicine*, 31: 834-838, 2010.
- 51 Lima, R.M.* , T.K.M. Leite, R.W. Pereira, H.T. Rabelo, **S.M. Roth**, R.J. Oliveira[†]. *ACE* and *ACTN3* genotypes in older women: muscular phenotypes. *International Journal of Sports Medicine*, 32: 66-72, 2011.
- 52 Windelinckx, A., G. De Mars, W. Huygens, M. Peeters, B. Vincent, C. Wijmenga, D. Lambrechts, C. Delecluse, **S.M. Roth**, E.J. Metter, L. Ferrucci, J. Aerssens, R. Vlietinck, G. Beunen, M. Thomis[†]. Comprehensive fine mapping of chr12q12-14 and follow-up replication identify activin receptor 1B (*ACVR1B*) as a muscle strength gene. *European Journal of Human Genetics*, 19: 208-215, 2011.
- 53 McKenzie, J.A., S. Witkowski, A.T. Ludlow*, **S.M. Roth**, J.M. Hagberg[†]. AKT1 G205T genotype influences obesity-related metabolic phenotypes and their responses to aerobic exercise training in older Caucasians. *Experimental Physiology*, 96.3: 338-347, 2011.
- 54 Sheppard, R.L.* , E.E. Spangenburg, E.R. Chin, **S.M. Roth**[†]. Androgen receptor polyglutamine repeat length affects receptor activity and C2C12 cell development. *Physiological Genomics*, 43: 1135-1143, 2011.
- 55 Sood, S., E.D. Hanson, M.J. Delmonico, M.C. Kostek, B.D. Hand, **S.M. Roth**, B.F. Hurley[†]. Does insulin-like growth factor 1 genotype influence muscle power response to strength training in older men and women? *European Journal of Applied Physiology*, 11: 743-753, 2012.
- 56 Ludlow, A.T.* , S. Witkowski, M.R. Marshall*, J. Wang*, L.C.J. Lima*, L.M. Guth*, E.E. Spangenburg, **S.M. Roth**[†]. Chronic exercise modifies age-related telomere dynamics in a tissue-specific fashion. *Journal of Gerontology: Biological Sciences*, 67(9): 911-926, 2012.
- 57 Deeny, S.P., J. Winchester, K. Nichols, **S.M. Roth**, J.C. Wu, M. Dick, C.W. Cotman[†]. Cardiovascular fitness is associated with altered cortical glucose metabolism during working memory in $\epsilon 4$ carriers. *Alzheimer's and Dementia*, 8: 352-256, 2012.
- 58 Ludlow, A.T.* , L.C.J. Lima*, J. Wang*, E.D. Hanson, L.M. Guth*, E.E. Spangenburg, **S.M. Roth**[†]. Exercise alters mRNA expression of telomere-repeat binding factor 1 in skeletal muscle via p38 MAPK. *Journal of Applied Physiology*, 113: 1737-1746, 2012.
- 59 Guth, L.M.* , A.T. Ludlow*, S. Witkowski*, M.R. Marshall*, L.C.J. Lima*, A.C. Venezia*, T. Xiao, M.-L.T. Lee, E.E. Spangenburg, **S.M. Roth**[†]. Sex-specific effects of exercise ancestry on metabolic, morphological and gene expression phenotypes in multiple generations of mouse offspring. *Experimental Physiology*, 98(10): 1469-1484, 2013.
- 60 Ludlow, A.T.* , E.E. Spangenburg, E.R. Chin, W.-H. Cheng, **S.M. Roth**[†]. Telomeres shorten in response to oxidative stress in mouse skeletal muscle fibers. *Journal of Gerontology: Biological Sciences*, 69 (7): 821-830, 2014.
- 61 Venezia, A.C.* , L.M. Guth*, E.E. Spangenburg, **S.M. Roth**[†]. Lifelong parental voluntary wheel running increases offspring hippocampal *Pgc-1 α* mRNA expression but not mitochondrial content or *Bdnf* expression. *NeuroReport*, 26: 467-472, 2015.
- 62 Walsh, S., A.T. Ludlow*, E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. Replication study of the vitamin D receptor (*VDR*) genotype association with skeletal muscle traits and sarcopenia. *Aging Clinical and Experimental Research*, 28: 435-442, 2016.
- 63 Venezia, A.C.* , L.M. Guth*, R.M. Sapp, E.E. Spangenburg, **S.M. Roth**[†]. Sex-dependent and independent effects of long-term voluntary wheel running on *Bdnf* mRNA and protein expression. *Physiology and Behavior*, 156: 8-15, 2016.
- 64 Swan, L., S. Kramer, A. Gopal, L. Shi, **S.M. Roth**. Beyond proficiency: an asset-based approach to international teaching assistant training. *Journal of Faculty Development*, 31 (2): 21-27, 2017.

- 65 Ludlow, A.*, L. Gratião*, L.W. Ludlow, E.E. Spangenburg, **S.M. Roth**[†]. Acute exercise activates p38 MAPK and increases the expression of telomere protective genes in cardiac muscle. *Experimental Physiology*, 102.4: 397-410, 2017.
- 66 Venezia, A.C.*, E. Quinlan, **S.M. Roth**[†]. A single bout of exercise increases hippocampal *Bdnf*: influence of chronic exercise and noradrenaline. *Genes, Brain and Behavior*, 16: 800-811, 2017.
- 67 Venezia, A.C.*, M.M. Hyer, E.R. Glasper, **S.M. Roth**, E.M. Quinlan. Acute forced exercise increases *Bdnf* IV mRNA and reduced exploratory behavior in C57BL/6J mice. *Genes, Brain and Behavior*. 19:e12617, 2020.
- 68 Aljuhni, R., B.T. Cleland, **S.M. Roth**, S. Madhavan. Genetic polymorphisms for *BDNF*, *COMT*, and *APOE* do not affect gait or ankle motor control in chronic stroke: a preliminary cross-sectional study. *Topics in Stroke Rehabilitation*, in press.

Invited Reviews and Synthesis Articles:

- 69 Cracolice, M.S. †, **S.M. Roth**. Keller's "old" Personalized System of Instruction: a "new" solution for today's college chemistry student. Unsolicited review for *The Chemical Educator [Online]* 1 (1): S1430-4171, 1996; DOI 10.1333/s00897960004a.
- 70 **Roth, S.M.**, R.E. Ferrell, and B.F. Hurley[†]. Strength training for the prevention and treatment of sarcopenia. *The Journal of Nutrition, Health and Aging* 4(3): 143-155, 2000.
- 71 Hurley, B.F. † and **S.M. Roth**. Strength training in the elderly: effects on risk factors for age-related diseases. *Sports Medicine* 30(4): 249-268, 2000.
- 72 **Roth, S.M.** †, G.F. Martel, M.A. Rogers. Muscle biopsy and muscle fiber hypercontraction: a brief review. Unsolicited review for *European Journal of Applied Physiology* 83: 239-245, 2000.
- 73 **Roth, S.M.** †, S. Walsh*. Myostatin: a therapeutic target for skeletal muscle wasting. *Current Opinion in Clinical Nutrition and Metabolic Care* 7(3): 259-263, 2004.
- 74 Delmonico, M.J., **S.M. Roth**, B.F. Hurley[†]. Effects of strength training on blood pressure in older adults: can genotype influence response? *American Journal of Medicine and Sports*, 4: 215-218, 2004.
- 75 Wolfarth, B., M.S. Bray, J.M. Hagberg, L. Pérusse, R. Rauramaa, M.A. Rivera, **S.M. Roth**, T. Rankinen, C. Bouchard[†]. The human gene map for performance and health-related fitness phenotypes: the 2004 update. *Medicine and Science in Sports and Exercise* 37(6): 881-903, 2005.
- 76 **Roth, S.M.** Commentary to accompany ACE ID genotype and muscle strength and size response to unilateral resistance training. *Medicine and Science in Sports and Exercise* 38(6): 1073, 2006.
- 77 Rankinen, T., M.S. Bray, J.M. Hagberg, L. Pérusse, **S.M. Roth**, B. Wolfarth, C. Bouchard[†]. The human gene map for performance and health-related fitness phenotypes: the 2005 update. *Medicine and Science in Sports and Exercise* 38(11): 1863-1888, 2006.
- 78 **Roth, S.M.**, E.J. Metter, S. Ling, L. Ferrucci[†]. Inflammatory factors in age-related muscle wasting. *Current Opinion in Rheumatology* 18(6): 625-630, 2006.
- 79 **Roth, S.M.** Functional genomics and the path to personalized medicine. Commentary article for *Exercise and Sport Sciences Reviews*, 36: 49-50, 2008.
- 80 **Roth, S.M.** Viewpoint: Perspective on the future use of genomics in exercise prescription. Unsolicited commentary for *Journal of Applied Physiology*, 104: 1243-1245, 2008. [See associated invited commentaries on pages 1246-1253 in this same issue.]
- 81 Bray, M.S., J.M. Hagberg, L. Pérusse, Rankinen, T., **S.M. Roth**, B. Wolfarth, C. Bouchard[†]. The human gene map for performance and health-related fitness phenotypes: the 2006-2007 update. *Medicine and Science in Sports and Exercise*, 41: 34-72, 2009.
- 82 Rankinen, T., **S.M. Roth**, M.S. Bray, R. Loos, L. Perusse, B. Wolfarth, J.M. Hagberg, C. Bouchard[†]. Advances in exercise, fitness and performance genomics. *Medicine and Science in Sports and Exercise*, 42(5): 835-846, 2010.
- 83 **Roth, S.M.** MicroRNAs: playing a big role in explaining skeletal muscle adaptation? Invited editorial for *Journal of Applied Physiology*, 110: 301-302, 2011.
- 84 Ludlow, A.T*, **S.M. Roth**[†]. Physical activity and telomere biology: exploring the link with aging-related disease prevention. *Journal of Aging Research*, vol. 2011, Article ID 790378, 12 pg, 2011. doi:10.4061/2011/790378
- 85 Hagberg, J.M., T. Rankinen, R.J.F. Loos, L. Perusse, **S.M. Roth**, B. Wolfarth, C. Bouchard[†]. Advances in exercise, fitness, and performance genomics in 2010. *Medicine and Science in Sports and Exercise*, 43(5): 743-752, 2011.

- 86 **Roth, S.M.**, T. Rankinen, J.M. Hagberg, R.J.F. Loos, L. Perusse, M.A. Sarzynski, B. Wolfarth, C. Bouchard[†]. Advances in exercise, fitness, and performance genomics in 2011. *Medicine and Science in Sports and Exercise*, 44 (5): 809-817, 2012.
- 87 **Roth, S.M.** Critical overview of applications of genetic testing in sport talent identification. *Recent Patents on DNA & Gene Sequences*, 6: 247-255, 2012.
- 88 **Roth, S.M.** Genetic aspects of skeletal muscle strength and mass with relevance to sarcopenia. *BoneKEy Reports*, 1, Article number 58: 1-7, 2012.
- 89 Perusse, L., T. Rankinen, J.M. Hagberg, R.J.F. Loos, **S.M. Roth**, M.A. Sarzynski, B. Wolfarth, C. Bouchard[†]. Advances in exercise, fitness, and performance genomics in 2012. *Medicine and Science in Sports and Exercise*, 45(5): 824-831, 2013.
- 90 Guth, L.M.* , **S.M. Roth**[†]. Genetic influence on athletic performance. Invited review for *Current Opinion in Pediatrics*, 25: 653-658, 2013.
- 91 Ludlow, A.T.* , L.W. Ludlow, **S.M. Roth**[†]. Do telomeres adapt to physiological stress? Exploring the effect of exercise on telomere length and telomere-related proteins." *BioMed Research International*, Article ID 601368: 1-15, 2013. <http://dx.doi.org/10.1155/2013/601368>
- 92 Wolfarth, B., T. Rankinen, J.M. Hagberg, R.J.F. Loos, L. Perusse, **S.M. Roth**, M.A. Sarzynski, C. Bouchard[†]. Advances in exercise, fitness, and performance genomics in 2013. *Medicine and Science in Sports and Exercise*, 46(5): 851-859, 2014.
- 93 **Roth, S.M.** Improving teaching effectiveness and student learning through the use of faculty learning communities. *Kinesiology Review*, 3: 209-216, 2014.
- 94 **Roth, S.M.** Physical activity may improve aging through impacts on telomere biology. *Kinesiology Review*. 4: 99-106, 2015.
- 95 Loos, R.J.F., J.M., Hagberg, L. Perusse, **S.M. Roth**, M.A. Sarzynski, B. Wolfarth, T. Rankinen, C. Bouchard[†]. Advances in exercise, fitness, and performance genomics in 2014. *Medicine and Science in Sports and Exercise*, 47(6): 1105-1112, 2015.
- 96 Venezia, A.C., **S.M. Roth**. Recent research in the genetics of exercise training adaptation. *Medicine and Sport Science*, 61: 29-40, 2016.
- 97 Sarzynski, M.A, R.J.F. Loos, A. Lucia, L. Perusse, **S.M. Roth**, B. Wolfarth, T. Rankinen, C. Bouchard[†]. Advances in exercise, fitness, and performance genomics in 2015. *Medicine and Science in Sports and Exercise*, 48: 1906-1916, 2016.
- 98 Sapp, R., **S.M. Roth**, J.M. Hagberg. Circulating microRNAs in acute and chronic exercise: more than mere biomarkers. *Journal of Applied Physiology*, 122: 712-717, 2017.

Other Refereed Articles:

- 1 **Roth, S.M.**[†], M.A. Rogers. Interpretation of muscle damage from fixed tissue obtained by needle biopsy (Letter). *American Journal of Physiology Endocrinology and Metabolism* 278: E754-E756, 2000.
- 2 **Roth, S.M.** [†], M.A. Rogers, B.F. Hurley, G.F. Martel. Pneumatic resistance machines can provide eccentric loading (Letter). *Medicine and Science in Sports and Exercise* 36: 1655-1656, 2004.
- 3 **Roth, S.M.** *ACTN3* was never 'the' gene for speed (Letter). *British Journal of Sports Medicine*, 24 Sept. 2007. <http://bjsm.bmj.com/cgi/eletters/41/9/616>.
- 4 **Roth, S.M.** Last word on Viewpoint: Perspective on the future use of genomics in exercise prescription (Letter). *Journal of Applied Physiology*, 104: 1254, 2008.
- 5 Hanson, E.D., N.T. Jenkins, **S.M. Roth**[†]. Commentary on Viewpoint. Genetic information will influence but not predict the first two-hour marathon. *Journal of Applied Physiology*, 110: 290, 2011.

Non-refereed and Other Publications:

1. Sharkey, B.[†], T. Rothwell, T. DeLorenzo-Green, **S.M. Roth**. Lung function of wildland firefighters: 1993-1995. *Health Hazards of Smoke*, USDA Forest Service, Fall 1995.
2. **Roth, S.M.** Why does lactic acid build up in muscles? *Scientific American* 294(4): 104, 2006.
3. **Roth, S.M.** Gene doping in Olympic sports. Invited ACSM website commentary, posted 15 August 2008.
4. **Roth, S.M.** Can genes predict athletic performance? Extended interview with *Scientific American*, posted 1 Dec 2008: www.sciam.com/article.cfm?id=genes-sports-talent
5. **Roth, S.M.** ESSR Journal Club questions generated for the covered article: "Overcoming barriers to progress in exercise genomics" by Dr. Claude Bouchard, published online Oct., 2011 at journals.lww.com/acsm-essr/.
6. **Roth, S.M.** Active Voice: Genetic testing for sport talent identification – ready for young athletes? *Sports Medicine Bulletin*, Sept 20 issue, 2011.

7. **Roth, S.M.** Active Voice: Can exercise be bad for you? *Sports Medicine Bulletin*, 27 November 2012 issue.
8. **Roth, S.M.** We must do more to improve student learning. *The Faculty Voice* (University of Maryland), 29 (4): 3, 2014.
9. **Roth, S.M.** Pourquoi a-t-on des courbatures? (French; translation, "Why we ache"). *Pour la Science*, #451, May 2015. http://www.pourlascience.fr/ewb_pages/a/article-pourquoi-a-t-on-des-courbatures-35167.php

PRESENTATIONS

Keynote:

1. **Roth, S.M.** A tale of two genes: the best and worst of skeletal muscle genetics. Schulze Memorial Lecture, Ball State University, Muncie, IN, 2007.
2. **Roth, S.M.** Genetics and sport: the Jekyll and Hyde of an emerging field. Keynote speaker for Midwest Region American College of Sports Medicine Annual Meeting, Indianapolis, IN, Oct. 2011.
3. **Roth, S.M.** Genetics and sport: the Jekyll and Hyde of an emerging field. Keynote speaker for Northeast Region American College of Sports Medicine Annual Meeting, accepted invitation for Nov. 2013.

Invited:

4. **Roth, S.M.** Genetics and exercise science: an overview of representative research. Symposium presentation at Mid-Atlantic Region ACSM annual meeting, Bushkill PA, 2001.
5. **Roth, S.M.** The myostatin puzzle: from "double muscle" cows to insulin resistance. Seminar, Endocrinology Research Conference, School of Medicine, University of Pittsburgh, 2002.
6. **Roth, S.M.** The exercise genes: the role of genetics in exercise science. Symposium presentation at the Northwest Region ACSM annual meeting, Missoula, MT, 2003.
7. **Roth, S.M.** Genetic aspects of skeletal muscle and its response to training. Seminar, Children's National Medical Center, Washington, DC, 2004.
8. **Roth, S.M.** Role of myostatin genotype in resistance training adaptation. Invited symposium presentation for the American College of Sports Medicine Annual Meeting in Indianapolis, IN, 2004.
9. **Roth, S.M.** Genetics of oxygen signaling: HIF-1alpha, VEGF, and exercise training adaptations. Invited mini-symposium presentation for the American College of Sports Medicine Annual Meeting in Indianapolis, IN, 2004.
10. **Roth, S.M.** Genetic aspects of skeletal muscle phenotypes and sarcopenia. Symposium presentation for the Gerontology Society of America Annual Meeting, Washington, DC. *The Gerontologist*, 44 (spec. 1): 439, 2004.
11. **Roth, S.M.** Genetic epidemiology of skeletal muscle. Seminar, GCRC Seminar Series, Howard University School of Medicine, 2004.
12. **Roth, S.M.** Genes associated with muscle mass and strength: update from the BLSA and GUSTO studies. Invited symposium presentation for the American College of Sports Medicine Annual Meeting, Nashville, TN, 2005.
13. **Roth, S.M.** Genes and physical function: genetic aspects of muscle mass and strength. Seminar, Geriatric Research, Education, and Clinical Center (GRECC), Baltimore VA Medical Center, Baltimore MD, 2006.
14. **Roth, S.M.** A cause for concern: genetic screening and gene doping in sport. Invited symposium presentation for the American College of Sports Medicine Annual Meeting, New Orleans, LA, 2007.
15. **Roth, S.M.** Genetics in exercise science: peril and promise in an emerging field. College of Health Professions, Temple University, Philadelphia, PA, 2008.
16. **Roth, S.M.** Genetics in physical activity and health: DNA shaping our physical function...and vice versa. For the Exercise and Physical Activity in Health and Disease Program. Katholieke Universiteit Leuven, Belgium, 2008.
17. **Roth, S.M.** Kinesiogenomics: The intersection of genomics and physical activity. Universidade Catolica de Brasilia (Catholic University of Brasilia), Brazil, 2009.
18. **Roth, S.M.** with P.W. Franks and M. Hamilton. Conversational Forum presentation entitled: Genetics in exercise prescription for disease treatment and prevention. American College of Sports Medicine Annual Meeting, Seattle, WA, 2009.
19. **Roth, S.M.** Genomics 101: An introduction and implications for DCD. Symposium presentation, Conference on Developmental Coordination Disorders, Baltimore, MD, 2009.
20. **Roth, S.M.** At the end of our rope. Exercise and telomere biology. University of Oregon, March 2010.
21. **Roth, S.M.** At the end of our rope. Exercise and telomere biology. University of Missouri, April 2010.
22. **Roth, S.M.** A blurry crystal ball: genomic predictors of skeletal muscle traits. Invited symposium presentation for the Canadian Society for Exercise Physiology Annual Meeting, Toronto, Canada, Nov. 2010.

23. **Roth, S.M.** Genetic testing in talent identification: what does the future hold? Tutorial Lecture for 2011 American College of Sports Medicine Annual Meeting, Denver, CO, May 2011.
24. **Roth, S.M.** Genetic/Genomic testing: a new era? Symposium speaker, 1st Brazilian Symposium on Genomics and Sport, Sao Paulo, Brazil, June 2012.
25. **Roth, S.M.** Genetic Testing in Sport and Talent Identification. University of Porto, Portugal, June 2013.
26. **Roth, S.M.** Exercise and Epigenetics: Expanding our understanding of genetics and the mechanisms of exercise adaptation. Puerto Rican Physiological Society Annual Meeting, Ponce, Puerto Rico, Feb. 2014.
27. **Roth, S.M.** Genetics and power, speed, and sprint performance. Invited symposium presentation for the American College of Sports Medicine Annual Meeting, Orlando, FL, 2014.
28. **Roth, S.M.** Physical activity may slow aging through impacts on telomere biology. Invited presentation for the National Academy of Kinesiology Annual Meeting, Austin, TX, 2014.
29. **Roth, S.M.** Faculty Learning Communities to Promote Success in Student Learning and Faculty Development. Oral presentation for the Undergraduate Public Health and Global Health Education Summit, Arlington, VA, 2016.
30. **Roth, S.M.** The uncomfortable yet inevitable pairing of genetics and sport. Martens-Sharkey Lecture, University of Montana, April 2019.
31. **Roth, S.M.** (panelist) Moving Forward Together: COVID-19 vs. Education. Universities at Shady Grove, Aug. 2020.

Chaired Sessions and Symposia:

- 1 **Roth, S.M.** (Chair) Genetics of skeletal muscle and the muscle response to strength training. Mini-Symposium, American College of Sports Medicine Annual Meeting, Nashville, TN, 2005.
- 2 **Roth, S.M.** (Chair) Gene doping: separating hype from reality. Special Event Symposium, American College of Sports Medicine Annual Meeting, Denver, CO, 2006.
- 3 **Roth, S.M.** (Chair). The emergence of genetics in sports medicine. Symposium, American College of Sports Medicine Annual Meeting, New Orleans, LA, 2007.
- 4 **Roth, S.M.** (Chair). Physical activity as a modifier of the genetic susceptibility to dementia. Featured Science Session, American College of Sports Medicine Annual Meeting, Indianapolis, IN, 2008.
- 5 **Roth, S.M.** (Chair). Evidence for the importance of genomics in exercise. Featured Science Session for 2011 American College of Sports Medicine Annual Meeting, Denver, CO, May 2011.
- 6 **Roth, S.M.** (Chair). Genetics and the phenotypes under our noses. Tutorial Lecture in collaboration with journalist, David Epstein. 2012 American College of Sports Medicine Annual Meeting, San Francisco, CA, May 2012.
- 7 **Roth, S.M.** (Chair). Genetic/Genomic Testing: where do we go? Symposium, 1st Brazilian Symposium on Genomics and Sport, Sao Paulo, Brazil, June 2012.
- 8 **Roth, S.M.** (Chair). Exercise Genomics. Tutorial Lecture, 2013 American College of Sports Medicine Annual Meeting, Indianapolis, IN, May 2013.

Research Presentations: (*denotes advisee/trainee of Dr. Roth; †denotes senior or lead author)

- 1 **Roth, S.M.**, G.F. Martel, F.M. Ivey, J.T. Lemmer, E.J. Metter, F.L. Fozard, T.K. Mangel, M.A. Rogers[†]. Ultrastructural muscle damage in older men following eight weeks of strength training. Slide presentation at American College of Sports Medicine Annual Meeting, Orlando FL. *Med. Sci. Sports Exerc.* 30 (5 supp.): S2, 1998.
- 2 **Roth, S.M.**, G.F. Martel, F.M. Ivey, J.T. Lemmer, B.L. Tracy, D.E. Hurlbut, E.J. Metter, T.K. Mangel, M.A. Rogers[†]. Ultrastructural muscle damage in older women following nine weeks of strength training. Slide presentation at American College of Sports Medicine Annual Meeting, Seattle WA. *Med. Sci. Sports Exerc.* 31 (5 supp.): S347, 1999.
- 3 **Roth, S.M.**, G.F. Martel, F.M. Ivey, J.T. Lemmer, B.L. Tracy, E.J. Metter, T.K. Mangel, B.F. Hurley, M.A. Rogers[†]. Satellite cell response to nine weeks of strength training in young and older men and women. Slide presentation at American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.* 32 (5 supp.): S294, 2000.
- 4 Riechman, S.E., G. Balasekaran, **S.M. Roth**, R.E. Ferrell, B.F. Hurley[†]. An interleukin-15 receptor alpha (IL15Ra) polymorphism is associated with muscle mass responses to strength training. Slide and poster presentation at Experimental Biology meeting, Orlando, FL. *FASEB Journal*, 15(4): A485, 2001.

- 5 Riechman, S.E., G. Balasekaran, **S.M. Roth**, R.E. Ferrell[†], R.J. Robertson. Ciliary neurotrophic factor (CNTF) genotype is associated with skeletal muscle responses to strength training. Slide presentation at American College of Sports Medicine Annual Meeting, Baltimore, MD. *Med. Sci. Sports Exerc.* 33 (5 supp.): S277, 2001.
- 6 Brandauer, J., G.F. Martel, **S.M. Roth**, B.F. Hurley, M.A. Rogers[†]. Effects of high-volume heavy-resistance strength training on MRI relaxation times. Slide presentation at American College of Sports Medicine Annual Meeting, Baltimore, MD. *Med. Sci. Sports Exerc.* 33 (5 supp.): S147, 2001.
- 7 Hurley, B.F.[†], G.F. Martel, **S.M. Roth**, J.L. Fleg, R.E. Ferrell. Resting blood pressure response to strength training may depend on angiotensinogen (-20) genotype. Slide presentation at American College of Sports Medicine Annual Meeting, Baltimore, MD. *Med. Sci. Sports Exerc.* 33 (5 supp.): S230, 2001.
- 8 Schragar, M.A., **S.M. Roth**, R.E. Ferrell, E.J. Metter, N.A. Lynch, R.S. Lindle, B.F. Hurley[†]. Muscular strength across the adult life span is influenced by insulin-like growth factor-2 (*IGF2*) genotype. Slide presentation for American College of Sports Medicine Annual Meeting, St. Louis, MO. *Med. Sci. Sports Exerc.* 34 (5 supp.): S131, 2002.
- 9 Riechman, S.E., T.J. Fabian, P.D. Kroboth, G. Balasekaran, **S.M. Roth**, R.E. Ferrell[†], R.J. Robertson, B.F. Hurley. Peripheral benzodiazepine receptor polymorphisms are associated with plasma DHEA and cortisol responses to strength training. Slide presentation for American College of Sports Medicine Annual Meeting, St. Louis, MO. *Med. Sci. Sports Exerc.* 34 (5 supp.): S131, 2002.
- 10 **Roth, S.M.**[†], M.C. Kostek, M.J. Delmonico, W.K. Kwok, B.F. Hurley. The alpha-actinin-3 (*ACTN3*) R577X polymorphism is associated with muscle strength in older individuals. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 36 (5 supp.): S39, 2004.
- 11 Walsh, S.*[†], P.R. Shea, E.J. Metter, B.F. Hurley, R.E. Ferrell, and **S.M. Roth**[†]. Androgen receptor CAG repeat is associated with fat free mass in men but not in women. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 36 (5 supp.): S99, 2004.
- 12 Prior, S.J.*[†], D.A. Phares, J.M. Hagberg, **S.M. Roth**[†]. Maximal oxygen consumption is associated with VEGF sequence variation. Slide presentation for the 2004 American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 36 (5 supp.): S99, 2004.
- 13 Delmonico, M.J., A. Meerasahib, R.E. Ferrell, G.F. Martel, **S.M. Roth**, M.C. Kostek, B.F. Hurley[†]. Blood pressure response to strength training may be influenced by angiotensinogen (*AGT M235T*) genotype in older adults. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 36 (5 supp.): S94, 2004.
- 14 Martel, G.F., B. Aiken, M.N. Brill, **S.M. Roth**, B.F. Hurley, E.J. Metter, M.A. Rogers[†]. Short-term strength training does not alter skeletal muscle capillarization in young or older women. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 36 (5 supp.): S54, 2004.
- 15 Liu, D.*[†], S. Walsh*, M.J. Delmonico, K.L. Voss*, B.F. Hurley, **S.M. Roth**[†]. Newly identified myostatin mutation not observed in strength athletes or the general population. Slide presentation for the American College of Sports Medicine Annual Meeting, Nashville, TN. *Med. Sci. Sports Exerc.*, 37 (5 Supp.): S165-166, 2005.
- 16 Prior, S.J.*[†], C.M. Paton, D.A. Phares, K.L. Voss*, M.D. Brown, J.M. Hagberg, **S.M. Roth**[†]. DNA sequence variation in the *VEGF* gene and plasma VEGF protein levels. Slide presentation for the American College of Sports Medicine Annual Meeting, Nashville, TN. *Med. Sci. Sports Exerc.*, 37 (5 Supp.): S473, 2005.
- 17 **Roth, S.M.**[†], M.J. Delmonico, K.M. Rabon-Stith, S. Walsh*, B.F. Hurley. The *ACTN3* gene R577X polymorphism is associated with muscle power response to strength training. Slide presentation for the American College of Sports Medicine Annual Meeting, Nashville, TN. *Med. Sci. Sports Exerc.*, 37 (5 Supp.): S472, 2005.
- 18 Park, J.Y., N. Fenty, **S.M. Roth**, M.D. Brown[†]. iNOS (CCTTT)_n pentanucleotide repeats are associated with glomerular filtration rates in prehypertensives. Presentation for the American Society of Hypertension Annual Meeting, New York, NY, 2006.
- 19 Fenty, N., **S.M. Roth**, M. Bathula, J.Y. Park, M.D. Brown[†]. AT1R A1166C polymorphism is associated with plasma angiotensin II levels, but not ambulatory blood pressure responses to aerobic exercise training. Presentation for the American Society of Hypertension Annual Meeting, New York, NY, 2006.
- 20 Park, J.Y., I.K. Farrance, H. Jo, S.R. Brant, **S.M. Roth**, M.D. Brown[†]. A promoter polymorphism regulates NFKB1 gene transactivity in human endothelial cells under laminar shear stress. Presentation for the American College of Sports Medicine Annual Meeting, Denver, CO. *Med. Sci. Sports Exerc.*, 38 (5 Supp.): S4, 2006.

- 21 Faulkner, K.A., **S.M. Roth**, J.A. Cauley, K. Stone, T.A. Hillier, K.E. Ensrud, M. Hochberg, M.C. Nevitt, J.M. Zmuda[†]. Familial resemblance in neuromuscular function and falling in older women. Oral presentation for the Gerontological Society of America Annual Meeting, Dallas, TX, 2006.
- 22 Whitt, K.J., S.M. Ling, A.J.G. Bos, D.C. Muller, **S.M. Roth**, L. Ferrucci[†]. The effects of vitamin D receptor polymorphisms on bone mineral density in men and women. Slide presentation for the Experimental Biology meeting, Washington, DC, 2007.
- 23 Walsh S*, E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. Myostatin related gene associations with muscle mass and strength in humans. Slide presentation for the American College of Sports Medicine Annual Meeting, New Orleans, LA. *Med. Sci. Sports Exerc.*, 39 (5 Supp.): S13, 2007.
- 24 Ludlow, A.T.* , D. Liu*, E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. *AKT1* G205T polymorphism associated with muscle strength. Slide presentation for the American College of Sports Medicine Annual Meeting, New Orleans, LA. *Med. Sci. Sports Exerc.*, 39 (5 Supp.): S13, 2007.
- 25 Prior, S.J., L.J. Joseph, **S.M. Roth**, A.P. Goldberg, A.S. Ryan[†]. Insulin sensitivity is associated with *AKT1* haplotype. Slide presentation for the American Diabetes Association annual meeting, Chicago, IL, 2007.
- 26 **Roth, S.M.**[†], Walsh S*, E.J. Metter, L. Ferrucci. Genetic analysis of atrogen-1 (*FBXO32*) polymorphisms with muscle mass and strength in men and women. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): S45, 2008.
- 27 Deeny, S.P., K. Nichol, **S.M. Roth**, B. Hatfield, C.W. Cotman[†]. Use of neuroimaging to examine genotype and exercise interactions on cognitive function. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): program pages: 68-69, 2008.
- 28 Ludlow, A.T.* , E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. The vitamin D receptor (*VDR*) FokI polymorphism is associated with muscle mass and strength in men. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): S44-45, 2008.
- 29 Fenty-Stewart, J.-Y. Park, **S.M. Roth**, J.M. Hagberg, S. Basu, R.E. Ferrell, M.D. Brown[†]. Influence of *AGTR1* gene variants and aerobic exercise training on angiotensin II and oxidative stress. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): S44, 2008.
- 30 Delmonico, M.J., J.M. Zmuda, B.C. Taylor, J.A. Cauley, T.B. Harris, T. Manini, R. Li, **S.M. Roth**, B.F. Hurley, R.E. Ferrell, A.B. Newman[†]. Association of the *ACTN3* genotype and physical functioning with age in older adults. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): S44, 2008.
- 31 Zimmerman, J.B., J.W. Hearn, A.T. Ludlow*, J. Savin-Murphy, J.C. Rietschel, R. Conery, S.P. Deeny, **S.M. Roth**, B.D. Hatfield[†]. Executive and memory performance is moderated by *APOE* and physical activity in middle-aged adults. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): S89, 2008.
- 32 Savin-Murphy, J. J.B. Zimmerman, S.P. Deeny, A.T. Ludlow*, D. Poepfel, **S.M. Roth**, J. Contreras-Vidal, B.D. Hatfield[†]. Fitness and cognitive decline of the aging brain – a preliminary investigation. Slide presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): S90, 2008.
- 33 Zimmerman, J.B., A.T. Ludlow*, S. Witkowski, M. Kayes, D. Poepfel, **S.M. Roth**, B.D. Hatfield[†]. *APOE* genotype, aerobic fitness, and cerebral cortical activation during working memory challenge in middle-aged adults. Slide presentation for the American College of Sports Medicine Annual Meeting, Seattle WA, 2009. *Med. Sci. Sports Exerc.*, 41(5 Supp.): S52, 2009.
- 34 Sheppard, R.L.* , E.E. Spangenburg, E.R. Chin, **S.M. Roth**[†]. Androgen receptor CAG repeat length affects receptor activity and C2C12 myogenic potential. Slide presentation for the American College of Sports Medicine Annual Meeting, Baltimore MD, 2010. *Med. Sci. Sports Exerc.*, 42(5 Supp.): S64, 2010.
- 35 Kayes, M.K., J.B. Zimmerman, J.C. Rietschel, S.P. Deeny, **S.M. Roth**, A.T. Ludlow*, B.D. Hatfield[†]. Cognitive performance in relation to *APOE* genotype, physical activity, and cardiovascular fitness. Slide presentation for the American College of Sports Medicine Annual Meeting, Baltimore MD, 2010. *Med. Sci. Sports Exerc.*, 42(5 Supp.): S53, 2010.
- 36 Guth, L.M.* , A.T. Ludlow, S. Witkowski, M.R. Marshall, L. Lima, A.C. Venezia, T. Xiao, M.-L.T. Ling, E.E. Spangenburg, **S.M. Roth**[†]. Exercise ancestry decreases lipogenesis-related gene expression in skeletal muscle of male offspring. Oral and poster presentation for the Experimental Biology meeting, Washington, DC, 2011.

Research Poster Presentations: (*denotes advisee/trainee of Dr. Roth; [†]denotes senior or lead author)

- 37 **Roth, S.M.**, B.C. Ruby[†]. Effects of circulating estradiol and oral birth control on exercise-induced creatine kinase release. Poster presentation at Northwest Region ACSM annual meeting, Corvallis OR, 1996.
*1996 NWACSM Pre-Doctoral Poster Presentation Award
- 38 Martel, G.F., D.E. Hurlbut, M.E. Lott, J.T. Lemmer, F.M. Ivey, **S.M. Roth**, M.A. Rogers, B.F. Hurley[†]. Strength training reduces resting blood pressure in 65 to 75 year old men and women. Poster Presentation at American College of Sports Medicine Annual Meeting, Orlando FL. *Med. Sci. Sports Exerc.* 30 (5 supp.): S75, 1998.
- 39 Martel, G.F., **S.M. Roth**, D.E. Hurlbut, F.M. Ivey, J.T. Lemmer, B.L. Tracy, B.F. Hurley, E.J. Metter, M.A. Rogers[†]. The effects of high volume, heavy resistance unilateral strength training on fiber characteristics in older and younger men and women. Poster presentation at American College of Sports Medicine Annual Meeting, Seattle WA. *Med. Sci. Sports Exerc.* 31 (5 supp.): S325, 1999.
- 40 Lawrence, E.C., B.F. Hurley, **S.M. Roth**, J.M. Hagberg, R.E. Ferrell[†]. Myostatin promoter sequence and frequent allelic variation in the coding sequence. Poster presentation at the 1999 American Society of Human Genetics (ASHG) Annual Meeting, San Francisco, CA. *Am. J. Hum. Genet.* 65(4): A259, 1999.
- 41 Schragger, M.A., **S.M. Roth**, R.E. Ferrell, E.J. Metter, N.A. Lynch, R.S. Lindle, B.F. Hurley[†]. Is insulin-like growth factor-2 (IGF-2) genotype related to muscle strength across adult age span? Poster presentation at Integrative Biology of Exercise, Portland, ME. *The Physiologist*, 43(4): 327, 2000.
- 42 **Roth, S.M.**, M.A. Schragger, R.E. Ferrell, E.J. Metter, N.A. Lynch, R.S. Lindle, B.F. Hurley[†]. Ciliary neurotrophic factor (CNTF) genotype is associated with muscular strength and quality in men and women across the adult age span. Poster presentation at Integrative Biology of Exercise, Portland, ME. *The Physiologist*, 43(3): 347, 2000.
- 43 **Roth, S.M.**, M.A. Schragger, S.E. Riechman, R.E. Ferrell, E.J. Metter, J.L. Fleg, B.F. Hurley[†]. Ciliary neurotrophic factor (CNTF) genotype and body composition in men and women across the adult age span. Poster presentation at Experimental Biology meeting, Orlando, FL. *FASEB Journal*, 15(4): A485, 2001.
- 44 Schragger, M.A., R.E. Ferrell, R.A. Conwit, M.F. Watt, **S.M. Roth**, E.J. Metter[†]. Is ciliary neurotrophic factor (CNTF) genotype related to motor unit physiology during submaximal contractions? Poster presentation at American College of Sports Medicine Annual Meeting, Baltimore, MD. *Med. Sci. Sports Exerc.* 33 (5 supp.): S215, 2001.
- 45 **Roth, S.M.**, M.A. Schragger, S.E. Riechman, R.E. Ferrell, E.J. Metter, J.L. Fleg, B.F. Hurley[†]. Does IGF2 genotype predict BMI and body fat in men and women across the adult age span? Poster presentation at American College of Sports Medicine Annual Meeting, Baltimore, MD. *Med. Sci. Sports Exerc.* 33 (5 supp.): S323, 2001.
- 46 Riechman, S.E., T.J. Fabian, P.D. Kroboth, **S.M. Roth**, R.E. Ferrell[†]. DHEA/DHEAS responses to strength training in men and women: influence of a polymorphic marker in the x-linked steroid sulfatase gene. Poster presentation at American Physiological Society Genome and Hormones Conference, Pittsburgh, PA. *The Physiologist* 44 (4): 279, 2001.
- 47 Riechman, S.E., G. Balasekaran, **S.M. Roth**, R.E. Ferrell, B.F. Hurley[†]. Fat loss with strength training is associated to interleukin-6 G-174C polymorphism in men and women. Poster presentation at Experimental Biology meeting, New Orleans, LA. *FASEB Journal*, 16(5): A881, 2002.
- 48 **Roth, S.M.**, M.A. Schragger, S.E. Riechman, M. Lee, E.J. Metter, J.L. Fleg, B.F. Hurley, R.E. Ferrell[†]. The *IL6* G-174C promoter polymorphism and body composition in adult men and women. Poster presentation at Experimental Biology meeting, New Orleans, LA. *FASEB Journal*, 16(5): A880-A881, 2002.
*2002 FASEB MARC Poster Travel Award winner.
- 49 Newman, M.A, S.E. Riechman, G. Balasekaran, **S.M. Roth**, R.E. Ferrell, R.J. Robertson, B.F. Hurley[†]. Age, birth control, strength training history associated to lean mass gain with strength training. Poster presentation for American College of Sports Medicine Annual Meeting, St. Louis, MO. *Med. Sci. Sports Exerc.* 34 (5 supp.): S281, 2002.
- 50 **Roth, S.M.**[†], R.E. Ferrell, D.G. Peters, E.J. Metter, G.F. Martel, B.F. Hurley, M.A. Rogers. Microarray analysis of muscle gene expression: influence of age, sex, and strength training. Poster presentation (by M.A. Rogers) for American College of Sports Medicine Annual Meeting, St. Louis, MO. *Med. Sci. Sports Exerc.* 34 (5 supp.): S189, 2002.
- 51 Sinha-Hikim, I., **S.M. Roth**, L. Woodhouse, A.B. Singh, R. Casaburi, T.W. Storer, S. Bhasin[†]. Muscle fiber hypertrophy induced by a supraphysiologic dose of testosterone is associated with an increase in the numbers of myonuclei and muscle satellite cells in healthy, young men. Poster presentation for The Endocrine Society annual meeting, San Francisco, CA, 2002.

- 52 **Roth, S.M.**[†], S.J. Prior*, D.A. Phares, M.D. Brown, J.M. Hagberg, R.E. Ferrell. Sequence variation in hypoxia-inducible factor 1 alpha (*HIF1A*). Poster presentation for American Society for Human Genetics annual meeting, Baltimore, MD. *Am. J. Hum. Genet.* 71 (4 supp.): 350, 2002.
- 53 Riechman, S.E., R.E. Ferrell[†], **S.M. Roth**, G. Balasekaran. ACE gene variation and resistance exercise training response in MERET. Poster presentation at Experimental Biology, Washington, D.C. *FASEB Journal*, abstract volume, A941, 2003.
- 54 Doe, V.H., S.E. Riechman, R.E. Ferrell[†], G. Balasekaran, **S.M. Roth**. Resistance exercise training responses in African American versus Caucasian. Poster presentation at Experimental Biology, Washington, D.C. *FASEB Journal*, abstract volume, A1271, 2003.
- 55 **Roth, S.M.**, J.M. Zmuda, J.A. Cauley, P.R. Shea, R.E. Ferrell[†]. Association of the vitamin D receptor (*VDR*) FokI genotype with muscle mass in older men. Poster presentation for the American College of Sports Medicine Annual Meeting, San Francisco, CA. *Med. Sci. Sports Exerc.*, 35 (5 supp.): S186, 2003.
- 56 Prior, S.J.* , D.A. Phares, L. Fairfull, R.E. Ferrell, J.M. Hagberg, **S.M. Roth**[†]. Association of *HIF1A* genotype with maximal oxygen consumption before and after aerobic exercise training. Poster presentation for the American College of Sports Medicine Annual Meeting, San Francisco, CA. *Med. Sci. Sports Exerc.*, 35 (5 supp.): S377, 2003.
- 57 Hurley, B.F.[†], G.F. Martel, **S.M. Roth**, and R.E. Ferrell. Angiotensinogen (-20) genotype may influence resting blood pressure response to strength training. Presentation for the 2003 International Academy Nutrition and Aging Annual Meeting, Albuquerque, NM. *J. Nutr. Health Aging* 7: 149, 2003.
- 58 Forrest, K.Y.Z., J.M. Zmuda, J.A. Cauley, **S.M. Roth**, and R.E. Ferrell[†]. The interleukin-6 G-174C promoter polymorphism is associated with hip bone loss in older men. Presentation for the American Society for Bone and Mineral Research Annual Meeting, Minneapolis, MN, 2003.
- 59 Walsh, S.* , J.M. Zmuda, J.A. Cauley, X. Zhang, R.E. Ferrell, and **S.M. Roth**[†]. Androgen Receptor CAG repeat is associated with fat free mass in men. Poster presentation at Experimental Biology, Washington, D.C. *FASEB Journal*, abstract volume, 2004.
- 60 Prior, S.J.* , B.F. Hurley, G.F. Martel, M.A. Rogers, **S.M. Roth**[†]. Skeletal muscle capillary response to strength training is associated with *VEGF* sequence variation Poster presentation at Experimental Biology, Washington, D.C. *FASEB Journal*, abstract volume, 2004.
- 61 Prior, S.J.* , T.P. Gavin, L.M. Westerkamp, **S.M. Roth**[†]. Association of skeletal muscle capillarity with VEGF gene sequence variation. Poster presentation for the Integrative Biology of Exercise meeting, Austin TX. *The Physiologist*, 47: 338, 2004.
- 62 Halverstadt, A., D.A. Phares, R.E. Ferrell, **S.M. Roth**, A.P. Goldberg, J.M. Hagberg[†]. Interleukin-6 (IL6) genotype is associated with high-density lipoprotein-cholesterol (HDL-C) responses to exercise training. Poster presentation for the Integrative Biology of Exercise meeting, Austin TX. *The Physiologist*, 47: 338, 2004.
- 63 Rabon-Stith, K.M., J.M. Hagberg, D.A. Phares, M.C. Kostek, M.J. Delmonico, **S.M. Roth**, J.M. Conway, A.S. Ryan, B.F. Hurley[†]. Vitamin D receptor (*VDR*) FokI and BsmI genotypes influence bone mineral density (BMD) response to strength training (ST), but not aerobic training (AT). Poster presentation for the Integrative Biology of Exercise meeting, Austin TX. *The Physiologist*, 47: 339, 2004.
- 64 Hand, B.D., R.E. Ferrell, M.C. Kostek, M.J. Delmonico, K.M. Rabon-Stith, **S.M. Roth**, Hurley, B.F.[†]. Influence of myostatin genotype on change in muscle strength with strength training in older adults. Poster presentation for the Gerontology Society of American Annual Meeting, Washington, DC. *The Gerontologist*, 44 (spec. 1): 8, 2004.
- 65 Walsh, S.* , E.J. Metter, B.F. Hurley, L. Ferrucci, **S.M. Roth**[†]. ACTN3 genotype is associated with muscle strength in women but not men across the adult age span. Poster presentation for the Gerontology Society of America Annual Meeting, Washington, DC. *The Gerontologist*, 44 (spec. 1): 2, 2004.
- 66 Delmonico, M.J., R.E. Ferrell, A. Meerasahib, G.F. Martel , **S.M. Roth**, M. Kostek, B.F. Hurley[†]. Blood pressure response to strength training may be influenced by AGT A-20C and AGTR1 A1166C genotypes in older adults. Poster presentation for the Gerontology Society of America Annual Meeting, Washington, DC. *The Gerontologist*, 44 (spec. 1): 18, 2004.
- 67 Jones, J., T. Dowling, **S.M. Roth**, J. Hagberg, M. Brown[†]. Influence of the CYP11B2 -344C/T polymorphism on plasma aldosterone, sodium excretion and blood pressure responses to long-term aerobic exercise training in middle-aged to older prehypertensives. American Society of Hypertension Annual Meeting, San Francisco, CA, 2005.
- 68 Hand, B.D., R.E. Ferrell, M. Kostek, M. Delmonico, N.A. Doldo, J.A. Bailey, **S.M. Roth**, B.F. Hurley[†]. Protein phosphatase 3 gene polymorphism influences muscle volume response to strength training. Poster

- presentation for the American College of Sports Medicine Annual Meeting, Nashville, TN. *Med. Sci. Sports Exerc.*, 37 (5 Supp.): S164, 2005.
- 69 Walsh, S.* , E.J. Metter, B.F. Hurley, L. Ferrucci, **S.M. Roth**[†]. ACTN3 genotype is associated with muscle strength in women but not men across the adult age span. Poster presentation for the American College of Sports Medicine Annual Meeting, Nashville, TN. *Med. Sci. Sports Exerc.*, 37 (5 Supp.): S164, 2005.
- 70 Yao, L., M.J. Delmonico, **S.M. Roth**^a, B.D. Hand, J. Johns, B.F. Hurley[†]. Adrenergic receptor (*ADR*) genotypes influence the effects of strength training on mid-thigh intermuscular adipose tissue. Poster presentation for the 2006 American College of Sports Medicine Annual Meeting, Denver, CO. (*author name excluded from published abstract) *Med. Sci. Sports Exerc.*, 38 (5 Supp.): S49, 2006.
- 71 Fenty, N.M., T.J. Ellis, **S.M. Roth**, M. Hickey, M.D. Brown[†]. Influence of the ECE1b C-338A polymorphism on plasma levels of ET-1, NOx, and blood pressure. Poster presentation for the Experimental Biology meeting, Washington, DC, 2007.
- 72 Walsh S*, E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. Activin RIIB (*ACVR2B*) gene associations with muscle mass and strength in humans. Poster presentation for the Experimental Biology meeting, Washington, DC, 2007.
- 73 **Roth, S.M.**, S. M. Williams, S. Menon, J. Jeka. Susceptibility genes for gentamicin-induced vestibular dysfunction. Poster presentation for the Experimental Biology meeting, Washington, DC, 2007.
- 74 Liu, D.* , E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. TNF α -308G/A is associated with muscle mass in humans. Poster presentation for the Experimental Biology meeting, Washington, DC, 2007.
- 75 Ludlow, A.T.* , J.B. Zimmerman, J.W. Hearn, S. Witkowski, B.D. Hatfield, **S.M. Roth**[†]. Relationship between exercise energy expenditure and telomere length and telomerase activity. Late-breaking poster presentation for the Experimental Biology meeting, Washington, DC, 2007.
- 76 Liu, D.* , E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. TNF α -308G/A and *IL10* -1082A/G polymorphisms are associated with muscle mass in humans. Poster presentation for the American College of Sports Medicine Annual Meeting, New Orleans, LA. *Med. Sci. Sports Exerc.*, 39 (5 Supp.): S468, 2007.
- 77 Zimmerman, J.B., R. Conery, J.W. Hearn, J.C. Rietschel, S.P. Deeny, **S.M. Roth**, B.D. Hatfield[†]. Behavioral evidence of brain changes moderated by *APOE* and physical activity in middle-aged adults. Poster presentation for the American College of Sports Medicine Annual Meeting, New Orleans, LA. *Med. Sci. Sports Exerc.*, 39 (5 Supp.): S164, 2007.
- 78 **Roth, S.M.**[†], S. Walsh*, L. Doby*, E.J. Metter, L. Ferrucci, B. Hurley. The *ACTN3* R577X nonsense allele (X) is under-represented in elite-level strength athletes. Poster presentation for the American College of Sports Medicine Annual Meeting, New Orleans, LA. *Med. Sci. Sports Exerc.*, 39 (5 Supp.): S280-281, 2007.
- 79 Whitt, K.J., **S.M. Roth**, A. Bos, D. Muller, L. Ferrucci, S.M. Ling[†]. Vitamin D receptor polymorphisms and radiographic osteoarthritis. Abstract for the American College of Rheumatology annual meeting, Boston, MA, 2007.
- 80 Walsh S*, E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. *ACTN3* genotype is associated with muscle phenotypes in women across the adult age span. Poster presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): S191, 2008.
- 81 McKenzie, J.A., S. Witkowski, A.T. Ludlow*, **S.M. Roth**, J.M. Hagberg[†]. *AKT1* G205T genotype influences the response of glucose and insulin variables to aerobic exercise training. Poster presentation for the American College of Sports Medicine Annual Meeting, Indianapolis, IN. *Med. Sci. Sports Exerc.*, 40 (5 Supp.): S185, 2008.
- 82 Whitt, K.J., **S.M. Roth**, A. Bos, D. Muller, L. Ferrucci, S.M. Ling[†]. Associations between vitamin D receptor polymorphisms, serum vitamin D, and markers of calcium homeostasis in the Baltimore Longitudinal Study of Aging (BLSA). Abstract accepted for the American Geriatric Society annual meeting, Washington, DC, 2008.
- 83 Deeny, S.P., **S.M. Roth**, J.C. Wu, C.W. Cotman[†]. Physical fitness and cerebral glucose metabolism in APOE e4 carriers during the Sternberg working memory task. Poster presentation for Society for Neuroscience Annual Meeting, Washington, DC, 2008.
- 84 Ludlow, A.T.* , M. Auriemma*, P. Nadendla*, K.Y. Ngai*, E.E. Spangenburg, **S.M. Roth**[†]. Does DNA methylation of the myosin heavy chain IIb gene promoter regulate expression during skeletal muscle differentiation? Poster presentation for Integrative Biology of Exercise Meeting, Hilton Head, SC, Sept 2008. *The Physiologist*. 51: 66-67, 2008.
- 85 McKenzie, J.A., S. Witkowski*, A.T. Ludlow*, **S.M. Roth**, J.M. Hagberg[†]. Visfatin genotypes influence glucose and obesity-related variables and their aerobic exercise training responses. Poster presentation for the American College of Sports Medicine Annual Meeting, Seattle WA, 2009. *Med. Sci. Sports Exerc.*, 41 (5 Supp.): S583, 2009.

- 86 Hanson, E.D., A.T. Ludlow*, A.K. Sheaff, J. Park, **S.M. Roth**[†]. *ACTN3* R577X genotype is not associated with muscle fatigue performance. Poster presentation for the American College of Sports Medicine Annual Meeting, Seattle WA, 2009. *Med. Sci. Sports Exerc.*, 41 (5 Supp.): S583, 2009.
- 87 Ludlow, A.T.*, P. Nadendla*, S. Witkowski*, L.M. Wohlers, E.E. Spangenburg, **S.M. Roth**[†]. Physical activity ancestry affects body composition phenotypes and gene expression in mice offspring. Poster presentation for the American College of Sports Medicine Annual Meeting, Seattle WA, 2009. *Med. Sci. Sports Exerc.*, 41 (5 Supp.): S584, 2009.
- 88 Ludlow, A.T.*, M. Marshall*, S. Witkowski*, E.E. Spangenburg, **S.M. Roth**[†]. High levels of physical activity accelerate telomere shortening in Cast/ei J mice. Poster presentation for Keystone Symposium, Telomere Biology and DNA Repair, Ashmore, Queensland, Australia, 2009.
- 89 Lima, R.M.*, R.W. Pereira, T.M. Leite, **S.M. Roth**, R.J. de Oliveira[†]. Association between ACE I/D and *ACTN3* R577X genotypes with muscle-related phenotypes in older women. Poster presentation for the American College of Sports Medicine Annual Meeting, Baltimore MD, 2010. *Med. Sci. Sports Exerc.*, 42(5 Supp.): S580, 2010.
- 90 Marshall, M.R.*, A.T. Ludlow*, S. Witkowski*, J. Wang*, L.M. Guth*, S. Frank*, E.E. Spangenburg, **S.M. Roth**[†]. Chronic wheel running alters telomere length and telomere-related gene expression in Cast/ei mouse liver tissue. Poster presentation for the American College of Sports Medicine Annual Meeting, Baltimore MD, 2010. *Med. Sci. Sports Exerc.*, 42(5 Supp.): S326, 2010.
- 91 Ludlow, A.T.*, S. Witkowski*, M.R. Marshall*, J. Wang*, L.M. Guth*, E.E. Spangenburg, S.M. Roth[†]. Year long wheel running alters telomere dynamics and markers of DNA damage in mice. Poster presentation for the American College of Sports Medicine Annual Meeting, Baltimore, MD, 2010. *Med. Sci. Sports & Exerc.*, 42 (5 Supp.): S375, 2010.
- 92 Woo, M. B.D. Hatfield[†], **S.M. Roth**. The influence of cardiovascular fitness on the relationship between genotype and neurocognitive function in late adolescence. Poster presentation for the 13th World Sport for All Congress, Jyväskylä, Finland, 2010.
- 93 Sood, S., E.D. Hanson, M.J. Delmonico, M.C. Kostek, B.D. Hand, **S.M. Roth**, B.F. Hurley[†]. IGF1 genotype and muscle power response to strength training. Poster presentation for the American College of Sports Medicine Annual Meeting, Baltimore MD, 2010. *Med. Sci. Sports Exerc.*, 42(5 Supp.): S560, 2010.
- 94 Ludlow, A.T.*, L. Lima*, E.E. Spangenburg, **S.M. Roth**[†]. Telomere binding protein mRNA expression in response to an acute exercise bout. Poster presentation for Integrative Physiology of Exercise Meeting, Miami Beach FL, 2010.
- 95 Guth, L.M.*, A.T. Ludlow*, S. Witkowski*, M.R. Marshall*, L. Lima*, K. Perret*, N. Caffes*, A. Venezia*, E.E. Spangenburg, **S.M. Roth**[†]. Transgenerational effects of physical activity ancestry on mouse body composition, glucose metabolism, and gene expression. Poster presentation for Integrative Physiology of Exercise Meeting, Miami Beach FL, 2010.
- 96 Venezia, A.C.*, A.T. Ludlow*, S. Witkowski*, M.R. Marshall*, E.E. Spangenburg, **S.M. Roth**[†]. Effect of one year of voluntary wheel running on transcript specific hippocampus *Bdnf* gene expression. Poster presentation for Integrative Physiology of Exercise Meeting, Miami Beach FL, 2010.
- 97 Hanson, E.D., S. Sood, A.K. Sheaff, L. Ma, J.D. Francis, **S.M. Roth**, B.F. Hurley[†]. Effect of strength training on muscle hypertrophy and body composition during androgen deprivation therapy. Poster presentation for the Experimental Biology meeting, Washington, DC, 2011.
- 98 Ludlow, A.T.*, S. Witkowski*, M. R. Marshall*, J. Wang*, L.M. Guth*, E.E. Spangenburg, **S.M. Roth**[†]. Exercise modifies age-related telomere dynamics in multiple tissues of CAST/Ei mice. Late-breaking poster presentation for the Experimental Biology meeting, Washington, DC, 2011.
- 99 Lima, L.*, A. T. Ludlow*, E.E. Spangenburg, **S.M. Roth**[†]. MAPK signaling is associated with acute exercise-induced changes in mRNA levels of telomere-related genes. Poster presentation for the Experimental Biology meeting, Washington, DC, 2011.
- 100 Kim, B. P. Hart, M. Kang, **S. Roth**, M.D. Brown, J.M. Hagberg, J.-Y. Park. Functional study of tumor suppressor p53 gene variation on cardiovascular adaptation to exercise. Poster presentation for the Experimental Biology meeting, San Diego, CA, 2012.
- 101 Marini, M.P.*, L.M. Guth*, A.C. Venezia*, E.P. Beltran*, E.E. Spangenburg, **S.M. Roth**[†]. Effects of chronic exercise on DNA methyltransferase expression in mouse testes. Poster presentation for the American College of Sports Medicine Annual Meeting, San Francisco, CA, 2012. *Med. Sci. Sports & Exerc.*, 44 (5 Supp.): S550, 2012.
- 102 Venezia, A.C.*, L.M. Guth*, M.P. Marini*, E.P. Beltran*, E.E. Spangenburg, **S.M. Roth**[†]. Effects of parental physical activity on hippocampal gene expression in C57BL/6 mice. Poster presentation for the American

- College of Sports Medicine Annual Meeting, San Francisco, CA, 2012. *Med. Sci. Sports & Exer.*, 44 (5 Supp.): S568, 2012.
- 103 Guth, L.M.* , A.C. Venezia*, M.P. Marini*, E.P. Beltran*, E.E. Spangenburg, **S.M. Roth**[†]. Effects of physical activity ancestry on aspects of body composition and glucose tolerance in mice. Poster presentation for the American College of Sports Medicine Annual Meeting, San Francisco, CA, 2012. *Med. Sci. Sports & Exer.*, 44 (5 Supp.): S558, 2012.
- 104 Venezia, A.C.* , L.M. Guth*, M.P. Marini*, J.C. Smith, E.E. Spangenburg, **S.M. Roth**[†]. Impact of Parental Voluntary Wheel Running on Offspring Hippocampal Gene Expression in C57BL/6 Mice. Poster presentation for the Society for Neuroscience Annual Meeting, New Orleans, 2012.
- 105 Guth, L.M.* , A.C. Venezia*, M.P. Marini*, E.P. Beltran*, E.E. Spangenburg, **S.M. Roth**[†]. Effects of Exercise Ancestry on Multiple Generations of Mature C57BL/6 Mouse Offspring. Poster presentation for the Experimental Biology Annual Meeting, Boston, MA, 2013.
- 106 Ludlow, A.T.* , E.E. Spangenburg, E.R. Chin, W.-H. Cheng, **S.M. Roth**[†]. Oxidative stress in telomere shortening in isolated skeletal muscle fibers. Poster presentation for American College of Sports Medicine Annual Meeting, Indianapolis IN, 2013.
- 107 Venezia, A.C.* , L.M. Guth*, E.E. Spangenburg, **S.M. Roth**[†]. Sex-dependent and independent effects of long-term voluntary running on hippocampal gene expression. Poster presentation for the American College of Sports Medicine Annual Meeting, Orlando, 2014.
- 108 Kayes, M.K.* , A.C. Venezia*, A.M. Sprenger, **S.M. Roth**, M.R. Dougherty, D.J. Bolger, B.D. Hatfield[†]. Variability in learning in adults explained by cardiovascular fitness, physical activity, and *APOE* genotype. Thematic poster presentation for the American College of Sports Medicine Annual Meeting, Orlando, 2014.
- 109 **Roth, S.M.**, E. Grossnickle, S. Kramer, and K. Schonfeld-Karan. The University of Maryland's University Teaching and Learning Program for Graduate Student and Postdoc Professional Development. Poster presentation for the 2015 CIRTIL Forum conference, College Station TX, 2015.
- 110 Venezia, A.C.* , M.M. Hyer, E.R. Glasper, E. Quinlan, **S.M. Roth**[†]. Acute forced exercise increases expression of *Bdnf IV* and induces anxiety behavior in C57BL/6J mice. Poster presentation for the American College of Sports Medicine Annual Meeting, Denver CO, 2017.

State & Local Presentations:

- 1 Riechman, S.E., G. Balasekaran, **S.M. Roth**, R.E. Ferrell[†], R.J. Robertson, B.F. Hurley. Ciliary neurotrophic factor (CNTF) genotype associations with skeletal muscle responses to strength training. Poster presentation, Arthritis Institute, University of Pittsburgh, 2000.
- 2 Riechman, S.E., T.J. Fabian, P.D. Kroboth, **S.M. Roth**, R.E. Ferrell[†]. DHEA/DHEAS responses to strength training in men and women: influence of a polymorphic marker in the x-linked steroid sulfatase gene. Poster presentation, Science 2001, University of Pittsburgh, PA, 2001.
- 3 **Roth, S.M.** Myostatin: from "super cows" to insulin resistance. Seminar, Dept. of Kinesiology, University of Maryland, College Park, 2002.
- 4 **Roth, S.M.** Genetic aspects of skeletal muscle. Seminar, Human Genetics Seminar Series, University of Pittsburgh, 2002.
- 5 Prior, S.J.* , D.A. Phares, L. Fairfull, R.E. Ferrell, J.M. Hagberg, **S.M. Roth**[†]. Association of *HIF1A* genotype with maximal oxygen consumption before and after aerobic exercise training. Poster presentation for the College of Health and Human Performance, Health and Society Theme Series, University of Maryland, 2004.
- 6 Walsh, S.* , J.M. Zmuda, P.R. Shea, J. Cauley, E.J. Metter, B.F. Hurley, R.E. Ferrell, and **S.M. Roth**[†]. Androgen receptor CAG repeat is associated with fat free mass in men. Poster presentation for the College of Health and Human Performance, Health and Society Theme Series, University of Maryland, 2004.
- 7 **Roth, S.M.**, J.M. Zmuda, J.A. Cauley, P.R. Shea, R.E. Ferrell[†]. Association of the vitamin D receptor (*VDR*) FokI genotype with muscle mass in older men. Poster presentation for the College of Health and Human Performance, Health and Society Theme Series, University of Maryland, 2004.
- 8 **Roth, S.M.**, S. Prior*, C. Kammerer, J. Cauley, J. Zmuda[†]. Genetic and environmental influences on muscle mass and strength in Afro-Caribbean men. Poster presentation for the HHP College Research Interaction Day, University of Maryland, 2004.
- 9 Prior, S.J.* , T.P. Gavin, L.M. Westerkamp, **S.M. Roth**[†]. Association of skeletal muscle capillarity with *VEGF* gene sequence variation. Poster presentation for the HHP College Research Interaction Day, University of Maryland, 2004.
- 10 Prior, S.J.* , T.P. Gavin, L.M. Westerkamp, **S.M. Roth**[†]. Association of skeletal muscle capillarity with *VEGF* gene sequence variation. Poster presentation for Bioscience Day, University of Maryland, 2004.

- 11 Fenty, N., **S.M. Roth**, M. Bathula, J.Y. Park, M.D. Brown[†]. *AT1R* A1166C polymorphism is associated with plasma angiotensin II levels, but not ambulatory blood pressure responses to aerobic exercise training. Poster presentation for the HHP College Research Interaction Day, Sept. 2006.
- 12 Park, J.Y., I.K. Farrance, H. Jo, S.R. Brant, **S.M. Roth**, M.D. Brown[†]. A promoter polymorphism regulates *NFKB1* gene transactivity in human endothelial cells under laminar shear stress. Poster presentation for the HHP College Research Interaction Day, Sept. 2006.
- 13 Liu, D.* , S. Walsh*, M.J. Delmonico, K.L. Voss*, B.F. Hurley, **S.M. Roth**[†]. Newly identified myostatin mutation not observed in strength athletes or the general population. Poster presentation for the HHP College Research Interaction Day, Sept. 2006.
- 14 Walsh, S.* , E.J. Metter, L. Ferrucci, B.F. Hurley, **S.M. Roth**[†]. Myostatin related gene associations with muscle mass and strength in humans. Poster presentation for the HHP College Research Interaction Day, Sept. 2006.
- 15 Walsh, S.* , E.J. Metter, L. Ferrucci, **S.M. Roth**[†]. Myostatin related gene associations with muscle mass and strength in humans. Poster presentation for Bioscience Day, Nov. 2006.
- 16 Liu, D.* , S. Walsh*, M.J. Delmonico, K.L. Voss*, B.F. Hurley, **S.M. Roth**[†]. Newly identified myostatin mutation not observed in strength athletes or the general population. Poster presentation for Bioscience Day, Nov. 2006.
- 17 Zimmerman, J., R. Conery, J.W. Hearn, J.C. Rietschel, S.P. Deeny, **S.M. Roth**, B.D. Hatfield[†]. Behavioral evidence of brain changes moderated by APOE and physical activity in middle-aged adults. Poster presentation for Bioscience Day, Nov. 2006.
- 18 **Roth, S.M.**[†], S. M. Williams, S. Menon, J. Jeka. Susceptibility genes for gentamicin-induced vestibular dysfunction. Poster presentation for NACS-fest, Mar. 2007.
- 19 Ludlow, A.T.* , J.B. Zimmerman, J.W. Hearn, S. Witkowski, B.D. Hatfield, **S.M. Roth**[†]. Relationship between exercise energy expenditure and telomere length and telomerase activity. Poster presentation for Bioscience Day, Nov. 2007.
- 20 **Roth, S.M.**[†], S. Walsh*, L. Doby*, E.J. Metter, L. Ferrucci, B. Hurley. The *ACTN3* R577X nonsense allele (X) is under-represented in elite-level strength athletes. Poster presentation for Bioscience Day, Nov. 2007.
- 21 Woo, M., **S.M. Roth**, B.D. Hatfield[†]. Physical activity, brain function and the role of the apolipoprotein e4 allele in young adults. Poster presentation for Bioscience Day, Nov. 2007.
- 22 Hatfield, B.D.[†], J. Zimmerman, A.J. Haufler, **S.M. Roth**, D. Poepfel, J. Contreras-Vidal. Physical activity and the graying of America: preventing the decline of the aging brain – a public health imperative. Poster presentation for Bioscience Day, Nov. 2007.
- 23 Zimmerman, J.B., J.W. Hearn, A.T. Ludlow*, J. Savin-Murphy, J.C. Rietschel, R. Conery, S.P. Deeny, **S.M. Roth**, B.D. Hatfield[†]. Executive and memory performance is moderated by APOE and physical activity in middle-aged adults. Poster presentation for Bioscience Day, Nov. 2007.
- 24 **Roth, S.M.**[†], A.T. Ludlow*, P. Nadendla*, S. Witkowski*, L.M. Wohlers, E.E. Spangenburg. Physical activity ancestry affects body composition phenotypes and gene expression in mice offspring. SPH Research Interaction Day, Oct. 2008.
- 25 Ludlow, A.T.* , M. Auriemma*, P. Nadendla*, K.Y. Ngai*, E.E. Spangenburg, **S.M. Roth**[†]. Does DNA methylation of myosin heavy chain IIb gene promoter regulate expression during skeletal muscle differentiation? SPH Research Interaction Day, Oct. 2008.
- 26 Sheppard, R.* , E.E. Spangenburg, **S.M. Roth**[†]. Effects of androgen receptor polyglutamine repeat on C2C12 cell cycle and gene expression. SPH Research Interaction Day, Oct. 2008.
- 27 Lima, R.M., T.M. Leite, R.W. Pereira, **S.M. Roth**, R.J. de Oliveira. Association between angiotensin converting enzyme (*ACE*) insertion/deletion polymorphism and fat free mass and strength in older Brazilian women. Poster presentation for Bioscience Day, Nov. 2008.
- 28 Ludlow, A.T.* , M. Auriemma*, P. Nadendla*, K.Y. Ngai*, E.E. Spangenburg, **S.M. Roth**[†]. Does DNA methylation of myosin heavy chain IIb gene promoter regulate expression during skeletal muscle differentiation? Poster presentation for Bioscience Day, Nov. 2008.
- 29 Nadendla, P.* , A.T. Ludlow*, S. Witkowski*, L.M. Wohlers, E.E. Spangenburg, **Roth, S.M.**[†]. The role of physical activity ancestry on body composition and brain gene expression. Poster presentation for Bioscience Day, Nov. 2008.
- 30 Nadendla, P.* , A.T. Ludlow*, S. Witkowski*, L.M. Wohlers, E.E. Spangenburg, **Roth, S.M.**[†]. The role of physical activity ancestry on body composition and brain gene expression. Poster presentation for Undergraduate Research Day, Apr. 2009.
- 31 Sheppard, R.* , E.R. Chin, E.E. Spangenburg, **S.M. Roth**[†]. Effects of androgen receptor polyglutamine repeat on C2C12 cell cycle and gene expression. SPH Research Interaction Day, Sept., 2009.

- 32 Marshall, M.R.* , A.T. Ludlow*, S. Witkowski*, J. Wang*, S. Frank*, E.E. Spangenburg, **S.M. Roth**[†]. High physical activity levels modify telomere length in a tissue-specific manner in CAST/Ei mice. SPH Research Interaction Day, Sept., 2009.
- 33 Ludlow, A.T.* , P. Nadendla*, S. Witkowski*, L.M. Wohlers, E.E. Spangenburg, **S.M. Roth**[†]. Physical activity ancestry affects body composition phenotypes and gene expression in mice offspring. SPH Research Interaction Day, Sept., 2009.
- 34 Ludlow, A.T.* , M. Marshall*, S. Witkowski*, E.E. Spangenburg, **S.M. Roth**[†]. High levels of physical activity accelerate telomere shortening in Cast/ei J mice. Poster presentation for Bioscience Day, Nov. 2009.
- 35 Ludlow, A.T.* , L. Lima*, E.E. Spangenburg, **S.M. Roth**[†]. Telomere binding protein mRNA expression in response to an acute exercise bout. SPH Research Interaction Day, Sept., 2010.
- 36 Guth, L.M.* , A.T. Ludlow*, S. Witkowski*, M.R. Marshall*, L. Lima*, K. Perret*, N. Caffes*, A. Venezia*, E.E. Spangenburg, **S.M. Roth**[†]. Transgenerational effects of physical activity ancestry on mouse body composition, glucose metabolism, and gene expression. SPH Research Interaction Day, Sept., 2010.
- 37 Venezia, A.C.* , A.T. Ludlow*, S. Witkowski*, M.R. Marshall*, E.E. Spangenburg, **S.M. Roth**[†]. Effect of one year of voluntary wheel running on transcript specific hippocampus *Bdnf* gene expression. SPH Research Interaction Day, Sept., 2010. Ludlow, A.T.* , L. Lima*, E.E. Spangenburg, **S.M. Roth**[†]. Telomere binding protein mRNA expression in response to an acute exercise bout. Poster presentation for Bioscience Day, 2010.
- 38 Guth, L.M.* , A.T. Ludlow*, S. Witkowski*, M.R. Marshall*, L. Lima*, K. Perret*, N. Caffes*, A. Venezia*, E.E. Spangenburg, **S.M. Roth**[†]. Transgenerational effects of physical activity ancestry on mouse body composition, glucose metabolism, and gene expression. Poster presentation for Bioscience Day, 2010.
- 39 Guth, L.M.* , A.T. Ludlow, S. Witkowski, M.R Marshall, L. Lima, A.C. Venezia, T. Xiao, M.-L.T. Ling, E.E. Spangenburg, **S.M. Roth**[†]. Exercise ancestry decreases lipogenesis-related gene expression in skeletal muscle of male offspring. Poster presentation for Graduate Research Interaction Day, 2011.
- 40 Guth, L.M.* , A.T. Ludlow, S. Witkowski, M.R Marshall, L. Lima, A.C. Venezia, T. Xiao, M.-L.T. Ling, E.E. Spangenburg, **S.M. Roth**[†]. Exercise ancestry decreases lipogenesis-related gene expression in skeletal muscle of male offspring. Poster presentation for School of Public Health Research Interaction Day, 2011. *2nd place poster winner.
- 41 Marini, M.P.* , S.M. Roth[†]. Assessing the effect of chronic exercise on transgenerational phenotypes via global methylation in sperm. Poster presentation for School of Public Health Research Interaction Day, 2012.
- 42 Guth, L.M.* , A.C. Venezia*, M.P. Marini*, E.P. Beltran*, E.E. Spangenburg, **S.M. Roth**[†]. Effects of physical activity ancestry on aspects of body composition and glucose tolerance in mice. Poster presentation for School of Public Health Research Interaction Day, 2012.
- 43 Venezia, A.C.* , L.M. Guth*, M.P. Marini*, J.C. Smith, E.E. Spangenburg, **S.M. Roth**[†]. Impact of Parental Voluntary Wheel Running on Offspring Hippocampal Gene Expression in C57BL/6 Mice. Poster presentation for the Society for School of Public Health Research Interaction Day, 2012.
- 44 Guth, L.M.* , A.C. Venezia*, M.P. Marini*, E.P. Beltran*, E.E. Spangenburg, **S.M. Roth**[†]. Effects of Exercise Ancestry on Multiple Generations of Mature C57BL/6 Mouse Offspring. Poster presentation for Public Health Research at Maryland, 2013.

TV, Video and Documentaries:

1. Interviewed for “World’s Strongest Toddler”, documentary for cable channel TLC, first aired 10 June 2009.
2. Interviewed for “Gendoping: Die Mutanten Greifen An” (“Gene Doping: The Mutant Attack”), documentary for German TV (Scitec-Media group), aired July 2010.
3. Interviewed for genetic testing in sport news piece for the Associated Press, aired March 2011.
4. Interviewed for genetic testing in sport documentary, Discovery Communications, aired in South America, summer 2012.
5. Interviewed for U.S. Masters Swimming, article entitled, “Can exercise alter your DNA?”, published in Swimmer, Nov/Dec 2012.
6. Interviewed for radio-based review of “The Sports Gene” by David Epstein, Canadian Broadcasting Company, July 2013.

INVENTION DISCLOSURES & PATENTS

- 2005 Novel mutation combination in the Factor XIII (FXIII) gene resulting in FXIII deficiency.
Inventors: J. Halverstadt, A. Halverstadt, J.M. Hagberg, S. Walsh, **S.M. Roth**.

2007 Genetic polymorphisms for identifying individuals at risk for gentamicin-induced vestibular dysfunction. PATENT ISSUED: U.S. Patent 7,935,485, issued May 3, 2011.
Inventors: S.M. Roth, J.J. Jeka, S.M. Williams.

GRANTS

Extramural Funded (*current)

Funded as Principal Investigator:

Principal Investigator with Ferrell (Mentor) F32 AG05893: Genetic effects on muscle response to aging and exercise. NIH/NIA NRSA Postdoctoral Fellowship. June 2000-Dec. 2002, \$100,848. Score: 173, funded 1st round.

Principal Investigator with Jeka (Co-I) R21 NS046021: Genetic aspects of vestibular dysfunction. NIH, March 2003-2006, \$364,589. Score: 141, funded 1st round.

Principal Investigator with Hurley (Co-I) R01 AG021500: Genetic architecture of aging skeletal muscle. NIH/NIA, Aug. 2003-2007, \$721,292. Score: 172, funded 2nd round.

Principal Investigator with Hagberg (Co-I) K01 AG022791: Genetic epidemiology of aging skeletal muscle. NIH/NIA Mentored Research Scientist Career Development Award. Sept. 2003-2008, \$555,940. Score: 168, funded 1st round.

Principal Investigator with Spangenburg (Co-I) R21 HD062868: Role of maternal exercise environment on transgenerational offspring health. NIH/NICHD. Sept. 2010-2012, \$150,700. ARRA funds.

Principal Investigator Contract: Big Data for Patients (BD4P): Adult Education Program Format and Delivery. Reagan-Udall Foundation for the FDA. Mar. 2016 – Sept. 2016, \$70,426.

Funded as Co-Investigator (or Principal Investigator of sub-contract):

Co-Investigator with Hatfield (PI) et al. R21 AG025505: Age, physical activity, genotype and cognitive function. NIH/NIA, Sept 2006-2008, \$364,958. 15% effort.

PI of subcontract for M. Brown (project PI) et al. R01 HL085497: Genetics of in vivo and in vitro endothelial function. NIH/NHLBI, October 2007-2012, \$600,000 (sub-contract costs). 15% effort.

Co-I with Hurley R21 CA127784: Strength training, self-efficacy, and function in blacks with prostate cancer. NIH/NCI, \$275,000 (TDC), Mar 08-Mar 11. 10% effort.

Co-I with Haufler Samuelli Foundation: Superior performance under pressure. \$121,728, Apr 10-Apr 12. 5% effort.

PI of subcontract for R. Mathieu (PI) et al. DUE-1231286: The CIRTTL network: 25 research universities preparing a national faculty to advance STEM undergraduate learning. NSF, Aug 2013-2016, \$159,600 (sub-contract costs). 10% effort.

PI of subcontract for R. Mathieu (PI) et al. Great Lakes Higher Education Foundation: The CIRTTL network. April 2014-2017, \$129,000 (sub-contract costs). 10% effort.

*Co-I with C. Smith R01 AG057552: Exercise for Brain Health with Increased Genetic Risk for Alzheimer's Disease. NIH/NIA, \$3,631,024 (TDC), Sept 17-Sept 22. 5% effort.

*Co-I with S. Madhavan (PI) R01 HD075777: Cortical priming to optimize gait rehabilitation post stroke. NIH/NIHD, 7% score, pending. 10% effort.

Funded as Collaborator or Consultant:

Collaborator with Ferrell (PI) et al. R01 AG021024: Genetic epidemiology of musculoskeletal aging. NIH, July 2002-2007, \$35,000 (funds to S. Roth).

Training/Mentee Grants:

Sponsor for Steven Prior (PI) Michael Pollock Memorial Research Grant: Genetics of maximal oxygen consumption. Aug 2003-2004, \$2500.

Secondary Mentor for Halverstadt (PI) F32 AG023464: Genetics, Lipids, and Responses to Exercise Training. NIH/NIA Postdoctoral Fellowship Grant, June 2004-2007, \$150,000 (all costs to Dr. Halverstadt).

*Primary Mentor with Hagberg (PI) et al. T32 AG00268: Predoctoral training in exercise physiology and aging. NIH/NIA Institutional Predoctoral Training Grant, Apr 2004-2014, \$1,496,040 (all costs to student funding). (renewed 2009)

*Primary Mentor with Goldberg (PI) et al. T32 AG00219: The biology of exercise, metabolism and aging. NIH/NIA Institutional Postdoctoral Training Grant, Apr 2009-2014, all costs to student funding.

*Senior Mentor with Partridge (PI) et al. T32AR056993: Genetics and genomics of muscle postdoctoral training program. NIH/NIAMS Institutional Postdoctoral Training Grant, May 2010-2015, all costs to student funding.

Mentor for Venezia (PI) F31 MH103951: Acute Exercise and Hippocampal Plasticity. NIH/NIA Postdoctoral Fellowship Grant, Sept 2014-2016, \$60,000 (all costs to A. Venezia).

Intramural Funded (*current)

Funded as Principal Investigator:

Principal Investigator NIH-Obesity/Nutrition Research Center (ONRC; P30 DK46204-10) pilot/feasibility grant: Ciliary neurotrophic factor (CNTF) receptor alpha (CNTFR α) genotype and its relation to obesity. University of Pittsburgh. March 2001-2002, \$15,000.

Principal Investigator Competitive Medical Research Fund (CMRF; PUH 001 3617): Effects of age, sex and exercise on gene expression patterns in human skeletal muscle. University of Pittsburgh, July 2001-2002, \$25,000.

Principal Investigator General Research Board (GRB) Summer Research Award: The role of human genetic variation in susceptibility to obesity-associated cardiovascular disease risk. Division of Research and Graduate Studies, University of Maryland, June-Aug 2003, \$8,750 (summer salary).

Principal Investigator General Research Board (GRB) Research Support Award: Role of exercise ancestry on longevity and disease. University of Maryland July 2007, \$3,500 (equipment).

Principal Investigator Influence of physical activity ancestry on brain gene expression and cognitive function. College of Health and Human Performance Public Health Research Seed Money Program, 8/2007-8/2008, \$10,000.

Principal Investigator Improving the Public Health of Maryland through a Diverse Public

with C. Farmer, Co-I

Health Workforce. University of Maryland Provost's Initiative Funding. \$200,000/yr, permanent base budget funding, 2018.

Funded as Co-Investigator:

Co-Investigator with Riechman (PI)

NIH-Obesity/Nutrition Research Center (ONRC; P30 DK46204-10) pilot/feasibility grant: A novel stimulus of exercise-induced growth hormone release. University of Pittsburgh. Jan. 2001-2002, \$15,000.

*Co-Investigator with Chronis-Tuscano (PI)

UMD Maryland Neuroimaging Center MRI Research Initiative Award: Neural and genetic correlates of parenting in mothers of children with attention-deficit/hyperactivity disorder. University of Maryland. July 2013-2014, \$45,000.

Training/Mentee Grants:

Faculty mentor for Pallavi Nadendla (UG)

Senior Summer Scholars Program award: Influence of physical activity on hippocampus epigenetic regulation. Jun 2008 - Aug 2008, \$3000.

Faculty Mentor for Andrew Ludlow (G)

Dept. Kinesiology GRIP grant: Comparison of telomere length, telomerase enzyme activity and running endurance in CAST/Ei mice. Jun 2008-2009, \$2500.

Faculty Mentor for Mallory Marshall (G)

Dept. Kinesiology GRIP grant: The effects of diet and physical activity on telomere length and telomerase enzyme in mice bred for high voluntary wheel running. Aug 2009-2010, \$2500.

Faculty Mentor for Andrew Ludlow (G)

Dept. Kinesiology GRIP grant: The role of shelterin and DNA damage response elements in C2C12 muscle cells. Jan 2010-2011, \$2500.

Faculty Mentor for Lisa Guth (G)

Dept. Kinesiology GRIP grant: The effects of chronic exercise on metabolic gene expression and DNA methylation patterns in CAST/Ei J mouse skeletal muscle. Jan 2010-2011, \$2500.

Faculty Mentor for Andrew Venezia (G)

Dept. Kinesiology GRIP grant: Effect of one year of voluntary wheel running on DNA methylation in the hippocampus. Jan 2010-2011, \$2500.

Faculty mentor for Nick Caffes (UG)

Senior Summer Scholars Program award: Role of maternal exercise environment on transgenerational offspring gene expression and DNA methylation. Jun 2010 - Aug 2010, \$3000.

Faculty mentor for Estefan Beltran (UG)

HHMI fellowship: The potential of exercise to affect transgenerational health. Jun 2011 - May 2012, \$3000.

Faculty Mentor for Michael Marini (G)

Dept. Kinesiology GRIP grant: Effects of chronic exercise on global methylation in sperm and expression of DNA methyltransferases in testes of C57Bl/6 mice. Aug 2011-2012, \$2500.

Faculty Mentor for Lisa Guth (G)

Dept. Kinesiology GRIP grant: Effects of Exercise Ancestry on Mouse Offspring Glycemia. April 2012-2013, \$2500

Faculty Mentor for Andrew Venezia (G)

Dept. Kinesiology GRIP grant: Acute Exercise and AMPA Receptor GluR1 Subunit Phosphorylation. Dec 2012-2013, \$2500.

Faculty Mentor for Andrew Venezia (G)

Dept. Kinesiology GRIP grant: Acute exercise, catecholamines, and hippocampal plasticity. Aug 2014-2015, \$2500.

HONORS AND AWARDS

1996	Pre-Doctoral Poster Presentation Award Winner, Northwest Region American College of Sports Medicine Conference (ACSM).
1996	National Association for Sport and Physical Education (NASPE) Major of the Year Award.
1996	Charles F. Hertler Award (Senior Award), University of Montana.
1996	President's Senior Recognition Award, University of Montana.
1998	Phi Alpha Theta, Honors Society for the College of Health and Human Performance, University of Maryland College Park.
1999	Burriss F. and Jean L. Husman Scholarship, Dept. Kinesiology, Univ. Maryland.
1999	Elaine Henson Memorial Award, Dept. Kinesiology, Univ. Maryland.
1999 – 2000	NRSA Institutional Pre-doctoral Research Award, AG-00268.
2000 – 2002	NRSA Individual Postdoctoral Research Award, AG-05893.
2002	FASEB MARC Poster Travel Award for Experimental Biology Meeting 2002
2002 – 2007	NIH Clinical Research Loan Repayment Program (renewed in 2004, 2006), AG024705
2003 – 2008	K01 Mentored Research Scientist Award – Career Development in Aging and Genetic Epidemiologic Research Methodology (AG022791)
2005	American College of Sports Medicine (ACSM) New Investigator Award
2006	Research and Development Award, College of Health and Human Performance
2007	Charter Contributor Award, School of Public Health
2007	Fellow of the American College of Sports Medicine
2008	Leda Amick Wilson Mentoring Award, School of Public Health
2010	Doris W. Sands Excellence in Teaching Award, School of Public Health
2012 – 2013	Center for Teaching Excellence Lilly Faculty Fellowship
2012 – 2013	ADVANCE Leadership Fellows Program
2014	Fellow of the National Academy of Kinesiology (Fellow #542)
2015	Outstanding Director of Graduate Studies, University of Maryland
2018	Faculty Inductee, Delta Omega Honorary Society in Public Health (Gamma Zeta Chapter)

EDITORIAL BOARD SERVICE AND REVIEWING ACTIVITIESEditorial Board Service:

2005 – 2008	Assistant Editor, <i>Exercise and Sport Sciences Reviews</i>
2009 – 2011	Associate Editor, <i>Exercise and Sport Sciences Reviews</i>
2010 – 2017	Editorial Board Member, <i>Journal of Applied Physiology</i>
2012 – 2015	Associate Editor-in-Chief, <i>Exercise and Sport Sciences Reviews</i>
2008 – 2015	Associate Editor, <i>Medicine and Science in Sports and Exercise</i>
2015 – present	Editorial Board Member, <i>Medicine and Science in Sports and Exercise</i>

Manuscript and Book Reviewing Activities (i.e., occasional reviewer – listed since 2003):

2003	– <i>American Journal of Physiology – Endocrinology and Metabolism; Biological Research for Nursing; Clinical Genetics; Journal of the American Geriatrics Society (2); Journal of Sports Sciences; Medicine and Science in Sports and Exercise (2); Physiological Genomics (2)</i>
2004	– <i>Diabetologia; Expert Opinion on Emerging Drugs; Hypertension; Journal of the American Geriatrics Society (2); Journal of Sports Sciences; Medicine and Science in Sports and Exercise; Muscle and Nerve; Physiological Genomics</i>
2005	– <i>Expert Opinion on Biological Therapy; Indian Journal of Medical Sciences; International Journal of Sports Medicine; Journal of the American Geriatrics Society; Journal of Applied Physiology (3); Medicine and Science in Sports and Exercise (3); Muscle and Nerve; Physiological Genomics; Scandinavian Journal of Medicine and Science in Sports</i>
2006	– <i>Aging Health; American Journal of Physiology – Heart and Circulatory Physiology; BMC Genomics; European Journal of Applied Physiology; European Journal of Endocrinology; European Journal of Human Genetics; Journal of Applied Physiology (5); Journal of Gerontology: Medical Sciences; Medicine and Science in Sports and Exercise (4)</i>
2007	– <i>American Journal of Physiology – Cell Physiology; American Journal of Physiology – Endocrinology and Metabolism; American Journal of Physiology – Regulatory, Integrative and Comparative Physiology; Biological Research for Nursing, Cytokine, JAMA, Journal of Applied Physiology (2),</i>

- Journal of Gerontology: Medical Sciences, Medicine and Science in Sports and Exercise* (2);
Physiological Genomics
- 2008 – *American Journal of Physiology – Regulatory and Integrative*; *European Journal of Applied Physiology* (3); *JAMA* (2); *Journal of Applied Physiology* (4); *Journal of Gerontology: Biological Sciences; Medicine and Science in Sports and Exercise* (2)
- 2009 – *Diabetologia*; *European Journal of Applied Physiology* (2); *International Journal of Obesity*; *JAMA*; *Journal of Applied Physiology* (4); *Journal of Gerontology: Medical Sciences* (2); *Obesity* (2); *Perspectives on Psychological Science*; *PLoS One*
- 2010 – *Acta Physiologica*; *Comparative Physiology*; *European Journal of Cardiovascular Prevention and Rehabilitation*; *European Journal of Human Genetics*; *Experimental Physiology*; *Gerontology*; *Human Genetics*; *JAMA*; *Journal of Applied Physiology* (2); *Journal of Gerontology Medical Sciences; Medicine and Science in Sports and Exercise* (3); *Physiological Genomics*; *Research in Developmental Disabilities*; Book chapter for: *History of Exercise Physiology*
- 2011 – *Acta Physiologica*; *Arthritis and Rheumatism*; *Experimental Physiology* (2); *Human Genetics*; *Immunological Investigations*; *JAMA*; *Journal of Applied Physiology* (3); *Medicine and Science in Sports and Exercise* (2); *Scandinavian Journal of Medicine and Science in Sports* (2)
- 2012 – *Applied Physiology, Nutrition, and Metabolism*; *Circulation*; *Journal of the American Geriatrics Society*; *Journal of Applied Physiology* (2); *Medicine and Science in Sports and Exercise* (2); *Physiological Genomics*; *Recent Patents on DNA and Gene Sequence*
- 2013 – *Acta Physiologica*; *European Journal of Applied Physiology*; *Journal of Applied Physiology* (2); *Journal of Clinical Endocrinology and Metabolism*; *Medicine and Science in Sports and Exercise* (2); *Sports Medicine* (2)
- 2014 – *Applied Physiology, Nutrition, and Metabolism*; *BioMed Research International* (2); *Cellular and Molecular Exercise Physiology*; *Journal of Applied Physiology*; *Medicine and Science in Sports and Exercise* (2); *Physiological Genomics*
- 2015 – *Medicine and Science in Sports and Exercise* (2); *Trends in Endocrinology and Metabolism*
- 2016 – *Journal of Applied Physiology*; *Medicine and Science in Sports and Exercise* (3); *Quest*
- 2017 – *Journal of Applied Physiology* (2); *Medicine and Science in Sports and Exercise* (2)
- 2018 – *Journal of Applied Physiology* (2);
- 2019 – *Journal of Aging and Physical Activity*; *Medicine and Science in Sports and Exercise* (3)
- 2020 – *American Journal of Human Biology*; *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*; *Gene*; *Genes*; *Medicine and Science in Sports and Exercise* (3)

Grant Reviewing Activities:

- 2003 Ad hoc reviewer for Project Grant Application submitted to the Wellcome Trust (UK)
- 2004 Ad hoc reviewer for Fellowship Grant submitted to the French Muscular Dystrophy Association (AFM)
- 2006 Ad hoc reviewer for the Belgian Flanders Scientific Research Fund.
- 2006 Review panel member for 2006 NIH/NIA Beeson Career Development Award applications (K08 and K23 applications; ZAG1 ZIJ-9 – 5 applications reviewed).
- 2006 Ad hoc reviewer for the South Carolina EPSCoR Collaborative Research Program (NSF/NIH-funded development/pilot/feasibility awards).
- 2006 Ad hoc reviewer for University of Pittsburgh Pepper Center pilot/feasibility grant application.
- 2007 Review panel member for 2007 NIH/NIA Beeson Career Development Award applications (K08 and K23 applications; ZAG1 ZIJ-4 – 6 applications reviewed).
- 2007 Ad hoc reviewer for University of Connecticut AHA grant application.
- 2008 Ad hoc reviewer for Individual Research Grant Proposal submitted to the National Medical Research Council (Singapore).
- 2008 Review panel member for 2008 NIH/NIA Beeson Career Development Award applications (K08 and K23 applications; ZAG1 ZIJ-4 – 5 applications reviewed).
- 2008 Ad hoc reviewer for Katholieke Universiteit Leuven (Belgium) Research Council.
- 2008 Ad hoc reviewer for the Belgian Flanders Scientific Research Fund.
- 2008 Review panel member for 2008 NIH/NIA Loan Repayment Award applications (ZAG1 ZIJ-4 (A1) – 9 applications reviewed).

2008 Member, External Advisory Board, University of Missouri Program Project (P01HL052490)

2008 Ad hoc reviewer for Singapore National Research Foundation for the Scenario-based Competitive Research Programme (CRP) Call.

2009 Review panel member for 2009 NIH/NIA Beeson Career Development Award applications (K08 and K23 applications; ZAG1 ZIJ-4 M1 – 4 applications reviewed).

2009 Review panel member for 2009 NIH/NIA Loan Repayment Award applications (ZAG1 ZIJ-2 (A1) – 10 applications reviewed).

2009 University of Maryland, Clinical Nutrition Research Unit, Pilot Feasibility grants (1)

2010 Ad hoc reviewer for Katholieke Universiteit Leuven (Belgium) Research Council.

2010 Review panel member for UMB/UMCP Seed Grant program (3 apps reviewed)

2010 Review panel member for 2010 NIH/NIA Beeson Career Development Award applications (K08 and K23 applications; ZAG1 ZIJ-4 A1 – 5 applications reviewed).

2010 Review panel member for 2010 NIH/NHLBI Patient Oriented Research Career Enhancement Award applications (K23, K24, K25 applications; ZHL1 CSR-X (O1) – 4 applications reviewed).

2011 Review panel member for 2011 NIH/NIA Beeson Career Development Award applications (K08 and K23 applications; ZAG1 ZIJ-6 M2 – 2 applications reviewed).

2011 Review panel member for Feb 2011 NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (M1) – 3 applications reviewed).

2011 Review panel member for UM PRC Seed Money Grant review panel; 4 grants reviewed.

2011 Review panel member for June 2011 NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (O1) – 5 applications reviewed).

2011 Review panel member for Oct 2011 NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (F1) – 2 applications reviewed).

2012 Ad hoc reviewer for US Army Medical Research and Materiel Command (USAMRMC) grant application

2012 Review panel member for Feb 2012 NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (F1) – 6 applications reviewed).

2012 Review panel member for 2012 NIH/NIA Beeson Career Development Award applications (K08 and K23 applications; ZAG1 ZIJ-6 M2 – 3 applications reviewed).

2012 Review panel member for 2012 NIH Small Business: Cell, Computational, and Molecular Biology applications: (R43 applications; ZRG1 IMST-K (14) B – 1 application reviewed).

2012 Review panel member for Oct 2012 NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (F1) – 5 applications reviewed).

2013 Review panel member for Feb 2013 NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (F1) – 3 applications reviewed).

2013 Review panel member for 2013 NIH/NIA Beeson Career Development Award applications (K08 and K23 applications; ZAG1 ZIJ-6 M2 – 5 applications reviewed).

2013 Review panel member for 2013 NIH/NIA Loan Repayment Award applications (ZAG1 ZIJ-2 (A1) – 10 applications reviewed).

2013 Review panel member for 2013 ACSM Research Grant applications (15 applications reviewed).

2013 Ad hoc reviewer for Katholieke Universiteit Leuven (Belgium) Research Council.

2013 University of Maryland HHMI Undergraduate Research Fellowships (8 proposals reviewed)

2013 Review panel member for June 2013 NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (O1) – 2 applications reviewed).

2013	Review panel member for July 2013 NIH Special Emphasis Panel applications (R03, R21 applications; ZRG1 BDCN-N (58) – 2 applications reviewed).
2013	Review panel member for Oct 2013 NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (F1) – 4 applications reviewed).
2014	Review panel member for ACSM Research Review Committee; 9 applications reviewed.
2014	Review panel member for NIH/NHLBI Clinical Investigator and Research Scientist Career Development Award applications (K23, K24, K25 applications; ZHL1 CSR-X (O1) – 1 application reviewed).
2015	Review panel member for ACSM Research Review Committee; 12 applications reviewed.
2016	University of Maryland, Nutrition Obesity Research Center, Pilot Feasibility grants (1)

TEACHING (listed since 2008)

Spring 2008	<i>Honors Thesis</i> , KNES 477 (3 cr.; n=10), <i>Honors Seminar</i> , KNES 478 (1 cr.; n=16), <i>Genetics in Physical Activity and Sport</i> , KNES 467 (3 cr.; n=34), and <i>Current Readings in Kinesiogenomics</i> , KNES 618 (1 cr.). KNES 689, <i>Special Problems in Kinesiology</i> : 2 credits KNES 899, <i>Doctoral Dissertation Research</i> : 6 credits
Fall 2008	<i>Honors Thesis Proposal</i> , KNES 476 (3 cr.; n=10), <i>Honors Seminar</i> , KNES 478 (1 cr.; n=18), and <i>Current Readings in Kinesiogenomics</i> , KNES 618 (1 cr.). KNES 389/498, <i>Topical Investigations and Special Topics in Kinesiology</i> : 2 credits KNES 689, <i>Special Problems in Kinesiology</i> : 6 credits KNES 899, <i>Doctoral Dissertation Research</i> : 6 credits
Spring 2009	<i>Honors Thesis</i> , KNES 477 (3 cr.; n=9), <i>Honors Seminar</i> , KNES 478 (1 cr.; n=18), <i>Genetics in Physical Activity and Sport</i> , KNES 467 (3 cr.; n=39), and <i>Current Readings in Kinesiogenomics</i> , KNES 618 (1 cr.; n=6). KNES 689, <i>Special Problems in Kinesiology</i> : 7 credits KNES 899, <i>Doctoral Dissertation Research</i> : 6 credits
Fall 2009	<i>Honors Thesis Proposal</i> , KNES 476 (3 cr.; n=11), <i>Honors Seminar</i> , KNES 478 (1 cr.; n=20), <i>Genetic Aspects of Health and Fitness</i> , KNES 696 (3 cr.; n=6), and <i>Current Readings in Kinesiogenomics</i> , KNES 618 (1 cr.; n=10). KNES 689, <i>Special Problems in Kinesiology</i> : 6 credits KNES 799, <i>Masters Thesis Research</i> : 3 credits KNES 899, <i>Doctoral Dissertation Research</i> : 6 credits
Spring 2010	<i>Honors Thesis</i> , KNES 477 (3 cr.; n=11), <i>Honors Seminar</i> , KNES 478 (1 cr.; n=20), <i>Genetically Modified Humans: Physical Performance in the Post-Genomic Era</i> , KNES 289H/X (3 cr.; n=80), and <i>Current Readings in Kinesiogenomics</i> , KNES 618 (1 cr.; n=8). KNES 799, <i>Masters Thesis Research</i> : 3 credits KNES 899, <i>Doctoral Dissertation Research</i> : 12 credits
Fall 2010	<i>Honors Thesis Proposal</i> , KNES 476 (3 cr.; n=10), <i>Honors Seminar</i> , KNES 478 (1 cr.; n=15), <i>Genetics in Physical Activity and Sport</i> , KNES 467 (3 cr.; n=31), and <i>Current Readings in Kinesiogenomics</i> , KNES 618 (1 cr.; n=6). KNES 689, <i>Special Problems in Kinesiology</i> : 9 credits KNES 899, <i>Doctoral Dissertation Research</i> : 6 credits
Spring 2011	<i>Honors Thesis</i> , KNES 477 (3 cr.; n=10), <i>Honors Seminar</i> , KNES 478 (1 cr.; n=17), <i>Genetically Modified Humans: Physical Performance in the Post-Genomic Era</i> , KNES 289H/X (3 cr.; n=70), and <i>Current Readings in Kinesiogenomics</i> , KNES 618 (1 cr.; n=7). KNES 689, <i>Special Problems in Kinesiology</i> : 9 credits KNES 899, <i>Doctoral Dissertation Research</i> : 6 credits

Fall 2011	<p><i>Honors Thesis Proposal</i>, KNES 476 (3 cr.; n=9), <i>Honors Seminar</i>, KNES 478 (1 cr.; n=19), <i>Genetically Modified Humans: Physical Performance in the Post-Genomic Era</i>, KNES 289H/X (3 cr.; n=63), and <i>Current Readings in Kinesiogenomics</i>, KNES 618 (1 cr.; n=6).</p> <p>KNES 609, <i>Research Issues in Kinesiology</i>: 1 credit KNES 689, <i>Special Problems in Kinesiology</i>: 3 credits KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits</p>
Spring 2012	<p><i>Honors Thesis</i>, KNES 477 (3 cr.; n=8), <i>Honors Seminar</i>, KNES 478 (1 cr.; n=17), <i>Genetic Aspects of Health and Fitness</i>, KNES 696 (3 cr.; n=4), and <i>Current Readings in Kinesiogenomics</i>, KNES 618 (1 cr.; n=5).</p> <p>KNES 799, <i>Masters Thesis Research</i>: 6 credits KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits NACS 898, <i>Pre-Candidacy Research</i>: 3 credits</p>
Fall 2012	<p><i>Genetically Modified Humans: Physical Performance in the Post-Genomic Era</i>, KNES 289H/X (3 cr.; n=62).</p> <p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits</p>
Spring 2013	<p><i>Kinesiology Senior Seminar</i>, KNES 497 (3 cr.; n=19) KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits NACS 898, <i>Pre-Candidacy Research</i>: 3 credits</p>
Summer 2013	<p><i>Kinesiology Senior Seminar</i>, KNES 497 (3 cr.; n=1)</p>
Fall 2013	<p><i>Genetically Modified Humans: Physical Performance in the Post-Genomic Era</i>, KNES 253 (formerly KNES 289H/X) (3 cr.; n=72).</p> <p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits NACS 898, <i>Pre-Candidacy Research</i>: 3 credits</p>
Spring 2014	<p><i>Special Topics Colloquium on University Teaching and Learning</i>, UNIV 798A/B (2 cr.; n=13).</p> <p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits NACS 898, <i>Pre-Candidacy Research</i>: 3 credits</p>
Fall 2014	<p><i>Genetically Modified Humans: Physical Performance in the Post-Genomic Era</i>, KNES 253 (3 cr.; n=74).</p> <p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits NACS 898, <i>Pre-Candidacy Research</i>: 3 credits</p>
Spring 2015	<p><i>Special Topics Colloquium on University Teaching and Learning</i>, UNIV 798A/B (2 cr.; n=9).</p> <p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits NACS 898, <i>Pre-Candidacy Research</i>: 3 credits</p>
Fall 2015	<p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits NACS 899, <i>Doctoral Dissertation Research</i>: 6 credits Co-Instructor, <i>Teaching with Technology</i>, online course for CIRTL Network</p>
Spring 2016	<p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits NACS 899, <i>Doctoral Dissertation Research</i>: 6 credits</p>
Fall 2016	<p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits Co-Instructor, <i>Teaching with Technology</i>, online course for CIRTL Network</p>
Spring 2017	<p>KNES 899, <i>Doctoral Dissertation Research</i>: 6 credits</p>

Spring 2019	SPHL 612, <i>Research Ethics</i> : 1 credit
Fall 2019	SPHL 612, <i>Research Ethics</i> : 1 credit
Winter 2020	SPHL 612, <i>Research Ethics</i> : 1 credit
Spring 2020	SPHL 612, <i>Research Ethics</i> : 1 credit
Fall 2020	SPHL 612, <i>Research Ethics</i> : 1 credit
Winter 2021	SPHL 612, <i>Research Ethics</i> : 1 credit
Spring 2021	SPHL 612, <i>Research Ethics</i> : 1 credit

New courses developed: *Genetic Aspects of Health and Fitness*, KNES 696 (3 cr.) (formerly 689Z)
 Genetics in Physical Activity and Sport, KNES 467 (3 cr.) (formerly 498Q)
 Current Readings in Kinesiogenomics, KNES 618 (1 cr.) (formerly 609x)
 Genetically-Modified Humans: Physical Performance in the Post-Genomic Era,
 KNES 253 (3 cr.; I-Series General Education course) (formerly 289H/X)
 Special Topics Colloquium on University Teaching and Learning, UNIV 798A/B
 Research Ethics, SPHL 612

Invited Instructional Lectures:

- 1 **Roth, S.M.**, M.S. Cracolice. Research-based instructional strategies: a college chemistry course utilizing the Personalized System of Instruction. Slide presentation, Montana State American Chemical Society Conference, Missoula MT, 1996.
- 2 **Roth, S.M.**, S.E. Riechman. Genetics in exercise physiology: research design issues. Seminar, Dept. Health, Physical and Recreation Education, University of Pittsburgh, 2001.
- 3 **Roth, S.M.**, S.E. Riechman. Genetics in exercise physiology: research design issues. Seminar, Dept. Health, Physical and Recreation Education, University of Pittsburgh, 2002.
- 4 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2003.
- 5 **Roth, S.M.** Genetic aspects of health and fitness. Seminar, Research and Development Seminar Series, University of Maryland Counseling Center, 2003.
- 6 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2004.
- 7 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2005.
- 8 **Roth, S.M.**, D.J. Casa, S. Trappe. The future of exercise science and ACSM: a contemporary perspective. Student Colloquium presentation for the 2005 American College of Sports Medicine Annual Meeting, Nashville, TN.
- 9 **Roth, S.M.** Genetics in health and fitness: an introduction to genetics for the exercise physiologist. Tutorial Lecture for the 2005 American College of Sports Medicine Annual Meeting, Nashville, TN.
- 10 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2006.
- 11 Hagberg, J.M., B.F. Hurley, **S.M. Roth**. Exercise science for special populations: Cancer. Seminar, Lombardi Cancer Center, Georgetown University, 2006.
- 12 **Roth, S.M.** Introduction to genetics and sport performance. Seminar, Chinese Olympic Committee Delegation, University of Maryland, 2006.
- 13 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2007.
- 14 **Roth, S.M.** Introduction to genetics and sport performance. Seminar, Chinese Sports Research Delegation, University of Maryland, 2007.
- 15 **Roth, S.M.** Genomics 101: An introduction for SPH researchers. Seminar, School of Public Health Seminar Series, 2007.
- 16 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2008.
- 17 **Roth, S.M.** Candidate gene and polymorphism selection in exercise physiology research. College of Health Professions, Temple University, 2008.
- 18 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2009.
- 19 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2010.

- 20 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2011.
- 21 **Roth, S.M.** Calibrated Peer Review (CPR) web-based software. Seminar, Center for Teaching Excellence Summer Teaching Institute, University of Maryland, 2011.
- 22 **Roth, S.M.** Genetics and exercise science. Seminar, Catalyst Seminar Series, University of Maryland, 2012.
- 23 **Roth, S.M.** Calibrated Peer Review (CPR) web-based software. Seminar, Center for Teaching Excellence Summer Teaching Institute, University of Maryland, 2012.
- 24 **Roth, S.M.** Canvas Pilot Discussion, Division of Information Technology, University of Maryland, 2012.
- 25 **Roth, S.M.** Co-Chair. Introducing the Teaching and Learning Exchange (TALE). Innovations in Teaching and Learning Conference. University of Maryland, 2013.
- 26 **Roth, S.M.** Classroom excellence. Journalism adjunct faculty orientation, University of Maryland, 2013.
- 27 **Roth, S.M.** Building the teaching portfolio for the APT process. College of Agriculture and Natural Resources, University of Maryland, 2013.
- 28 **Roth, S.M.** Presenting the Center for Teaching Excellence. Chinese Institute, University of Maryland, 2013.
- 29 **Roth, S.M.** Classroom technology innovation. Chinese Institute, University of Maryland, 2013.
- 30 **Roth, S.M.** Sticky teaching, enduring learning. Center for Teaching Excellence workshop, University of Maryland, 2013.
- 31 **Roth, S.M.** Building the teaching portfolio for the APT process. ADVANCE workshop for Associate Professors, University of Maryland, 2014.
- 32 **Roth, S.M.** Improving student learning. Journalism adjunct faculty orientation, University of Maryland, 2014.
- 33 **Roth, S.M.** Panelist. Engaging your faculty in educational transformation and innovation. American Kinesiology Academy annual meeting. San Jose, CA, Jan. 2014.
- 34 **Roth, S.M.** Building the teaching portfolio for the APT process. College of Architecture, University of Maryland, 2014.
- 35 **Roth, S.M.** Development of teaching portfolios. Graduate School PhD Completion Workshop Series, University of Maryland, 2014.
- 36 **Roth, S.M.** Effective and efficient teaching. New Faculty Orientation, University of Maryland, 2014.
- 37 **Roth, S.M.** Sticky problems and best practices. Journalism adjunct faculty orientation, University of Maryland, 2014.
- 38 **Roth, S.M.** Effective and efficient teaching. ADVANCE workshop for professional-track faculty, University of Maryland, 2014.
- 39 **Roth, S.M.** Student-centered engagement techniques. Journalism adjunct faculty orientation, University of Maryland, 2015.
- 40 **Roth, S.M.** Peer-review of writing. Academic and Professional Writing Program workshop, University of Maryland, 2015.
- 41 **Roth, S.M.** Teaching portfolios and promotion: what the new APT guidelines mean for junior faculty. Department of Computer Science, University of Maryland, 2015.
- 42 **Roth, S.M.** Teaching undergraduates. College of Information Studies, University of Maryland, 2015.

ADVISING

Recognition:

- 2008 - Faculty mentor for J. Corey Williams, Philip Merrill Presidential Scholar for 2008-2009
- 2010 - Faculty mentor for Jennifer Cunningham, Philip Merrill Presidential Scholar for 2010-2011
- 2011 - Faculty mentor for Kelly Ann Protzko, Philip Merrill Presidential Scholar for 2011-2012

Undergraduate Research Advising:

- Spring 2003 – Nicholas Amoroso, Benjamin Snow (Undergraduate Research Assistant Program - URAP)
- Summer 2003 – Adam Isaac (URAP)
- Fall 2003 – Sara Gemmill, Crystal Humphries (URAP)
- Spring 2004 – Roshni Prabhu, Aminah Shahid (URAP)
- Summer 2004 – Greg Winter (Volunteer)
- Fall 2004 – Rima Luhar (KNES), Greg Winter (URAP), and Deandra Dodd (Ind. Study credits)
- Spring 2005 – Stephanie Cole (Life Sciences Scholar), Angela Kim (URAP), D. Dodd (Ind. Study credits)
- Summer 2005 – May Nguy (URAP)
- Fall 2005 – Brittany Duke (URAP/Life Sciences Scholar), David Kitchel (URAP)
- Spring 2006 – Liz Doby (KNES-honors), Brittany Duke (URAP/Life Sciences Scholar), Paul Ortiz (URAP)
- Summer 2006 – Liz Doby (KNES-honors)

- Fall 2006 – Liz Doby (KNES-honors), Scott Middleton (KNES-honors)
 Spring 2007 – Liz Doby (KNES-honors), Scott Middleton (KNES-honors)
 Summer 2007 – Liz Doby (KNES-honors)
 Fall 2007 – Grigory Gershkovich (KNES-honors), Karishma Dagar (Maryland Student Researcher), Jennifer Ginsberg (Maryland Student Researcher)
 Spring 2008 – Grigory Gershkovich (KNES-honors), Michael Auriemma (KNES-honors), Pallavi Nadendla (Maryland Student Researcher), Kwan Yee Ngai (Maryland Student Researcher)
 Summer 2008 – Michael Auriemma (KNES-honors), Pallavi Nadendla (Senior Summer Scholar Award)
 Fall 2008 – Kwan Yee Ngai (KNES 498, 2 credits), Pallavi Nadendla (Maryland Student Researcher), Megan Eng (Maryland Student Researcher), Hannah Miller (KNES 389, 2 credits)
 Spring 2009 – Pallavi Nadendla (Maryland Student Researcher), Megan Eng (Maryland Student Researcher), Valencia Latimore (Maryland Student Researcher)
 Summer 2009 – Pallavi Nadendla, Jenny Wang, Abe Veppumthara, Tara Thompson (UM Stars program), Sarah Frank (Montgomery Blair High School)
 Fall 2009 – Kathleen Perret (KNES Honors), Jenny Wang, Naomi Frank (Maryland Student Researcher), Sarah Frank (Montgomery Blair High School)
 Spring 2010 – Kathleen Perret (KNES Honors), Jenny Wang, Naomi Frank (Maryland Student Researcher), Sarah Frank (Montgomery Blair High School)
 Summer 2010 – Dennis Li (Montgomery Blair High School), Nick Caffes (KNES Honors), Jenny Wang
 Fall 2010 – Estefan Beltran, Dennis Li (Montgomery Blair High School), Nick Caffes (KNES Honors), Jenny Wang
 Spring 2011 – Elizabeth Antman (Maryland Student Researcher), Estefan Beltran (Biology Honors), Nick Caffes (KNES Honors), Jenny Wang
 Summer 2011 – Elizabeth Antman (Maryland Student Researcher), Estefan Beltran (Biology Honors; HHMI), Erika Olney (Maryland Student Researcher), Kelly Protzko (KNES Honors), Jenny Wang
 Fall 2011 – Elizabeth Antman (Maryland Student Researcher), Estefan Beltran (Biology Honors; HHMI), Erika Olney (Maryland Student Researcher), Kelly Protzko (KNES Honors), Jenny Wang
 Spring 2012 – Estefan Beltran (Biology Honors; HHMI), Erika Olney (Maryland Student Researcher), Kelly Protzko (KNES Honors), Jenny Wang
 Summer 2012 – Estefan Beltran (Biology Honors; HHMI), Erika Olney (Maryland Student Researcher), Rhea Ramakrishnan
 Fall 2012 – Estefan Beltran (Biology Honors; HHMI), Olivia Kuykendall (High School), Erika Olney (Maryland Student Researcher), Rhea Ramakrishnan (Maryland Student Researcher), Craig Foote (Maryland Student Researcher)
 Spring 2013 – Estefan Beltran (Biology Honors; HHMI), Olivia Kuykendall (High School), Rhea Ramakrishnan (Maryland Student Researcher), Craig Foote (Maryland Student Researcher)
 Fall 2013 – Matt Ballew (Maryland Student Researcher), Craig Foote (Maryland Student Researcher), Rhea Ramakrishnan (Maryland Student Researcher)
 Spring 2014 – Matt Ballew (Maryland Student Researcher)
 Fall 2014 – Matt Ballew (Maryland Student Researcher)
 Spring 2015 – Matt Ballew (Maryland Student Researcher)

Notables: Sara Gemmill, Nursing School (Univ. Conn); Adam Isaac, Podiatry (Temple Univ.); Nicholas Amoroso, Medical School (George Washington Univ.); Gregory Winter, Dental School (Univ. Maryland); Stephanie Cole, Grad School – cell biology (Carnegie Mellon); Paul Ortiz, Pharmacy (Univ. Maryland); Grigory Gershkovich, Medical School (Georgetown); Brittany Duke, Pharmacy (Howard Univ.); Michael Auriemma, Medical School (Robert Wood Johnson); Pallavi Nadendla, Medical School (American University of the Caribbean); Abe Veppumthara, Medical School (Georgetown); Naomi Frank, graduate school (UCSD); Nick Caffes, Medical School (Maryland; University Medal finalist, 2012); Jenny Wang (University Medal winner, 2012); Kelly Protzko (Fulbright Fellowship, India); Estfan Beltran (HHMI funding; Teach for America); Craig Foote, Medical School (East Virginia).

Honors Thesis Advising:

Liz Doby: ACTN3 and associations with muscle characteristics, Spring 2007

Grigory Gershkovich: Polymorphisms of the vitamin D receptor gene are associated with onset of osteoarthritis in a general aging population, Spring 2008

Andrew Somerville: Aquatic therapy intervention in Marfan Syndrome, Fall 2008
Kathleen Perret: Transgenerational Effects of Exercise in Mice, Spring 2010
Nick Caffes: Role of maternal exercise environment on transgenerational gene expression, Spring 2011
Kelly Protzko: Effects of 10-months of voluntary wheel running on mouse cerebellum gene expression, Spring 2012
Estefan Beltran (Biology): The potential of physical activity ancestry to have transgenerational effects on body composition, glucose tolerance, and gene expression in mouse liver, Spring 2013

Graduate Advising (Chair: Program of Study, Comprehensive Examination, and Thesis/Dissertation Committees):

Master's:

Past (with graduation date, thesis title, present position):

David Charbonneau, 8/2007 “Association between *ACE* genotype and skeletal muscle strength and volume, and their response to strength training in older adults.”
PhD program, Springfield College

Andrew T. Ludlow, 8/2007 “Relationship between physical activity and telomere maintenance in peripheral blood mononucleocytes.”
PhD student, University of Maryland, Dept. Kinesiology (graduated 2011)

Mallory Marshall, 8/2010 “The effects of diet and physical activity on telomere length and telomere-related genes in mice bred for high voluntary wheel running.”
PhD student, Michigan State University, Dept. Kinesiology

Michael Marini, 8/2012 “Effects of chronic exercise on global methylation in sperm and gene expression of DNA methyltransferases in testes of mice”

Current (with training start date):

None

Ph.D.:

Past (with graduation date, dissertation title, present position):

Steven J. Prior, 8/2005 “DNA sequence variation in the promoter region of the *VEGF* gene: impacts on VEGF gene expression and maximal oxygen consumption.”
Assistant Professor, University of Maryland, Dept. Kinesiology

Sean Walsh, 8/2006 “Myostatin related gene associations with muscle mass and strength in humans.”
Professor, Central Connecticut State University

Dongmei Liu, 5/2008 “*TNF* promoter polymorphisms associated with skeletal muscle phenotypes in humans.”
Associate Professor, Shanghai University of Sport

Ryan L. Sheppard, 5/2010 “Androgen receptor polyglutamine repeat length affects receptor activity and C2C12 cell myogenic potential.”
Researcher, Naval Medical Research Center

Andrew T. Ludlow, 10/2011 “Telomere dynamics and regulation: effects of chronic exercise, acute exercise, and oxidative stress.”
Assistant Professor, University of Michigan

Lisa M. Guth, 5/2014 “The effects of exercise ancestry on health-related traits in two generations of mouse offspring.”
Research Scientist, MTI Biotech (IA)

Andrew C. Venezia 8/2016 “Influence of acute and chronic exercise on markers of hippocampal plasticity.”
Assistant Professor, University of Scranton

Current (status; expected graduation year):

Visiting Graduate Students:

Ricardo Moreno Lima, PhD Candidate, Universidade Católica de Brasília. Oct. 2008-Feb. 2009.
Laila Lima, PhD Candidate, Universidade Católica de Brasília. Oct. 2009-June 2010.
Aaron Piepmeier, PhD Candidate, University of North Carolina Greensboro. Feb.-Mar. 2012.

Postdoctoral Mentorship:

Past (with training dates and present position):

Sarah Witkowski, Ph.D., 5/2008-1/2010 (co-mentor with Dr. E. Spangenburg). *Associate Professor, Smith College (MA).*

Anita Gopal, PhD, 4/2015-4/2017. *Visiting Scholar, George Washington University.*

Current (with training start date):

Master's Non-Thesis Committees:

2003 – Jeffrey Brown

Master's Thesis Committees:

2003 – Michael Lockard
2004 – Neil Doldo
2005 – Faith Augrom, Amanda Harne, Jason Melnyk
2006 – Ryan Connery
2007 – Selasi Attipoe, Cory Walts, Joe Hearn
2008 – Laura Levin, Lindsay Wohlers
2010 – Lori Bjork, Suchi Sood
2011 – Davi Mazala
2012 – Samuel English, Ana Valencia
2015 – Alicia DeRusso

Doctoral Program of Study Committees:

2003 – Joon Park, Joanne Zimmerman
2004 – Matthew Delmonico, Tina Ellis, Chad Paton
2005 – Nicola Fenty, Michael Lockard, Jennifer McKenzie, Sarah Witkowski, Minjung Woo
2006 – Li-Chuan Lo, Erik Hanson, Jeremy Rietschel (NACS)
2007 – Erik Hanson
2008 – Nathan Jenkins
2009 – Maureen Kayes
2010 – Kathryn Campbell
2012 – Dapeng Chen, Rian Landers, Davi Mazala
2013 – Alfonso Alfini, Theresa Smith
2014 – Sam Clevenger

Comprehensive Examination Committees:

2002 – Matthew Kostek, Matthew Schrager
2003 – Amy Halverstadt, Jennifer Jones
2004 – Josef Brandauer, Brian Hand
2005 – Matthew Delmonico, Tina Ellis, Jennifer McKenzie, Joon Park, Lili Yao, Joanne Zimmerman
2006 – Nicola Fenty, Ron Goodman (NACS), Sarah Witkowski
2007 – Minjung Woo

2008 – Erik Hanson, Li-Chuan Lo
2009 – Nathan Jenkins
2011 – Katherine Jackson, Maureen Kayes, Lindsay Wohlers
2012 – Jessica Oldham
2013 – Dapeng Chen
2016 – Robert Murray (ANSC)

Doctoral Dissertation Committees (by graduation date):

2003 – Matthew Schrager
2004 – Amy Halverstadt, Jennifer Jones, Matthew Kostek
2005 – Sean Deeny, Matthew Delmonico, Chad Paton
2006 – Tina Ellis, Brian Hand, Joon Park, Lili Yao
2007 – Nicola Fenty
2008 – Sarah Camhi, Ronald Goodman (NACS), Jennifer McKenzie, Sarah Witkowski, Minjung Woo
2009 – Michael Lockard
2010 – Suruchi Mishra (Nutrition; Dean's Rep.)
2011 – Erik Hanson, Nathan Jenkins
2013 – Kathryn Jackson, Maureen Kayes, Bartlett Russell (NACS), Tsung-Yu Wu (Nutrition; Dean's Rep.)
2014 – David Logan (NACS), Ronald Mower, Chen-Hsin Yu (Molecular and Cell Biology; Dean's Rep.)
2015 – Dapeng Chen, Changhui Zhao (Nutrition; Dean's Rep.)
2016 – Davi Mazala
2017 – Ana Valencia; Lisa Swan (Education; Dean's Rep); Theresa Smith Chirles; Yong Clark (Music; Dean's Rep)
2018 – Robert Murray (Animal Science; Dean's Rep)
2020 – Alison Pruziner

External Dissertation Committees (i.e., external juror):

2008 – External jury member for Gunther De Mars, Katholieke Universiteit Leuven, Belgium. Thesis title: *Whole genome scan and candidate-gene study in human muscular strength. The Leuven Genes for Muscular Strength study.*
2009 – External member, board of examiners for B. Anandan, University of Madras, India. Thesis title: *Sequence variations in 10 genes and their role in athletic performance – a case-control study on South Indian athletes.*
2009 – Foreign examiner, dissertation defense board for Ricardo Moreno Lima, Catholic University of Brasilia, Brazil. Dissertation title: *Association between the polymorphisms of insertion/deletion of the ACE gene with muscle strength, fat free mass and adaptations to resistance training for Brazilian elderly women.*
2009 – External examiner for Jane T. C. Seto, University of Sydney, Australia. Thesis title: *The effect of alpha-actinin-3 deficiency on skeletal muscle, ageing and exercise training.*
2010 – External examiner for Deborah L. Fearheller, Temple University. Thesis title: *Race-dependent modulation of endothelial cell responses to shear stress: Implications for vascular health in African Americans.*
2011 – External examiner for Warrick Chilton, University of Ballarat, Australia. Thesis title: *The molecular effect of cardiorespiratory fitness on telomere length and telomerase expression in CD4+ and CD8+ T cells.*
2014 – External examiner for Laila Lima, Catholic University of Brasilia, Brazil. Dissertation title: *Exercise and Aging: Relationship with Telomere Biology and Oxidative Stress.*

PROFESSIONAL SERVICE

Professional Society Activities, Consulting, and Other Activities:

2004 – 2007 Expert consultant for sarcopenia genetics, Genetic Association Database
2006 – 2015 Member, ACSM Annual Meeting Program Sub-Committee:
 Immunology/Genetics/Endocrinology
2007 Session Chair, Genetics I Slide (B-12), ACSM Annual Meeting (New Orleans)
2009 Session Chair, Genetics Slide (F-56), ACSM Annual Meeting (Seattle)
2009 Evaluation of promotion portfolio, Pennington Biomedical Research Center

2010	Evaluation of promotion portfolio, Texas A&M University
2010 – 2011	Member, PhenX Skin, Bone, Muscle, and Joint Working Group. RTI International and NHGRI initiative to contribute to genomic epidemiological research.
2012 – 2015	Member, ACSM Research Review Committee
2012	Evaluation of promotion portfolio, Texas A&M University
2013	Visiting scholar, Faculty of Sport, University of Porto, Portugal, June 1-9, 2013
2013	Evaluation of promotion portfolio, University of North Carolina
2014 – 2017	Advisory Committee Member, Patient-Centered Research for Outcomes, Effectiveness and Measurement (PROEM), Center of Excellence, University of Maryland School of Pharmacy.
2014 – 2015	Member, Council for Program and Faculty Development, University System of Maryland.
2013	Evaluation of promotion portfolio, University of Minnesota
2015	EPA/NCEA Technical Qualification Board; GS-13 to GS-14 review panel
2015	Abstract Reviewer, ASPPH Undergraduate Public Health Summit
2016	EPA/NCEA Technical Qualification Board; GS-13 to GS-14 review panel
2016	EPA/NCEA Technical Qualification Board; GS-14 to GS-15 review panel
2016	Big Data For Patients (BD4P) workshop development; Reagan Udall Foundation, FDA
2017 – present	Member, Standing Committee on Documents of Governance, National Academy of Kinesiology
2017	External Reviewer, SUNY University at Albany, BS in Public Health program review
2018	Evaluation of promotion portfolio, Kibbutzim College of Education, Technology and Arts
2018	Evaluation of promotion portfolio, University of Iowa, College of Public Health
2018 – present	Abstract Reviewer, ASPPH Undergraduate Public Health Summit
2019	Evaluation of promotion portfolio, East Carolina University, Dept. Kinesiology
2020 – present	CEPH accreditation site visitor (training commenced in 2020; site visits TBD).

MEMBERSHIPS AND CERTIFICATES

Since:

1995	American College of Sports Medicine (ACSM); Fellow since 2007
2014	National Academy of Kinesiology (NAK); Fellow #542 since 2014
2015	American Public Health Association (APHA)

2010 (renewal)	Biomedical Responsible Conduct of Research Curriculum – CITI Certification 4025112
2013 (renewal)	Biomedical Research – Basic/Refresher Curriculum – CITI Certification 28810949
2010 – 2017	IACUC certification (working with IACUC, basic animal/mouse procedures)

UNIVERSITY SERVICE

Department of Kinesiology:

Chair/Director-level Service:

2006 – 2012	<i>Director, Exercise Physiology Research Laboratories</i>
2006 – 2014	<i>Compliance Officer – Dept. Kinesiology, Department of Environmental Safety</i>
2007 – 2012	<i>Director, Honors Program (Chair, Honors Committee, Honors Lecture)</i>
2009 – 2011	<i>Chair, Undergraduate Committee</i>
2011 – 2012	<i>Chair, Undergraduate Curriculum Review Committee</i>
2011 – 2012	<i>Director, Graduate Studies (Chair, Graduate Cmte.; Teaching Asst. Selection Cmte.)</i>
2011	<i>Chair, Search Committee for exercise physiology lab technician</i>
2011 – 2012	<i>Chair, Graduate Curriculum Review Committee</i>
2012 – 2015	<i>Associate Chair & Graduate Director (Chair, Graduate Committee; Graduate Fellowships/Awards)</i>
2012 – 2015	<i>Chair, Programs, Curricula, and Courses (PCC) Committee</i>
2012 – 2015	<i>Chair, MPH Steering Committee</i>
2013 – 2015	<i>Chair, Search committee for Asst/Assoc Professor in physical activity and public health</i>
2015	<i>Chair, Search committee for Undergraduate Program Coordinator</i>

Other Dept. Service:

2003 – 2005	Member, Web/Computer Committee
-------------	--------------------------------

2003 – 2004	Member, Women’s History Month Speaker Committee
2004	Member, Search Committee for Business Manager
2004 – 2006	Member, Undergraduate Honors Program Committee
2005 – 2006	Member, Search Committee for Exercise Physiology/Molecular Biology position
2005 – 2007	Member, Graduate Committee
2006 – 2007	Member, Search Committee for Exercise Physiology position
2007 – 2009	Member, Undergraduate Committee
2007 – 2008	Member, Search Committee for Exercise Physiology position
2008 – 2009	Member, Search Committee for three Translational Kinesiology faculty members
2008 – 2015	Member, Undergraduate Scholarships and Awards Committee
2008 – 2009	Member, Programs, Curricula & Courses (PCC) Committee
2009	Ad hoc reviewer, GRIP Grant Review Committee
2010 – 2011	Member, Search Committee for exercise neuroscience faculty member
2011 – 2015	Member (ex officio), Executive Committee
2011	Member, APT Committee for Dr. E. Spangenburg
2011 – 2012	Member, Undergraduate Committee
2012 – 2013	Member, Clinical Services Committee
2015	Member, Post-tenure Review Committee for Full Professors
2017	Member, 3-yr Review Committee for Dr. R. Gentili
2018	Member, APT Committee for Dr. R. Miller
2019	Member, APT Committee for Dr. R. Gentili

School of Public Health:

Chair/Director-level Service:

2011 – 2012	<i>Chair-elect</i> , School of Public Health Senate; Senate Executive Committee
2012 – 2013	<i>Chair</i> , School of Public Health Senate; Senate Executive Committee
2013	<i>Chair</i> , SPH Fellowships Committee
2015 – 2020	<i>Chair</i> , Advancement, Promotion and Tenure (APT) Committee
2016 – present	<i>Chair</i> , Graduate Programs in Public Health Committee
2016	<i>Chair</i> , Search Committee for Scheduling Coordinator and Program Manager (2 hires)
2016 – 2017	<i>Chair</i> , Search Committee for Epidemiology and Biostatistics Chair
2017	<i>Chair</i> , Search Committee for Family Science Chair
2017 – 2018	<i>Chair</i> , Strategic Planning Committee
2018	<i>Chair</i> , Search Committee for Director of Information Technology
2019	<i>Chair</i> , Search Committee for Associate Director of Finance

Other School-level Service:

2005 – 2006	Member, Search Committee for six Public Health faculty members
2006 – 2008	Member, Graduate Public Health Committee
2007	Member, Search Committee for Research Coordinator
2007 – 2008	Member, Search Committee for Dept. Epidemiology and Biostatistics
2010 – 2012	Member, SPH Fellowship Committee
2011 – 2015	Member, Programs, Curricula, and Courses (PCC) Committee
2011 – 2015	Member, Graduate Public Health Committee
2012 – 2013	Member, Planning and Evaluation Process for Strategic Implementation (PEPSI) Committee
2012 – 2013	Member, Innovation and Technology Advisory Committee
2012 – 2013	Member, Diversity Council
2013	Member, SPH website proposal evaluation team
2013	Member, Department of Epidemiology and Biostatistics APT Committee
2014 – 2015	Member, Steering Committee for Public Health Science B.S. degree
2014	Member, Department of Epidemiology and Biostatistics 3-year Review Committee
2014 – 2015	Member, Undergraduate Programs Committee
2015 – 2016	Member, Committee on Promotion Guidelines for Professional Track Faculty
2016 – 2018	Member, Diversity Council
2019	Member, 3-yr Review Committee for Dr. N. Sehgal

University of Maryland:Chair/Director-level Service:

2013 – 2014	<i>Associate Dean</i> for Teaching and Learning (leadership of the Center for Teaching Excellence), Office of Undergraduate Studies
2013 – 2019	<i>Institutional Leader</i> , University of Maryland, CIRTL – Center for the Integration of Research, Teaching and Learning
2014 – 2015	<i>Director</i> of Outreach and Instructional Innovation, Teaching and Learning Transformation Center
2015 – 2017	<i>Chair</i> , Working Group for Standard III, Middle States Accreditation Committee
2018 – 2019	<i>Chair</i> , Professional Doctorate Working Group

Other Campus-level Service:

2004	Research Poster Judge, Bioscience Research and Technology Review Day
2006 – 2008	Research Poster Judge, Bioscience Research and Technology Review Day
2007 – 2008	Research Poster Judge, GRID (Graduate Research Interaction Day)
2007	Research Poster Judge, Dept. Nutrition and Food Science Annual Poster Session
2008	Reviewer, Internal Review Panel for limited-submission NSF STEP grant applications
2009	Banneker/Key Scholarship Selection Committee
2009 – 2012	Health Professions Committee
2010	Honors College Review Committee
2010 – 2015	I-Series Faculty Review Board
2011	Research Poster Judge, GRID (Graduate Research Interaction Day)
2011	China Task Force; subcommittee on undergraduate and graduate curricula
2011 – 2012	Member, Search Committee for Senior Vice President and Provost
2012 – 2013	Member, Stamp Student Union Blue Ribbon Committee to assess TerpZone
2012 – 2013	CTE-UGST Lilly Faculty Fellows
2013 – 2015	Member, Teaching Facilities Committee
2013 – 2014	Member, design oversight group for the Edward St. John Learning and Teaching Center
2013 – 2014	Member, Administrative Council, Office of Undergraduate Studies
2013 – 2014	Co-lead Facilitator, CTE-UGST Lilly Faculty Fellows
2013 – 2014	Lead Facilitator, CTE-UGST Learning Enhancement Mini-Grant faculty group
2013 – 2014	Member, Evaluation Committee, Global Classrooms Initiative, Office of International Affairs
2013 – 2014	Member, Search Committee for Associate Provost of Learning Initiatives
2013 – 2015	Member, “Elevate Fellows” Course Redesign Selection Committee, Provost’s office
2014 – 2017	Member, Selection Panel for the three-minute thesis competition; Graduate School
2015 – 2017	Member, Selection Panel for Distinguished Dissertation Awards; Graduate School
2015 – 2017	Member, Learning Technology Work Group, Division of Information Technology
2015 – 2019	Member, University Senate Programs, Curricula, and Courses (PCC) Committee
2016 – present	Member, Council of Associate Deans for Graduate Education
2017 – 2018	Member, Selection Panel for Kirwan Research Prize; Graduate School
2018 – present	Member, Terp Allies, ADVANCE program theater troupe for implicit bias
2019	Member, Selection Panel for the three-minute thesis competition; Graduate School
2019	Discussant, Universitas 21 Presidential Symposium
2020	Member, Presidential Transition Committee; Subcommittee on University Funding and Budget (canceled due to COVID-19)
2020	Member, COVID-19 Instructional Workgroup, Teaching Innovation Grants Committee
2020 – present	Member, Council of Associate Deans for Faculty Affairs
2020 – present	Member, New Educational Paradigms Work Group, Office of the Provost