

## Jon-Philippe K. Hyatt

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### Professional experience

- 2016-pres Associate Professor  
College of Integrative Sciences and Arts  
Honors Faculty, Barrett, The Honors College  
Arizona State University  
<https://iresearch.asu.edu/profile/3008807>
- 2010-2016 Associate Professor  
Department of Human Science  
Georgetown University  
Interim Department Chair (07/2010 – 12/2011)
- 2004-2010 Assistant Professor  
Department of Human Science  
Georgetown University
- 2003-2004 Postdoctoral Fellow, National Institutes of Health  
National Institute of Arthritis and Musculoskeletal Diseases (NIAMS)

### Education

- 1997-2002 Ph.D. **University of California, Los Angeles**  
Molecular, Cellular, and Integrative Physiology  
Advisor: V. Reggie Edgerton  
*Thesis:* The neural modulation of MyoD, Myogenin, and the satellite cell in adult skeletal muscle.
- 1994-1997 M.S. **University of Massachusetts, Amherst**  
Exercise Science (emphasis: biochemistry)  
Advisor: Priscilla M. Clarkson (*deceased*)  
*Thesis:* Release and clearance of creatine kinase-MM isoforms following repeated bouts of soreness-inducing exercise.
- 1989-1993 A.B. **Occidental College**, Los Angeles, CA  
Exercise Science (emphasis: biomechanics)  
Advisor: Stuart G. Rugg  
Minor: History (emphasis: science and medical history)

## **Grants**

### **Completed**

VJ95022 (Firetto, ASU) 05/2018-08/2018  
Arizona State University \$13,525  
Supporting undergraduate students' construction of an integrated understanding of anatomy and physiology.  
Role: Co-PI (15%)

No award number (Tilan, Georgetown) 01/2015-06/2017  
Georgetown University \$15,000  
Tablet-based "Chalk Talks" to facilitate a capstone experience in the biological sciences  
Role: Co-PI (no % specified)

1 D18HP13620 (Hyatt) 09/01/2009 – 08/31/2013  
Health Resources and Services Administration (HRSA) \$1,147,024  
Pathways to Success  
Role: PI (40%)

1 R15AR060469-01A1 (Huey, Drake University) 09/2011-08/2013  
NIH/NIAMS (subcontract) \$19,423  
VEGF and Skeletal Muscle Adaptation during Chronic Overload  
Role: Co-I (5%)

No award number (Evans, Georgetown) 10/01/2005 – 09/30/2009  
Goldman Sachs Foundation \$510,000  
Pathways to Success Program  
Role: Co-PI (15%)

1R25RR17429 (Evans, Georgetown) 09/30/2002 – 08/31/2005  
NIH / NCRR \$322,732  
Community Building to Promote Biomedical Health Careers  
Role: Co-I (10%)

## **Awards**

- 2009 Faculty Excellence Award  
Department of Human Science, Georgetown University
- 2003-4 NIH Intramural Research Training Award (IRTA)  
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
- 2002 Environmental and Exercise Physiology Steering Committee Gatorade Young Investigator Award  
American Physiological Society
- 2001 UCLA Faculty Research Grant - \$2,500 (co-author V. Reggie Edgerton, faculty advisor)  
Electrical activity-independent regulation of MyoD, Myogenin, and satellite cells in adult skeletal muscle
- 2001 Sigma Xi Society Student Grant - \$350  
Neural influence on MyoD and Myogenin mRNA and protein expression in skeletal muscle

- 2001 Graduate Division Travel Grant, UCLA - \$600
- 2000 UCLA Faculty Research Grant - \$1,500 (co-author V. Reggie Edgerton, faculty advisor)  
Dystrophin restoration using pluripotent adult skeletal muscle stem cells
- 2000 American College of Sports Medicine Pre-Doctoral Foundation Grant - \$5,219  
The role of muscle stem cells following skeletal muscle damage
- 1999 Sigma Xi Society Student Grant - \$862  
Do intramuscular-derived mitogens commit muscle stem cells to a myogenic lineage?
- 1997-8 Doctoral Student Fellowship, Dept. of Physiological Science, UCLA
- 1997 Graduate Division Travel Grant, Univ. Massachusetts, Amherst - \$150
- 1996 Graduate Division Travel Grant, Univ. Massachusetts, Amherst - \$100
- 1993 Distinction: qualifying exams, Dept. of Exercise Science, Occidental College

### **Peer-reviewed Journal Publications**

**IF: Impact Factor; Journal Ranking (Discipline)**

\*undergraduate student co-authors

†contributed equally to the work

**Hyatt JPK**, Brown EA\*, Deacon HM\*, McCall GE. Muscle-specific sensitivity to voluntary physical activity and detraining. *Frontiers in Physiology: Exercise Physiology* 10: 1328, 2019. doi: 10.3389/fphys.2019.01328. **IF: 3.201; 25/81 (Physiology)**

**Hyatt JPK**, Bienenstock EJ, Tilan JU. A student guide to proofreading and writing in science. *Advances in Physiology Education* 41: 324-331, 2017. doi:10.1152/advan.00004.2017. **IF: 1.723; 13/40 (Education, Science Disciplines)**

**Hyatt JPK**, Nguyen L, Hall AE\*, Huber AM\*, Kocan JC\*, Mattison JA, de Cabo R, LaRocque JR, Talmadge RJ. Muscle-specific myosin heavy chain shifts in response to a long-term high fat / high sugar diet and resveratrol treatment in nonhuman primates. *Frontiers in Physiology: Striated Muscle Physiology* 7: 77, 2016. doi: 10.3389/fphys.2016.00077 **IF: 4.031; 14/83 (Physiology)**

Parvaresh KC\*, Huber AM\*, Brochin RL\*, Bacon PL\*, McCall GE, Huey KA, **Hyatt JPK**. Acute vascular endothelial growth factor expression during hypertrophy is muscle phenotype-specific and localizes as a striated pattern within fibers. *Experimental Physiology* 95(11): 1098-1106, 2010. (November on-line cover) **IF: 3.168; 26/75 (Physiology)**

**Hyatt JPK**, Hurst SA. Novel undergraduate physiology laboratory using a human patient simulator. *Medical Education* 44(5): 523, 2010. **IF: 2.696; 1/27 (Education, Science Disciplines)**

- Hyatt JPK**, Roy RR, Rugg SG, Talmadge RJ. Myosin heavy chain composition of tiger (*Panthera tigris*) and cheetah (*Acinonyx jubatus*) hindlimb muscles. *Journal of Experimental Zoology Part A: Ecological Genetics and Physiology* 313(1): 45-57, 2010. **IF: 1.549; 33/127 (Zoology)**
- Hyatt JPK**, McCall GE, Kander EM\*, Zhong H, Roy RR, Huey KA. Pax3/7 expression coincides with MyoD during chronic skeletal muscle overload. *Muscle and Nerve* 38(1): 861-866, 2008. **IF: 2.594; 112/219 (Neurosciences)**
- Pae EK†, **Hyatt JPK**†, Wu J, Chien P. Short-term electrical stimulation alters tongue muscle fiber type composition. *Archives of Oral Biology* 52(6): 544-51, 2007. **IF: 1.379; 29/55 (Dentistry)**
- Sacheck JM, **Hyatt JPK**, Raffaello A, Jagoe RT, Roy RR, Edgerton VR, Lecker SH, Goldberg AL. Rapid disuse and denervation atrophy involve similar transcriptional changes as muscle wasting during systemic diseases. *The FASEB Journal* 21(1): 140-55, 2007. **IF: 7.049; 3/71 (Biology)**
- Cesari WA\*, Caruso DM\*, Zyka EL\*, Schroff ST, Evans CH, **Hyatt JPK**. Study of physiological responses to acute carbon monoxide exposure with a human patient simulator. *Advances in Physiology Education* 30(4): 242-247, 2006. **IF: 1.483; 4/23 (Education, Science Disciplines)**
- Hyatt JPK**, Roy RR, Baldwin KM, Wernig A, Edgerton VR. Activity unrelated neural control of myogenic factors in slow muscle. *Muscle and Nerve* 33(1): 49-60, 2006. **IF: 2.594; 112/219 (Neurosciences)**
- Huey KA, **Hyatt JPK**, Zhong H, Roy RR. Effects of innervation state on Hsp25 content and phosphorylation in inactive rat plantaris muscles. *Acta Physiologica Scandinavica* 185(3): 219-228, 2005. **IF: 2.455; 33/74 (Physiology)**
- Hyatt JPK**, Roy RR, Baldwin KM, Edgerton VR. Nerve-activity-independent regulation of muscle atrophy: role of MyoD and Myogenin in satellite cells and myonuclei. *American Journal of Physiology, Cell Physiology* 285(5): C1161-73, 2003. **IF: 4.23; 9/75 (Physiology)**
- Vincent HK, Carlson C, **Hyatt JP**, Yihua L, Vincent KR. Alterations in bilateral force judgment following strenuous eccentric exercise. *Research Quarterly in Exercise and Sport* 71(4): 340-8, 2000. **IF: 1.214; 36/71 (Sports Sciences)**
- Hyatt JPK**, Clarkson PM. Creatine kinase release and clearance using MM variants following repeated bouts of eccentric exercise. *Medicine and Science in Sport and Exercise* 30(7): 1059-65, 1998. **IF: 3.399; 4/71 (Sports Sciences)**
- Thompson HS, **Hyatt JP**, DeSouza MJ, Clarkson PM. The effects of oral contraceptives on delayed onset muscle soreness following exercise. *Contraception* 56(2): 59-66, 1997. **IF: 2.327; 18/67 (Obstetrics & Gynecology)**

**Citation index: 635 (Oct. 2019)**

**h-index: 9**

**Source: Web of Science**

## **Books**

- Hyatt JPK**, Kingsbury J, Legere J, Penkrot T. *Anatomy & Physiology I: Laboratory Manual*, 3<sup>rd</sup> ed. Englewood, Colorado: Morton Publishing, 2019. ISBN: 978-1-64043-073-0.

Hyatt JPK, Kingsbury J, Legere J, Penkrot T. *Anatomy & Physiology II: Laboratory Manual*, 2<sup>nd</sup> ed. Englewood, Colorado: Morton Publishing, 2019. ISBN: 978-1-64043-074-7.

### **Abstracts / Conference reports**

Hyatt JPK, Caprio LA\*, Bienenstock EJ, Kim JA, McCall GM. Introduction of a high-fat/sucrose diet modulates voluntary wheel running activity in adult female rats. *Med Sci Sport Exerc* 49(5): S330, 2017. ACSM Conference: Denver, CO May 31-Jun 4.

Kingsbury J, Penkrot T, Lisinbee C, Hyatt JPK. An analysis of assessment modalities in high-enrollment course sections. *The FASEB J* 31 (1 Suppl.): 576.40, 2017. Experimental Biology Conference: Chicago, IL April 22-26.

Pang M\*, McCall G, Mehan R; Hyatt JP, Kim J. The role of MMP-9 in satellite cell activation after increased activity. *International Journal of Exercise Science: Conference Proceedings* 8(4), Article 5, 2016. Available at: <http://digitalcommons.wku.edu/ijesab/vol8/iss4/5>

Fitzpatrick RE\*, McCall GE, Mehan RS, Hyatt JPK, Kim JA. The role of MMP-2, -9, and -13 in the regulation of skeletal muscle hypertrophy. *International Journal of Exercise Science: Conference Proceedings* 8(4), Article 9, 2016. Available at: <http://digitalcommons.wku.edu/ijesab/vol8/iss4/9>

Hyatt JPK, Brown EA\*, Bienenstock EJ, McCall GM. Acute exercise stress elicits differential gene expression profiles in sedentary vs. detrained soleus muscles. *Integrative Biology of Exercise Conference* (Phoenix, AZ) Nov. 2-4, 2016. Abstract 25.1, p. 91. <http://www.the-aps.org/mm/Conferences/APS-Conferences/2016-Conferences/Exercise/Official-Meeting-Program-Book.pdf>

Caprio LA\*, Bowden MT\*, Kim JA, McCall GE, Hyatt JPK. Changes in dietary fat/sugar content cannot account for altered patterns in daily physical activity. Poster: Undergraduate Research Conference (Washington, DC), Apr. 14, 2016.

Brown EA\*, McCall GE, Hyatt JPK. The effects of detraining on gene expression profiles in rat soleus skeletal muscle after acute exercise. *International Journal of Exercise Science: Conference Proceedings* 8(3): Article 12, 2015. Available at: <http://digitalcommons.wku.edu/ijesab/vol8/iss3/12>

Dahlberg PA\*, Mehan RS, Hyatt JPK, McCall GE. The role of MMP-9 in mouse plantaris muscle hypertrophy. *International Journal of Exercise Science: Conference Proceedings* 8(3): Article 36, 2015. Available at: <http://digitalcommons.wku.edu/ijesab/vol8/iss3/36>

Huber AM\*, Hall A, Pascavis A\*, Chaney M\*, Kocan J\*, Hyatt JPK. Resveratrol treatment in rhesus macaques has minimal influence on skeletal muscle genotype expression and glycolytic/oxidative enzyme activity. Poster: Undergraduate Research Conference (Washington, DC), Apr. 9, 2012. (Funded by the Sigma Xi Society)

Parvaresh KC\*, Brochin RL\*, Huber AM\*, Bacon PL\*, McCall GE, Hyatt JPK. VEGF and HB-EGF Expression and Localization in Chronically Overloaded Rat Plantaris and Soleus Muscle. *Med Sci Sport Exerc* 42(5): S264, 2010.

Zare SM\*, Hyatt JPK Static arch height is a poor predictor of stress fracture risk in male college athletes. Oral presentation: Undergraduate Research Conference (Washington, DC), Apr. 16, 2009.

- Kander EM\*, McCall GE, Zhong H, Roy RR, **Hyatt JPK**. Early time course of Pax3, Pax7, and MyoD protein content in the functionally overloaded rat plantaris muscle. *The FASEB J*, April, 2007.
- Hyatt JPK**, Zhong H, Banker TP\*, Mikulich MR\*, Roy RR. Modulation of Pax3 and Pax7 protein expression and localization in inactive skeletal muscle. *The FASEB J* 20 483.3, 2006.
- Hyatt JPK**, Lu Z, Capetanaki Y, Ralston E. Perturbation of subcellular organization in muscle fibers from desmin null mice. *New Directions in Biology and Disease* (San Diego, CA), 2004.
- Park H, Bakar K, Hamzepour S, Wu J, **Hyatt JP**, Shin K-H, Pae E-K. Fiber-type changes in the genioglossus muscle induced by electrical stimulation. *International Association for Dental Research* (Honolulu, HI), March 2004.
- Hyatt JPK**, Roy RR, Baldwin KM, Edgerton VR. Modulation of muscle-specific genes and satellite cell activity via neural activity-independent influences. *Med Sci Sport Exerc.* 35(5): S241, 2003.
- Sacheck JM, Ohtsuka A, Gomes M, Lecker SH, **Hyatt JPK**, Edgerton VR, Goldberg AL. Expression of muscle-specific ubiquitin-protein ligases (E3s) during muscle atrophy. *The FASEB J.* 17(4) Part II: A957, 2003.
- Hyatt JPK**, Roy RR, Edgerton VR. Neural activity-independent modulation of MyoD and Myogenin protein expression in adult skeletal muscle. *The FASEB J.* 16(5) Part II: A761, 2002.
- Hyatt JPK**, Roy RR, Edgerton VR. Role of muscle-derived stem cells during skeletal muscle regeneration and hypertrophy. *Med Sci Sport Exerc.* 33(5): S79, 2001.
- Hyatt JPK**, Clarkson PM. Effect of a repeated bout of exercise on creatine kinase-MM isoforms. *Med Sci Sport Exerc.* 29(5): S63, 1997.
- Sacheck JM, **Hyatt JP**, Thompson HS, Clarkson PM. Dietary fat intake, caloric intake, and vitamin E consumption in female athletes. *Med. Sci. Sport Exerc.* 29(5): S125, 1997.
- Thompson HS, **Hyatt JP**, Clarkson PM. Exercise-induced muscle damage in subjects with different levels of ingested estrogen. *Med. Sci. Sport Exerc.* 28(5): S114, 1996.
- Carlson CJ, **Hyatt JP**, Nosaka K, Clarkson PM. The effect of fatigue on subsequent performance of strenuous isometric exercise. *Med. Sci. Sport Exerc.* 28(5): S114, 1996.

## Teaching Experience

### **Arizona State University** (2016-pres)

- 2018-pres Introduction to Human Anatomy and Physiology w/ laboratory (BIO 160)  
 2016-pres Human Anatomy and Physiology I w/ laboratory (BIO 201)  
 2017-18 Foundations of Human Disease (co-taught)

**Georgetown University (2004-2016) – Average Teaching Evaluations: ~4.51 / 5**

2004-16	Physiological Adaptations w/ laboratory
2004-16	The Language of Health and Disease
2009-15	Research Theory and Communication in Science and Healthcare
2005-11	Exercise Physiology w/ laboratory
2007-09	The Human Machine
2004-07	Human Biology I/II laboratory
2004-05	Biotechnology laboratory
2004	Microbiology laboratory

**Additional Teaching Experience**

2017	Northern Arizona University	Pathophysiology (graduate), guest lecturer (2 weeks)
2003	Instructor: UCLA	Introduction to Molecular Biology
2002	Instructor: UCLA	Cells, Tissues, and Organs (Intro. Physiology)
1999	Instructor: Mt. St. Mary's	Exercise Physiology (Master's Level)

**Invited Talks / Seminars**

- “Exercise, detraining, and muscle hypertrophy: preliminary findings.” School of Nursing and Health Studies, Georgetown University, November 9, 2015.
- “Diet and exercise: pilot work.” Center for the Study of Sex Differences in Health, Aging and Disease, Georgetown University, February 20, 2015.
- “Engaging in new collaborative research directions: three to four pilot ideas.” Departments of Psychology and Exercise Science, University of Puget Sound, February 18, 2014.
- “Research endeavors with undergraduate students.” Department of Exercise Science, Linfield College, McMinnville, OR, January 14, 2014.
- “Mechanical and cellular mechanisms contributing to skeletal muscle hypertrophy.” Department of Exercise Science, Linfield College, McMinnville, OR, January 14, 2014.
- “Opening Pathways to Success for Rural High School Students.” National HRSA/HCOE/HCOE conference, Bethesda, MD, February 2, 2011.
- “There is no pill for physical activity; Skeletal muscle hypertrophy” Special Master’s Program in Physiology. Georgetown University, May 2010 – 2013.
- “Is Skeletal Muscle an Endocrine Organ?” Departments of Biology and Exercise Science, University of Puget Sound, June 2008
- “Skeletal and Muscular Physiology and Pathophysiology.” Graduate Nursing, 2007-08
- “So, You Think You’re Buff.” Georgetown Admissions Ambassador Program, 2005-06
- “Research in a College Setting.” Summer high school seminars, Georgetown University, 2004-2008.

**Professional Organizations / Service**

Reviewed: *The Human Body in Health and Disease* (5th ed.)  
by GA Thibodeau and KT Patton, 2009.

Reviewed: *Essentials of Anatomy & Physiology*, 1<sup>st</sup> ed.  
by GA Thibodeau and KT Patton  
Reviewer, *The Anatomical Record*  
Reviewer, *American Journal of Physiology – Reg., Integ., Comp Physiol*  
Reviewer, *Journal of Applied Physiology*  
Reviewer, *Cells, Tissues, Organs*  
Reviewer, *Acta Physiologica Scandinavica*  
Reviewer, *Muscle and Nerve*  
Reviewer, *The Brazilian Journal of Medical and Biological Research*  
Member, Sigma Xi Society  
Member, American Physiological Society  
Member, American College of Sports Medicine (ACSM)

### ***Georgetown University Committees***

2015 Chair, Executive Faculty, School of Nursing and Health Studies  
2004-13 Undergraduate Admissions  
2010-11 General Education Working Group  
2009-10 Thresholds in Writing, CNDLS  
2005-11 Career Center Advisory Council  
2004-11 Honor Council  
2009-10 Strategic Planning Committee, GUMC  
2007-10 Co-Chair, Faculty Development and Welfare, SNHS  
2008 Research in Health Care subcommittee, SNHS  
2006-07 Situation Room Taskforce, SNHS  
2005-07 Simulation/Technology Taskforce, SNHS  
2005 School Naming Taskforce, SNHS  
2005 Health Equity Strategic Planning Team, SNHS

### ***Press***

ASU Now. “ASU anatomy and physiology faculty turn book proceeds into student scholarships” June 12, 2019. <https://asunow.asu.edu/20190523-asu-anatomy-and-physiology-faculty-turn-royalties-student-scholarships>

ASU Now. “Digital cadavers bring students a deeper understanding of anatomy, physiology. February 27, 2018. <https://asunow.asu.edu/20180226-discoveries-asu-anatomage-table-digital-cadaver-anatomy-study>

ASU Now. “Changing the anatomy of a science education.” February 27, 2018. <https://campus.asu.edu/content/changing-anatomy-science-education-0>

Frontiers. "Another reason for wine lovers to toast resveratrol: Resveratrol found in red wine could help counteract the negative impact of high fat/high sugar diets." ScienceDaily. ScienceDaily, May 13, 2016. <[www.sciencedaily.com/releases/2016/05/160513150355.htm](http://www.sciencedaily.com/releases/2016/05/160513150355.htm)>



- Vuona, Al. "Off the vine: Research touts health benefits of drinking wine." *The Telegram & Gazette*, Worcester, MA. <http://m.telegram.com/entertainmentlife/20160609/off-vine-research-touts-health-benefits-of-drinking-wine>
- Kirby, Tressa. "Embarking on the Pathway to Success." Georgetown University Medical Center Website, August 11, 2010. <http://gumc.georgetown.edu/news/stories/114483.html>
- Burgoon, Lauren. "Athletes' Feats: A Case of Conditioning or Genetics?" *Blue & Gray: Georgetown University's Newsletter for Faculty and Staff*, March 3, 2010. [http://explore.georgetown.edu/documents/49164/?utm\\_source=bronto&utm\\_medium=email&utm\\_term=Athletes%27+Feats%3A+A+Case&utm\\_content=jkh22%40georgetown.edu&utm\\_campaign=Blue+%26+Gray%2C+March+3](http://explore.georgetown.edu/documents/49164/?utm_source=bronto&utm_medium=email&utm_term=Athletes%27+Feats%3A+A+Case&utm_content=jkh22%40georgetown.edu&utm_campaign=Blue+%26+Gray%2C+March+3)
- Hambleton, Laura. "Practice Makes Perfect But Good Genes are Golden." *The Washington Post*, February 23, 2010. <http://www.washingtonpost.com/wp-dyn/content/article/2010/02/22/AR2010022203641.html?referrer=emailarticle>
- Office of Communications, Georgetown University Medical Center, Media Advisory: GUMC Experts Offer Commentary on Olympic-related Medical Stories, February 9, 2010. <http://explore.georgetown.edu/news/?ID=48743&PageTemplateID=295>
- Schneider, Howard. "For Your Other 600 Muscles." *The Washington Post*, June 12, 2007. <http://www.washingtonpost.com/wp-dyn/content/article/2007/06/11/AR2007061101901.html>
- Dell'Amore, Christine. "Start today on a fitter you." *United Press International*, Jan 15, 2007. <http://www.upi.com/ConsumerHealthDaily/view.php?StoryID=20070115-032635-4578r>