CURRICULUM VITAE

University of Pittsburgh

School of Health and Rehabilitation Sciences

**BIOGRAPHICAL**

**Name:** Shawn D Flanagan

**Home Address:** 1919 Jane St, Pittsburgh, PA, 15203 **Birth Place**: Los Angeles, CA

**Home Phone:** 630-854-0547 **Citizenship:** USA

**Business Address:** 3860 South Water St, Pittsburgh, PA **E‐Mail Address:** [sdf29@pitt.edu](mailto:sdf29@pitt.edu)

**Business Phone:** 412-246-0463 **Business Fax:** 412-246-0461

**EDUCATION AND TRAINING**

*List entries in each section chronologically*

**UNDERGRADUATE**

2003-2007 Denison University, Granville, OH

BA

2007

Physical Education

**GRADUATE**

2007-2009 University of Connecticut, Storrs, CT

MA

2009

Kinesiology

2009-2011 University of Pittsburgh, MHA Health Policy and

Pittsburgh, PA 2011 Management

2012-2016 Ohio State University, PhD Kinesiology and

Columbus, OH 2016 Neuroscience

**APPOINTMENTS AND POSITIONS**

**ACADEMIC**

2016 – Present

Department of Sports Medicine

and Nutrition

University of Pittsburgh

Assistant Professor

2014-2015

Pittsburgh, PA

Department of Human Sciences

Ohio State University

Columbus, OH

Doctoral Fellow

2012-2014

Department of Kinesiology

University of Connecticut

Storrs, CT

Research Coordinator

2010

Department of Health Policy

and Management

University of Pittsburgh

Teaching Assistant

2008-2009

Pittsburgh, PA

Department of Kinesiology

University of Connecticut

Graduate Assistant

2007

Storrs, CT

Department of Physiology and Neurobiology

University of Connecticut

Storrs, CT

Teaching Assistant

**PROFESSIONAL AND SCIENTIFIC SOCIETIES**

*Society for Neuroscience* 2016*-*

*Endocrine Society* 2014*-*

*American Physiological Society* 2012*-*

*American College of Sports Medicine* 2012*-*

*National Strength and Conditioning Society* 2012*-*

**PUBLICATIONS**

1. **Referred Articles**

Kraemer WJ, Denegar C, **Flanagan SD** (*2009)* Recovery From Injury in Sport: Considerations in the Transition From Medical Care to Performance Care. *Sports Health: A Multidisciplinary Approach 1:392-395.*

Kraemer WJ, Flanagan SD, Comstock BA, Fragala MS, Earp JE, Dunn-Lewis C, Ho JY, Thomas GA, Solomon-Hill G, Penwell ZR, Powell MD, Wolf MR, Volek JS, Denegar CR, Maresh CM (2010) Effects of a Whole Body Compression Garment on Markers of Recovery After a Heavy Resistance Workout in Men and Women. *J Strength Cond Res.* 3: 804-14.

Comstock BA, Solomon-Hill G, **Flanagan SD**, Earp JE, Luk HY, Dobbins KA, Dunn-Lewis C, Fragala MS, Ho JY, Hatfield DL, Vingren JL, Denegar CR, Volek JS, Kupchak BR, Maresh CM, Kraemer WJ (2011) Validity of the Myotest® in Measuring Force and Power Production in the Squat and Bench Press. *J Strength Cond Res.* 25(8): 2293-2297*.*

Dunn-Lewis C, **Flanagan SD**, Comstock BA, Maresh CM, Volek JS, Denegar CR, Kupchak BR, Kraemer WJ (2011) Recovery Patterns in Electroencephalographic Global Field Power During Maximal Isometric Force Production. *J Strength Cond Res.* 25(10): 2818-2827.

**Flanagan SD**, Dunn-Lewis C, Comstock BA, Maresh CM, Volek JS, Denegar CR, Kraemer WJ (2012) Cortical Activity During A Highly-Trained Resistance Exercise Movement Emphasizing Force, Power Or Volume. *Brain Sci.* 2(4): 649-666.

Kraemer WJ, Looney DP, Martin GJ, Ratamess NA, Vingren JL, French DN, Hatfield DL, Fragala MS, Spiering BA, Howard RL, Cortis C, Szivak TK, Comstock BA, Dunn-Lewis C, Hooper DL, **Flanagan SD**, Volek JS, Anderson JM, Maresh CM, Fleck SJ (2013) Changes in Creatine Kinase and Cortisol in National Collegiate Athletic Association Division I American Football Players During a Season. *J Strength Cond Res.* 27(2): 434-441*.*

Kraemer WJ, Fragala MS, van Henegouwen WR, Gordon SE, Bush JA, Volek JS, Triplett NT, Dunn-Lewis C, Comstock BA, Szivak TK, **Flanagan SD**, Hooper DR, Luk HY, Mastro AM (2013) Responses of Proenkephalin Peptide F to Aerobic Exercise Stress in the Plasma and White Blood Cell Biocompartments. *Peptides.* 42C: 118-124.

Creighton BC, Kupchak BR, Aristizabal JC, **Flanagan SD**, Dunn-Lewis C, Volk BM, Comstock BA, Volek JS, Hooper DR, Szivak TK, Maresh CM, Kraemer WJ (2013) Influence of training on markers of platelet activation in response to a bout of heavy resistance exercise. *Eur J Appl Physiol.* 113(9): 2203-9.

Kraemer WJ, Solomon-Hill G, Volk BM, Kupchak BR, Looney DP, Dunn-Lewis C, Comstock BA, Szivak TK, Hooper DL, **Flanagan SD**, Maresh CM, Volek JA (2013)The Effects of Soy and Whey Protein Supplementation on Acute Hormonal Responses to Resistance Exercise in Men. *J Am Coll Nutr.* 32(1): 66-74.

*\*Winner of 2014 Ragus Award for Best Scientific Research Paper by the American College of Nutrition*

Volek JS, Volk BM, Gómez AL, Kunces LJ, Kupchak BR, Freidenreich DJ, Aristizabal JC, Saenz C, Dunn-Lewis C, Ballard KD, Quann EE, Kawiecki DL, **Flanagan SD**, Comstock BA, Fragala MS, Earp JE, Fernandez ML, Bruno RS, Ptolemy AS, Kellogg MD, Maresh CM, Kraemer WJ (2013) Whey Protein Supplementation During Resistance Training Augments Lean Body Mass. *J Am Coll Nutr.* 32(2): 122-135.

Kraemer WJ, **Flanagan SD**, Volek JS, Nindl BC, Vingren JL, Dunn-Lewis C, Comstock BA, Hooper DR, Szivak TK, Looney DP, Maresh CM, Hymer WC (2013) Resistance Exercise Induces Region-Specific Adaptations in Anterior Pituitary Gland Structure and Function in Rats. *J Appl Physiol.* 115(11): 1641-1647.

Comstock BA, Thomas GA, Dunn-Lewis C, Volek JS, Szivak TK, Hooper DR, Kupchak BR, Denegar CR, **Flanagan SD**, Kraemer WJ (2013) Effects of acute resistance exercise on muscle damage and perceptual measures between men who are lean and obese. *J Strength Cond Res.* 27(12): 3488-3494.

Smith RA, Martin GJ, Szivak TK, Comstock BA, Dunn-Lewis C, Hooper DL, **Flanagan SD**, Looney DP, Volek JS, Maresh CM, Kraemer WJ (2014) The Effects of Resistance Training Prioritization in NCAA Division I Football Summer Training. *J Strength Cond Res*. 8(1): 14-22.

Ho JY, Kraemer WJ, Volek JS, Vingren JL, Fragala MS, **Flanagan SD**, Mala J, Szivak TK, Hatfield DL, Comstock BA, Dunn-Lewis C, Ciccolo JT, Maresh CM (2014) Effects of resistance exercise on the HPA axis response to psychological stress during short-term smoking abstinence in men. *Addict Behav*. 39(3): 695-8.

**Flanagan SD**, Mills MD, Sterczala AJ, Mala J, Comstock BA, Szivak TK, DuPont WH, Looney DP, McDermott DM, Hooper DR, White MT, Dunn-Lewis C, Volek JS, Maresh CM, Kraemer WJ (2014) The relationship between muscle action and repetition maximum on the squat and bench press in men and women. *J Strength Cond Res*. 28(9): 2437-42.

**Flanagan SD**, Comstock BA, Dupont WH, Sterczala AR, Looney DP, Dombrowski DH, McDermott DM, Bryce A, Maladouangdock J, Dunn-Lewis C, Luk HY, Szivak TK, Hooper DR, Kraemer WJ (2014) Concurrent validity of the armour39 heart rate monitor strap. *J Strength Cond Res*. 28(3): 870-3.

Kraemer WJ, Boyd BM, Hooper DR, Fragala MS, Hatfield DL, Dunn-Lewis C, Comstock BA, Szivak TK, **Flanagan SD**, Looney DP, Newton RU, Vingren JL, Häkkinen K, White MT, Volek JS, Maresh CM (2014) Epinephrine preworkout elevation may offset early morning melatonin concentrations to maintain maximal muscular force and power in track athletes. *J Strength Cond Res*. 28(9): 2604-10.

Heavens KR, Szivak TK, Hooper DR, Dunn-Lewis C, Comstock BA, **Flanagan SD**, Looney DP, Kupchak BR, Maresh CM, Volek JS, Kraemer WJ (2014) The effects of high intensity short rest resistance exercise on muscle damage markers in men and women. *J Strength Cond Res*. 28(4): 1041-9.

Hooper DR, Szivak TK, Comstock BA, Dunn-Lewis C, Apicella JM, Kelly NA, Creighton BC, **Flanagan SD**, Looney DP, Volek JS, Maresh CM, Kraemer WJ (2014) Effects of fatigue from resistance training on barbell back squat biomechanics. *J Strength Cond Res.* 28(4): 1127-34.

Szivak TK, Kraemer WJ, Nindl BC, Gotshalk LA, Volek JS, Gomez AL, Dunn-Lewis C, Looney DP, Comstock BA, Hooper DR, **Flanagan SD**, Maresh CM (2014) Relationships of physical performance tests to military-relevant tasks in women. *US Army Med Dep J.* Apr-Jun: 20-6.

Gordon SE, Kraemer WJ, Looney DP, **Flanagan SD**, Comstock BA, Hymer WC (2014) The influence of age and exercise modality on growth hormone bioactivity in women. *Growth Horm IGF Res.* 24(2-3): 95-103.

Kraemer WJ, Hatfield DL, Comstock BA, Fragala MS, Davitt PM, Cortis C, Wilson JM, Lee EC, Newton RU, Dunn-Lewis C, Häkkinen K, Szivak TK, Hooper DR, **Flanagan SD**, Looney DP, White MT, Volek JS, Maresh CM (2014) Influence of HMB supplementation and resistance training on cytokine responses to resistance exercise. *J Am Coll Nutr*. 33(4): 247-55.

Sterczala AJ, **Flanagan SD**, Looney DP, Hooper DR, Szivak TK, Comstock BA, DuPont WH, Martin GJ, Volek JS, Maresh CM, Kraemer WJ (2014) Similar hormonal stress and tissue damage in response to national collegiate athletic association division I football games played in two consecutive seasons. *J Strength Cond Res*. 28(11): 3234-8.

**Flanagan SD**, Dunn-Lewis C, Hatfield DL, Distefano LJ, Fragala MS, Shoap M, Gotwald M, Trail J, Gomez AL, Volek JS, Cortis C, Comstock BA, Hooper DR, Szivak TK, Looney DP, DuPont WH, McDermott DM, Gaudiose MC, Kraemer WJ (2015) Developmental differences between boys and girls result in sex-specific physical fitness changes from fourth to fifth grade. *J Strength Cond Res*. 29(1): 175-80.

Hooper DR, Cook BM, Comstock BA, Szivak TK, **Flanagan SD**, Looney DP, DuPont WH, Kraemer WJ (2015) Synthetic Garments Enhance Comfort, Thermoregulatory Response and Athletic Performance Compared with Traditional Cotton Garments. *J Strength Cond Res.* 29(3): 700-7.

Kraemer WJ, Gordon SE, Fragala MS, Bush JA, Szivak TK, **Flanagan SD**, Hooper DR, Looney DP, Triplett NT, DuPont WH, Dziados JE, Marchitelli LJ, Patton JF (2015) The effects of exercise training programs on plasma concentrations of proenkephalin Peptide F and catecholamines. *Peptides*. 64: 74-81.

Kraemer WJ, Hooper DR, Szivak TK, Kupchak BR, Dunn-Lewis C, Comstock BA, **Flanagan SD**, Looney DP, Sterczala AJ, DuPont WH, Pryor JL, Luk HY, Maladoungdock J, McDermott D, Volek JS, Maresh CM (2015) The addition of beta-hydroxy-beta-methylbutyrate and isomaltulose to whey protein improves recovery from highly demanding resistance exercise. *J Am Coll Nutr*. 34(2): 91-9.

*\*Winner of 2016 Ragus Award for Best Scientific Research Paper by the American College of Nutrition*

Luk HY, Kraemer WJ, Szivak TK, **Flanagan SD**, Hooper DR, Kupchak BR, Comstock BA, Dunn-Lewis C, Vingren JL, DuPont WH, Hymer WC (2015) Acute resistance exercise stimulates sex-specific dimeric immunoreactive growth hormone responses. *Growth Horm IGF Res*. 25(3): 136-40.

Mala J, Szivak TK, **Flanagan SD**, Comstock BA, Laferrier JZ, Maresh CM, Kraemer WJ (2015) The Role of Strength and Power During Performance of High Intensity Military Tasks Under Heavy Load Carriage. *US Army Med Dep J*. (2-15): 3-11.

Hooper DR, Dulkis LL, Secola PJ, Holtzum G, Harper SP, Kalkowski RJ, Comstock BA, Szivak TK, **Flanagan SD**, Looney DP, DuPont WH, Maresh CM, Volek JS, Culley KP, Kraemer WJ (2015) Roles of an Upper Body Compression Garment on Athletic Performances. *J Strength Cond Res*. 29(9): 2655-60.

Sterczala AJ, DuPont WH, Comstock BA, **Flanagan SD**, Szivak TK, Hooper DR, Kupchak BR, Lee EC, Volek JS, Maresh CM, Kraemer WJ (2016) The Physiological Effects of Nucleotide Supplementation on Resistance Exercise Stress in Men and Women. *J Strength Cond Res*. 30(2): 569-78.

Looney DP, Kraemer WJ, Joseph MF, Comstock BA, Denegar CR, **Flanagan SD**, Newton RU, Szivak TK, DuPont WH, Hooper DR, Häkkinen K, Maresh CM (2016) Electromyographical and Perceptual Responses to Different Resistance Intensities in a Squat Protocol: Does Performing Sets to Failure With Light Loads Produce the Same Activity? *J Strength Cond Res*. 30(3): 792-9.

**Flanagan SD**, Looney DP, Miller MJS, DuPont WH, Pryor L, Creighton BC, Sterczala AJ, Szivak TK, Hooper DR, Volek JS, Kraemer WJ (2016) The effects of Nitrate-rich supplementation on neuromuscular efficiency during heavy resistance exercise. *J Am Coll Nutr*. 17: 1-8.

Kraemer WJ, Hooper DR, Kupchak BR, Saenz C, Brown LE, Vingren JL, Luk HY, DuPont WH, Szivak TK, **Flanagan SD**, Caldwell LK, Eklund D, Lee EC, Hakkinen K, Volek JS, Fleck SJ, Maresh CM (2016) The Effects of a Roundtrip Trans-American Jet Travel on Physiological Stress, Neuromuscular Performance and Recovery. *J Appl Physiol*. 121(2): 438-48.

Kraemer WJ, Ratamess NA, **Flanagan SD**, Shurley JP, Todd JS, Todd TC. Evolution of our Scientific Understanding of Resistance Training. *Sports Medicine (In Review).*

Kennett MJ, Mastro AM, McCarter RJ, Rogers CJ, DuPont WH, **Flanagan SD**, Turbitt WJ, Fragala MS, Post EM, Hymer WC, Kraemer WJ. Sexual Dimorphism in Endocrine, Cytokine and Immune Biomarker Arrays in Older Men or Women: Relationship to Bioactive Growth Hormone. *Growth Hormone and IGF Research (In Review).*

**Flanagan SD**, DuPont WH, Caldwell LK, Kraemer WJ. IH-901 Exerts Dose-Dependent Suppression of Neuroendocrine and Oxidative Activity Induced by Intense Resistance Exercise Stress. *Nutrients (In Review).*

1. **Reviews, Invited Published Papers, Proceedings of Conference and Symposia, Monographs, Books, and Book Chapters**

Kraemer WJ, **Flanagan SD**, Thomas GA (2009) The Physiological Basis of Recovery: Special Considerations in Tennis. *United States Tennis Association*, Boca Raton, FL. *In Press*

Kraemer WJ, **Flanagan SD**, White MT, Comstock BA, Dunn-Lewis C (2016) Research Methods: Funding Your Research. *American College of Sports Medicine.*

Kraemer WJ, Looney DP, Hooper DR, Szivak TK, **Flanagan SD** (2016) Research Methods: Submitting a Manuscript for Publication: Finding the Publication Outlet. *American College of Sports Medicine.*

1. **Published Abstracts**

Faunce A, Moriarty R, Sciavolino B, Sridhar S, **Flanagan SD.** Transcranial Magnetic Stimulation Reveals Long-Term Reductions in Strength of Sensorimotor Circuits Governing Injured Leg After Anterior Cruciate Ligament Rupture. *University of Pittsburgh First Experiences in Research Celebration of Research*; Pittsburgh, PA – April 2017.

**Flanagan SD**, Dunn-Lewis C, Onate JA, Volek JS, Maresh CM, Kraemer WK. Leg-Specific Functional Activation in M1 Using Action Imagery During a Modified Attention Switching Task. *Experimental Biology*; Chicago, IL – April 2017.

**Flanagan SD**, Dunn-Lewis C, Onate JA, Volek JS, Maresh CM, Kraemer WK. Unique Leg-specific Executive And Motor BOLD Activity With Visually-guided Imagery Following ACL Injury. *American College of Sports Medicine Annual Meeting*; Denver, CO – May 2017.

Dunn-Lewis C, **Flanagan SD**, Onate JA, Volek JS, Maresh CM, Kraemer WK. Injury-Related Reductions in Skilled Visuomotor Learning Revealed by Single Trial Analysis and Response Time Variability. *American College of Sports Medicine Annual Meeting*; Denver, CO – May 2017.

**Flanagan SD**, Szivak TK, DuPont WH, Caldwell LK, Barnhart EC, Borden EC, Saenz C, Staron RS, Hymer WC, Nindl BC, Kraemer WJ. Comparing Bioactive and Immunoassay-Based Measurements Of The Growth Hormone Response To Short-Term Resistance Training At Three Intensity Levels.*American College of Sports Medicine Annual Meeting*; Boston, MA – May 2016.

Hooper DR, Schill KE, Saenz C, Martini ER, **Flanagan SD**, Szivak TK, DuPont WH, Focht BC, Volek JS, Maresh CM, Kraemer WJ. Pathogenesis And Symptomology Of The Exercise-Hypogonadal Male Condition. *American College of Sports Medicine Annual Meeting*; Boston, MA – May 2016.

DuPont WH, Kraemer WJ, Nindl BC, Vingren JL, Spiering BA, **Flanagan SD**, Caldwell LK, Szivak TK, Barnhart EC, Borden EC, Maresh CM. The Influence of Different Training Programs on the Expression of Plasma Proenkephalin Peptide F in Women. *American College of Sports Medicine Annual Meeting*; Boston, MA – May 2016.

Hooper DR, Secola PJ, Dulkis LL, DuPont WH, Saenz C, Kupchak BR, Szivak TK, Comstock BA, **Flanagan SD**, Looney DP, Pryor JL, Kalkowski RJ, Luk HY, Beaudette TL, Thurston TS, Galpin AJ, Volek JS, Maresh CM, Brown LE, Kraemer WJ. Compression Garments Can be worn during Trans-American Travel to Reduce Muscle Damage and Performance Decrements Following Sporting Activity. *National Strength and Conditioning Association, National Conference*, Orlando, FL - July 2015.

DuPont WH, Hooper DR, Secola PJ, Dulkis LL, Saenz C, Kupchak BR, Szivak TK, Comstock BA, **Flanagan SD**, Luk HY, Beaudette TL, Galpin AJ, Maresh CM, Brown LE, Kraemer WJ. Compression Garments Help Reduce Deleterious Effects from Jet Lag on Physical Performance. *National Strength and Conditioning Association, National Conference*, Orlando, FL – July 2015.

Hooper DR, Secola PJ, Dulkis LL, DuPont WH, Saenz C, Kupchak BR, Szivak TK, Comstock BA, **Flanagan SD**, Looney DP, Pryor JL, Kalkowski RJ, Luk HY, Beaudette TL, Thurston TS, Galpin AJ, Volek JS, Maresh CM, Brown LE, Kraemer WJ. Trans-American Travel within NCAA Regulations Induces Jet Lag which Attenuates Sleep Quality and Athletic Performance. *American College of Sports Medicine, National Conference*, San Diego, CA - May 2015.

DuPont WH, Kraemer WJ, Vingren JL, Spiering BA, Nindl BC, Hatfield DL, Fragala MS, **Flanagan SD**, Hooper DR, Szivak TK, Maresh CM. The Influence of Different Training Programs on the Expression of Plasma Proenkephalin Peptide F in Women. *American College of Sports Medicine, National Conference*, San Diego, CA - May 2015.

Dunn-Lewis C, Kraemer WJ, Maresh CM, Joseph MF, Denegar CR, Comstock BA, **Flanagan SD**, Szivak TK, Hooper DR, Volek JS.  Light, High-Repetition Resistance Training Cannot Sustain Fat-Free Mass Developed using Low Repetitions at Heavier Loads. *American College of Sports Medicine Annual Meeting*; Orlando, FL – May 2014.

Luk HY, **Flanagan SD**, Kupchak BR, Comstock BA, Szivak TK, Hooper DR, Looney DP, White MT, DuPont WH, Sterczala AJ, Mala J, Vingren JL, Maresh CM, Kraemer WJ. Growth Hormone Dimer Release In Untrained Men And Women After Acute Resistance Exercise. *American College of Sports Medicine Annual Meeting*; Orlando, FL – May 2014.

**Flanagan SD**, Comstock BA, Looney DP, Sterczala AJ, DuPont WH, Dunn-Lewis C, Kraemer WJ. Effects of cardiovascular fitness and training history on heart rate variability before, during, and after a progressive maximal intensity exercise test. *Experimental Biology*; San Diego, CA – April 2014.

**Flanagan SD**, Luk HY, Kupchak BR, Comstock BA, Szivak TK, Hooper DR, Looney DP, White MT, DuPont WH, Sterczala AJ, Mala J, Kraemer WJ. Untrained Men and Women Demonstrate Different Growth Hormone Dimer Concentration Responses to Acute Resistance Exercise. *New England Chapter of the American College of Sports Medicine*; Providence, RI - Nov 2013.

Hooper DR, Szivak TK, Comstock BA, **Flanagan SD**, Looney DP, White MT, Sterczala AJ, DuPont WH, Mala J, Volek JS, Bryce AR, Kupchak BR, Kraemer WJ. The Role of EAS™ Recovery Protein in Protecting Muscle and Promoting Recovery from Intense Conditioning. *New England Chapter of the American College of Sports Medicine*; Providence, RI - Nov 2013.

White MT, Kupchak BR, Comstock BA, Szivak TK, Hooper DR, **Flanagan SD**, Looney DP, McDermott DM, Dulkis LL, Secola PJ, Phinney SD, Volek JS, Kraemer WJ. The Impact of an Ultra-Marathon on Endocrine and Biochemical Parameters in Men. *New England Chapter of the American College of Sports Medicine*; Providence, RI - Nov 2013.

Looney DP, Comstock BA, **Flanagan SD**, Hooper DR, Szivak TK, White MT, McDermott DM, Secola PJ, Dulkis LL, Volek JS, Kraemer WJ. Does Submaximal Resistance Exercise Performed to Failure Result in Maximal Motor Unit Activation. *New England Chapter of the American College of Sports Medicine*; Providence, RI - Nov 2013.

Comstock BA, Dunn-Lewis C, Hooper DR, Szivak TK, **Flanagan SD**, Looney DP, Mala J, DuPont WH, McDermott DM, Luk HY, Staron RS, Kraemer WJ. Effects of Resistance Exercise on a Novel Growth Hormone Assay Signal in Men. *National Strength and Conditioning Association National Conference*; Las Vegas, NV - July 2013.

Dunn-Lewis C, Comstock BA, Hooper DR, Szivak TK, **Flanagan SD**, Looney DP, Sterczala AJ, Webster ET, Bryce AR, Mala J, Giacchino CE, McDermott DM, Kraemer WJ. The Effects of Endurance Exercise Training on Plasma Concentrations of Proenkephalin Peptide F and Epinephrine. *National Strength and Conditioning Association National Conference*; Las Vegas, NV - July 2013.

**Flanagan SD**, Dunn-Lewis C, Comstock BA, Hooper DR, Szivak TK, Looney DP, DuPont WH, Webster ET, Bryce AR, Luk HY, Dombrowski DH, Giacchino CE, McDermott DM, RS Staron, Kraemer WJ. Effects of Acute Resistance Exercise and Short-Term Training on Bioactive Prolactin Responses in Men. *National Strength and Conditioning Association National Conference*; Las Vegas, NV - July 2013.

Kraemer WJ, **Flanagan SD**, Dunn-Lewis C, Comstock BA, Hooper DR, Szivak TK, Sterczala AJ, Bryce AR, Luk HY. Effect of Ladder Climbing on Regional Anterior Pituitary Immunoreactive Growth Hormone Release in Male Rats. *National Strength and Conditioning Association National Conference*; Las Vegas, NV - July 2013.

Looney DP, Dunn-Lewis C, Comstock BA, Hooper DR, Szivak TK, **Flanagan SD**, Sterczala AJ, DuPont WH, Giacchino CE, Webster ET, Dombrowski DH, McDermott DM, Kraemer WJ. Concurrent Validity of a Novel Heart Rate Monitor Strap. *National Strength and Conditioning Association National Conference*; Las Vegas, NV - July 2013.

Szivak TK, Nindl BC, Mala J, Dunn-Lewis C, Comstock BA, Hooper DR, **Flanagan SD**, Looney DP, DuPont WH, Dombrowski DH, Kraemer WJ. Prediction of Military Relevant Occupational Tasks in Women From Physical Performance Components. *National Strength and Conditioning Association National Conference*; Las Vegas, NV - July 2013.

Hooper DR, Szivak TK, Comstock BA, Dunn-Lewis C, Apicella JM, Looney DP, **Flanagan SD**, Creighton BC, Luk HY, Kraemer WJ. Effects of Fatigue from Resistance Training on Barbell Back Squat Biomechanics. *National Strength and Conditioning Association National Conference*; Las Vegas, NV - July 2013.

Bryce AR, Comstock BA, **Flanagan SD**, Kraemer WJ. The Effects of Resistance Training vs. Endurance Training on Plasma Catecholamine Responses to a Maximal Treadmill Test. *University of Connecticut Frontiers Poster Exhibition*; Storrs, CT – 2013.

**Flanagan SD**, Dunn-Lewis C, Comstock BA, Kraemer WJ. Cortical Activity of Powerlifters Versus Non-Powerlifters During Resistance Exercise Emphasizing Force or Volume: Preliminary Investigation. *New England American College of Sports Medicine Fall Conference*; Providence, RI – Nov. 2012.

**Flanagan SD** and King C. Mentors Conference: A Student Perspective on Making the Most of a Special Relationship. *University of Pittsburgh Department of Health Policy and Management Mentors’ Conference*; Pittsburgh, PA - 2010.

Dunn-Lewis C, Kraemer WJ, **Flanagan SD**. EEG Measures of Cortical Activity Return to Baseline within 24 Hours Despite Differential Protocols Emphasizing Force, Power, and Volume. *National Strength and Conditioning Association National Conference*; Orlando, FL – July 2010.

Dunn-Lewis C, **Flanagan SD**, Denegar CR, Maresh CM, Volek JS, Kraemer WJ. Quantitative Electrophysiological Characteristics during Protocols of Differing Physical Characteristics using a Highly-Trained Squat Movement. *American College of Sports Medicine 58th Annual Meeting and 2nd World Congress on Exercise is Medicine*; Denver, CO - June 2011.

Comstock BA, **Flanagan SD**, Dunn-Lewis C, Volek JS, Kraemer WJ, Kelly NA, Creighton BC; EEG Measures of Cortical Activity with Different Types of Acute Resistance Exercise*. National Strength and Conditioning Association National Conference;* Orlando, FL – July 2010.

Ho JY, Kraemer WJ, Fragala MS, Dunn-Lewis C**, Flanagan SD**, Comstock BA, Volek JS, Denegar CR, Maresh CM; Effects of Resistance Exercise on the HPA Axis Response to Psychological Stress during Short-Term Smoking Abstinence in Men. *National Strength and Conditioning Association National Conference*; Orlando, FL – July 2010.

**Flanagan SD**, Castle N. A Model for Lower Cost, Higher Access, and Better Quality Disease Prevention in America. *The Aging Institute 5th Annual Research Day Celebration*; Pittsburgh, PA - April 2011.

**Flanagan SD**, Castle N. A Model for Lower Cost, Higher Access, and Better Quality Disease Prevention in America. *Deans Day Student Research Competition*; Pittsburgh, PA - April 2011.

Fragala MS, Kraemer WJ, **Flanagan SD**, Comstock BA, Earp JE, Coday MA, Dobbins KA, Dunn-Lewis C, Hopkins AK, Ho JY, Thomas GA, Solomon-Hill GF, Penwell ZR, Powell MD, Wolf MR, Volek JS, Maresh CM; Effects of a Whole Body Compression Garment on Markers of Recovery after an Intense Whole Body Resistance Training Workout in Women. *National Strength and Conditioning Association National Conference*; Las Vegas, NV – July 2009.

**Flanagan SD**, Kraemer WJ, Comstock BA, Earp JE, Coday MA, Dobbins KA, Dunn-Lewis C, Hopkins AK, Fragala MS, Ho JY, Thomas GA, Solomon-Hill GF, Penwell ZR, Powell MD, Wolf MR, Volek JS, and Maresh CM. Effects of a Whole Body Compression Garment on Markers of Recovery After an Intense Whole Body Resistance Training Workout in Men. *National Strength and Conditioning Association Annual Meeting*; Las Vegas, NV, July 2009.

Kraemer WJ, Solomon-Hill GF, **Flanagan SD**, Comstock BA, Earp JE, Coday MA, Dobbins KA, Dunn-Lewis C, Hopkins AK, Fragala MS, Ho JY, Thomas GA, Penwell ZR, Hatfield DL, Vingren JL, Powell MD, Wolf MR, Volek JS, Maresh CM; Construct Validity of the Myotest ® in Measuring Force and Power Production. *National Strength and Conditioning Association National Conference;* Las Vegas, NV – July 2009.

**Flanagan SD**,Vingren JL, Hopkins AK, McCullough AS, Migiano MJ, Maresh CM, Volek JS, Hatfield DL, Fragala MS, Ho JY, Thomas GA, Anderson JM, Boyd BM, Solomon-Hill GF, Duba JE, Kraemer WJ. Role of Body Size and Training Level in Reducing Physical Performance Differences Between Men and Women. *National Strength and Conditioning Association Annual Meeting*; Las Vegas, NV - July 2008.

Vingren JL, Kraemer WJ, Hatfield DL, Anderson JM, Volek JS, Ratamess NA, Thomas GA, Bailey BL, **Flanagan SD**, Dunn-Lewis C, Solomon-Hill GF, Ho JY, Fragala MS, Maresh CM. Effect of Resistance Exercise on Muscle Steroidogenesis. *Integrated Biology*; Hilton Head, SC – Sep. 2008.

Hatfield DL, Thomas GA, Fragala MS, Vingren JL, Maresh CM, Volek JS, Ho JY, Solomon-Hill GF, **Flanagan SD**, Dunn-Lewis C, Coday MA, Migiano MJ, Duba JE, Boyd BM, Earp JE, Anderson JM, Hopkins AK, Kraemer WJ. Influence of Training Level on IGF-1 and Growth Hormone Response Patterns to Resistance Exercise Stress in Women. *National Strength and Conditioning Association Annual Meeting*; Las Vegas, NV - July 2008.

Thomas, GA, Fragala MS, Vingren JL, Hatfield DL, Ho JY, Hopkins AK, Solomon-Hill GF, **Flanagan SD**, Powell MD, Lewis CD, Coday MA, Volek JS, Anderson JM, Penwell ZR, Maresh CM, and Kraemer WJ. Proenkephalin Peptide F Responses to Resistance Exercise in Men and Women. *National Strength and Conditioning Association Annual Meeting;* Las Vegas, NV - July 2008.

1. **Other Publications**

**PROFESSIONAL ACTIVITIES**

**TEACHING**

1. **Undergraduate Research Project Supervision**

Aaron Braverman NMRL Undergraduate Internship Program 2017-present *University of Pittsburgh*

##### Elliot Fischer NMRL Undergraduate Internship Program 2017-present University of Pittsburgh

##### Megan Magarity NMRL Undergraduate Internship Program 2017-present University of Pittsburgh

##### Brian Coyne NMRL Undergraduate Internship Program 2017-present University of Pittsburgh

##### Alexis Faunce First Experiences in Research Program 2017-present University of Pittsburgh

##### Brandon Sciavolino First Experiences in Research Program 2017-present University of Pittsburgh

##### Ryan Moriarty First Experiences in Research Program 2017-present University of Pittsburgh

##### Sadhana Sridhar First Experiences in Research Program 2017-present University of Pittsburgh

1. **Masters Student Advisement**
2. **PhD Student Advisement**
3. **Masters Thesis Committee Member**

Alice Lagoy 2016-present University of Pittsburgh

1. **Masters Thesis Committee Chair**
2. **PhD Thesis Committee Member**

Caleb Johnson 2017-present University of Pittsburgh

1. **PhD Thesis Committee Chair**
2. **University Teaching Experience**

*University of Pittsburgh*

2016-2017 HRS 2868 Seminar in Sport Medicine

2016-2017 HRS 3897 Lab Techniques in Sports Medicine and Nutrition II

2010 PUBHLT 2014 Public Health Overview

*University of Connecticut*

2007 PNB 2275 Advanced Anatomy and Physiology Laboratory

**RESEARCH**

1. **Current Grant Support**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grant Number** | **Grant Title** | **Role in Project** | **Years Inclusive** | **Source $ Amount** |
| N00014-14-1-0022 | Marine Corps Forces Special Operations Command Injury Prevention and Human Performance Research Initiative | Co-I (60% Effort) | 2016-2017 | $4.2M |
| N00014-11-1-0929 | Naval Special Warfare Group Tactical Athlete Program Human Performance Research Initiative | Co-I (10% Effort) | 2016-2017 | $12.74M |

1. **Prior Grant Support**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grant Number** | **Grant Title** | **Role in Project** | **Years Inclusive** | **Source $ Amount** |
| NSCA Doctoral Research Grant | Corticospinal Representation of an Injured Knee | PI | 2015-2016 | $15,000 |

1. **Seminars and Invited Lectureships**

Revey Sorey All Pro Football Camp Invited Lecture Chicago, IL 6/ 2006

Central Ohio Strength Coach Clinic Granville Invited Lecture Granville, OH 4/2008

UPMC Rooney Sports Medicine Grand Rounds Invited Lecture Pittsburgh, PA 10/2016

Frontiers in Brainhealth Lunch Lecture Series Invited Lecture Dallas, TX 5/ 2017

**OTHER RESEARCH RELATED ACTIVITIES**

1. **Journal Reviewer**

* *Journal of the American College of Nutrition*
* *European Journal of Applied Physiology*
* *Journal of Applied Physiology*
* *Medicine and Science in Sports and Exercise*
* *Journal of Strength and Conditional Research*

**CURRENT RESEARCH INTERESTS**

* Exercise as treatment and prognostic marker for Parkinson Disease
* Influence of behavior on brain health and cognitive function
* Neuroendoimmune basis of fatigue, motivation, resilience, and adaptation
* Influence of the brain/cognition on injury
* Effects of biomarkers on performance adaptations and injury
* Psychological and physiological resilience
* Novel clinical rehabilitation techniques for return to duty/play from musculoskeletal and head injuries

**SERVICE**

1. **Associate Editor**

Journal of Strength and Conditioning Research