**Hugh S. Lamont, PhD, CSCS**

**Clinical Assistant Professor of Sport Science programing and Strength and Conditioning**

**College of Health Solutions**

**Arizona State University**

**8416 E Rancho Vista Drive, Phone: 714-337-3643**

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**WORK HISTORY**

**Current**

**2023 – present Clinical Assistant Professor of SSP and Strength and Conditioning**

**Undergraduate and Graduate**

Arizona State University

College of Health Solutions

Phoenix, AZ

**Assistant Dean**, **Clinical Faculty**: Colleen Cordes

Research: Research projects include;

* **Comparative protocols looking at Post-Activation Potentiation (PAP) and Post Activation Performance Enhancement (PAPE) in Counter movement and Squat jumps in recreationally trained and Collegiate athletes.**
* **Biomechanical assessment of force/velocity characteristics during linear and angular striking MMA athletes.**
* **Short term training strategies aimed at optimizing performance and fatigue mitigation in College Athletes**
* **Using Stepwise Linear Regression to predict vary contributions of key anthropometric and performance characteristics upon striking peak impact force and impulse.**
* **Highlighting sport specific exercises to target strength and power profiles in male and female combat striking based sports**

**2015 – 2022 Associate Professor of Exercise and Sport Science**

Coastal Carolina University

Department of Kinesiology

Conway, SC

**Department Chair:** Dr Greg Martel

***Research:*** **Research projects include;**

* **Biomechanical assessment of force/velocity characteristics during linear and angular punching.**
* **Using Stepwise Linear Regression to predict vary contributions of key anthropometric and performance characteristics upon punch peak impact force and impulse.**
* **Highlighting sport specific exercises to target strength and power profiles in male and female combat striking based sports**
* **Comparative protocols looking at Post-Activation Potentiation (PAP) in Counter movement and Squat jumps in recreationally trained and Collegiate athletes.**
* **Assessing the validity and reliability of varying cut off points to calculate vertical impulse during static and counter movement vertical jumps in recreationally trained and Collegiate athletes.**

**2012- 2015 Assistant Professor**

California Lutheran University

Department of Exercise Science

Thousand Oaks, CA

**Department Chair:** Dr Steven Hawkins

***Research:*** Multiple faculty and student supervised projects looking at of Physiological and Biomechanical aspects of human performance.

* **Acute effects of Whole-body vibration upon performance**
* **Combined PAP based protocols upon performance**
* **25 + Student Capstone projects within Applied Exercise Physiology, Biomechanics and Strength and Conditioning.**

**2010 – 2012 Assistant Professor**

**Master’s Degree Coordinator Sport Physiology and Performance**

East Tennessee State University, Johnson City, TN - Kinesiology, Leisure, Exercise and Sport Science

**Department Chair:** Mr Chris Ayres

**Unit supervisor:** Dr Mike Stone

***Research: Multiple projects looking at acute and chronic adaptations in force/times characteristics in response to sport specific resistance exercise with and without whole body vibration within NCAA division 1 collegiate athletes.***

**2006 – 2010 Assistant Professor**

University of Mississippi, Oxford, MS - Health Exercise Science and Parks and recreation Management

**Departmental Chair**: Dr Mark Loftin

***Research: The effects of resistance training and whole body vibration upon rates of force production, maximal force generating capability and balance.***

## 2002 – 2006 Graduate Teaching Assistant

University of Oklahoma, Norman, OK - Health and Exercise Science,

**Departmental Chair**: Dr Michael Bemben

## EDUCATION AND TRAINING

**2006** **Doctor of Philosophy** **University of Oklahoma**, Norman, OK

Department of Health and Exercise Science **Advisor:** Dr Michael Bemben

***Research: The effects of resistance training and whole-body low frequency vibration upon indices of neuromuscular function.***

**2002 Master of Science University of Wolverhampton**,WolverhamptonUK

Department of Sport Science

**Advisor:** Dr Greg Whyte

***Research: Multi test assessment of anaerobic power in male college athletes.***

**1999 Bachelor of Science University of Wolverhampton**, WolverhamptonUK

School of Biomedical Sciences,

**Advisor:** Dr Ian Coleman (University of Wolverhampton) / Dr William Kraemer (Penn State University)

***Research: The effects of maximal isokinetic actions upon subsequent concentric torque production.***

**RESEARCH INTERESTS**

* *Applied Strength and Conditioning for sports*
* *Post Activation Potentiation (PAP).*
* *Physiomechanical assessment of striking based sports*
* *Neuromuscular responses to resistance exercise.*
* *Effects of whole-body vibration upon indices of neuromuscular performance.*
* *Acute and chronic hormonal responses to resistance exercise****.***
* *Muscle fibre type transformations with exercise.*
* *Biomechanical aspects of human movement*
* *Neuromuscular aspects of movement disorder’s*
* *Cardiovascular responses to resistance exercise*
* *Applied Sports Nutrition*

**RESEARCH**

**East Tennessee State University**

* Differences between acute effects of 12 different WBV protocols upon impulse generation, CON/ECC RFD and rate of rise of EMG amplitude in male and female athletes and non-athletes.

**Athlete Monitoring**

* Acute effects of WBV upon static jump and isometric mid-thigh clean pull performance.
* Acute effects of WBV upon sprint start acceleration and peak running velocity in Division 1 collegiate sprinters.
* Acute and Chronic effects of applying WBV prior to and in-between sets of power specific resistance exercises over a 6 month period using Division 1 female volleyball players.
* The effects of limb asymmetries upon isometric and dynamic force/time characteristics in NCAA division 1 male athletes
* The impact of different isometric pull bar heights upon force/time characteristics between Power lifters, Weightlifters, Throwers, and Strong Man competitors.
* Impact of different loads upon peak power generation during Squat and Counter Movement Vertical Jumps in collegiate weightlifters over a 6 month training period.
* Kinetic and Kinematic assessment of Power Snatches, CMVJ’s and isometric mid-thigh pulls in collegiate weightlifters over a 6 month training period.
* Acute Hormonal responses to variable volume load block periodized resistance training in Weightlifters over a 6 month training period.

**University of Mississippi**

* Looked at the combined effects of whole body vibration and specialized resistance training upon changes in select force/velocity characteristics in males and females of differing age and training status.
* The acute effects of differing whole body vibration protocols upon jump performance, rate of force production and balance.
* The acute effects of whole body vibration upon measures of mobility and functional balance in older post-menopausal women.
* EMG activity in the Vastus Lateralis, Vastus Medialis, Tibialis Anterior, and Medial Gastrocnemius prior, during, and following MVC’s with and without concurrent whole body low frequency vibration.
* Kinetic and Kinematic analysis of counter movement vertical jumps prior to and following MVC’s with and without whole body low frequency vibration.
* The acute effects of whole body and localized vibration upon verbal stutter correction.

**Doctoral:** Health and Exercise Science Department, **University of Oklahoma**

* Effects of creatine and protein supplementation upon strength, muscle mass increase and power in men aged between 50 and 65 years of age.
* Effects of MVC post activation upon counter movement vertical jump performance across gender and baseline training status.
* The effects of an eight-month resistance and vibration stimulus protocol in post-menopausal women.
* Assessment of select force/ velocity characteristics of college aged sub elite Olympic Weight lifters.
* The effects of four different low frequency vibration protocols upon indices of post activation potentiation during counter movement vertical jumps
* The effects of combined strength/power specific resistance training and whole body vibration upon indices of neuromuscular performance.
* DXA assessment of body composition within college aged males and females of differing training status.

**Masters:** Department of Sport Science, **University of Wolverhampton,** England

* Multi test assessment of anaerobic power in college aged athletes.
* Cardiovascular testing and time to exhaustion in trained Tri-athletes.
* Power output during counter movement jumps performed with and without a preparatory arm swing.

**Undergraduate:** Department of Biomedical Sciences, **University of Wolverhampton**

* Effects of maximal load pseudo isokinetic actions upon subsequent maximal and sub maximal concentric torque generation during a modified bench press exercise. (This project was carried out within the Laboratory for Sports Medicine at the Pennsylvania State University under the direction of Dr William Kraemer).

**Research Assistant**: Department of Physical Education, **University of Edinburgh**, Scotland

**Supervisor:** Doctor Mike Stone May 2001 – June 2002

* Worked on projects exploring acute and chronic effects of sport specific resistance training upon measures of strength and power within highly trained athletic populations.
* Main project focused on the effects of training using Olympic style lifts and assistance exercises using an exercise ball, upon measures of sprint performance, agility and strength/power.
* Examined the effects of power specific resistance training upon power generated during static and counter movement vertical jumps.

**TESTING SUPPORT SERVICES**

**2014 – 2015 California Lutheran University** Director for the Centre for Performance Excellence (CPE)

Provides sport specific strength and conditioning and testing for an array of NCAA Division III athletes. Periodized program design, implementation and technical reports are provided for strength and conditioning and sport skill coaches with the aim to maximize sport performance while minimizing injury potential. Teams included:

* Women’s Volleyball **(strength and conditioning program design and in season physiological monitoring)**
* Men’s Football **(strength and conditioning program design, offseason and in season)**
* Men’s and women’s track and field **(strength and conditioning program design, off season and in-season).**

**2012 – 2015 California Lutheran University**

Voluntary consultant to head Strength and Conditioning coach and Associate Director for performance, Dr Pat Holmberg. Helped formulate, design and execute in season and off season strength and conditioning programs for men football, women’s volleyball and track and field (men and women).

**2010 - 2012 East Tennessee State University** Sport Performance Enhancement Consortium (SPEC)

Provides sport specific strength and conditioning and testing for an array of NCAA Division 1. Periodized program design, implementation and technical reports are provided for sport coaches with the aim to maximize sport performance. Teams included:

* Men’s Soccer
* Women’s Soccer - **Chief academic supervisor for over sight of S&C programs, testing and coach report / presentation feedback**
* Women’s Volley Ball- **Committee chair for Doctoral student working with implementing acute WBV strategies into resistance training and practice sessions**
* Men’s Basketball
* Women’s Basketball
* **Men’s Tennis - Chief academic supervisor for over sight of S&C programs, testing and coach report / presentation feedback**
* Women’s Tennis
* Men’s Track (Distance, cross country)
* Women’s Track (Sprints)
* Women’s Track (Distance, cross country)
* **Men’s Field (Throws and Jumps) - Provide academic input with regards S&C and the incorporation of WBV into training**
* Women’s Field (Throws and Jumps)
* **Men’s Golf - Academic support with over sight of golf swing motion capture analysis**
* **Women’s Golf**

**2008 – 2010 University of Mississippi**

* Acted as Academic Liaison for Olympic Sports Strength and Conditioning
* Gave presentation to staff and interns
* Scheduled meetings with Strength and Conditioning interns
* Provided scientific support

**2004 – 2006 University of Oklahoma**

Supervised personal training interns within the Houston Huffman Centre

**2001 – 2002 University of Edinburgh**, Scotland, Physical Education Department

* Provided strength/power testing support for under 21 Scottish Rugby team
* Provided strength/power-testing support for under 21 Scottish Badminton team.
* Worked as an assistant to Dr Mike Stone during weeklong residential strength and conditioning courses for Sport Scotland.
* This course involved both classroom lectures and practical workshops utilizing sport specific resistance exercises.
* Developed reports for Sport Scotland following Sport Science support testing and evaluation sessions with professional athletes.

## INTERNSHIPS

## 1997 – 1998 Pennsylvania State University - Laboratory for Sports Medicine

**Supervisor:** Dr. William Kraemer

* Worked on projects examining the effects of different periodized resistance training protocols on strength, power and hypertrophy in women
* Carried out strength and power testing on Penn State women’s field hockey team, and members of the men’s Volley Ball team. 1RM testing (Back Squat, High Pull, Flat Bench Press) was all carried out using a Plyometric Power System, which allowed data capture, and analysis of force/velocity characteristics. Loaded Jump Squats were also performed using the same apparatus.
* Assisted with Blood draw with samples being assayed (RIA) for serum Hormones (HGH, Testosterone, Cortisol, ATCH, LH, DHEA, Prolactin). Performed Lactate Analysis. Assisted with EMG analysis taken from isometric knee extensions performed by Male Volleyball Players.

**1995 The University of Wolverhampton**, Wolverhampton, England

Muscle Research Group, Department of Physiology

* Worked on projects looking at eccentric induced muscle damage. Used Kin Com Isokinetic Dynamometer during testing sessions to induce micro structural damage.
* Helped build a device, which allowed assessment of isometric strength during knee extension via load cell displacement.
* Analysed force frequency data from EMG recordings during isometric knee extensions tests.

***Research Skills***

* Strength power testing
* 1RM, Isometric tests, Jump tests, sport specific fielded tests
* Kinetic analysis
* Force plates (AMTI, Bertec, Kistler, ForceDecks), Switch mats, accelerometers (Noraxon, Myotest, GymAware), Load cells
* Kinematic analysis
* Vicon 3D Motion capture, Dart Fish 2D Motion capture, potentiometers, velocity transducers
* Muscle activation
* Surface EMG (Noraxon, Biopac, Delsys)
* Diagnostic Ultrasound
* Whole Body Vibration plates; Powerplate
* Hormonal analysis
* ELISA, RIA, electrophoresis
* Lactate testing
* Neurocom Balance master
* VO2 max tests (treadmill and cycle ergometer)
* Ventilatory threshold
* Wingate
* Hydration; Urine Specific Gravity
* Anthropometric assessments; Goniometers, joint and girth measurements, ranges of motion
* Body composition; DXA, BodPod, Underwater weighing
* Computer skills; Excel, SPSS, LabView, Powerpoint

**PUBLICATIONS**

***Peer Reviewed Articles (chronological order, oldest to newest)***

**1.** Bemben M.G and **Lamont H.S**. Creatine Supplementation and Exercise Performance. ***Sports Med***: 35 (2): 107 – 125 **(2005).**

**2.** Rixon K P., **Lamont H S**., Bemben M G. Influence of contraction type, gender, and lifting experience on post-activation potentiation performance. ***Journal of Strength and Conditioning Research*** 21(2): 500-505 **(2007).**

**3. Lamont H S.,** Cramer J T, Bemben D A, Shehab R L, Anderson M A, Bemben M G**.** Effects of six weeks of periodized squat training with or without whole body vibration on jump performance. ***Journal of Strength and Conditioning Research*** 22 (6): 1882-1900. **(2008)*.***

**4. Lamont H S.,** Cramer J T, Shehab R L, Anderson M A, Bemben M G. Effects of six weeks of periodized squat training with or without whole body vibration on jump height and power output following acute vibration exposure. ***Journal of Strength and Conditioning Research.*** 23 (8): 2317-2325 **(2009)**

**5. Lamont H S.,** Cramer J T, Bemben M G. The effects of six weeks periodized smith machine squat training with or without whole body vibration upon select force/time integrals during an isometric quarter squat. ***Journal of Strength and Conditioning Research.*** Jan 24(1):171-83 **(2010)**

**6. Lamont H S**., Cramer.J T, Bemben D A, Bemben M G. The effects of four different vibration interventions upon indices of counter movement vertical jump performance in college-aged males. ***Journal of Strength and Conditioning Research***. 24(12):3433-42**. (2010).**

**7. Lamont H S.,** Cramer J T, Bemben D A, Bemben M G. The effects of six weeks periodized smith machine squat training with or without whole body vibration upon measures of body composition assessed using Dual X-ray Absorpbtiometry (DXA).***Journal of Strength and Conditioning Research.*** 25(7):1839-48. **(2011).**

**8.** Painter K, Triplett, T, McBride J., RamseY M., Haff G., Sands W., **Lamont H,** Stone M., Stone MH. Strength Gains: Block Vs Dup Weight-Training among Track and Field Athletes. ***International Journal of Sport Physiology and Performance.***  **(2012)** Jun; 7(2):161-9.

**9**. MacDonald C J, **Lamont H S**, Garner J C. A Comparison of the Effects of six Weeks of Traditional Resistance Training, Plyometric Training, & Complex Training on Measures of Strength and Anthropometrics. ***Journal of Strength and Conditioning Research.* (2012)** Feb; 26(2):422-31.

**10.** George K. Beckham, **Hugh S. Lamont**, Kimitake Sato, Michael W. Ramsey, G. Gregory Haff, Michael H. Stone. **Isometric strength of powerlifters in key positions of the conventional deadlift  
*Journal of Trainology.*** 1 (2): 32-35 **(2012).**

**11.** Beckham G, Mizuguchi S, Carter C, Sato K, Ramsey M, **Lamont H,** Hornsby G, Haff G, Stone M. J Relationships of isometric mid-thigh pull variables to weightlifting. ***Sports Med Phys Fitness.* (2013)** Oct; 53(5):573-81.

**12**. MacDonald C J, **Lamont H S**, Garner J C. Effects of six weeks of three different training methods upon vertical and resultant ground reaction forces during CMVJ’s and Broad Jumps.

***Journal of Trainology.*** September **(2013);** 2, (2): 13-18.

**13.** Christopher J. MacDonald, **Hugh S. Lamont,** John C. Garner, and Katie Jackson. **A comparison of the effects of six weeks of traditional resistance training, plyometric training, and complex training on measures of power *Journal of Trainology.*** September **(2013);** 2, (2): 13-18.

**14.** Christopher J. MacDonald, Mike Israetel, Nicole C. Dabbs, Harish Chander, Charles R. Allen, **Hugh S. Lamont**, John C. Garner**. Influence of body composition on selected jump performance measures in collegiate female athletes**. ***Journal of Trainology.*** October **(2013);** 2, (2): 33-37.

**15.** Nicole C. Dabbs, Christopher J. MacDonald, Harish Chander, **Hugh S. Lamont**, John C. Garner. The Effect of Whole-Body Vibration on Balance in Elderly Women. ***Med Sport.***18 (1): 10-15, **(2014).**

**16.** Bazyler CD, Sato K, Waasinger CA, **Lamont HS**, Stone MH. The Efficacy of Incorporating Partial Squats in Maximal Strength Training. ***Journal of Strength and Conditioning Research.*** **(2014)** Nov; 28(11):3024-32.

**17.** Chander H, MacDonald CJ, Dabbs NC, Allen CR, **Lamont HS,** Garner JC. Balance Performance in Female Collegiate Athletes. ***Journal of Sports Science***. 2: 13-20, **(2014).**

**18.** Ashley A. Kavanaugh, Michael H. Stone,G. Gregory Haff, Duane A. Williams,   
William A. Sands, **Hugh, S. Lamont**, and Michael W. Ramsey. Acute effects of whole-body vibration on sprint performance in NCAA division I sprinters and jumpers. ***Australian Journal of Strength and Conditioning.* (2014).**

**19.** Satoshi Mizuguchi, Prue Cormie, William A. Sands, G. Gregory Haff, Jeffrey M. McBride, **Hugh S. Lamont**, and Michael H. Stone. Comparison of Three Positive Impulses in Vertical Jumping. ***Sports Biomechanics***. **(2015)** Jun; 14(2):258-72.

**20.** Timothy J. Suchomel, **Hugh S. Lamont**, Gavin L. Moir. Understanding Vertical Jump Potentiation: A Deterministic Model. ***Sports Medicine*.** 46(6):809 – 828 **(2016).**

**21.** Carney B, Kelly LA, **Lamont HS**. Comparison of two modes of inducing potentiation of sprint cycling performance. *J Athl Enhanc. 5(6):*25 – 30 (2016).

**22.**Gavin L. Moir, Scott M. Brimmer, Brandon Snyder, Chris Connaboy, **Hugh Lamont.** Mechanical limitations to straight-line sprinting and biomechanical solutions: implications for resistance training. ***Strength and Conditioning Journal.*** *Nov 2017.*

***23.***Brandon W. Snyder , Shawn N. Munford, Chris Connaboy, **Hugh S. Lamont**, Shala E. Davis and Gavin L. Moir, Assessing Plyometric Ability during Vertical Jumps Performed by Adults and Adolescents. ***Sports*,** 6, (132); doi:10.3390/sports6040132 (2018).

**24**. Gavin L. Moir 1, Brandon W. Snyder, Chris Connaboy, Hugh S. Lamont and Shala E. Davis. Using Drop Jumps and Jump Squats to Assess Eccentric and Concentric Force-Velocity Characteristics. ***Sports***, 6, 125; doi:10.3390/sports6040125 (2018).

**25.** Carla McCabe, Kellen Krajewski, Aaron Sinnot, Gavin Moir, **Hugh Lamont**, Susan Brown, and Chris Connaboy. Inter-segmental Coordination During a Unilateral 180° Jump in Elite Rugby Players: Implications for Prospective Identification of Injuries. ***Journal of Strength and Conditioning Research (2018).***

**26.** [Stelios G Psycharakis](https://pubmed.ncbi.nlm.nih.gov/?term=Psycharakis+SG&cauthor_id=31184539)[1](https://pubmed.ncbi.nlm.nih.gov/31184539/#affiliation-1), [Shawn R Eagle](https://pubmed.ncbi.nlm.nih.gov/?term=Eagle+SR&cauthor_id=31184539)[2](https://pubmed.ncbi.nlm.nih.gov/31184539/#affiliation-2), [Gavin L Moir](https://pubmed.ncbi.nlm.nih.gov/?term=Moir+GL&cauthor_id=31184539)[3](https://pubmed.ncbi.nlm.nih.gov/31184539/#affiliation-3), [Alex Rawcliffe](https://pubmed.ncbi.nlm.nih.gov/?term=Rawcliffe+A&cauthor_id=31184539)[4](https://pubmed.ncbi.nlm.nih.gov/31184539/#affiliation-4), [Clive Mckenzie](https://pubmed.ncbi.nlm.nih.gov/?term=Mckenzie+C&cauthor_id=31184539)[4](https://pubmed.ncbi.nlm.nih.gov/31184539/#affiliation-4), [Scott M Graham](https://pubmed.ncbi.nlm.nih.gov/?term=Graham+SM&cauthor_id=31184539)[4](https://pubmed.ncbi.nlm.nih.gov/31184539/#affiliation-4), [**Hugh S Lamont**](https://pubmed.ncbi.nlm.nih.gov/?term=Lamont+HS&cauthor_id=31184539)[5](https://pubmed.ncbi.nlm.nih.gov/31184539/#affiliation-5), [Chris Connaboy](https://pubmed.ncbi.nlm.nih.gov/?term=Connaboy+C&cauthor_id=31184539)[2](https://pubmed.ncbi.nlm.nih.gov/31184539/#affiliation-2)Effects of Additional Load on the Occurrence of Bilateral Deficit in Counter-Movement and Squat Jumps.   
***Res Q Exerc Sport***. Dec; 90(4):461-469. doi: 10.1080/02701367.2019.1617394 (2019)

**27.**Hornsby, W.G.; South, M.A.; Stone, J.D.; **Lamont, H.S**.; Haff, G.G.; Stone, M.H. The Acute Effects of Whole Body Vibration on Isometric Mid-Thigh Pull Performance. **Vibration,** 3, 85-98. (2020).

**28**. Barefoot, M; Lamont H S, Smith J C. Comparison of four different take-off thresholds when assessing countermovement vertical jump performance. ***Sports*** 10 (12) (2022). DOI:  [10.3390/sports10120193](http://dx.doi.org/10.3390/sports10120193)

***In Revision***

***Yen T Y, Weimer W, Lamont H S, Smith J C.*** Acute Effect of Heavy Load Back Squat and Foam Rolling on Vertical Jump Performance. ***Res Q Exerc Sport.***

***In Preparation***

**Lamont H S,** Banks R, Washell B., Allard L, Cahill M., MacDonald C, Smith J. The acute effects of unilateral split stance dumbbell push press upon force and velocity characteristics of 10lb medicine ball throws. ***Journal of Strength and Conditioning Research.***

**Lamont H S,** Banks R, MacDonald C, Cahill M., Smith J, Moir G., Connaboy C. A principle component analysis of factors highlighted in punching in recreational and well trained boxers. ***The International Journal of Sports Physiology and Performance.***

**Lamont H S,** Woodford K M., Cahill M R., Hall D J., Smith J., Moir G L. The Relationship Between Three Right Handed Punch styles’ impact Force, and Select Force, AND Velocity Characteristics.

**Lamont H S.,** Michael R. Cahill, Kristina M. Woodford, Daniel J. Hall, Smith J., Moir G L. RELATIONSHIPS BETWEEN PUNCHING IMPACT FORCE AND SELECT ANTHROPOMETRIC MEASUREMENTS. ***Sports.***

***Non peer reviewed articles***

Stone M., Stone M., **Lamont H S**. Explosive Exercise. [www.coachesinfo.com](http://www.coachesinfo.com). Coaches’ information service.

***Book Chapters***

Michael H. Stone, Prue Cormie, **Hugh Lamont** and Margaret E. Stone.  Developing Strength and Power. United Kingdom Strength and Conditioning Association (UKSCA) press (2015) Routledge publishers.

Michael H. Stone, Hugh **Lamont** and Margaret E. Stone.  Developing Strength and Power. United Kingdom Strength and Conditioning Association (UKSCA) press (2020, **2ND edition updated**) Routledge publishers.

**ACADEMIC PRESENTATIONS**

***Posters***

**1. Poster presentation,** ACSM annual meeting, Orlando, Florida (1998). The Effects of Differential, Periodized Resistance training programs on performance in College Aged Women.

**2. Poster presentation**, ACSM Central states chapter, Kansas City, Missouri (2003). A multi-test assessment of anaerobic power in male college athletes.

**3. Poster presentation,** ACSM annual meeting, Indianapolis, Indiana (2004). A multi-test assessment of anaerobic power in male college athletes.

**4. Poster presentation**. ACSM annual meeting, Denver Colorado (2006). Whole Body Vibration Effects on Indices of Vertical Jump Performance.

**5. Poster presentation**. ACSM annual meeting, New Orleans, Louisiana (2007). The Effects of six weeks Periodized Resistance Training with or without Whole Body Vibration.

**6. Poster presentation.** ACSM annual meeting, New Orleans, Louisiana (2007). Effects of Eight Month Vibration Plus Resistance Training on The Musculoskeletal System in Post-Menopausal Women.

**7. Poster presentation.** NSCA annual meeting, Las Vegas, Nevada (2008). The Effects of Six Weeks Periodized Squat Training With or Without Whole Body Vibration Upon Short Term Adaptations In Explosive Strength Expression.

**8. Poster Presentation with defence.** 6th International Conference on Strength Training, Colorado Springs, Colorado (2008). Effects of Six Weeks Periodized Squat Training With or Without Whole Body Vibration Upon Short Term Adaptations in 1RM Smith Machine Squat Strength.

**9. Poster Presentation** ACSM annual meeting, Seattle Washington State. (2009) Effects of Six Weeks Squat Training, With Or Without Vibration Upon Measures Of Body Composition.

**10. Poster Presentation** ACSM annual meeting, Seattle, WA (2009) Short Term Adaptations in Strength, Power and Body Mass Following Three Different Modes of Resistance Training.

**11. Poster Presentation** NSCA annual meeting, Las Vegas Nevada (2009). Effects of six weeks periodized squat training with or without whole body vibration upon the relationship between isometric and dynamic performance.

**12. Poster Presentation** ACSM South East regional conference (2010). The Effect Of Extended Durations Of Walking In Work Boots On Balance.

**13. Poster Presentation** ACSM South East regional conference (2010). The Effect Of Extended Durations Of Walking On Postural Fatigue.

**14. Poster Presentation** NSCA annual meeting, Orlando Florida (2010). Knee musculature co-contraction following extended durations of walking in work boots.

**Poster Presentation** ACSM South East regional conference, Greenville, South Carolina (2011) The Acute Effects of Whole Body Vibration on Postural Control Measures in Elderly Women.

**15. Poster Presentation** ACSM annual meeting, Denver, Colorado (2011) The Acute Effects of Whole Body Vibration on Postural Control Measures in Elderly Women.

**16. Poster Presentation** UKSCA annual meeting, Stirling, Scotland (2011) The Acute effects of 12 Combinations of Isometric Whole Body Vibration Exposures upon Peak Ground Reaction force/kg during CMVJ’s over a 15 Minute Period. **(2nd prize winner)**

**17. Poster Presentation** NSCA annual meeting, Las Vegas Nevada (2011). The Acute effects of 12 Combinations of Isometric Whole Body Vibration Exposures upon Peak Ground Reaction Forces during CMVJ’s over a 15 Minute Period.

**18. Poster Presentation** ACSM annual meeting, San Francisco, CA (2012). Acute post activation potentiation using isometric and dynamic mid-thigh clean pulls in trained weightlifters.

**19. Poster Presentation** ACSM annual meeting, Indianapolis, IN (2013). Effects of 12 different WBV based PAP protocols upon PnetGRF/kg during CMVJ’s in College aged males and females.

**20. Poster Presentation** South West Regional ACSM**,** Costa Mesa, CA (2013). The acute effects of 4 warm up modalities incorporating WBV upon select Force/Velocity characteristics during CMVJ’s in NCAA Division III male and female athletes.

**21. Poster Presentation** ACSM annual meeting, Orlando, Florida (2014). The acute effects of 4 warm up modalities incorporating WBV upon select Force/Velocity characteristics during CMVJ’s in NCAA Division III male and female athletes.

**22. Poster Presentation** SWACSM Annual Meeting, Costa Mesa, CA, October 17-18, 2014. Dabbs NC, Chander H, MacDonald CJ, Allen CR, **Lamont HS,** & Garner JC. The Relationship between Static and Dynamic Balance Performance in Female Collegiate Athletes.

**23. Poster Presentation** International Society for Sport Biomechanics (ISBS) Johnson City, TN. (2014). Differences in SEMG between normal squats and accentuated eccentric loaded squats in competitive collegiate weightlifters.

**24. Poster Presentation** 10th Annual Coaches and Sport Science College, Johnson City, TN. (2015). A comparison of counter movement vertical jump characteristics between jump conditions in a recreational trained population: A hypothesis generating study.

**25. Poster Presentation** 11th Annual Coaches and Sport Science College, Johnson City, TN. (2016) [The Relationship of Body Composition to Countermovement Vertical Jump Characteristics Across Loaded Conditions](https://www.researchgate.net/publication/311451226_The_Relationship_of_Body_Composition_to_Countermovement_Vertical_Jump_Characteristics_Across_Loaded_Conditions?_iepl%5BviewId%5D=JNbxGk0Xs1uWaONO2EUIYoJK&_iepl%5BprofilePublicationItemVariant%5D=default&_iepl%5Bcontexts%5D%5B0%5D=prfpi&_iepl%5BtargetEntityId%5D=PB%3A311451226&_iepl%5BinteractionType%5D=publicationTitle).

**26. Poster Presentation** ACSM annual meeting, Denver, Colorado (2017). [A Comparison of Different Methods for Assessing Plyometric Ability During Jumps](https://www.researchgate.net/publication/318098759_A_Comparison_of_Different_Methods_for_Assessing_Plyometric_Ability_During_Jumps_1387_Board_62_June_1_8?_iepl%5BviewId%5D=JNbxGk0Xs1uWaONO2EUIYoJK&_iepl%5BprofilePublicationItemVariant%5D=default&_iepl%5Bcontexts%5D%5B0%5D=prfpi&_iepl%5BtargetEntityId%5D=PB%3A318098759&_iepl%5BinteractionType%5D=publicationTitle).

**27. Poster Presentation** ACSM annual meeting, Denver, Colorado (2017). [The Influence Of The Number Of Jumps On Eccentric And Concentric Force-Velocity Characteristics](https://www.researchgate.net/publication/318101552_The_Influence_Of_The_Number_Of_Jumps_On_Eccentric_And_Concentric_Force-Velocity_Characteristics_1388_Board_63_June_1_8?_iepl%5BviewId%5D=JNbxGk0Xs1uWaONO2EUIYoJK&_iepl%5BprofilePublicationItemVariant%5D=default&_iepl%5Bcontexts%5D%5B0%5D=prfpi&_iepl%5BtargetEntityId%5D=PB%3A318101552&_iepl%5BinteractionType%5D=publicationTitle).

**28.** **Poster Presentation** ETSU Coaches and Sport Science Conference, Johnson City, TN (2017). The Acute Effects Of Unilateral Based Post-Activation Potentiation Upon Single Arm 4.55kg Medicine Ball Throw Force/Velocity Characteristics. **(1st prize winner, Sport Science category).**

**29. Poster Presentation** ETSU International Coaches and Sport Science Conference, Johnson City, TN (2018). The Relationship Between Three Right Handed Punch styles’ impact Force, and Select Force, AND Velocity Characteristics.

**30. Poster Presentation** ETSU International Coaches and Sport Science Conference, Johnson City, TN (2018). RELATIONSHIPS BETWEEN PUNCHING IMPACT FORCE AND SELECT ANTHROPOMETRIC MEASUREMENTS**. (2nd prize winner, Sport Science category).**

**31. Poster Presentation** ETSU International Coaches and Sport Science Conference, Johnson City, TN (2019).Using Automated Step Wise Linear Regression to Predict Right handed Punch Peak Impact Force using Select Anthropometric Variables.

**32**. **Poster Presentation** ETSU International Coaches and Sport Science Conference, Johnson City, TN (2019). Using Automated Step Wise Linear Regression to Predict Right handed Punch Peak Impact Force using Select Force and Velocity Characteristics.

**33. POSTER PRESENTATION**. SOUTHEAST ACSM (2021). (vIRTUAL FORMATT). THE ACUTE EFFECT OF HEAVY SQUATS AND FOAM ROLLING ON VERTICAL JUMP PERFORMANCE.

**34. POSTER PRESENTATION**. ETSU International Coaches and Sport Science Conference, Johnson City, TN (2022). Comparison of four different movement thresholds when evaluating Squat jump performance.

**35. POSTER PRESENTATION**. NSCA National Conference, Las Vegas, NV (2023). Comparison of four different movement thresholds when evaluating Counter Movement Vertical jump performance.

***Slide Presentations***

**1. ACSM annual meeting, Indianapolis, Indiana (2008).** Effects of Six Weeks Squat Training with Or Without WBLFV Upon Acute Responsiveness To Vibration.

**2. ACSM annual meeting, Baltimore, Maryland (2010).** Muscle Activation Patterns during Four Different Isometric Pull Conditions with and without Whole Body Vibration.

**3. ACSM South East regional conference, Greenville, SC (2011).** Effect of six weeks of three different training methods upon the relationships between CMVJ and broad jumps.

**4. ACSM** **annual meeting, San Francisco, CA (2012).** Strength and power changes in Female division 1 soccer players across a competitive season.

***Invited Presentations***

2010 **East Tennessee State University** Coaches College (2010), Centre for Excellence in Sport Science and Coaching Education.

**“What makes monitoring tests meaningful?”**

2011 **East Tennessee State University** Coaches College (2011), Centre for Excellence in Sport Science and Coaching Education.

**“Acute Strategies to Improve Performances” the role of Post-Activation Potentiation in Sports performance.**

2012 **East Tennessee State University** Coaches College (2012), Centre for Excellence in Sport Science and Coaching Education. **“Sports Biomechanics”.**

2014 **South West ACSM (2014).** **“Acute Strategies to Improve Performances” the role of WBV induced Post-Activation Potentiation in Sports performance.**

2016 **Regional ISSN workshop (2016)** **“Acute Strategies to Improve Performances” the role of WBV induced Post-Activation Potentiation in Sports performance.**

***Radio and Pod cast Interviews***

2009  **Super Human Radio pod cast,** http://www.superhumanradio.com/super-human

radio-show/561-best-of-vibration-plate-training.html

Best of Vibration Plate Training

2020 2020 **Tea with Doc G and Coach C**. <https://teawithdrg.libsyn.com/postactivation-potentiation> Post-activation Potentiation

***Media Interviews***

November 2007 **Biomechanics Magazine**

*Application of Whole Body Vibration to sports performance*

May 2009 **Club Business International Magazine**

Hold On! *Vibration equipment is shaking up fitness training*

Feb 2011 **New York Times**

*Would You Like a Shake With That Workout?*

**GRANTS**

**University of Mississippi,** Applied Sciences Research Grant  **Funded $20,000**

The Acute Effects of Whole Body Vibration on Functional Stability Measures in Older Women

Principal Investigators: Dr Hugh Lamont and Dr John Garner

**California Lutheran University,** Community Leaders Association Grant **Funded $1,000**

Helped fund a half day, Sport Science symposium on CLU main campus

**California Lutheran University, Swenson Family Student support research grant**

**Helped fund a student to complete a research study over the summer session**

**Funded $5,000**

**MANUSCRIPT REVIEWER**

Strength and Conditioning Journal (October 2008 – present)

Journal of Strength and Conditioning Research (Associate Editor) (Nov 2009 – present)

European Journal of Applied Physiology (Jan 2009 – present)

Acta Physiologica (July 2017 – present)

Research Quarterly for Exercise and Sport (Jan 2009 – present)

Medicine and Science in Sport and Exercise (March 2009 – present)

European Journal of Sport Science (October 2009 – present)

International Journal of Sport Nutrition & Exercise Metabolism (September 2010 – present)

Experimental Biology and Medicine (January 2011 – present)

Journal of Athletic Training (June 2011 – present)

Journal of Sport Science (May 2011 – present)

**ABSTARCT REVIEWER**

2012 NSCS Annual Conference (Strength and power) (May 2012 – June 2012)

2014 ISBS Annual International Conference (Combat Sports) (Feb 2014 – April 2014)

2017 ISBS Annual International Conference (Biomechanics) (Feb 2017 – April 2017)

**TEACHING EXPERIENCE (Current to initial)**

**Arizona State University**

**Undergraduate**

Performance Testing and Technology

Resistance Training Application and Theory

Performance Programming Components and Periodization

**Graduate**

Measurement in Sport and Fitness

**Coastal Carolina University**

**Undergraduate**

**Strength and Conditioning**

Exercise Physiology

Functional Anatomy and Kinesiology

Advanced Lab techniques in Exercise and Sport Science

Independent student research supervision

**California Lutheran University**

**Undergraduate**

**Principles of Strength and Conditioning**

Exercise Physiology

Exercise Physiology Lab

Functional Anatomy

Functional Anatomy Lab

Clinical Exercise Prescription

Exercise Prescription

Biophysical foundations of human movement

Motor Control and Learning

Senior Capstone

Pre-Capstone

Research Methods and Statistics

**East Tennessee State University**

***Graduate***

**Sports Biomechanics**

**Neuro-motor Control**

**Instrumentation in Sport Science Testing and Research**

**Sport Skills and Tactics**

**Doctoral seminar in Sport Science**

***Undergraduate***

Structural Kinesiology/ Applied Biomechanics

Internship in Kinesiology coordinator

**The University of Mississippi**

***Graduate***

Advanced Muscle Physiology

Exercise Physiology

Health Related Aspects of Physical Activity

***Undergraduate***

**Essentials of Strength and Conditioning**

Motor Control and Learning

Physiology of Exercise

Kinesiology

Kinesiology Lab

Personal and Community Health

**The University of Oklahoma**

***Undergraduate***

**Principles of Personal Training**

Principles of Health and Fitness

Introduction to Nutrition

Personal Training Field Internship

***Guest Lectures***

**HES 3823 Exercise Physiology (***Undergraduate***)**

* Muscle fibre types and performance
* Histochemical techniques used to identify muscle fibre characteristics
* Structure and Function of Skeletal muscle

**HES 6844 Neuromuscular Physiology (***Doctoral***)**

* Post activation potentiation, underlying physiological mechanisms.
* Practical applications of post activation potentiation

***Seminar Presentations***

* Post activation potentiation, implications for improved sports performance
* The acute and chronic effects of imposed whole body low frequency vibration upon indices of muscle function.
* A multi-test assessment of anaerobic power in male college athletes.
* Adipose tissue as an endocrine organ.
* MRI and CT assessment of body composition.
* The effects of exercise induced release of systemic and autocrine/paracrine IGF-1 upon skeletal muscle hypertrophy.
* Age related declines in Testosterone, Human Growth Hormone, and IGF-1 in men.
* The effects of physical activity upon mood states.

**The University of Edinburgh, Scotland**

***Graduate***

**Physio-mechanical aspects of resistance training**

***Professional***

### General practitioner Referral educational training course

**ACADEMIC ADVISING**

2006 – 2010 **University of Mississippi**

30 assigned Health and Exercise Science Majors and advising assignments per semester

2012 – 2015 **California Lutheran University**

25-30 assigned Exercise Science Majors per semester

2015 – 2022 **Coastal Carolina University**

25-51 assigned Exercise Science Majors per semester

**COMMITTEES**

**Coastal Carolina University (2015 – 2022)**

**Coastal Carolina, Gupta College of Science Tenure and Promotion Committee Chair**

**(2021 – 2022)**

**Coastal Carolina, Gupta College of Science Tenure and Promotion Committee**

**(2020 – 2021)**

**Coastal Carolina University Institutional Review Board (IRB) for Human subject Research**

**(2019 – 2021).**

**Coastal Carolina University Department of Kinesiology Curriculum and policy Committee**

**(2018 – 2021)**

**Faculty Search Committees (CCU)**

**(Spring 2016)** Search committee member Assistant Professor Exercise Prescription/Sport Nutrition.

**(Spring 2017)** Search committee member Assistant Professor Exercise Physiology and Sport Nutrition.

**(Spring 2018)** Search committee member Assistant professor of Motor Behaviour

**(Spring 2019)** Search committee member Assistant Professor Exercise Physiology and Sport Nutrition.

**(Spring 2021)** Search committee member Assistant Professor Exercise Physiology and Sport Nutrition.

**2012 – 2015 California Lutheran University**

Student Life Committee

**2010 – 2012 East Tennessee State University**

Doctoral degree committee member

Graduate faculty member

**MS in Sport Physiology and Performance coordinator**

***Undergraduate Honors thesis committees***

* Chair or co-chair of 2 thesis committees
* ***Master’s thesis committees***
* Chair or co-chair on 8 thesis committees

***Dissertation Committees***

* **Co-chair or committee member on 7 Dissertation committees**
* **(All students have graduated receiving PhD’s in Sport Physiology and Performance)**

**The University of Mississippi**

2007 – 2010, Graduate studies Committee

2009 – 2010, School of Applied Sciences Curriculum and Policy Committee

**DISSERTATION AND THESIS COMMITTEES**

***Dissertation***

Lifestyle and metabolic variables associated with body composition in African American girls. Dissertation proposal submission, Ta’Mika R. Bradley, MS. Doctoral Committee Dr Scott G. Owens (committee chair and advisor), Dr Jeffrey S. Hallam, **Dr Hugh S. Lamont,** Dr Teresa C. Carithers**. The University of Mississippi**, Department of Health, Exercise Science and Recreation Park Management. **(Successfully completed June 12th 2009)**

***Thesis***

A Comparison of Conventional Resistance Training versus Complex Training in the Lower Limbs of College Aged Males.

Thesis Defence. Christopher MacDonald BS. Masters Committee **Dr Hugh Lamont (committee chair and advisor)**, Dr Jon Garner, Dr Dwight Waddell, Dr Mark Loftin (Departmental Chair). **The University of Mississippi**, Department of Health, Exercise Science and Recreation Park Management. **(Successfully defended 22nd of April 2009).**

***Undergraduate Honors Thesis***

EMG activation during four different conditions of MVC’s and WBLFV within select muscles of the lower extremities. Maggie Lancaster undergraduate Honors Thesis. Committee **Dr Hugh Lamont (committee chair and advisor)**, Dr Jon Garner, Dr Linda Chitwood (Dean of The School of Applied Sciences). **The University of Mississippi**, Department of Health, Exercise Science and Recreation Park Management. **(Successfully defended May 4th 2009).**

***Undergraduate Honors Thesis***

Differences in vertical ground reaction forces following 6 weeks of differential resistance training. Katie Jackson undergraduate Honors Thesis. Committee Dr Jay Garner (Chair), **Dr Hugh Lamont,** Dr Mark Loftin, Dr Dean Chitwood. **The University of Mississippi**, Department of Health, Exercise Science and Recreation Park Management. **(Successfully defended May 2nd 2010).**

**PROFESSIONAL MEMBERSHIPS**

1998 – Present ACSM

2008 – Present NSCA

**PROFESSIONAL CERTIFICATIONS**

Certified Strength and Conditioning Specialist **(CSCS)**

American Red Cross CPR and First Aid

Registered DXA technician (State of Oklahoma, expired, State of Mississippi, expired)

**References**

**1. *Dr. Mike Stone*, Professor of Sport and Exercise Science   
Graduate/PhD Program Coordinator   
Laboratory Coordinator Professor**

**Department of Exercise and Sport Science**

**East Tennessee State University**

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**2. *Dr Michael Bemben, Professor of Health and Exercise Science***

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**Department of Health and Exercise Science**

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**3. Dr Tim Behrens, PhD, CHES, RFSA**

**FACSM**

**Dean and Professor, College of Health Sciences**

**University of Wisconsin-Milwaukee**

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**T: 414-229-5663 (Work)**

**M: 719-210-0808 (personal)**

**4. Dr Gavin Moir, Professor of Exercise Science (Biomechanics)**

**Department of Exercise Science**

**East Stroudsburg University**

**E: gmoir@po-box.esu.edu**

**5. Dr Jay Garner, Professor, Interim Dean, College of Health and Human Services**

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