

Dr. Luke Hughes Post-doctoral Research Fellow in Applied Exercise Physiology London, England – UK

# Information:

Certified Owen's Recovery Science Instructor.

Currently a Post-doctoral Research Fellow in Applied Exercise Physiology at St Mary's University, London. My post-doc research is specifically investigating the effect and mechanisms of exerciseinduced hypoalgesia with blood flow restriction exercise, and the effectiveness of blood flow restriction as an exercise countermeasure to the physiological deconditioning induced by unloading. Alongside this, I work as a Clinical Exercise Physiologist at University College London Hospital conducting pre-surgery Cardiopulmonary Exercise Testing with patients within the cancer, urology and breathlessness clinics.

I gained my doctorate degree in Clinical Exercise Physiology as a collaboration between St Mary's University London and University College London Hospitals. My research focussed on the effectiveness of using blood flow restriction exercise training as a rehabilitation tool for load compromised patients. Firstly, I investigated various methodological aspects of blood flow restriction exercise to determine the most effective and safe method of application. This was followed by examination of the effectiveness, safety and feasibility of this novel training method as a post-surgery rehabilitation tool for patients undergoing anterior cruciate ligament reconstruction.

Other academic and research experience:

MSc in Exercise Physiology, Loughborough University. Research dissertation: Investigation of the effects of varying exercise intensities on monocyte subsets and serum free light chain concentration.

BSc in Sport and Exercise Science, Loughborough University. Research dissertation: The effect of IGF-1 and insulin supplementation on in vitro C2C12 myotube growth and differentiation.

# Experience:

St. Mary's University, Twickenham:

 Post-doctoral Research Fellow in Applied Exercise Physiology Feb 2019 – Now London, UK PhD Research Student
 Feb 2016 – Gen 2019
 Twickenham, UK

Perioperative Cardiopulmonary Exercise Physiologist University College London Hospitals NHS Foundation Trust Dec 2018 – Now London, UK

Honorary Researcher in Clinical Musculoskeletal Rehabilitation Institute of Sport, Exercise and Health (ISEH) Aug 2016 – Jun 2019 Orthopaedics Department

<u>Clinical Physiology Researcher</u> Loughborough University Feb 2015 – Sep 2015

Loughborough University:

- Programme Representative
  Sep 2013 Jun 2014
  School of Sport, Exercise and Health Sciences
- Physiology Research Project
  Sep 2013 Jun 2014
  SSEHS at Loughborough University
- Student's Union Councillor Nov 2012 – Dec 2013 Student's Union Democracy

# Education:

<u>St. Mary's University, Twickenham</u> Doctor of Philosophy (PhD) – Applied Exercise Physiology 2016 – 2019

Loughborough University Master of Science (MSc) – Sport and Exercise Science 2014 - 2015

Loughborough University Bachelor of Science (BSc) – Sport and Exercise Science 2011 – 2014

# Licences and Certifications:

<u>Pre-operative cardiopulmonary exercise testing</u> Perioperative Exercise Testing and Training Society Issuing date: May 2018

Postgraduate Certificate of Higher Education Higher Education Issuing date: Mar 2017

<u>Certified Phlebotomy Technician (CPT)</u> Phlebotomy Training Services Issuing date: Aug 2015

# **Publications**:

<u>Blood flow restriction training in clinical musculoskeletal rehabilitation: a systematic review</u> <u>and meta-analysis</u> British Journal of Sports Medicine – March 4th, 2017 <u>Read</u>

### Honors and Awards:

Fellow of the Higher Education Academy

Mar 2017

<u>Qualified Phlebotomist</u> CHS (national Occupational Standard for Phebotomy) Mar 2016

### Languages:

English: mother tongue