**Matthew Jones**

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# Career profile

1. Lecturer: small and large group teaching, course convening, development of course content

2. Postdoctoral fellow: research investigating the role of exercise in managing chronic pain and fatigue

3. Accredited Exercise Physiologist: specialising in exercise delivery for people with pain and fatigue

# Education

**Graduate Certificate in University Learning and Teaching**, UNSW Sydney2018 - present

**Doctor of Philosophy,** UNSW Sydney 2017

**Master of Science (Research)**, UNSW Sydney2013

**Bachelor of Exercise Physiology**, UNSW Sydney 2010

# Professional Experience

* Lecturer, School of Medical Sciences, Faculty of Medicine, UNSW Sydney, 2020 – present
* Associate Lecturer, School of Medical Sciences, Faculty of Medicine, UNSW Sydney, March 2017 – December 2019
* Postdoctoral fellow, The Kirby Institute, Faculty of Medicine, UNSW Sydney, March 2017 – January 2019
* Clinician and clinic co-coordinator, Fatigue Clinic, Faculty of Medicine, UNSW Sydney, March 2017 – January 2019
* Tutor/demonstrator, School of Medical Sciences, Faculty of Medicine, UNSW Sydney, March 2011 – November 2016.
* Accredited Exercise Physiologist, 2010 – present.

# Teaching

# Teaching Experience

1. Associate Lecturer, School of Medical Sciences, UNSW Sydney, March 2017 – December 2019

Convenor

* HESC4611 Clinical Practicum A Summer 2017/18, 2018/19
* HESC4622 Clinical Practicum B Summer 2017/18, 2018/19
* HESC1511 Exercise Programs and Behaviour 2017

Co-convenor

* HESC1511 Exercise Programs and Behaviour 2018, 2019
* HESC3511 Health, Exercise and Sports Psychology, 2019
* HESC3541 Clinical Exercise Physiology 2018, 2019
* HESC1501 Introductory Exercise Science 2017

Invited lecturer/demonstrator

* MFAC2514 Adult Health 2 2019
* MFAC2505 Adult Health 1 2018 – present
* HESC2452 Movement Assessment and Instruction 2017 – present
* NEUR3101 Muscle and Motor Control 2017 – present
* HESC3592 Neuromuscular Rehabilitation 2017

2. Tutor/demonstrator, School of Medical Sciences, UNSW Sydney, March 2011 – November 2016.

*Bachelor of Exercise Physiology:*

* HESC3542 Movement Rehabilitation 2011 - 2013
* HESC1501 Introductory Exercise Science 2011 - 2016
* HESC1511 Exercise Programs & Behaviour 2011 - 2016
* HESC2501 Exercise Physiology 2011 - 2016
* HESC3504 Physical Activity and Health 2011 - 2016
* HESC2452 Movement Assessment & Instruction 2012 - 2016
* HESC3592 Neuromuscular Rehabilitation 2014 - 2016
* HESC3592 Neuromuscular Rehabilitation 2015 - 2016

*Other courses:*

* MFAC1524 Health Maintenance B 2011, 2013, 2016
* GENM0804 Lifestyle, Health and Disease 2013 - 2017

# Teaching Performance

Lecturer: *“Overall I was satisfied with the quality of this teacher’s teaching”*

* HESC3541 2019 (mean 5.60, School average 5.34)
* HESC3541 2018 (mean 5.76, School average 5.35)
* NEUR3101 2018 (mean 5.43, School average 5.35)
* HESC1511 2017 (mean 5.21, School average 5.28)

Convenor/co-convenor: *“Overall I was satisfied with the quality of the course”*

* HESC3511 2019 (mean 4.33, School average 4.86)
* HESC3541 2019 (mean 4.40, School average 4.86)
* HESC3541 2018 (mean 5.03, School average 4.91)
* HESC1501 2017 (mean 5.08, School average 4.99)
* HESC1511 2017 (mean 4.57, School average 4.68)

# Teaching Awards

1. Faculty of Medicine Education Award for Excellence in Innovation (Team – Exercise Physiology Practicum) (2020)

2. Faculty of Medicine Education Award for Excellence in Innovation (Team – UNSW Lifestyle clinic Exercise Physiologists) (2020)

3. School of Medical Sciences Student Tutor Excellence Award for the Department of Exercise Physiology (2016)

# Research

# Research Profile

My area of research expertise is adaptations of the nervous system in response to exercise – in particular the role of exercise in the management of pain and fatigue. Investigations range from laboratory experiments on the adaptation of the motor and sensory pathways in response to exercise to literature synthesis using systematic review and meta-analysis to explore the associations of physical activity and exercise with pain and fatigue. These investigations have been conducted at UNSW Sydney (School of Medical Sciences; The Kirby Institute; Neuroscience Research Australia) and, more recently, through collaborations established with other universities and private enterprises.

# Publications & Presentations

Invited peer-reviewed publications

1. Vaegter, HB. & **Jones, MD**. (2020). Exercise-induced hypoalgesia after acute and regular exercise: Experimental and clinical manifestations and possible mechanisms in individuals with and without pain. *Pain Reports*. 5(5):e823. doi: 10.1097/PR9.0000000000000823.

Peer-reviewed publications

1. Ferraro, MC., Bagg, MK., Wewege, MA., Cashin, AG., Leake, HB., Rizzo, RRN., **Jones, MD**., Loo, CK. & McAuley, JH. (2021). Efficacy and acceptability of antidepressants for low back pain: a systematic review and meta-analysis. *Syst Rev.* In press.
2. Hansford, HJ., Wewege, MA. & **Jones, MD**. (2021). Commentary on: Stretching is Superior to Brisk Walking for Reducing Blood Pressure in People with High–Normal Blood Pressure or Stage I Hypertension. *JPAH.* In press.
3. Wewege, MA., Devonshire, JJ., Hansford, HJ., McAuley, JH. & **Jones, MD**. (2021). Comment on: “The training of short distance sprint performance in football code athletes: a systematic
review and meta-analysis". *Sports Med*. In press.
4. Rizzo, RNR., Bagg, MK., Ferraro, MC., Wewege, MA., Cashin, AG., Leake, HB., O’Hagan, ET., **Jones, MD**. & McAuley, JH. (2021). Efficacy and safety of medicines targeting neurotrophic factors in the management of low back pain: Protocol for a systematic review and meta-analysis. *JMIR Res Protoc*. 10(1):e22905
5. Wun, A., Kollias, P., Jeong, H., Rizzo, RRN., Cashin, AG., Bagg, MK, McAuley, JH. & **Jones, MD**. (2020). Why is exercise prescribed for people with chronic low back pain? A review of the mechanisms proposed by clinical trialists. *Musc Sci Prac.* doi.org/10.1016/j.msksp.2020.102307
6. **Jones, MD**., Wewege, MA., Hackett, DA., Keogh, JWL. & Hagstrom, AD. (2020). Sex differences in adaptations in muscle strength and size following resistance training in older adults: a systematic review and meta-analysis. *Sports Med.* In press.
7. Wewege, MA., Hagstrom, AD. & **Jones, MD**. (2020). On “Elastic Resistance Training Produces Benefits Equivalent to Conventional Resistance Training in People With Chronic Obstructive Pulmonary Disease: Systematic Review and Meta-Analysis.” de Lima FF, Cavalheri V, Silva BSA, Grigoletto I, Uzeloto JS, Ramos D, Camillo CA, Ramos, EMC. Phys Ther. 2020. *Phys Ther.* In press. doi.org/10.1093/ptj/pzaa149.
8. Wewege, MA., Bagg, MK., **Jones, MD**. & McAuley, JH & The ANiMALIA investigators. (2020). Analgesic medicines for adults with low back pain: protocol for a systematic review and network meta-analysis. *Syst Rev.* 9:255.
9. **Jones, MD**., Munir, M., Wilkonski, A., Ng, K., Benyon, G. & Keech, A. (2020). Post-exercise hypotension time-course is influenced by exercise intensity: a randomised trial comparing moderate-intensity, high-intensity, and sprint exercise. *J Hum Hypertens.* In press.doi.org/10.1038/s41371-020-00421-3.
10. Cashin, AG., Lee, H., Bagg, MK., O’Hagan, E., Traeger, AC., Kamper, SJ., Folly, T., **Jones, MD**., Booth, J. & McAuley, JH. (2020). A systematic review highlights the need to improve the quality and applicability of trials of physical therapy interventions for low back pain. *J Clin Epidemiol*. 126:106-115.
11. Wewege, MA. & **Jones, MD**. (2020). Exercise-induced hypoalgesia in healthy individuals and people with chronic musculoskeletal pain: a systematic review and meta-analysis. *J Pain.* In press. doi: https://doi.org/10.1016/j.jpain.2020.04.003.
12. Ram, A., Booth, J., Thom, JM. & **Jones, MD**. (2020). Exercise and education for knee osteoarthritis - What are accredited exercise physiologists providing? *Musculoskeletal Care*. 18(4):425-433.
13. Wewege, MA., **Jones, MD**. & McAuley, JH. (2020). Quebec Back Pain Disability Scale. *J Physiother.* doi:https://doi.org/10.1016/j.jphys.2020.05.005.
14. Burrows, NJ., Barry, BK., Sturnieks, DL., Booth, J. & **Jones, MD.** (2020). The relationship between daily physical activity and pain in individuals with knee osteoarthritis. *Pain Med.* In press. doi: https://doi.org/10.1093/pm/pnaa096
15. Ram, A., Marcos, L., **Jones, MD**., Morey, R., Hakansson, S., R., Clark, T., Ristov, M., Franklin, A., McCarthy, C., De Carli, L., Ward, R. & Keech, A. (2020). The effect of high-intensity interval training and moderate-intensity continuous training on aerobic fitness and body composition in males with overweight or obesity: A randomized trial. *Obes Med.* 17: 100187.
16. Clark, T., Morey, R, **Jones, MD**., Marcos, L., Ristov, M., Ram, A., Hakannson, S., Franklin, A., De Carli, l., Ward, R. & Keech, A. (2020). High-intensity interval training for reducing blood pressure: a randomized trial vs. moderate intensity continuous training in males with overweight or obesity. *Hypertens Res.* 43(5): 396-403.
17. **Jones, MD**., Nuzzo, JL., Taylor, JL. & Barry, BK. (2019). Aerobic exercise reduces pressure pain more than heat pain. *Pain Med*. 20(8): 1534-1546.
18. Hakansson, S, **Jones, MD. (co-first author)**, Ristov, M., Marcos, L., Clark, T., Ram, et al. (2018). Intensity-dependent effects of aerobic training on pressure pain thresholds in overweight males: a randomized trial. *Eur J Pain*. 22(10): 1813-1823.
19. **Jones, MD.**, Valenzuela, T., Booth, J., Taylor, JL. & Barry, BK. (2017). Explicit education about exercise-induced hypoalgesia influences pain responses to acute exercise in healthy adults: A randomized controlled trial. *J* *Pain.* 18(11):1409-16.
20. **Jones, MD**., Taylor, JL. & Barry, BK. (2017). Occlusion of blood flow attenuates exercise-induced hypoalgesia in the occluded limb of healthy adults. *J Appl Physiol*. 122(5): 1284-91.
21. Nuzzo, JL., Barry, BK., **Jones, MD**., Gandevia, SC. & Taylor, JL. (2017). Effects of four weeks of strength training on the corticomotoneuronal pathway. *Med Sci Sports Exerc*. 49(11):2286-96.
22. **Jones, MD**., Taylor, JL., Booth, J. & Barry, BK. (2016). Exploring the mechanisms of exercise-induced hypoalgesia using somatosensory and laser evoked potentials. *Front Physiol.* 7.581. doi: 10.3389/fphys.2016.00581
23. **Jones, MD**., Booth, J., Taylor, JL. & Barry, BK. (2016). Limited association between aerobic fitness and pain in healthy individuals: A cross-sectional study. *Pain Med.* 17(10):1799-1808.
24. **Jones, MD**., Booth, J., Taylor, JL. & Barry, BK. (2014). Aerobic training increases pain tolerance in healthy individuals. *Med Sci Sports Exerc*. 46(8):1640-7.

*Conference publications*

1. Hakansson, S., Ristov, M., Marcos, L., Clark, T., Ram, A., Morey, R., Franklin, A., McCarthy, C., De Carli, L., **Jones, MD**., Ward, R. & Keech, A. (2018). Exercise for improving pain sensitivity: comparing moderate-intensity continuous and high-intensity interval training (HIIT). *Med Sci Sports Exerc.* 50(5S):515
2. **Jones, MD.,** Taylor, JL. & Barry, BK. (2017). Elevations of pressure pain threshold by exercise are reduced by blood flow occlusion to that limb in healthy adults. *Pain Reports*. 2(1):e853.
3. **Jones, MD.,** Booth, J., Taylor, JT. & Barry, NK. (2015). Exploring the mechanisms of exercise-induced hypoalgesia using somatosensory evoked potentials. *Med Sci Sports Exerc.* 47(5S):585
4. **Jones, MD.,** Booth, J., Taylor, JT. & Barry, NK. (2015). Aerobic training increases pain tolerance in healthy individuals. *Med Sci Sports Exerc.* 45(5):197

*Invited conference presentations*

1. Ram, A., Booth, J., Thom, J. & **Jones, MD**. Exercise interventions for knee osteoarthritis – What are Exercise Physiologists delivering? Exercise & Sports Science Australia, Research to Practice, Online. May 2021.
2. **Jones, MD.**, Booth, J., Taylor, JL. & Barry, BK. Mechanisms of exercise effects on nociception. American College of Sports Medicine Annual Congress, Boston, USA, 2016.

Conference presentations

1. Ram, A., Booth, J., Summers, SJ. & **Jones, MD**. Does intensity matter? A systematic review and meta-analysis of exercise interventions at different intensities for the treatment of chronic low back pain. Exercise & Sports Science Australia, Research to Practice. Online. May 2021. *(Poster)*
2. Hansford, HJ., Parmenter, BJ., McLeod, KA., Wewege, MA., Smart, NA., Schutte, AE. & **Jones, MD.** The Effectiveness and Safety of Isometric Resistance Training for Blood Pressure Reduction in Adults with Raised Blood Pressure: A Systematic Review and Meta-Analysis**.** Exercise & Sports Science Australia, Research to Practice. Online. May 2021. *(Poster)*
3. **Jones, MD**., Rizzo, R., Bagg, M., Cashin, A., McAuley, J. A systematic review of fitness exercise for chronic non-specific low back pain: What is prescribed, why, and what is the quality of the evidence? Exercise & Sports Science Australia, Research to Practice. Online. May 2021. *(Poster)*
4. **Jones, MD.** & Wewege, M. Exercise-induced hypoalgesia in healthy individuals and people woith chronic musculoskeletal pain: a systematic review and meta-analysis. Exercise & Sports Science Australia, Research to Practice. Online. May 2021. *(Poster)*
5. Devonshire, JD., Wewege, MA., Hansford, HJ., **Jones, MD**., Odemis, HA. & McAuley, JH. Cognitive functional therapy for non-specific low back pain: A systematic review and meta-analysis. Australian Pain Society. Online. May 2021 *(Poster)*
6. Burdett, A. & **Jones, MD**. Development & evaluation of an online OSCE for final year exercise physiology students: An alternative to face-to-face assessment during COVID-19. Medicine & Health Forum. Online. December 2020 *(Oral presentation)*
7. Ram, A., Booth, J., Thom, J. & **Jones, MD**. Education for knee osteoarthritis – What are accredited exercise physiologists saying? Australian Pain Society, Hobart, Australia, 2020. *(Poster)*
8. Hakansson, S., Ristov, M., Marcos, L., Clark, T., Ram, A., Morey, R., Franklin, A., McCarthy, C., De Carli, L., **Jones, MD**., Ward, R. & Keech, A. Exercise for improving pain sensitivity: comparing moderate-intensity continuous and high-intensity interval training (HIIT). American College of Sports Medicine Annual Congress, Boston, USA, 2018 (*Oral presentation*)
9. **Jones, MD.**, Taylor, JL. & Barry, BK. Does education about exercise-induced hypoalgesia influence pain responses to exercise in people with chronic pain and healthy adults? Pain Science In Motion, Stockholm, Sweden, 2017. (*Interactive poster – Winner of best poster award*)
10. **Jones, MD.**, Taylor, JL. & Barry, BK. Elevations in pressure pain threshold by exercise are reduced by blood flow occlusion to that limb in healthy adults. Pain Science In Motion, Stockholm, Sweden, 2017. (*Oral presentation)*
11. **Jones, MD.**, Nuzzo, JL., Taylor, JL. & Barry, BK. Greater effects of aerobic exercise on reducing sensitivity to noxious mechanical compared to noxious heat stimuli in healthy adults. Sensorimotor Control Meeting, Hobart, Australia, 2016. (*Oral presentation – Early career researcher award nominee)*
12. **Jones, MD.**, Taylor, JL. & Barry, BK. Exercise-induced elevations in pressure pain threshold are reduced by blood flow occlusion to that limb in healthy adults. TOW awards, Sydney, Australia, 2016. *(Oral presentation – Open senior division finalist)*
13. **Jones, MD.**, Booth, J., Taylor, JL. & Barry, BK. Exploring the mechanisms of exercise-induced hypoalgesia using laser evoked potentials. Exercise & Sports Science Australia, Research to Practice, Melbourne, Australia, 2016. (*Oral presentation –Young investigator award nominee).*
14. **Jones, MD.**, Booth, J., Taylor, JL. & Barry, BK. Exploring the mechanisms of exercise-induced hypoalgesia using somatosensory evoked potentials. American College of Sports Medicine Annual Congress, San Diego, USA, 2015. *(Thematic poster).*
15. **Jones, MD.**, Booth, J., Taylor, JL. & Barry, BK. Isometric exercise increases pressure pain threshold but has no effect on pain-related somatosensory evoked potentials in healthy individuals. Sensorimotor Control Meeting, Brisbane, Australia, 2015. (*Oral presentation – Young investigator award nominee).*
16. **Jones, MD.**, Booth, J., Taylor, JL. & Barry, BK. Aerobic training increases pain tolerance in healthy individuals. American College of Sports Medicine Annual Congress, Indianapolis, USA, 2013. *(Thematic poster).*
17. **Jones, MD.**, Booth, J., Taylor, JL. & Barry, BK. The relationship between aerobic capacity and sensitivity to noxious pressure and ischaemic stimuli. European College of Sports Science Annual Congress, Bruges, Belgium, 2012. *(Oral presentation).*
18. **Jones, MD.**, Booth, J., Taylor, JL. & Barry, BK. Reliability of pressure pain thresholds measured at different anatomical sites. Exercise & Sports Science Australia Conference, Gold Coast, Australia, 2012. *(Poster).*

# Research grants

1. **$2,000.** Evaluating and improving research excellence in UNSW Medicine: a pilot program. 2020. UNSW Medicine HDR Speed Mentoring Award. Co-investigator.
2. **$539,980.** FIP – SoMS Human Participant Laboratories Level 1 Wallace Wurth RIS (RG182780). 2019. UNSW Research Infrastructure Support scheme. Co-investigator.
3. **$98,000.** Investigating the association between fatigue and pain, and the factors that influence them in patients with chronic fatigue syndrome (RG172569). 2018. Mason Foundation. Chief investigator A.
4. **$100,000.** An integrated model in improving frailty. 2018. Age and Ageing Clinical Academic Group Seed Funding Program, Sydney Partnership for Health, Education, Research & Enterprise (SPHERE).Co-investigator, lead exercise physiologist.
5. **$5,566.** What are Exercise Physiologists saying? – Developing targeted pain neuroscience education to improve exercise outcomes for knee osteoarthritis (RG182097). 2018. Exercise and Sports Science Australia Tom Penrose Community Service Grant. Chief investigator A.

# Research awards

1. New researcher of the year: School of Medical Sciences, UNSW Sydney. December 2020

2. Paper of the month: High-intensity interval training for reducing blood pressure: a randomized trial vs. moderate-intensity continuous training in males with overweight or obesity. School of Medical Sciences, UNSW Sydney, June 2020.

3. Best poster: Does education about exercise-induced hypoalgesia influence pain responses to exercise in people with chronic pain and healthy adults? Pain Science In Motion, Stockholm, Sweden, 2017.

4. Paper of the month: Aerobic exercise training increases pain tolerance in healthy individuals. School of Medical Sciences, UNSW Sydney, July 2014.

# Media coverage of my research

* SEX DIF RT
* “Specialised exercise could be key to reducing chronic back pain” – ABC News Radio Live, December 17th, 2020 (available at https://www.abc.net.au/radio/newsradio/specialised-exercise-could-be-key-to-reducing/12994818)
* “How exercise helps us tolerate pain” – The New York Times (Well – PhysEd), August 13th, 2014 (available at https://well.blogs.nytimes.com/2014/08/13/how-exercise-helps-us-tolerate-pain)

# Professional Service

Teaching

* Department of Exercise Physiology research seminar convenor (2018 - present)
* Department of Exercise Physiology coordinator for UNSW ASPIRE program (2018 - present)

Research

* Motor Impairment blog coordinator/editor (January 2019-present). The blog has over 10000 subscribers and was established by the Motor Impairment Program team at NeuRA (Neuroscience Research Australia) during a five-year NHMRC-funded grant.
* Invited blog contributor: Body in Mind (BiM) blog (2017); Exercise & Sports Science Australia ‘Exercise Right’ blog (2016 – present); Neuroscience Research Australia ‘Motor Impairment’ blog (2014 – present)
* Invited peer-reviewer: Medicine and Science in Sports and Exercise; Journal of Pharmacy and Pharmacology; Pain Medicine; Journal of Sports Sciences

Professional

* Exercise & Sports Science Australia Accredited Exercise Science professional standards review committee member (2019 – present)

# Referees

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| **Research**Dr Benjamin K. Barry**MSc and PhD supervisor**Head, St Lucia Clinical UnitFaculty of MedicineUniversity of QueenslandSt Lucia QLD 4072ph + 61 (7) 3443 1408email: b.barry@uq.edu.au**Teaching**A/Prof Jeanette Thom**Head of Department, Exercise** **Physiology**Associate ProfessorThe School of Medical SciencesThe University of New South WalesKensington NSW 2052ph + 61 (2) 9385 1090j.thom@unsw.edu.au | Prof. Janet L. Taylor**MSc and PhD co-supervisor**Professor of Human NeurophysiologySchool of Medical and Health SciencesEdith Cowan UniversityJoondalup WA 6027ph +61 8 6304 3603email: janet.taylor@ecu.edu.auDr Rachel Ward**Program Authority, Exercise** **Physiology**Senior LecturerThe School of Medical SciencesThe University of New South WalesKensington NSW 2052ph + 61 (2) 9385 0565rachel.ward@unsw.edu.au  |