

Keeping Masters Athletic



Alex Ireland (Co-Investigator)

Alex Ireland is a Research Associate in the School of Healthcare Science at Manchester Metropolitan University.



Alex's PhD studies focused on bone adaptation to exercise and disuse, and the influence of muscular action on bone. This involved study of different population groups from master athletes and elite tennis players, to spinal cord injury patients and cast-immobilised patients.

Mathew Piasecki (Co-Investigator)

Mathew Piasecki is a PhD student within the School of Healthcare Science at Manchester Metropolitan University.



Mathew's PhD is investigating the loss of motor units in ageing and sarcopenia. His previous research experience includes investigating effects of amino acid interventions on age-related loss of skeletal muscle.

If you are interested please contact:

Jessica Coulson
at Manchester Metropolitan University on 0161 247 5470 ext. 1207 or 07813 296063
or email: j.coulson@mmu.ac.uk
or simply fill out the form below.

Name: _____
Address: _____

Postcode: _____
Contact No: _____
Email: _____

Post to:

Jessica Coulson,
Manchester Metropolitan University,
Room E233, John Dalton Building,
Oxford Road, Manchester M1 5GD.



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We are investigating the effects of intense exercise on bone and muscle health in older adults.

Participants who complete the activity monitoring will be invited to our research facilities to complete state-of-the-art assessments of muscle and bone health.

What is the research for?

We are conducting this research to help with the bone health of older adults.

To aid with the improvement of treatments of osteoporosis and other bone related conditions.

Can you help?

If you are over 65 and have met the BMAF merit standards in sprint – middle – long distance running in the past 12 months you can help.

To find out more information please contact:
Jessica Coulson (Senior Research Assistant)
on 0161 247 5470 ext. 1207
or 07813 296063
or email: j.coulson@mmu.ac.uk
or complete your details on the reverse.

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Introduction

You are being invited to take part in a research study investigating physical activity in older adults.

Before you decide whether you want to be involved in the VIBE (Vertical Impacts on Bone in the Elderly) study, it is important for you to understand why the research is being done and what it will involve. Please take some time to read the following information carefully.

What is the purpose of this study?

This study aims to investigate the effects of intense exercise on bone and muscle health in older adults.

Why am I being asked to take part?

You are being asked to take part because you are a high level competing athlete over 65 years of age.

Do I have to take part?

No. It is entirely your choice. Once you have made a decision about participation in this study, please fill out the reply slip attached to this information leaflet indicating your decision and return it to the research team in the stamped address envelope provided.

You are free to change your mind at any point during the study without giving a reason. If you decide not to take part or to withdraw during the study it will not affect your participation in any future studies within the research group.

What would I have to do?

There are **two main parts** to this research study:

- 1 The **first** part involves completing a questionnaire.
- 2 The **second** part involves wearing a small activity monitor for seven days.

Participants who complete the activity monitoring will be then be invited to continue on to the **third** part of the study.

- 3 The **third** part involves a visit to a study centre in Manchester for a series of bone scans and some basic physical activity measures.

For the first and second part of the study, you will receive a package at your home address which will include a questionnaire, an elasticated belt with a small activity monitor attached to it, a time sheet, full instructions, a consent form and a stamped addressed envelope. The questionnaire will include basic demographic, health status and training questions. The monitor will record how often and how forceful your movements are. You will be asked to wear the elasticated belt around your waist with the monitor for seven days (not during the night). We will also ask you to complete a simple time sheet to record when you put the monitor on and off. Once the seven days are complete, the monitor, time sheet, consent form and questionnaire will be posted back to the research team.

If you decide to participate in the third part of the study, once the monitor and questionnaire have been received by the research team, we will call you to arrange a mutually convenient appointment time. A two hour appointment slot will be made during the morning for you to come into one of our research centres and participate in the following tests:

Height and weight measurements

Blood pressure

Short physical performance test consisting of 3 sections: (1) a test of balance (2) a timed short walk at your usual pace and (3) standing up from a chair 5x (timed).

Blood sample to measure markers of bone turnover. This is a fasting blood test, so will be taken in the morning before you have eaten breakfast.

Grip strength dynamometer to determine grip strength by squeezing a sensor with one hand as hard as possible

DEXA and pOCT scans to examine bone and muscle quality and body lean and fat mass.

The Research Team

Dr Jamie S. McPhee (Chief Investigator)



Jamie has interests in three main fields of research;

skeletal muscle physiology, exercise physiology and Nutrition and finally the Ageing Neuromuscular System and muscle weakness.

He has published a wide array of studies with his current research being funded by the Medical Research Council, and he has won many prestigious awards over time for his research.

Jessica Coulson (Co-Investigator)



Jessica is a Senior Research Assistant at MMU

She has graduated from the University of Manchester with a degree in Anatomical Sciences (BSc Hons). She is currently submitting her masters by Research degree looking into the bone health of elite female endurance runners. Being an elite athlete herself she has a keen interest in bone health including the effects that occur in later life and how physical activity is seen to have such a positive effect at all ages.