



## Teagasc PhD Walsh Fellowship Opportunity

### *“Machine Milking Biomechanics and Management”*

Reference; WF 2016003

#### **Background**

This goal of this project is to perform basic and applied research on machine milking biomechanics and milking management. The PhD candidate will perform a literature review to identify interesting and important research questions that advance the science of machine milking and improve the practice of machine milking management on farms. The general areas of interest include basic research on the response of teat tissues to vacuum, pulsation settings, liner compression and applied research on the effects of optimizing milking machine settings and cluster removal strategies on teat tissue responses, milk yield and overall efficiency (cows milked per hour, per labour hour and per AMS hour). The candidate will design experiments to answer these questions, perform experiments, analyse and interpret results and identify the practical implications of these results on milking management.

#### **Requirements**

Applicants should have a primary degree (first or second class honours) in an appropriate discipline (engineering, animal science or veterinary medicine). A Masters degree would be a distinct advantage. The candidate should be highly self-motivated with proven abilities in problem solving and data analysis. Experience of working with MS excel, statistical software and data acquisition systems would be an advantage. Prior knowledge of the dairy industry and/or milk harvesting technology is desirable. The candidate must be highly proficient in both written and spoken English. A full driving licence is required.

#### **Award**

This PhD Fellowship is a joint research project between Teagasc Moorepark and the University of Wisconsin-Madison. The successful candidate must be willing to travel between the Teagasc Research Centre at Moorepark, Co. Cork, Ireland and the University of Wisconsin-Madison, USA to accomplish both academic and research objectives. The successful candidate will be registered at University of Wisconsin-Madison. The fellowship will commence as soon as possible after 1st September 2016.

The Fellowship provides a stipend of €28,000 per year, for 4 years, for student subsistence (including accommodation costs) and institutional fees.

#### **Application Procedure**

Submit an electronic copy of your Curriculum Vitae and a letter of interest simultaneously to:

Dr. John Upton (john.upton@teagasc.ie) and  
Prof. Douglas Reinemann (djreinem@wisc.edu)

**Closing date:** 12<sup>th</sup> June 2016