Applications are invited for 2 PhD studentships in cell biology based at the National Institute for Cellular Biotechnology (www.nicb.ie) at Dublin City University (www.dcu.ie) and associated with the SFI SSPC research Centre (www.sspc.ie)

Project 1.: The aim of this project is to metabolically enhance skeletal muscle and/or liver cells by targeting mitochondrial function and the oxidation of fatty acids. A number of targets identified from ongoing research will be initially evaluated. The enhancement of metabolism in these cells will be used as targets to slow progression toward or treat metabolic diseases such as obesity and type 2 diabetes.

Project 2.: funded jointly by SFI/SSPC and Alltech Ltd., on the interaction of zinc with biological systems. Zinc is an important trace element; 10% of the human proteome has zinc binding requirement (some 2,000 transcription factors and over 300 enzymes). Zinc cannot be stored in the body and up to 2 billion people worldwide (17%) are thought to be zinc deficient. Zinc has a role in both innate and humoral immune systems. Avoiding zinc deficiency is important in human diets, particularly for elderly and in conditions of poor nutrition in developing countries, and it is also an important nutrient in animal diets. This project will investigate how different formulations of zinc are taken up by differentiated and undifferentiated cells in culture, and how zinc impacts the function of a variety of epithelial and immune system cells. The molecular basis for zinc-induced alterations in function will be investigated at mRNA, miRNA and protein levels, and the student will learn a variety of cell and molecular biology techniques.

Both studentships are at the rate of €18,000 per annum tax free plus fees (for up to 4 years’ subject to satisfactory progress)

Please send application letter and CV, including details of any laboratory experience and the names and contact details of 3 referees to

Project no. 1: To donal.ogorman@dcu.ie

Project no. 2: To martin.clynes@dcu.ie, finbarr.osullivan@dcu.ie, joanne.keenan@dcu.ie

Applicants should ideally have a 2.1 grade or higher in a biological science or chemistry, or an equivalent qualification. Previous laboratory experience is desirable.

Applications should be received by March 31st 2021