**Post-doctoral position in the Centre for Cardiometabolic Health Research in the School of Pharmacy & Life Sciences at Robert Gordon University.**

This 2-year post at RGU is part of a BBSRC-funded project on "Delineating the roles of GPR55 in cellular metabolism and energy homeostasis", run jointly with the University of Dundee.

Proper control of metabolic signalling in skeletal muscle, liver and adipose tissue, which are major sites for fuel utilisation/storage, is crucial for maintaining glucose and lipid homeostasis. Consequently, disorders such as insulin resistance and type 2 diabetes may arise due to metabolic impairments in these tissues, by mechanisms that remain poorly defined. Recently research by the collaborative group from RGU and the University of Dundee have discovered that G-protein coupled receptor GPR55 functions to modulate several metabolic processes, and that mice deficient for this receptor exhibit impaired insulin sensitivity and heightened inflammation. Allied to this, GPR55-null mice also display reduced abundance of proteins regulating mitochondrial lipid oxidation within key metabolic tissues including the heart, coinciding with the development of cardiac dysfunction. Strikingly, we find GPR55 activation enhances insulin sensitivity and upregulates activity/expression of proteins involved in promoting mitochondrial biogenesis and respiration in muscle, hepatocytes and adipocytes. In addition, GPR55-deficient mice show increased adiposity and lipogenic drive, a phenotype mimicked in cultured fat cells treated with a GPR55 antagonist. We hypothesise that GPR55 stimulation would help alleviate diet-induced obesity, insulin resistance, impaired fuel utilisation/storage and cardiac dysfunction by altering expression and/or function of key insulin signalling components, as well as suppressing lipogenic drive and/or improving mitochondrial function. The entire project will delineate, mechanistically and functionally, how GPR55 regulates these metabolic processes in skeletal muscle, liver, adipose tissue, and the heart.

The post on offer at RGU is to undertake the studies that focus on cardiac metabolism and dysfunction. We are therefore seeking to recruit a researcher with a PhD and up to two years post-doctoral experience in cardiovascular research. Possession of a Home Office Personal Licence is essential, and experience in Langendorff heart perfusion would be desirable.

Please direct any enquiries in the first instance to Professor Cherry Wainwright (c.wainwright@rgu.ac.uk) who will be pleased to provide more information about the post. Details on how to apply can be found here.