



University
of Glasgow



A **3-year postdoctoral position** in *Metabolomic Systems Biology* is available immediately for a joint project on the metabolomics of cancer cells at the

University of Glasgow (Rainer Breitling)
and the
Beatson Institute for Cancer Research (Eyal Gottlieb).

The project will focus on the development of creative bioinformatics approaches for the analysis and interpretation of high-accuracy mass spectrometry datasets, including kinetic data based on stable-isotope labeling, and their integration with transcript information and metabolic modeling. The aim of the project is to understand the metabolic rewiring observed to be a critical factor in the pathology of many human cancers.

Candidates should have a strong background in bioinformatics, molecular systems biology, biochemistry, biostatistics and/or bioengineering. Solid programming skills are essential and experience with cancer biology would be a plus. A proven ability of performing creative interdisciplinary research is required. We also expect a pro-active attitude and the ability to initiate and execute research lines independently. Excellent communication and reporting skills are necessary.

Qualified applicants are invited to send their applications, including a motivation letter, complete CV, a pdf copy of their 3 best papers and the contact details of academic referees directly to Rainer Breitling (rainer.breitling@glasgow.ac.uk; <http://www.tinyurl.com/rbreitling>)

Key literature:

Tennant DA, Durán RV, Gottlieb E. (2010) Targeting metabolic transformation for cancer therapy. **Nature Reviews Cancer**. 10(4):267-77.

Rogers S, Scheltema RA, Girolami M, Breitling R (2009) Probabilistic assignment of formulas to mass peaks in metabolomics experiments. **Bioinformatics**. 25(4):512-8.

Scheltema RA, Decuypere S, Dujardin JC, Watson D, Jansen RC, Breitling R (2009): A simple data reduction method for high resolution LC/MS data in metabolomics. **Bioanalysis** 1:1569–1578.

Breitling R, Vitkup D, Barrett MP (2008) New surveyor tools for charting microbial metabolic maps. **Nature Reviews Microbiol**. 6(2):156-61.