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25th June 2015

Prof. Cathal Seoighe
School of Mathematics, Statistics and Applied Mathematics
National University of Ireland Galway
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Re. SFI Investigators Programme proposal

TO WHOM IT MAY CONCERN

I am writing to confirm my support for Prof. Cathal Seoighe's application to the SFI Investigators Programme, entitled **"Deconvolution and analysis of the human epigenome"**.

As part of our target discovery research activity we have genomics data sets from biological samples corresponding to multiple cell types. These data require the application of computational deconvolution methods, such as the methods that are provided through the CellMix package developed by Prof. Seoighe's research group. For this reason we have recently initiated an interaction with Prof. Seoighe to determine how best to analyze these data and to explore possibilities for future collaboration. Opportunities for collaboration on this work could include the provision of support for a PhD student or joint participation in collaborative EU-funded research projects.

Although most of the genomics data to which we currently wish to apply computational deconvolution methods consist of measurements of gene expression, rather than DNA methylation, we are increasingly involved in epigenetic targets and epigenomic profiling and it would thus become important to facilitate accurate estimation of cell type proportions and cell type specific epigenomic characteristics. We anticipate that in the future we will generate

DNA methylation and/or other epigenomics data. The availability of validated statistical models and computational deconvolution algorithms for these data will be of great potential benefit to us and to the many other commercial and academic research groups that are generating such data sets.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Elia Stupka'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Elia Stupka
Director, Computational Biology
Boehringer Ingelheim Pharma