**College of Life Sciences & Medicine**

**Graduate School**

**Summer Symposium – 25 & 26 June 2015**

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| **TITLE** | A computing approach to understanding relationships between antenatal fetal ultrasound measurements and postnatal outcomes. |
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**ABSTRACT**

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| There is a large body of evidence linking reduced birth weight and increased risk for non communicable diseases (NCD) such as type II diabetes and asthma, and this implicates factors driving fetal growth in NCD aetiology. We are exploring the potential for a computing approaches to relating repeated measurements of fetal size during a pregnancy to post natal outcomes using routinely acquired data for the population of Grampian.  Routinely acquired data will be linked and approvals sought. The current approach is as follows: using multiple imputation, we will address missing data. After the data are ready for processing, clustering will be used to group the data into subsets with similar traits. Each subset will be statistically analysed and outcomes will be derived by their antenatal measurements. The outcomes of interest are NCD which can be determined in children and include obesity, asthma, eczema, epilepsy and type I diabetes. |

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