

# Workflows and Services for Concept Profile Generation

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**Abstract.** Concept profile matching is a knowledge discovery method that proved successful in generating hypotheses about molecular mechanisms explaining the results from genotype-phenotype studies. This technology has been implemented in the Anni standalone application (<http://biosemantics.org/anni>) and web service (<http://www.biocatalogue.org/services/3330>). At the core of this technology are the concept profiles, which had to be generated using a number of custom scripts and manual operations. To move towards a more customizable and service oriented architecture of the concept profile generation pipeline, we developed a set of workflows and services that represent individual steps of the pipeline. To aid interoperability, semantic web standards have been adopted to interface with these components. Here, we report progress on the development of the pipeline and publication at myExperiment (<http://www.myexperiment.org/groups/1129>).