



Cardiovascular Gene Annotation Initiative

providing annotation to genes associated with cardiovascular processes

Newsletter August 2013

New recruits

We are pleased to welcome two new biocurators, Dr Nancy Campbell and Dr Anna Melidoni, who join us this month. Both of them have considerable research experience and have demonstrated that they are able to quickly interpret a range of scientific data. Anna has worked on ES cells, including cardiac progenitors, for 9 years and her PhD was undertaken at UCL working on *Fmo* knockout mice. Nancy has worked for 7 years in the anti-cancer drug discovery field, specifically working on X-ray crystallography and DNA-ligand interactions. Neither Nancy nor Anna have experience of annotating genes, so, during the next few months, they will be undertaking considerable training in biocuration.

Gene annotation

Based on the EBI [statistics](#), 20th July 2013, this project has associated 29,300 GO terms to 4,000 proteins, 20,200 of which are to 2,300 human proteins. Since May Ruth has focused on the annotation of cardiac conduction proteins, using the GO terms created during the Cardiac Conduction workshop held in November 2011. 43 proteins have now been fully annotated to the cardiac conduction domain, including [KCNH2](#) (hERG), [SNTA1](#) (Alpha-1-syntrophin), [TRDN](#) (Triadin), [AKAP6](#), and [PDE4D](#).

During the past few months, following ontology revisions, the GO Consortium has requested that GO annotators re-annotate proteins annotated to the ontology domains: cell cycle and apoptosis, as well as to the specific GO terms cell surface binding, postsynaptic density and flagellum assembly. Revisiting these annotations has led to the editing of over 450 annotations, associated with 150 proteins and based on 200 papers.

Community engagement

Following our sixth 2 day [GO Annotation Workshop](#) Ruth has been working with Professor Christiana Ruhrberg, to fully annotate a selection of her published papers (PMID: [21658587](#), PMID:[22790009](#) and PMID: [21828096](#)). This work has led to the creation of 48 GO annotation and several new GO terms, including semaphorin-plexin signaling pathway involved in sympathetic axon guidance, sympathetic neuron projection extension and positive chemotaxis involved in neuron migration.

Meetings attended

In April Ruth attended the International Society for Biocuration [meeting](#) (presenting a poster entitled 'The impact of focused Gene Ontology annotation efforts on high-throughput data analysis') and the GO Consortium meeting, both of which were held in Cambridge. Ruth also attended the Innovations in Cardiovascular Science Symposium at the UCL Institute of Child Health, in April.

Then in June Ruth attended the [Annotating the Genome](#) - BCGES Annual Meeting in conjunction with Statistics and South of England Genetic Epidemiology Group, giving a short presentation 'Gene Ontology: progress and priorities for annotating the human genome'. Ruth also presented a poster at the [Computational Life & Medical Sciences 3rd Annual Symposium](#), at UCL.

Upcoming meetings

In October Ruth will be attending the GO Consortium meeting, being held in Bar Harbor, Maine, US.

www.cardiovasculargeneontology.com
www.ebi.ac.uk/GOA/CVI

Issue 22
Editor: [R Lovering](#)