



BEATING HEART DISEASE TOGETHER



# Cardiovascular GO Annotation Initiative

*providing full GO annotation to genes associated with cardiovascular processes*

## Newsletter January 2010

### Gene annotation

During the past three months Ruth and Varsha have been teaching a Gene Ontology (GO) annotation module for a new Genetics of human disease MSc. By focusing on the annotation of published scientific papers the students were able to constructively apply their newly acquired knowledge of a variety of online biological resources, including Ensembl, EntrezGene, IntAct, UniProt, QuickGO, AmiGO and HCOP. In addition, the students learnt the importance of including full experimental detail in scientific publications. We thank the students for their hard work last term, which led to the association of over 1,000 GO terms to around 200 proteins. These annotations bring the number of annotations made by the BHF-UCL team to over 11,000 GO terms, of which 8,189 GO terms are associated to 1,000 human proteins.

### Gene Ontology development

Following the successful Heart Development Ontology Workshop at UCL in September over 250 new heart development-relevant GO terms have been created. Thanks go to all those who attended this meeting and particularly to David Hill, Tanya Berardini, Varsha Khodiyar and Doug Howe for their focused approach to the immense task of creating, placing and defining all of these terms.

Since the start of the Cardiovascular GO annotation Initiative in November 2007 the BHF-UCL team has submitted 339 requests for new GO terms or GO term edits to the Gene Ontology Editorial team, these individual requests have led to the creation of over 500 new GO terms.

### QuickGO modifications

The filter options available at QuickGO were modified last year to enable scientists to download the human protein identifiers on the BHF-UCL priority list and their associated GO terms. This filter is available from the QuickGO [Annotation download](#) page, by changing the filter option 'Any' in the 'ID' column to 'BHF-UCL' and using the load button. Alternatively, the annotations made by the BHF-UCL team to proteins across all species can be viewed by changing the filter option 'Any' on the last column 'From' to 'BHF-UCL', and then loading the annotations. Using both of these filters will provide a list of all annotations made by BHF-UCL to human proteins on our priority list.

### Meetings attended

Varsha was invited to give a 20 minute presentation to the 8<sup>th</sup> London Heart Development meeting in December. She presented details of the Heart Development Ontology workshop, including an overview of the new GO terms that were generated as a result. The presentation also included a call for the heart development research community to send information to the BHF-UCL team in order to improve the GO annotation of heart development associated genes and proteins. Two heart development scientists have since contacted us as a result, and we would be happy to hear from other scientists who are interested in suggesting key papers, with experimental evidence, to support the annotation of genes involved in heart development.

### Upcoming meetings

In March Ruth and Varsha will be 'remotely' attending the GO Consortium (GOC) meeting, which is being held in Stanford. GOC conferences regularly provide webex and conference call facilities to maximise attendance at these meetings.

[www.cardiovasculargeneontology.com](http://www.cardiovasculargeneontology.com)  
[www.ebi.ac.uk/GOA/CVI](http://www.ebi.ac.uk/GOA/CVI)

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