New Developments in Annotation to the GO in the MGI system.

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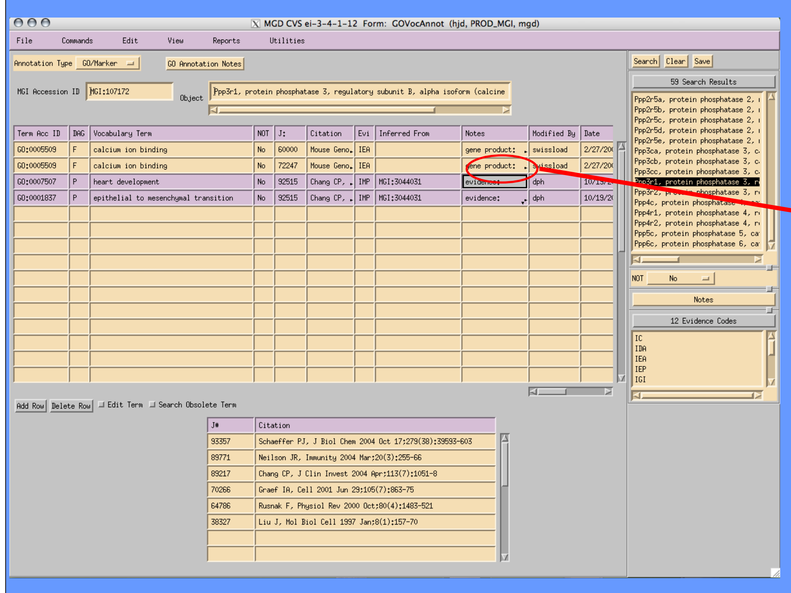
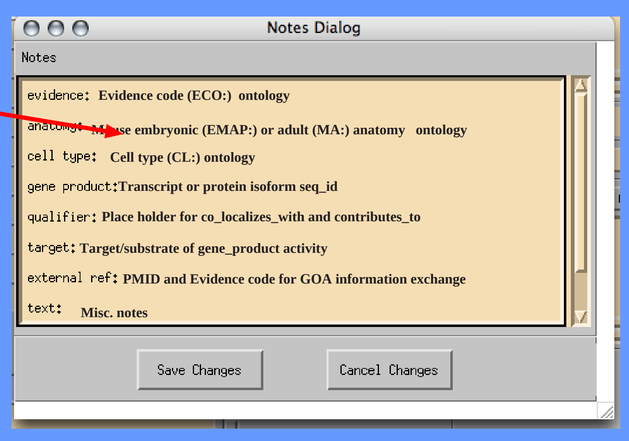
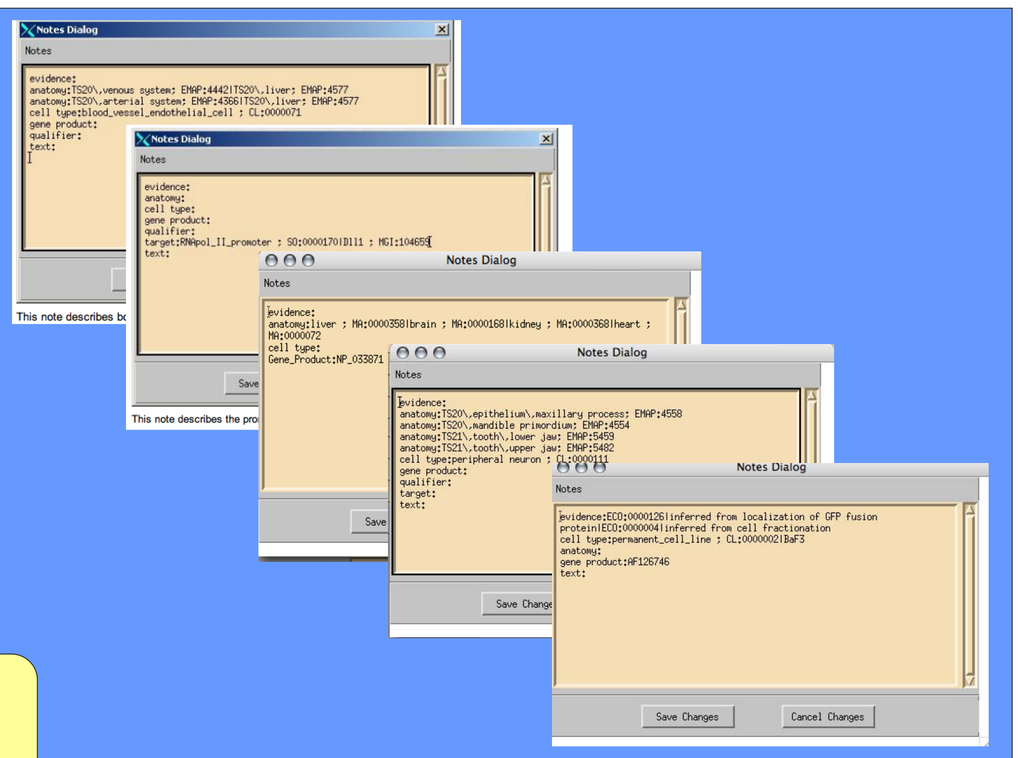
Recent developments have targeted both end-users as well as data curation. GO annotations are now displayed in both tabular form as well as human readable textual summaries auto-generated from those tables. On the curation/annotation front, we have developed structured notes fields in our editorial interface to hold data referencing ontologies outside of GO (such as cell type, anatomy, and evidence code) to more completely capture all of the available information in a paper supporting a GO annotation. We are also expanding our editorial interface and GO files to support MGI-GO curation of rat and human gene products asthey co-occur with mouse experimental reports.

Structured Notes





We are capturing additional information from the literature by referencing ontologies outside of GO, such as the cell ontology, evidence_code ontology, Mammalian Phenotype, etc. The additional information for each annotation is placed in a structured notes field. The structure of the note allows the information to be retrieved easilyfor future use.



Addition sample notes demonstrating different types of information that can be captured.

ISS and Structured Notes For Shared Annotation

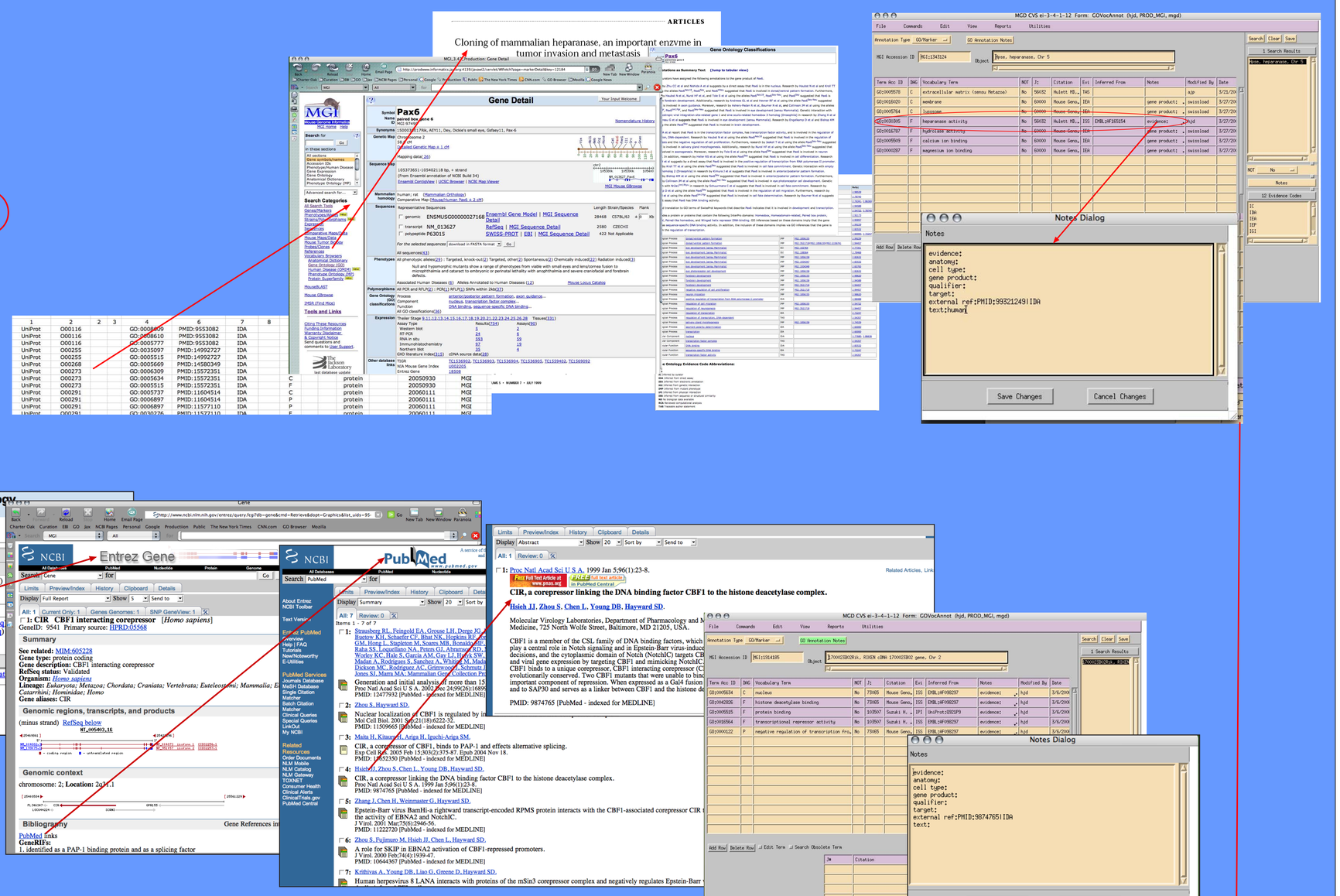
Experimental evidence supporting ISS annotation is captured from internal and external references.

1. A paper demonstrates a ***sequence comparison*** of the mouse gene product to a non-mouse gene product and has experimental evidence using the non-mouse geneproduct.
2. A paper that has experimental evidence for a non-mouse gene product for which we have established an ***orthologous*** relationship to a mouse gene product.

In both cases, the non-mouse gene_product is referenced in the WITH field, and the PMID for the paper is referenced in our structured notes field, along with the evidence code that matches the experiment.

In the first case, the comparison sequence can be from any organism, whereas in the second case, the comparison sequence belongs to an organism for which MGI specifically tracts orthology to mouse.

1



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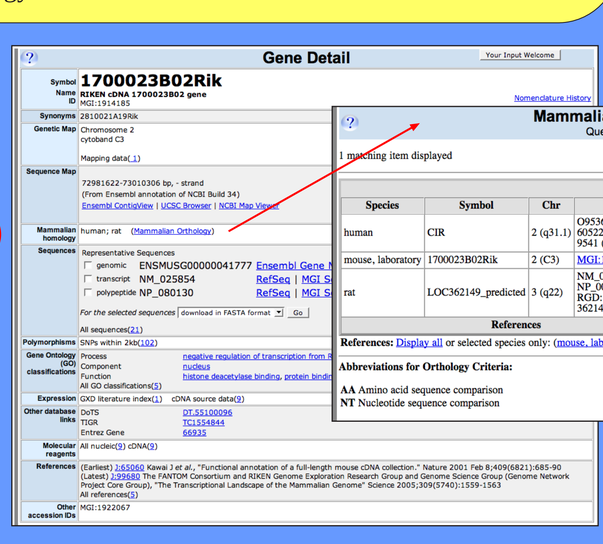
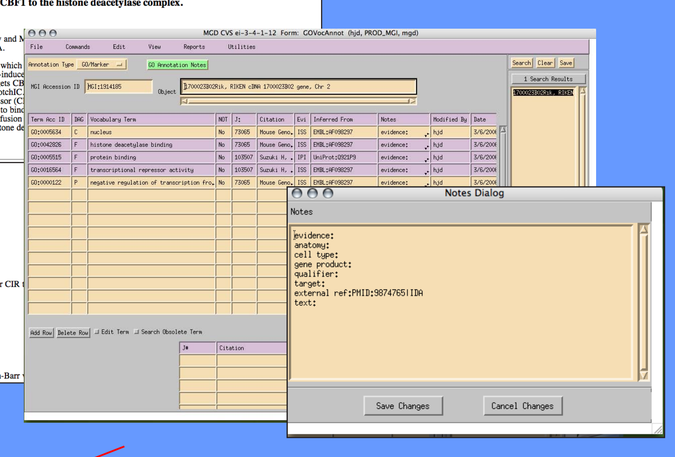
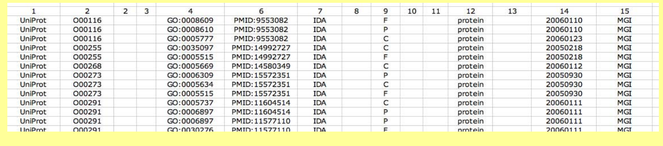




gene_association.mgi_nonmouse



Make available for GOA

Information taken from the "WITH" field (translated to a UniProt ID) and notes fields (external ref, evidence code:) are assembled into a gene_association file of non-mouse gene products. This is made available on our FTP site.