

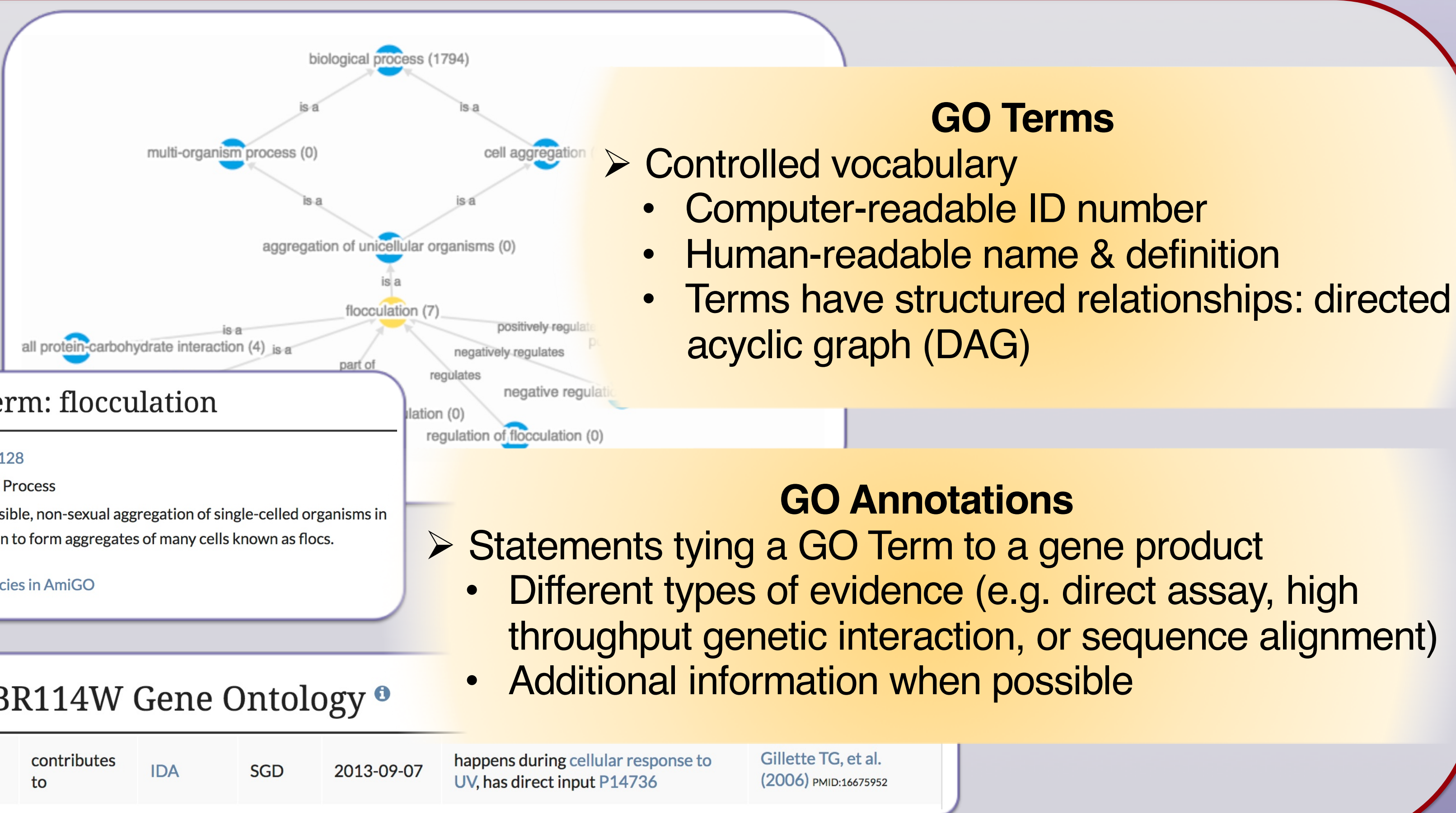
The Use of the Gene Ontology to Describe Biological Function at *Saccharomyces* Genome Database



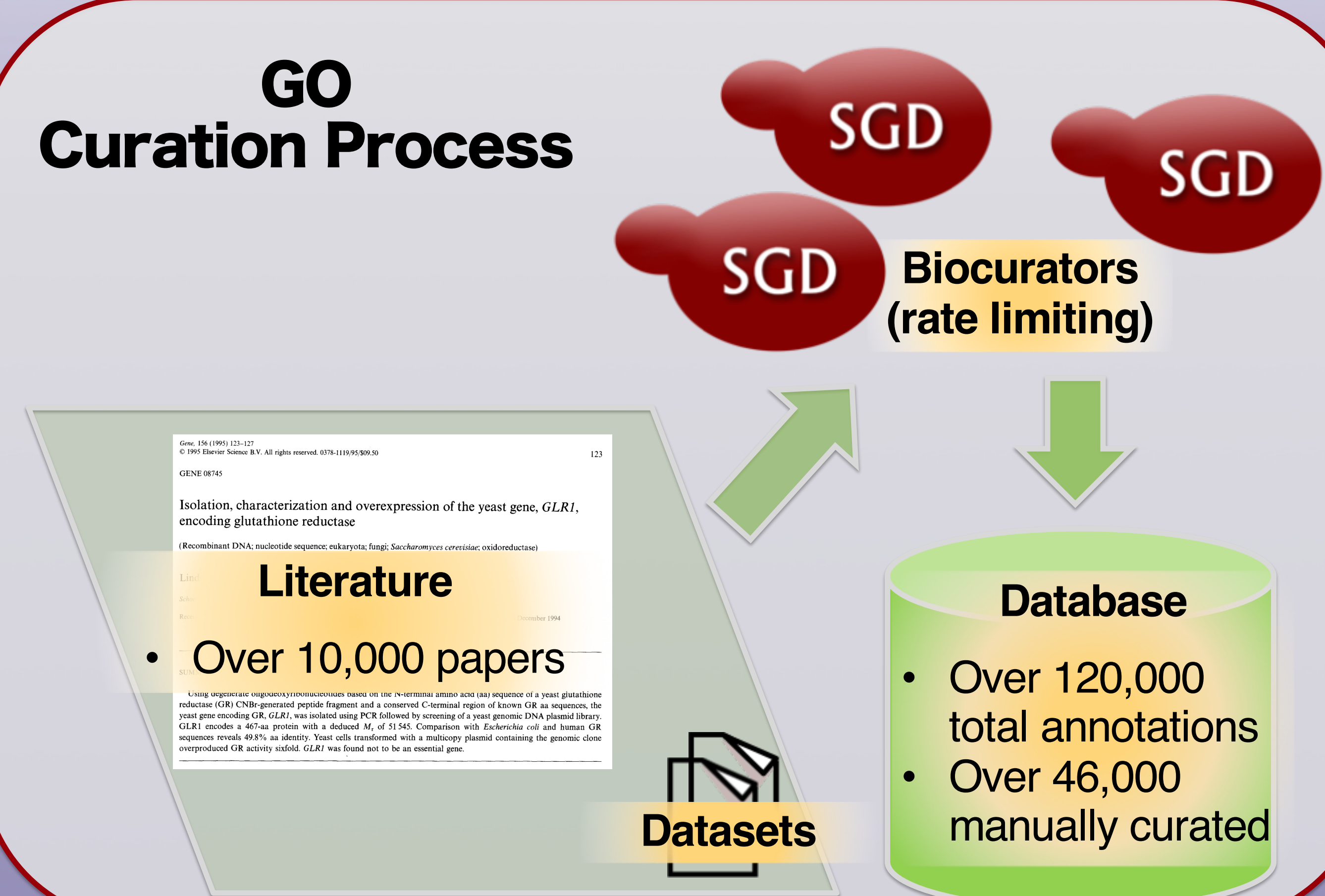
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The *Saccharomyces* Genome Database (SGD) is a comprehensive resource of curated molecular and genetic information on the genes and proteins of *Saccharomyces cerevisiae*. Since 2001, SGD has used the Gene Ontology (GO) to annotate the functions of gene products in budding yeast. The GO comprises three sets of structured vocabularies, or “ontologies”: the Molecular Function ontology describes activities of gene products; the Biological Process ontology places these molecular functions in a biological context; and the Cellular Component ontology indicates the subcellular localizations of gene products. Expert curators select GO terms to apply to gene products based on published scientific literature. At SGD, results from traditional experimental methods are the primary sources of evidence used to support GO annotations. In addition, results from comparative sequence and genomic studies, as well as analyses of functional genomic and proteomic data, have provided valuable insights into the biological roles of gene products, and these data are incorporated into SGD as well. SGD has several web interfaces and analysis tools that display and use these data. The **Locus Summary** briefly lists each GO annotation. The **GO Term Finder** aids in discovery of potential gene similarities. The **GO Slim Mapper** maps annotations of a group of genes to more general terms and/or bins them into broad categories, also known as “GO Slim” terms. Gene Ontology annotations are also incorporated into **YeastMine**, SGD’s multifaceted search and retrieval environment that provides access to diverse data types. These interfaces and tools are important as part of SGD’s ongoing mission facilitate research, education, and discovery using the Gene Ontology. This work is funded by the US National Institutes of Health: National Human Genome Research Institute (NHGRI [U41HG001315]) and National Institute of General Medical Sciences (NHGRI NIGMS [U41HG002273]).

About GO



GO Curation Process



Accessing GO at SGD

