

GeneGo Integrates Tools with Cytoscape as Project's First Commercial Pathway Partner

December 21st, 2007

By [Laurie Wiegler](#)

GeneGo this week said that it has integrated its MetaCore and MetaDrug functional-analysis platforms with the increasingly popular Cytoscape open-source pathway-visualization platform.

Cytoscape is a collaboration founded in 2003 between the Institute for Systems Biology, the University of California at San Diego, Memorial Sloan-Kettering Cancer Center, Institut Pasteur, the University of California at San Francisco, and Agilent Technologies.

The platform has gained momentum in the bioinformatics community in recent years due to its “plug-in” architecture, which allows developers to easily add extra functionality to the system.

The GeneGo integration project grew out of a software-licensing agreement that ISB and GeneGo signed in July for the company's MetaCore and 1-2-3 Workflow platforms [[BioInform 07-27-07](#)].

The integration makes GeneGo only the second commercial partner in the Cytoscape project after Agilent, and the first commercial pathway database provider to participate.

Julie Bryant, vice president of business development for GeneGo, said in a statement that the Cytoscape deal is an “obvious progression” from the company's existing relationship with ISB.

She noted that Cytoscape's visibility in the bioinformatics community also played a role in the company's decision to integrate with the open source platform. “The Cytoscape project has grown into, probably, the most advanced and well known developer's community in systems biology, and we are very glad to participate in it,” she said. “We know that our tools and content will be of interest for Cytoscape users.”

Since it was first described in a [Genome Research](#) paper in 2003, Cytoscape has attracted a sizable following in the bioinformatics development community, and now lists nearly 40 plug-ins on its [website](#).

The majority of these plug-ins have come from academia, though private-sector participants exist. One of these, Agilent Technologies, has contributed the Agilent Literature Search, a meta-search tool for querying multiple text-based search engines extracting associations among genes or proteins of interest; HyperEdgeEditor, a module developed for the functional enrichment of networks; and BubbleRouter, a network layout tool.

Nat Goodman, a senior research scientist at ISB who describes himself as a “heavy user” of GeneGo’s software, said that the ability to use Cytoscape to visualize GeneGo’s data offers “a very big advantage” to users.

He said that while GeneGo’s database is “more complete than any other public database of any equivalent information,” some users may prefer the Cytoscape visualization tools rather than GeneGo’s.

“Having Cytoscape integrated with GeneGo means we can use our own tools,” he said.

GeneGo’s Bryant said the company pursued the partnership with Cytoscape largely because of customer feedback and because “Cytoscape is a well-used tool in the industry for pathway analysis and systems biology.”

She agreed with Goodman’s assessment that GeneGo’s software “complement[s]” Cytoscape’s, while the company’s data is a real differentiator between the commercial and open source tools. Cytoscape is primarily a visualization tool, she noted, so “they don’t have content.”

Bryant said that GeneGo views the integration as another option for its customers to visualize data. “Within our platform we have over 10 network-building algorithms and multiple ways of visualizing [molecules],” she said. Cytoscape now adds to those capabilities, she said. “Our goal is to always make it easier for our customers.”

Going forward, Goodman said that ISB and GeneGo are working together on some other research projects, but said he was not at liberty to disclose further details.