New e-science service could accelerate cancer research

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The University of Manchester and the European Molecular Biology Laboratory's European Bioinformatics Institute (EMBL-EBI) have launched a major new e-science resource for biologists - which could accelerate research into treatments for H1N1 flu and cancer.

Biocatalogue.org, a centralised registry of curated life science Web Services, is being officially launched today (Wednesday 1 July) at the 17th Annual International Conference on Intelligent Systems for Molecular Biology and the 8th European Conference on Computational Biology conference (ISMB-ECCB 2009) in Stockholm.

This type of systematic access has the potential to significantly accelerate the work of researchers in the medical, agronomical and pharmaceutical fields. The service allows researchers to discover, annotate, register and use biological web-based services.

Biocatalogue.org already has around 1,000 biological Web Services - and more and more will be registered and annotated by services providers, curators and users on a daily basis.

Services are monitored by automated mechanisms and by the user community for their availability and reliability. A simple traffic light system displays the current status of a Web Service.

In addition to providing the means to programmatically access life science tools and databases over the Internet, the facility acts as a place

where researchers can contact and meet the experts and maintainers of these services.

Web services have gained a momentum as a means for packaging existing data and computational resources in a form that is amenable for use and composition by third party applications.

The life science community is among the first adopters of Web Services. Taverna, a workflow workbench that is popular within the life science community - and which was jointly developed by computer scientists at The University of Manchester - provides access to over 3,500 Web Services that can be composed by scientists for constructing and enacting their in silico experiments.

But one of the main issues that hinders the wide adoption and use of Web Services is the difficulty in locating those that perform the analysis the scientist is interested in.

With Biocatalogue.org, Web Services are annotated by expert curators, service providers and by the wider Community using tags, rating, comments and ontologies. Automated mining and monitoring tools are also used.

The project has been led by Prof Carole Goble at The University of Manchester and Rodrigo Lopez at EMBL EBI.

Other contributors include Khalid Belhajjame, Franck Tanoh, Jiten Bhagat, Katy Wolstencroft and Robert Stevens from The University of Manchester and Eric Nzuobontane, Hamish McWilliam and Thomas Laurent from EMBL EBI.

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