The Open PHACTS Discovery Platform from a network biology perspective

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Open PHACTS Background and History

Open PHACTS started as an Innovative Medicines Initiative (IMI) project in 2011. The objective was to integrate a wide range of pharmacologically related data into a central resource that is described according to standards of the semantic web community. Central to this unification was the development of an API to allow the project partners to build their own custom applications and workstreams. Also central to the Open PHACTS Discovery Platform is the development of identity resolution and identity mapping services and a chemistry resolution service. Over the last year the Open PHACTS Discovery Platform has matured with many exciting improvements and greater sustainability of the platform, improved code, data updates and new data sources.

WikiPathways and Interactions

WikiPathways is an open, collaborative platform dedicated to the curation of biological pathways. WikiPathways thus presents a new model for pathway databases that enhances and complements ongoing efforts, such as KEGG, Reactome and Pathway Commons. WikiPathways increasingly tracks the interactions semantically by connecting data nodes in the pathway diagram to one another. The human Reactome pathways in WikiPathways are also incorporated in the Open PHACTS discovery platform. In the latest update for the API, three methods were added for pathway information, and specifically around interactions: Get Interactions, Interactions by API, three methods were added for pathway information. The association between patent documents and annotated chemical and biological entities for 3.6 million life-science relevant patents are now available via a set of API calls. A series of web services calls have been developed to allow users to query the data and to integrate it with the other data resources: the new API calls include Patent Information, SureChEMBL and Open PHACTS

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