Scientific Questions

Open PHACTS has set out the task to develop a platform that is able to questions relevant to the pharmaceutical industries. The technological solution is the scientifically sound tool to get to correct answers. Therefore, it develops solutions on top of the technologies, user oriented platforms to answer a number of research questions selected by the pharmaceutical industry.

Example questions include: “Give me all oxidoreductase inhibitors active <100 nm in human and mouse” and “Compounds that agonize targets in pathway X assayed in only functional assays with a potency <1 μm”.

Semantic Web Technologies

- Resource Description Formats (Turtle, RDF/XML)
- Scientific Lenses (concept equivalences; see presentation)
- Name and Identifier Mappings (Concept Wiki, BridgeDb)

Data sources

Open PHACTS is a data integration project, and relies on data providers, though it helps in exposing data using semantic web technologies. The current public platform uses the below data sources.

References


Conclusion

Open PHACTS has created a semantic web-based data integration platform, where a public REST-full application programming interface provides a semantically-enriched, but developer-friendly portal. This resulted in a successful eco-system of user-targeted solutions.