



Welcome to the 5<sup>th</sup> Open PHACTS Newsletter.

This newsletter contains information about the project's successor organisation the Open PHACTS Foundation, the project extension, the recent Community Workshop and other project information.

## Open PHACTS Foundation announces first three members

The not-for-profit [Open PHACTS Foundation](#) announced its first three members on 24<sup>th</sup> June – GlaxoSmithKline, Janssen and Roche.

The commitment by these global pharmaceutical industry members signifies a major step in ensuring the sustainability of infrastructure developed during the Open PHACTS project. The Open PHACTS community covering academia, industry, application developers and semantic web experts has delivered a powerful cloud-based data platform, demonstrating the effectiveness of robust data integration in answering real scientific questions.

See the Press Release [here](#).

If you are interested in becoming a member of the Open PHACTS Foundation, get in touch at [info@openphactsfoundation.org](mailto:info@openphactsfoundation.org).

## Open PHACTS project extended for another 18 months

We are delighted to announce that the Open PHACTS project will be extended for 18 months until the end of February 2016. For the extension two new partners – [Laboratorios Almirall S.A.](#) and [SciBite Limited](#) – will join the consortium and [GlaxoSmithKline](#) (GSK) will act as coordinator.

The Open PHACTS project has made excellent progress during the first 3.5 years and has delivered a robust infrastructure for effective integration of pre-clinical drug-discovery data, the [Open PHACTS Discovery Platform](#), hosted by a commercial data-management provider. The Open PHACTS Discovery Platform uses semantic technologies to provide a robust, adaptable framework for integration of multiple data sources into a professional API. The project also delivered a set of [Example Applications](#), which provide users with unique capabilities to create new knowledge. The Open PHACTS Discovery Platform also retains and gives full transparency on data provenance and we have developed a model for solving the problem of connecting sources provided under different licenses. Finally, the [Open PHACTS Foundation](#), a not-for-profit membership organisation, has been established and added as beneficiary to the project. The Foundation will ensure the sustainability of the Open PHACTS Discovery Platform and act as a hub for relevant scientific research and development.

The project extension aims to tackle new scientific challenges and use cases (e.g. personalized healthcare and target validation). To pursue this aim, commercial data sources and proprietary in-house data will be integrated to enhance usability for EFPIA companies and open up new avenues of sustainability for the Open PHACTS Discovery Platform. We also plan to add additional platform

functionalities, such as new taxonomies and workflow capabilities, to increase the search capabilities and open up new use cases. Moreover, connecting to workflow tools will provide unprecedented search flexibility and complexity across multiple domains. Expansion towards new use cases will also involve engaging existing and upcoming IMI projects (e.g. eTOX, ELF, K4DD, eTRIKS, EMIF) and other initiatives.

## 6th Community Workshop: Open PHACTS for Academia

The 6th Open PHACTS Community Workshop was held at Burlington House in London on 26<sup>th</sup> June. Presentations on applications and academic use cases were followed by interactive sessions on building apps, and querying the Open PHACTS API using KNIME, Pipeline Pilot and Python.

More information and presentations can be found on the [Open PHACTS Foundation website](#).

## Open PHACTS Pipeline Pilot Component Collection 2.0 and Hackathon

The [Open PHACTS Pipeline Pilot Component Collection 2.0](#) is now available, and requires version 1.3 of the API.

On March 6th 2014, the 2nd Open PHACTS Pipeline Pilot Hackathon took place on the Merck campus in Darmstadt, Germany. Attendees worked on the Open PHACTS Pipeline Pilot Component Collection 2.0. In a hands-on session dedicated to scientific use cases, attendees applied the combination of different Open PHACTS components for the generation of more sophisticated workflows. Additional material from the hackathon can be found [here](#).

## Open PHACTS poster wins prize at CSHALS 2014 in Boston

Simon Rakov, Linda Zander Balderud and Tom Plasterer from AstraZeneca presented a poster entitled "BAO Reveal: Assay Analysis Using the BioAssay Ontology and Open PHACTS" at the Conference on Semantics in Healthcare and Life Sciences (CSHALS) 2014 in Boston. The poster won the F1000/Faculty of 1000 Poster Prize, and can be viewed [here](#).

## Open PHACTS Explorer updated

The [Open PHACTS Explorer](#) now uses version 1.3 of the Open PHACTS API. This includes an update of the pharmacology data (from ChEMBL 13 to ChEMBL 16). See the [release notes](#) and the [known issues](#).

## Recent Publications

The project's most recent publications can be found below:

- [Applying Linked Data Approaches to Pharmacology: Architectural Decisions and Implementation](#) published in Semantic Web Journal (open access)
- [Nanopublication Guidelines](#) (Concept Web Alliance Working Draft)
- [Computing Identity Co-Reference Across Drug Discovery Datasets](#), [Open PHACTS explorer 2: bringing the web to semantic web](#) and [Nanopublications for exposing experimental data in the life-sciences: a Huntington's Disease case study](#) at the SWAT4LS 2013 in Edinburgh (open access)
- [Scientific requirements for the next generation semantic web-based chemogenomics and systems chemical biology molecular information system OPS](#) published Ed. Computational Chemogenomics
- [Pav ontology: provenance, authoring and versioning](#) published in Journal of Biomedical Semantics (open access)
- [Generic Information Can Retrieve Known Biological Associations: Implications for Biomedical Knowledge Discovery](#) published in PLOS ONE (open access)
- [Including co-referent URIs in SPARQL query](#) in Proceedings of the fourth international workshop on consuming linked data (COLD 2013) in Sydney (open access)
- [Querying neXtProt nanopublications and their value for insights on sequence variants and tissue expression](#) published in Journal of Web Semantics
- [A knowledge-driven approach to extract disease-related biomarkers from the literature](#) published in BioMed Research International (open access)
- [Transporter taxonomy – a comparison of different transport protein classification schemes](#) published in Drug Discovery Today, Technologies
- [Transporter assays and assay ontologies: useful tools for drug discovery](#) published in Drug Discovery Today, Technologies
- [Exploiting open data: a new era in pharmacoinformatics](#) published in Future Medicinal Chemistry

## Recent Event Participation

- On June 25, 2014 Herman Van Vlijmen (Janssen) and Orri Erling (Open Link) held a presentation at the PiLOD 2.0 in Hilversum, The Netherlands: [Linked Open Data for Drug Discovery](#)
- Open PHACTS was well represented at the [ICCS 2014](#) in Noordwijkerhout, The Netherlands from June 1-5, 2014: Anna Gaulton (EMBL-EBI) presented [SureChEMBL - Open Patent Data](#) and Colin Bachelor (Royal Society of Chemistry) gave the talk [Scientific Lenses over Linked Chemistry Data using BridgeDb and the Open PHACTS Chemistry Registration System](#).
- On April 29, 2014 Lee Harland and Bryn Williams-Jones from Connected Discovery presented Open PHACTS at the [Bio IT World Conference & Expo 2014](#) in Boston, United States: [Open PHACTS - Practical Semantics For Drug Discovery](#)
- Paul Groth presented [Open PHACTS: A Data Platform for Drug Discovery](#) at the European Data Forum 2014 in Athens.
- Katrin Stierand (University of Hamburg) gave a talk entitled [Accessing Open PHACTS: Interactive exploration of compounds and targets from the semantic web](#) at the [Joint CINP-RSC CICAG Symposium: Chemical Schemas, Taxonomies and Ontologies](#) at the [247th ACS National Meeting & Exposition](#) in Dallas, Texas, held from March 16-20, 2014.
- On March 20, 2014 Paul Groth (Vrije Universiteit Amsterdam) presented Open PHACTS at the [European Data Forum 2014](#) in Athens, Greece: [A Data Platform for Drug Discovery](#). Find

a video lecture [here](#).

- Open PHACTS was well represented at the [CSHALS 2014](#) in Boston from February 26-28, 2014: Tom Plasterer (AstraZeneca) presented the project - [The Open PHACTS project - Progress and Future Sustainability](#) - while Barend Mons (Leiden University Medical Centre) gave a keynote on [Semantics Based Biomedical Knowledge Search](#).
- Linda Zander-Balderud (AstraZeneca) presented her Post Doc project including Open PHACTS work at the [Development of Robust Experimental Assay Methods \(aDREAM\) Conference](#) from January 8-9, 2014 in Wisconsin: [Applying BioAssay Ontology to facilitate HTS analysis](#)

## Recent Associate Partners

We are pleased to welcome LabAnswer and Mind The Byte, S.L. as [Open PHACTS Associated Partners](#)



This research has received support from the Innovative Medicines Initiative Joint Undertaking under grant agreement n° 115191, resources of which are composed of financial contribution from the European Union's Seventh Framework Programme (FP7/2007-2013) and EFPIA companies' in kind contribution. [www.imi.europa.eu](http://www.imi.europa.eu)