Linking Life Science Data: Design to Implementation, and Beyond

February 18-19, 2016
Vienna, Austria

Venue: Lecture Room 6, Pharmacy Center, University of Vienna
Location: Althanstrasse 14, 1090 Wien, Austria

Day 1: What has been achieved so far?

Agenda

09:00 – 10:00  Registration and coffee

10:00 – 10:15  Welcome
Speakers:
   Stefan Senger  
   *GlaxoSmithKline*
   Gerhard Ecker  
   *University of Vienna*

10:15 – 11:30  How to succeed in public-private partnerships
How has Open PHACTS achieved its goals? Key stakeholders will discuss the history of this successful public-private partnership.

Speakers:

Pierre Meulien  
*Director, Innovative Medicines Initiative*

Theo Meert  
*Janssen Pharmaceutica
EFPIA InnoMedS Group*

Gerhard Ecker  
*University of Vienna*

Stefan Senger  
*GlaxoSmithKline*

The role of public-private partnerships in accelerating the development of innovative medicines

Open PHACTS, an example of a public-private partnership delivering for industry

The story of Open PHACTS
11:30 – 12:30  **Changes in the life sciences landscape**

The last five years have seen significant changes in the life sciences domain, many of which have been driven by advances in linked data, including the work of the Open PHACTS project. These keynote presentations will give an overview of what’s changed, and how.

Speakers:

- Barend Mons  
  *Leiden University Medical Center*  
  From Open PHACTS to open science and back

- Ferran Sanz  
  *Parc de Salut Mar (PSMAR)*  
  The influence of Open PHACTS on other IMI and EU projects

12:30 – 13:30  **Lunch**

13:30 – 14:30  **The platform today**

What can be done with the Open PHACTS Discovery Platform? These presentations will outline what datasets are included, what domains are covered, and how data is made available.

Speakers:

- Nick Lynch  
  *Open PHACTS Foundation*  
  Open PHACTS: The platform today

- Alasdair Gray  
  *Heriot-Watt University*  
  Open PHACTS: The data today

- Hugh Williams  
  *OpenLink Software*  
  Enabling linked data in Open PHACTS

14:30 – 16:00  **Using Open PHACTS**

A series of presentations will demonstrate different ways of integrating the Open PHACTS Discovery Platform into real research workflows.

Speakers:

- Daniela Digles  
  *University of Vienna*  
  Using Open PHACTS with KNIME

- Luca Bartek  
  *University of Strathclyde*  
  Drug-related information on Wikipedia

- Edgar Jacoby  
  *Janssen Pharmaceutica*  
  Open PHACTS computational protocols for *in silico* target validation of cellular phenotypic screens: Knowing the knowns

- Jean-Marc Neefs  
  *Janssen Pharmaceutica*  
  Chem³ to search SAR space… and much more

- George Papadatos  
  *EMBL-EBI*  
  Leveraging annotated SureChEMBL patent data with the Open PHACTS API
16:00 – 17:30  Poster session and coffee

Early-career researchers have been invited to present examples of how the linked data in the Open PHACTS Discovery Platform has created concrete benefits to their research. Each presenter will give a one-minute introduction to their work, after which attendees will be invited to view the posters and vote for their preferred winner.

Presenters:

Luca Bartek  
*University of Strathclyde*

Comparison of automated and manual patent chemistry extraction methods

Daniela Digles  
*University of Vienna*

Collecting compound data from public databases using Open PHACTS and KNIME

Jana Gurinova  
*University of Vienna*

Analysis of orphan diseases with a KNIME workflow using Open PHACTS, with the potential of drug repurposing

Emily Jamieson  
*Glasgow University*  
*Eli Lilly and Company*

Variants, genes, and targets: An investigative pipeline utilising Open PHACTS linked data to establish meaningful connections

Tareq Malas  
*Leiden University Medical Center*

Drug target discovery using Open PHACTS

Lewis Mervin  
*University of Cambridge*  
*AstraZeneca*

Application of an *in silico* mechanism-of-action protocol to high-content cytotoxicity screening data utilizing WikiPathway data extracted from Open PHACTS

Ryan Miller  
*Maastricht University*

“Where do you go from here?” Semantics of directions in biological pathways

Joseph Mullen  
*University of Newcastle upon Tyne*

DReNIn: An RDF dataset for drug repositioning

George Papadatos  
*EMBL-EBI*

Semantic-web access to patent annotations

Núria Queralt  
*Parc de Salut Mar (PSMAR)*

DisGeNET: a discovery platform to support translational research and drug discovery

Jeremy Yang  
*Indiana University*

Linking the Open Phenotypic Drug Discovery Resource (OPDDR)

Barbara Zdrazil  
*University of Vienna*

Using linked open data for assessing multi-target SAR
17:30 – 18:00  **Handover ceremony**

To officially mark the end of the Open PHACTS project, representatives will hand over the reins to the Open PHACTS Foundation, making Open PHACTS the first IMI project to transition to a successor organisation.

Speakers:

- Ann Martin  
  *Innovative Medicines Initiative*
- Theo Meert  
  *Janssen Pharmaceutica*
- EFPIA InnoMedS Group
- Gerhard Ecker  
  *University of Vienna*
- Stefan Senger  
  *GlaxoSmithKline*
- Bryn Williams-Jones  
  *CEO, Open PHACTS Foundation*

18:00 – 19:30  **Break**

We suggest that attendees use this time to check in to hotels before the evening’s activities.

19:30  **Dinner**

Open PHACTS is pleased to invite all attendees to a networking dinner at [Augustinerkeller](#).
Day 2: Where do we go from here?

Agenda

09:00 – 10:00  Welcome and coffee

10:00 – 11:00  The future of linked data
How will linked data continue to change the way research is carried out in life sciences and other domains? These keynote presentations will give an overview of what might be to come.

Speakers:
- Paul Groth  The future of linked data in an open world
   Elsevier
- Carole Goble  Linked data: the ELIXIR of life science data
   University of Manchester

11:00 – 12:00  How big pharma is using linked data
Representatives of pharmaceutical companies will explain how linked data is becoming crucial to their drug discovery workflows in this global industry.

Speakers:
- Jeremy Yang  Linking the Open Phenotypic Drug Discovery Resource (OPDDIR)
   Indiana University
- Derek Marren
   Eli Lilly and Company
- Stefan Senger
   GlaxoSmithKline
- Herman van Vlijmen
   Janssen Pharmaceutica
- Derek Marren
   Eli Lilly and Company
- Stefan Senger
   GlaxoSmithKline
- Herman van Vlijmen
   Janssen Pharmaceutica

12:00 – 12:30  The role of the Open PHACTS Foundation
The Open PHACTS Foundation will carry on the legacy of the Open PHACTS project. What concrete steps will the Foundation take to contribute to ongoing and future linked data projects?

Speakers:
- Dean Allemang  The Open PHACTS Foundation in the wider world
   Working Ontologist, LLC
- Bryn Williams-Jones  Engaging with the Open PHACTS Foundation
   CEO, Open PHACTS Foundation
12:30 – 13:30  Lunch

13:30 – 14:15  What challenges still need to be met?
The move towards linking data still faces significant technical challenges, in the life sciences domain and beyond. This keynote presentation will introduce topics and ideas for discussion in the following session.
Speakers:
Lee Harland
SciBite Limited
Linked data: The challenges ahead

14:15 – 14:30  Discussion and coffee break
Participants are encouraged to consider and discuss the issues raised in the previous session, in preparation for the following session.

14:30 – 15:30  Where do we go from here?
What steps can we take to continue to maximise the benefits of linked data? This panel discussion will be open to audience participation, and we encourage attendees to share their thoughts and ideas.
Chair:
Stefan Senger
GlaxoSmithKline

15:30 – 16:00  How to stay involved
A wrap-up of the conference events, including information about ways in which attendees can continue to participate in discussions with others interested in the future of linked life science data.
Speakers:
Bryn Williams-Jones
CEO, Open PHACTS Foundation
Stefan Senger
GlaxoSmithKline