

Visualising Open PHACTS linked data with widgets

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Project Website: <http://openphacts.org>

Source Code: <https://github.com/openphacts/openphacts-vis-compoundinfo>

License: MIT

The **Open PHACTS Discovery Platform** was developed to reduce barriers to drug discovery in industry, academia and for small businesses. It is based on a linked data API that sits on top of various life sciences datasets eg ChEMBL and Uniprot, see <http://dev.openphacts.org>. Many users of the API stated that they would like to view the information available within their own web pages but didn't have the time to integrate it. To enable this integration we developed a simple youtube style embedding widget that allows users to very simply embed visualisations of the data in their own environments. The visualisations are based on those available in the Open PHACTS Explorer <https://explorer2.openphacts.org>. The original widget code is available from <https://github.com/openphacts/ops-html-widgets> with a live example at <http://openphacts.github.io/ops-html-widgets/>. Users can embed the visualisations in their own web pages by including the widget code and adding a simple HTML element to their pages:

```
<div class="compound-info" data-ops-uri="http://www.conceptwiki.org/concept/dd758846-1dac-4f0d-a329-06af9a7fa413" style="display: none;"></div>
```

This would display the info for "Aspirin", see <http://dev.mygrid.org.uk/blog/2014/05/coding-without-coding-announcing-the-open-phacts-html-widgets/>. Each widget can be customised using some simple markup that uses the handlebars syntax, see <http://handlebarsjs.com/>. In the following example only the preferred label, SMILES and InCHI are displayed.

```
<div class="compound-info" data-ops-uri="http://www.conceptwiki.org/concept/dd758846-1dac-4f0d-a329-06af9a7fa413" style="display: none;">
  <div>Preferred Label: {{prefLabel}}</div>
  <div>SMILES: {{smiles}}</div>
  <div>Inchi: {{inchi}}</div>
</div>
```

The widgets were then redeveloped for the BioJS initiative, see <http://biojs.net/> and more recently refactored to use NodeJS, see <https://github.com/openphacts/openphacts-vis-compoundinfo>. We have also been investigating the use of the emerging web components standard, see <http://webcomponents.org/>.