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IntAct and data distribution with PSICQUIC

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EBI is an Outstation of the European Molecular Biology Laboratory.

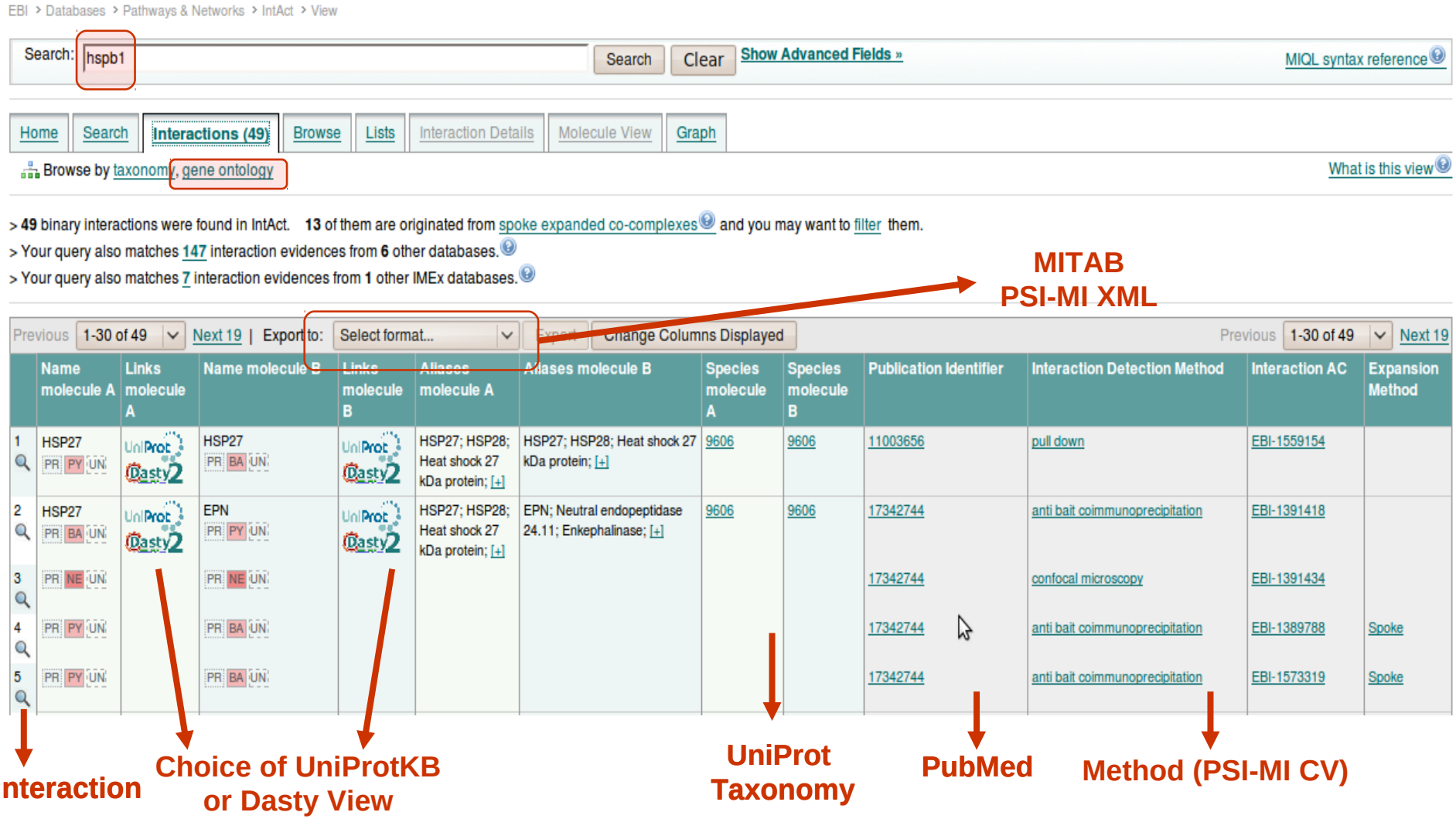
The IntAct molecular interaction database

http://www.ebi.ac.uk/intact

- Freely available, open-source database system
- Public repository of experimental molecular interactions (228,023 binary interactions)
- Interactions manually curated and reviewed by experts
- Interaction derived from literature or direct user submissions
- Curation standard exceeding Minimum Information Required for Molecular Interaction (**MIMIx**) *
- Member of **IMEx** (***http://www.imexconsortium.org/***)

***** *The minimum information required for reporting a molecular interaction experiment (MIMIx), Orchard et al., Nat Biotechnol. 2007 Aug;25(8):894-8*

IntAct tabular view



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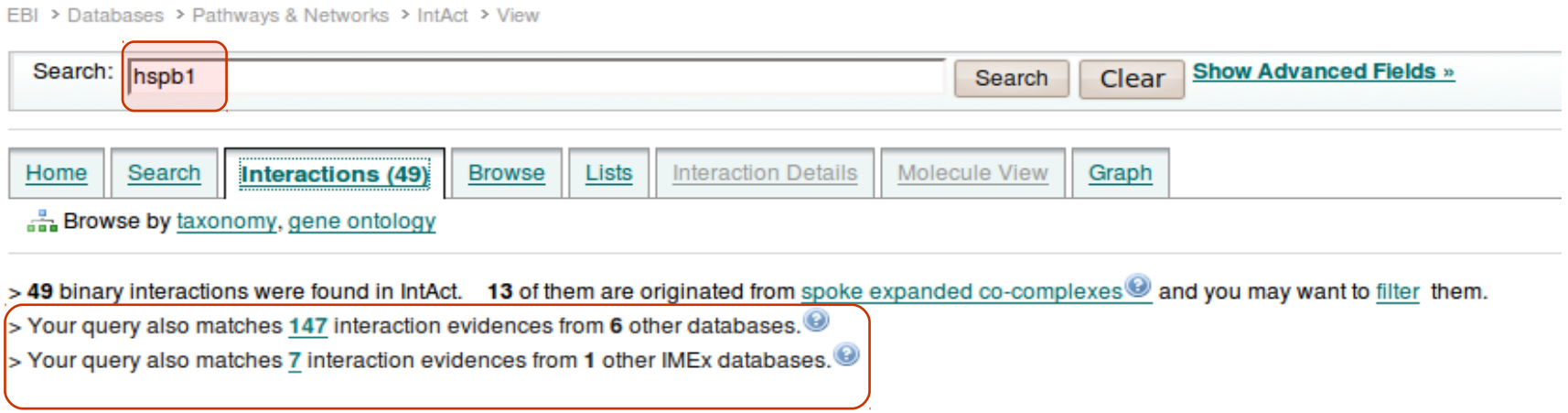
PSICQUIC : a common query interface

http://psicquic.googlecode.com

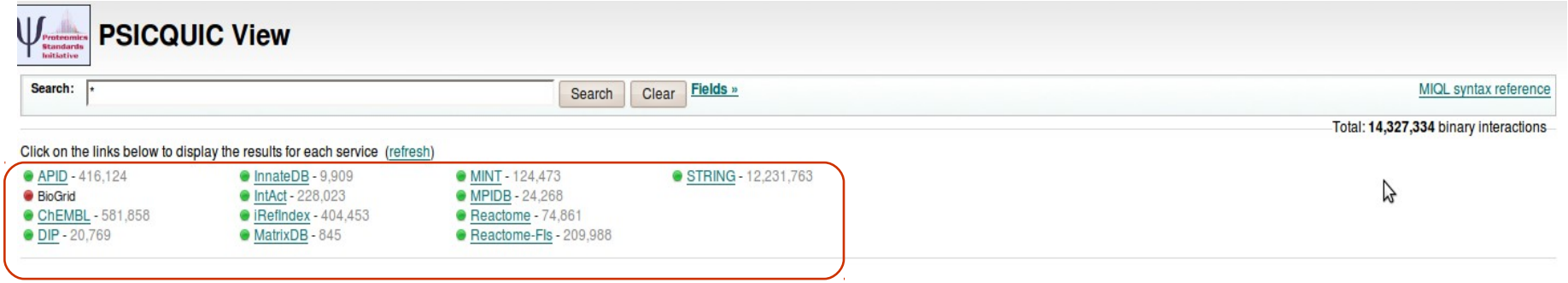


- **P**roteomics **S**tandards **I**nitiative **C**ommon **QU**ery **I**nterface
- Community effort to standardise the way to access and retrieve data from Molecular Interaction databases.
- Widely implemented by independent interaction data resources.
- Based on the PSI standard formats (PSI-MI XML and MITAB)*****
- Data access : SOAP or REST

** The HUPO PSI Molecular Interaction Format - A community standard for the representation of protein interaction data, Hermjakob et al., Nat Biotechnol. 22, 2004: 177-183*

PSICQUIC view

http://www.ebi.ac.uk/Tools/webservices/psicquic/view/main.xhtml



- 14,327,334 binary interactions in PSICQUIC
- 13 molecular interaction databases

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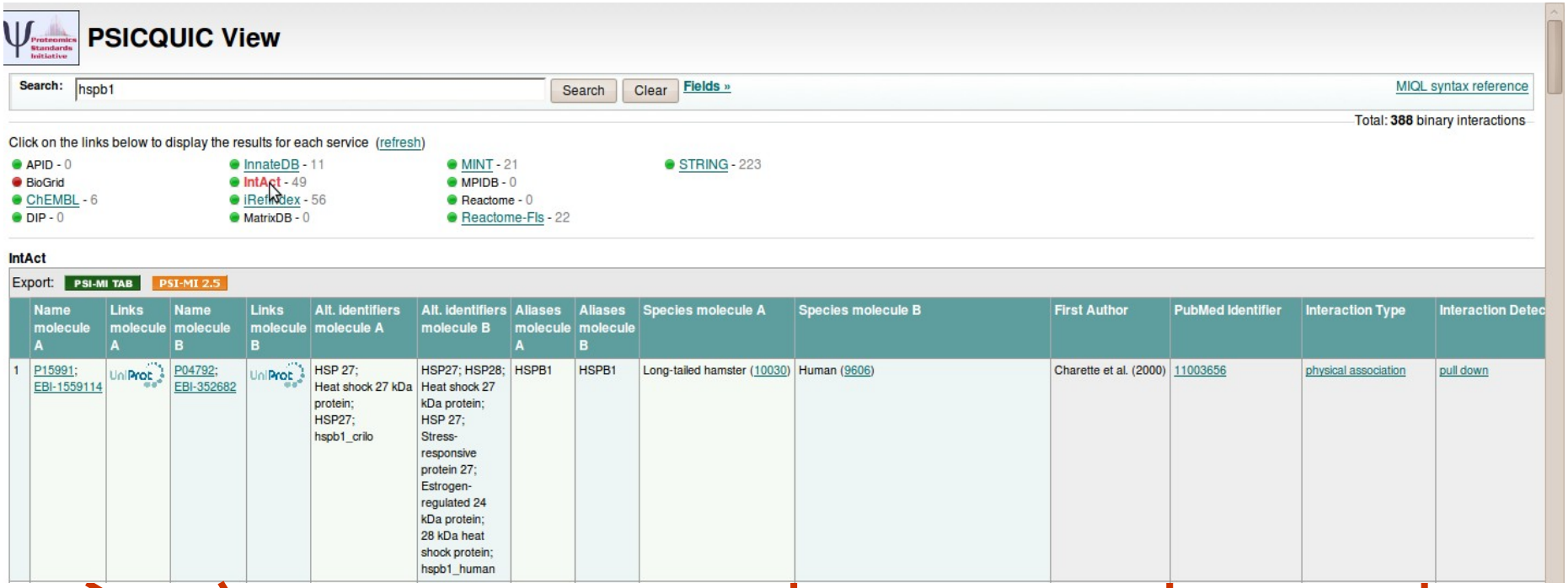
PSICQUIC view

http://www.ebi.ac.uk/Tools/webservices/psicquic/view/main.xhtml



Interaction **interactors** **Taxon identifier** **Pubmed** **Interaction type and method**

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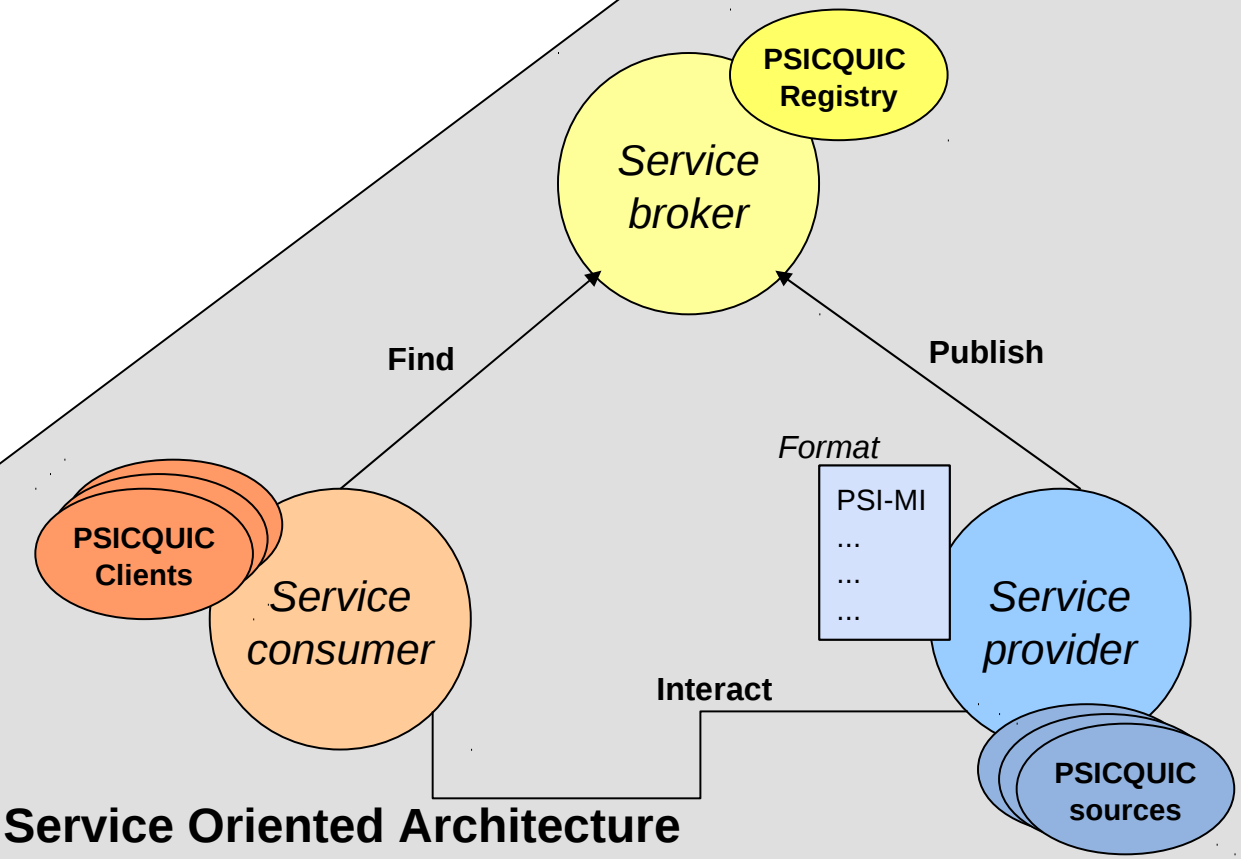
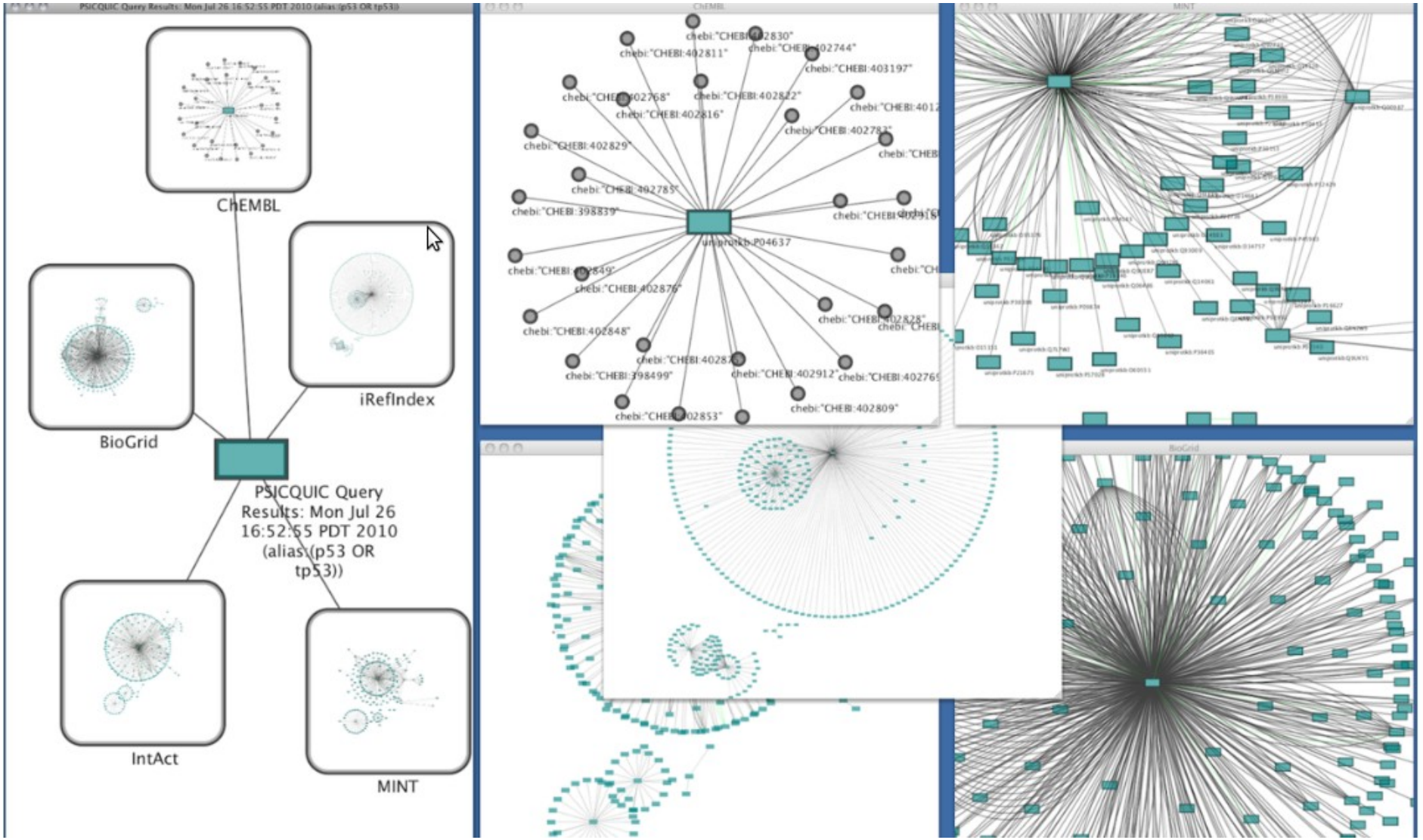
PSICQUIC implementation

- PSICQUIC Server (SOAP/REST **web service**)
- PSICQUIC Registry
- PSICQUIC Clients
  - PSICQUIC view
  - Cytoscape
  - **...**
- **Open source !**



PSICQUIC Plugin in cytoscape



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More ...

PSIMEx Workshop : Interaction and Pathways
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