Biomedical Information Navigator

Our partner, a Hungarian start-up company has developed an advanced visualization, multi-layered databases, network analytical cloud-based software and webservice called Biomedical Information Navigator (BIN). This service has been developed to facilitate early drug target discovery and drug repurposing for pharma-related researchers, Contract Research Organizations, pharma companies.

Our partner is looking for business partners for selling or licensing the technology and know-how.

Background information

Every year, hundreds of new biomedical datasets and resources are published containing tens of thousands of new connections and properties. Evaluation of these systematic results is difficult as most of the datasets are stored in various formats. The situation is more challenging when the integration of different resources (e.g., disease, genomic, proteomic or transcriptomic datasets) is also necessary. Thus, understanding the medical aspects of systems biology necessitates appropriate and visible solutions. To provide more effective drug target discovery, integrated solutions are needed, capable to perform state-of-the-art network-based analyses and use of novel network pharmacology approaches.

Innovative content of the system

The market leader solutions are only for interpreting experimental and clinical results.

Ingenuity Pathway Analysis (USA) provides a comprehensive pathway knowledgebase with analytical tools to integrate transcriptomics, proteomics and metabolomics data. *GeneXplain* (GER) contains integrated external databases and analytical tools with customizable workflows. *Cytoscape*, an open source software, allows external or own network data integration, analysis, and visualization with the advance of community Apps.

However, our partner's novel system, beside providing the main features of the market leaders, specifically helps drug target discovery and drug purposing through its complex service.

Main Advantages	
BIN meets the market needs as it provides	BIN is a unique software as in-a-box it contains
• a simple way to handle complex and various biomedical datasets • tools to point out novel drug targets and to support network pharmacology needs • *in silico* prediction of drug effects in early discovery • a way to integrate biomedical datasets and network approaches to current cheminformatics and pharmacoinformatics pipelines	• integrated molecular, cellular and medical databases • a highly interactive data visualization mode • an intuitive workflow-designer platform (works parallel with the data mode) • standardized file formats with high compatibility to other programs • analytic tools specifically for drug target discovery and drug repurposing

BIN is a cloud based solution

- no need for expensive servers
- customizable, safe and extendable
- highly user-friendly, compatible with other tools
- both for advanced users and experts of other fields

Potential areas of use

The system is designed for the participants of the Pharmaceutical industry (pharma-related researchers, Contract Research Organizations, pharma companies).

Stage of development

The system planned launch is in Q1 2014.

Intellectual property status

Our partner has a pending Hungarian patent for the technology and in addition to this it also has technology specific secret know-how in network pharmacology.

Type of collaboration

Our partner's intention is to sell or license its technology and know-how with training for the system.

For further information please contact

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