

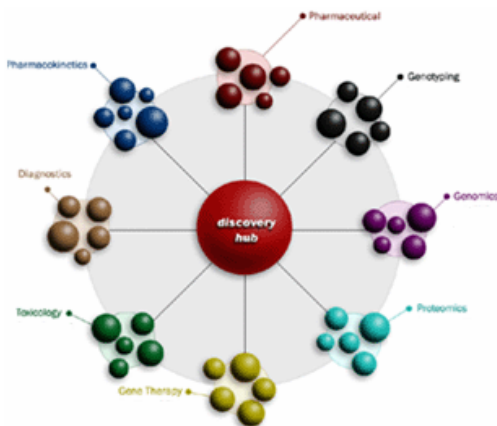
High Throughput Data Integration and Analysis For Optimizing Drug Discovery

Accessing, integrating, and analyzing massive amounts of information from internal and external sources is essential for researchers trying to derive new insights from data to accelerate new drug discoveries. Creating meaningful relationships between distributed pieces of information requires a unified framework in which heterogeneous information sources can be assembled, projected and visualized.

The geneticXchange discoveryHub provides a system that solves this problem.

The total potential savings attributable to effective informatics and data integration, on a per-new-drug basis, is \$264 million. [Assuming the average cost of developing a drug is \$880 million over 14.7 years.]
Boston Consulting Group

geneticXchange solutions are a powerful enabler of this dramatic change. The unique discoveryHub software offers an informatics platform that flexibly manages complex scientific data, thereby accelerating and enhancing the drug discovery process by alleviating costly data integration and analysis bottlenecks.



BENEFITS of the geneticXchange Approach:

For Scientists:

- Experimental data can be rapidly evaluated, providing enhanced insight into future experimental strategy
- Enables rapid, thorough annotation of biologically relevant data in real-time, addressing synonyms and reducing duplication
- Experimental, research, and in silico data are seamlessly combined and searchable as if they existed in a single database
- Ability to integrate and manage data from heterogeneous sources enables previously impossible discoveries

For IT:

- Multiple, remote data sources can be connected into a single federated structure
- Access to 70+ curated/maintained "thin" wrappers; ability to write new wrappers in hours versus months
- Ability to load heterogeneous life science data sources into databases without the need for complex schema or index tables
- Reduces the programmer labor required to link together disparate data sources

For Business:

- Quality of targets & leads improves, eliminating costs associated with less promising candidates
- Total cost of managing data decreases while speed of discovery improves
- Ability to fully leverage existing research and IT investments
- Transparency and accessibility to all data accelerates the pace of discovery for enhanced profitability

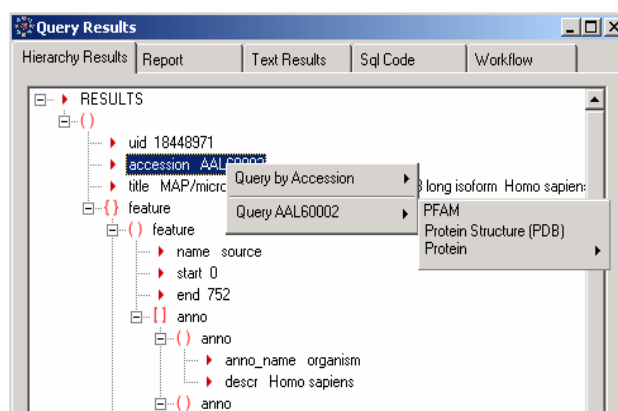
The geneticXchange Solutions:

discoveryHub – a powerful data integration and management software engine providing simplified access to life sciences data in its native structure, without the need to define and maintain the constantly changing relationships between the data sources. discoveryHub also provides an infrastructure for building industrial-strength workflows for processing millions of samples in a high-throughput environment.

- **SEAMLESS DATA ACCESS** – to virtually any external/internal life science data source relevant to your research, including websites, biochip data, LIMS, algorithms, spreadsheets, databases, instruments, and more.
- **SIMPLIFIED DATA INTEGRATION** – the core engine integrates and transforms complex biological data in its native form, in real-time - significantly enhancing drug R&D productivity.
- **HIGH-PERFORMANCE DATA LOADING** – enables high-throughput loading of GenBank records and other large volumes of data into Oracle and other RDBMS, without the need to flatten or de-construct the files.

discoveryBuilder – a simple, graphical interface for generating heuristic queries in minutes and automating scientific workflows.

- **SIMPLIFIED DATA ANALYSIS** – enables real-time, “live” SQL queries across an unlimited set of data resources as if they were in a local database.
- **ENHANCED DATA INTERPRETATION** - Automated workflows facilitate targeted research and uncover key relationships.



System Requirements

- Operating Systems
 - Linux: RedHat 7.1 or above
 - Windows: NT or 2000
 - Sun: Solaris 2.7 or above
- Java Runtime 1.3
- PERL 5.6.1

Ask about our unique *Insight Service* – a personalized diagnostic consultation with senior scientific/IT professionals at geneticXchange specially designed to help expedite and increase your knowledge discovery results. Call us today for details at 650-321-9573 x423.

About geneticXchange

geneticXchange provides the only open system data integration platform designed to accelerate new drug discovery by enabling rapid, real-time access, integration, normalization, and querying of all scientific data sources. World leaders such as Applied Biosystems, the Genome Institute of Singapore, Genomics Collaborative, Inc., and Signature BioScience leverage discoveryHub™ software to help realize the promise of *in silico* drug discovery.

Learn more about discoveryHub by visiting www.geneticXchange.com
or call us at 650-321-9573