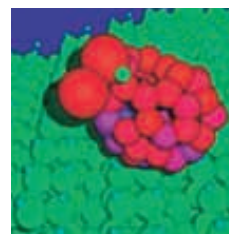


# Informatomics

**At GVK BIO, information technology converges with life science research and product development processes. Our Informatomics division analyzes data to transform biological patterns into knowledge and ultimately, successful products and services.**



Our products and services span the entire drug discovery and development cycle. Our talented teams are focused on enabling clients to truly leverage and benefit from research information.

## Database Products

Information from more than 125 journals and 100,000 patents is curated into rich databases. This includes chemical, bio-activity, toxicity and pharmacological information for a large number of compounds. These databases are available in searchable formats such as Oracle, XML, ISIS and others.

### MedChem Database

Comprises over 800,000 compounds with chemical and biological information, mechanism, indication, pathway, target, assay, activity etc., extracted from medicinal chemistry journals.

### Target Inhibitor Databases

Comprise information extracted from both journals and patents. Available for the following protein families:

- Kinases
- Phosphatases
- Proteases
- GPCRs
- NHRs
- Transporters
- Ion-Channel blockers

### Biomarker Databases

Biomarkers that are objectively measured and evaluated as indicators of normal biological processes, pathogenic processes, or pharmacological responses to a therapeutic intervention.

### GOSTAR Database

An online database with Query, Browse, Retrieve and Export features. Registration and subscription through PayPal online.

### Pharmacokinetic Databases

Comprise bio and pharmacokinetic parameters of compounds at various stages of drug discovery and development. These include:

- **Drug Database**, consisting of all US-FDA approved drugs
- **Clinical Candidate Database**, consisting of all compounds that are / were in clinical studies

### Toxicity Databases

Our Mechanism-based Toxicity Database and Toxicity Database contain in-vitro and in-vivo toxicity data, mechanistic terms and details of compounds with organ specificity.

### Natural Product Database

Comprises compounds derived from natural plant, animal, marine and microbial sources. Details of collection, authentication, extraction and biological activities have been curated.

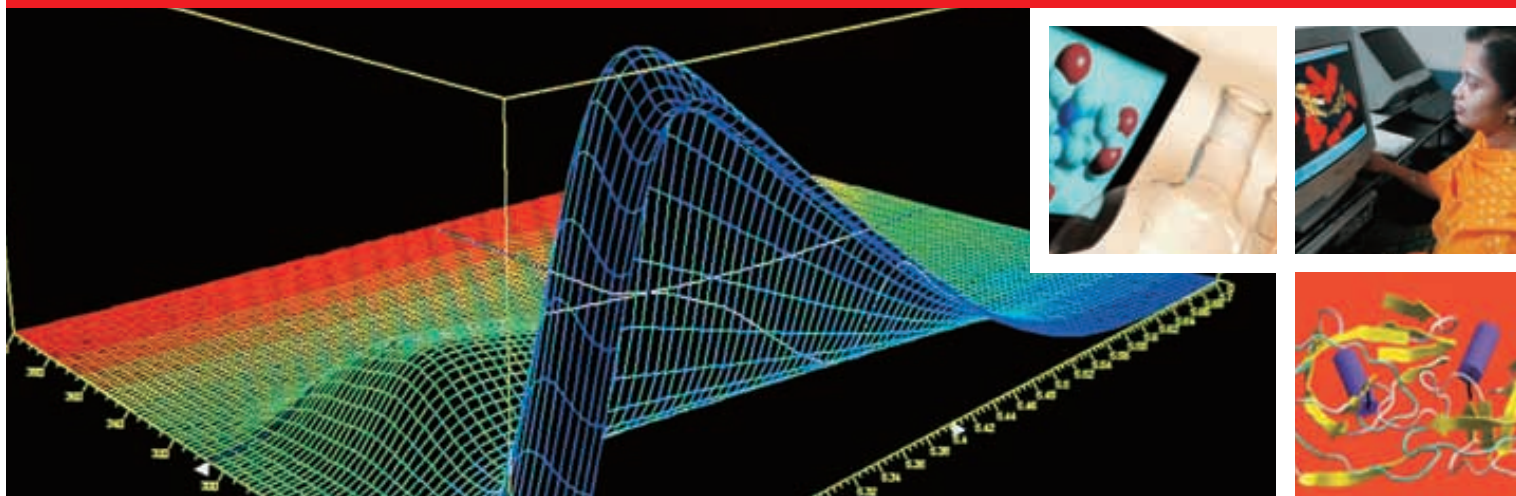
### Target Information Database

Comprises details of all commercially explored targets. Includes function, transcription factors, post-translational modifications, pathway, protein-protein interactions, indication, companies involved, products in pipeline, etc.

## Key Advantages

- A total of over 3 million compounds and 3 million SAR points covering a large number of targets
- Easy querying using a combination of structure, numeric and textual fields
- Structure, sub-structure and molecular similarity based query
- Similarity and Diversity analysis with a focus on chemical library design

# Informatics



## Services

### Curation

Our team of experienced scientists provides data-mining services and annotation of chemical, biological, pharmacological and toxicity information from patents, journals or targets. Information is curated in custom-designed formats to meet specific client requirements.

### Cheminformatics

Services include Molecular Modelling Studies, Lead Generation, Lead Optimization, Pharmacophore analysis and QSAR, Virtual Screening, ADME and Toxicological Property Prediction and Crystal Structure Prediction.

### Bioinformatics

Services include DNA and Protein Sequence Analysis, Protein Structure Analysis, Homology Modelling and Visualization Tools.

### BioIT

- FTE-based Bio/Cheminformatics projects
- Lead generation/Lead optimization pipeline software projects
- Development of integrated Knowledge Management Systems
- Developing applications involving Modelling /SAR analysis/ Library Enumeration/ Docking and related Cheminformatics applications
- Designing curation / analysis and decision support applications for clients
- Developing Custom scientific application projects
- Customization of legacy databases for clients
- Integration projects involving existing Bioinformatics /Cheminformatics client applications
- Custom Algorithm development for clients
- NLP projects for Bio/Cheminformatics Data Mining
- Microarray Data analysis

### BioIT Support Services

- Maintaining and supporting (including 24 X 7 support ) existing applications of clients with SLA
- Back-end integration of ERP products

### Resources

- Well-defined IP security policies and procedures form the basis of a secure IT infrastructure along with periodic internal and external security audits
- Programming / database development tools using C, bioJava, PERL, bioPERL, XML, bioXML, Fortran, SQL, Oracle, SAS, J2SE, J2EE, VS.NET, etc
- In-house training facility generates the talent required for our needs – enabling us to scale up in line with client requirements

## About GVK BIO

GVK Biosciences, India's premier Contract Research Organization, delivers integrated research services. The company accelerates the Drug Discovery and Development process of its customers through science and innovation.

- Informatics
- Medicinal Chemistry
- Biology
- Process R&D and Custom Synthesis
- Clinical Research
- Clinical Pharmacology

**Contact :** [bdinf@gvkbio.com](mailto:bdinf@gvkbio.com)

**GVK** <sup>BIO</sup>