



# BrainWave Biosolutions Limited

Accelerating Life Science Research through Technology.....





[www.brainwave.in](http://www.brainwave.in)

## About Us – Company Facts

- We are headquartered in Chennai with a team strength of over 100 scientists and other executives. We're a customer centric, process driven company, leveraging technology to serve our customers better.
- Our strengths are in understanding customer needs, deep domain knowledge in diverse fields and excellence in executing short and long-term projects to customer specific requirements.

- **Founded**                    2001
- **Promoted by**            Mrs. Valli Arun
- **Core Business**        Life Science Informatics
- **Locations**                Chennai, India
- **Employees**                125 +



## About The Founder

- Graduate in Biotechnology from Anna University, Chennai
- Pursued research activities at
  - RPR Gencell, Santa Clara, California
  - National Institute of Medical Research at Mill Hill, London, UK and Department of Biochemistry, Oxford University, UK
- She is one of the Directors in Valingro



**BrainWave**  
Biosolutions

[www.brainwave.in](http://www.brainwave.in)

## About Us – Vision and Mission

### **Vision**

To be a global life science informatics solution provider  
for drug discovery process

### **Mission**

Improving the productivity of our customers  
by providing custom decision support



**BrainWave**  
Biosolutions

[www.brainwave.in](http://www.brainwave.in)

## Business Model

- Fee for Contract Research Services
- Revenue sharing through Strategic Alliances



[www.brainwave.in](http://www.brainwave.in)

## Brainwave Offerings-Development and related services

### Software Tools - Life Science

- Text Mining
- Scientific databases with data extraction and analysis tools integrated: Architecture, populated data – Life Science Knowledge Management suite



BrainWave  
Biosolutions

[www.brainwave.in](http://www.brainwave.in)

## Brainwave Offerings-Text Mining

- Treats Genes/Proteins, Chemical agents and Diseases as objects
- Extracts relationship between them
- Employs Natural Language Processing



## Brainwave Offerings - Knowledge Management Suite: KMap

**Connect and make sense of information across R&D business units such as target biology and compound discovery**

- Intelligent data extraction and data fusion
- Decision support based on semantic queries
- Storing information in a high-performance reasoning structure
- Giving the system the ability to use different inference engines to enable hypothesis based experimentation
- Creating adequate user interfaces for ad hoc querying, visualization, etc.



## BrainWave Offerings-KMap Suite: Create, Identify & Capture

Tacit knowledge



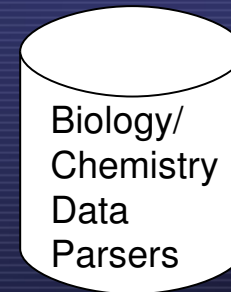
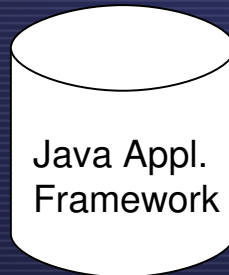
Explicit knowledge



Record in a structured and consistent manner  
(remove biases and heterogeneity)



Use for specific purposes



**KMap Integrator**



[www.brainwave.in](http://www.brainwave.in)

## BrainWave Offerings-Service areas

- Bio / Chem Informatics
- Discovery Informatics
- Clinical Informatics
- Structural Biology
- Intellectual Property Services
- Knowledge Process Outsourcing (KPO) Services



[www.brainwave.in](http://www.brainwave.in)

## Bio/Chem Informatics

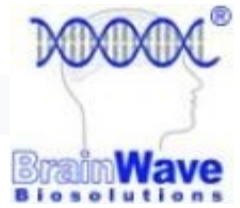
- Protein/Gene annotation
- Customized Software Tools development
- Customized tools development for novel chemical library generation, clustering/ diversity analysis, structure searching methodologies etc.
- Analysis using standard tools



[www.brainwave.in](http://www.brainwave.in)

## Discovery Informatics

- Partnership model for drug discovery projects
- Experienced Scientists for Target identification, Validation, Molecular Modeling-Biology / Chemistry, Hit Identification, Hit to lead Optimization etc.
- Technical expertise in handling industry standard modeling tools: Tripos, Accelrys, Schrodinger etc.
- Approaches: Ligand based and Structure based designs
- Techniques: Literature Mining, Pathway analysis, QSAR, Pharmacophore modeling, Docking, Diversity/Clustering analysis, protein modeling



[www.brainwave.in](http://www.brainwave.in)

## Clinical Informatics

- CRF and database design
- Double Data Entry/Validation /Management
- Data Backup and Security
- SAS Programming
- Biostatistics
- Report Writing
- Web based EDC Implementation



[www.brainwave.in](http://www.brainwave.in)

## Structural Biology

- Crystal Image Annotation
- Crystallographic Structure Solution and Refinement
- Final Reports with Electron density maps, Ligand binding interactions, Complete atomic coordinates, Refinement statistics



[www.brainwave.in](http://www.brainwave.in)

## Intellectual Property Services

- Patent Searching
- Patent Analysis
- Patent Drafting
- Patent Prosecution



[www.brainwave.in](http://www.brainwave.in)

## KPO Services

- **Healthcare, Pharma and Biotech Research Services** : KOL/PI Profiling, Key Decision Makers Profiling etc.
- **Business Research Services** : Company Profiling, Competitor Analysis, Products Positioning
- **Market Research Services** : Qualitative, Quantitative Research
- **Medical/Technical Content Publishing** : Content Writing, Prepress work etc.
- **Software Engineering** : Software Tools Development
- **Data Processing Services**: Data Entry, Data Conversion etc.



## Brainwave Engagement Models

### Management Modes:

- Time and Materials (Customer Managed)
- Turnkey (Brainwave Managed)

### Pricing Modes:

- Time and Materials ( Effort Based )
- Fixed price ( Milestone Based )
- Fixed Transition Earnings

### Our Model is

- Flexible



## Going Forward...

### Pilot Project:

- Identify scope of work for a small pilot
- Define pilot rationale
- Demonstrate capability

### Staff Augmentation:

- Typical skills required
- Plan and deploy