

## Brainlike Principles for Information Discovery in Life Science

*Thomas Meyer, Christina Zinecker, Virginia Geisel, and Martin C. Hirsch*  
interActive-Systems GmbH, Dieffenbachstr. 33c, 10967 D – Berlin

We developed a system, semgine, that meets the scientists needs to retrieve biomedical information in a new and intuitive way.

The core technology is based on a new approach which applies principles of cognitive neuroscience to applied search technology. With semgine, we developed a novel concept for processing of information. It enables associative information and relationship matching ranging from basic research to medical subjects.

Instead of applying statistical methods for finding your explicit search terms in documents, semgine understands a users request and what might be relevant for the search context.

semgine extracts information from unstructured text data, e.g. medline and stores it in a fast and associative knowledge space. In a next step it utilizes brainlike principles for retrieval and ranking of this information in a personalized way and actively supports the user in refining his search results.

In contrast to common search engines pure information is obtained - not links to documents and places, where the information may be found.

Furthermore, based on high quality information repositories for selected topics, semgine is able to detect hidden relationships between terms and concepts.

Generally it:

- Extracts information from a large body of biomedical information from scientific literature, medline abstracts, and your internal text documents
- Associative, context sensitive information and relationship retrieval by using specific background knowledge
- Rather than documents pure scientific information is obtained and associatively interlinked

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