



# LINGWAY Medical Suite

## A Semantic Solution for Medical Information

Several European governments plans to offer health professionals new information and diagnostic tools, the need to constantly improve medical treatments and monitor drug safety and effectiveness, the creating of personal medical files: these are but a few of the many examples showing the rapid rise in applications for medical data analysis and diffusion.

**LINGWAY Medical Suite** is a set of medical document search and analysis solutions based on a high-performance electronic dictionary and semantic components adapted to medical terminology.

### 1- Coding Assistance Tools:

**LINGWAY Medical Dictionary Encoder (LMDE)** is a French/English search engine dedicated to pharmacovigilance. It permits the automated coding of verbatim describing the secondary effects of drugs, warnings and suggested use according to the international MedDRA\* (Medical Dictionary for Drug Regulatory Activities) terminology listings, enabling users to evaluate and monitor the safety, effectiveness, and quality of drugs, medical devices and other therapeutic products.

*"Pharmaceutical and biotechnology laboratories are always on the lookout for innovative solutions that facilitate clinical trials and pharmacovigilance management and that, at the same time, enable them to enhance quality process dependability and boost productivity,"* says Gilles Sonou, Director of Umanis Clinical Research, a Lingway partner. *"Lingway's MedDRA semantic application fits these needs perfectly."*



\* MedDRA (Medical Dictionary for Drug Regulatory Activities) is an English-language medical terminology with over 55,000 entries used by U.S., European and Japanese drug regulation authorities in partnership with the pharmaceutical industry. It is designed to help specialists around the world access and share information about medical products for human use. MedDRA includes a series of terms for systematically classifying medical information and a terminology describing symptoms, signs, diseases, diagnoses and medical tests.



In addition to LMDE, Lingway has developed other coding assistance tools that allow users to enter verbatim in natural language and obtain a listing of nomenclature codes classified according to pertinence. The target nomenclatures include

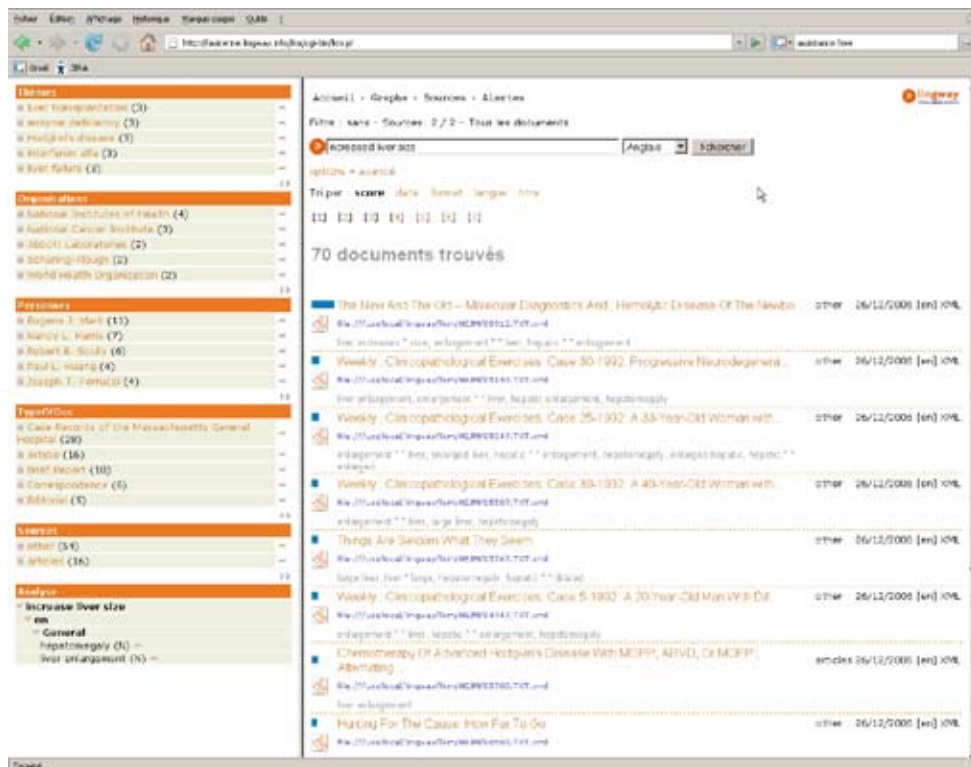
the International Classification of Diseases (ICD) which is currently used for the coding of diseases by France's medical IT system program (PMSI), and the French CCAM nomenclature for the coding of medical acts.

## 2- Medical Semantic Search Engine:

**LINGWAY Medical Suite** features a specialized French/English medical search engine.

Thanks to a powerful automated language analysis module (spell-checker, expansion of synonyms, relationships between specific and generic concepts, word associations...) and a medical dictionary, the search engine is able to identify key words (authors' names, institutions, drugs...) and the subjects covered in documents, permitting users to efficiently browse their source material.

The search engine is based on the **LINGWAY KM** semantic search and analysis platform and enables users to conduct an "intelligent" search for information in a wide range of medical corpus: scientific publications, encyclopedias, medical reports, etc.



**Among our Customers:** Cardinal Systems, CEN BIOTECH, Fournier Pharma, Institut Gustave Roussy, Laboratoire de Fractionnement Biologique (LFB), and Umanis Clinical Research.



Immeuble PARITALIE  
18, rue Pasteur  
94278 Le Kremlin Bicêtre cedex

www.lingway.com