

SYMBiomatics: Synergies in Medical Informatics and Bioinformatics

Cameron G (1), Clark D (1), Beltrame F (2), Coatrieux JL (3), Del Hoyo Barbolla E (4),
Martin-Sanchez F (5), Milanesi L (6), Tollis Ioannis G (7), Van der Lei J (8)

- (1) EMBL-European Bioinformatics Institute, UK
- (2) DIST University of Genova, Italy
- (3) INSERM, France
- (4) Ministry of Education and Science, Spain
- (5) Institute of Health "Carlos III", Spain
- (6) CNR-ITB - Institute of Biomedical Technologies, Italy
- (7) Foundation for Research and Technology, Greece
- (8) Erasmus Medical Center, Netherlands

Motivation

The European Commission has selected the EBI to coordinate a project that will stimulate and explore synergies between bioinformatics (the science of storing, retrieving and analysing large amounts of biological information) and medical informatics (the science of processing, sharing and using large amounts of medical information). The SYMBiomatics project will culminate in a White Paper that will inform the Commission's funding policy on the synergy between these two rapidly growing areas. The aim is to facilitate and accelerate biomedical research and innovation, with the ultimate goal of improving Europe's efficiency at developing better tools and systems for disease prevention, diagnosis and treatment. Building on decades of advances in deciphering the molecular components of living things, molecular and computational biologists are now synthesising the information that they've gathered, and are building a detailed understanding of cells, tissues, organs, organisms and populations. At the same time, clinical research has led to a better appreciation of the molecular basis of disease. Clinical scientists are amassing information that is helping them to decipher how variations in people's genetic make-up can affect their likelihood of developing certain diseases such as cardiovascular disease or diabetes, or of developing an adverse response to particular drugs, such as the anti-coagulants used to treat some types of heart disease. The development of technologies that will allow scientific and clinical information to be shared and integrated more readily will expedite the creation of novel diagnostic, preventive and therapeutic methods, allowing people to lead longer, healthier lives."

Results

Working together over the next fifteen months, an executive committee comprising nine organisations from six different European Member States (UK, France, Italy, Spain, Greece and the Netherlands) will document the state of the art in biomedical informatics. The group will identify areas of maximum opportunity, by systematically collecting insights from experts in the field and by analysing the scientific literature. Areas of opportunity will then be documented and prioritised. The group's findings will be presented at a meeting in early summer 2006, enabling further discussion by the wider community of bioinformaticians, medical informaticians, the growing number of clinical professionals whose work spans these domains and European policy makers. The project will culminate in a report that will summarise the project's findings and will provide input to future European scientific and funding policy.

Availability: <http://www.symbiomatics.org/>

Contact email: Dominic.Clark@genericsgroup.com