MedBioinformatics PRESS RELEASE

3.5 million euros to develop bioinformatics tools that facilitate translational research and personalized medicine in oncology and neuropsychiatry

- The Hospital del Mar Medical Research Institute of Barcelona (IMIM) coordinates the EU-funded MedBioinformatics research project.
- The call was very competitive, only 6% of the projects submitted have been funded
- End-users needs and user-friendliness are key concerns in the software development process included in the project
- The MedBioinformatics project started on 1st May

Barcelona, 18 de Mayo de 2015. - Under Horizon 2020, the EU has funded the 3.5 million project MedBioinformatics. This project aims to develop useful bioinformatics tools and applications, and autonomously usable for analysing the huge amount of data and knowledge generated in healthcare and biomedical research in order to facilitate translational research and precision medicine.

According to Prof. Ferran Sanz, director of the IMIM-UPF Research Programme on Biomedical Informatics (GRIB) and coordinator of this project, "most potential users, i.e. translational researchers and health professionals, do not have adequate tools to efficiently exploit this large and heterogeneous amount of information. So far, efforts to develop bioinformatics methods and tools have not produced the expected impact in healthcare environments." Ferran Sanz added that this is primarily due to two reasons "on one hand, the lack of integrative strategies that effectively combine the diverse types of data that are available in different repositories around the world. On the other hand, there is a lack of involvement of end users during the process of creating applications to identify the information they really need and to present it in the most appropriate format. We must develop applications that integrate, analyse and show biomedical information in a way that is immediately understandable and useful to end users."

The applications that will be developed in the MedBioinformatics project will focus on two key medical specialties, oncology and neuropsychiatry, which have a big impact on the health and welfare of the population. Identifying the bioinformatics needs of these two specialties will facilitate the identification and design of applications that will meet the needs of biomedical professionals from other areas. Among the applications to be developed there is a new generation of tools to study the relationship between genotype and phenotype, a browser of disease biomarkers, tools to analyse and predict comorbidities, and applications to support molecular diagnostics and personalized treatment of cancer. To accomplish its objectives, MedBioinformatics has assembled a multidisciplinary team made up of bioinformatics and translational and clinical researchers.

The MedBioinformatics project will last three years and is coordinated by Hospital del Mar Medical Research Institute of Barcelona (IMIM). There are 13 research groups of 9 institutions from 5 different countries involved in the project. They cover five axes of expertise (bioinformatics, translational research, clinical practice, industry/SMEs and project management) and two medical specialities (oncology and neuropsychiatry). Four of the institutions are located in Spain: the IMIM, with three research groups involved (Integrative Biomedical Informatics, Oncology and Psychiatry); the Universitat Pompeu Fabra also with three research groups involved (Computational Genomics, Biomedical Genomics and Neurobiology of Behaviour); the Vall d'Hebron Institute of Oncology; and, the company Synapse Research Management Partners. The other institutions are the European

Bioinformatics Institute and the University of Oxford, both in UK; the University of Copenhagen in Denmark, the Institute for Molecular Medicine Finland; and the company BMD Software from Portugal.

NOTES TO EDITORS:

More information on MedBioinformatics will be soon available here: www.medbioinformatics.eu

Project Information:

The MedBioinformatics Project (full title: Creating medically-driven integrative bioinformatics applications focused on oncology, CNS disorders and their comorbidities) is funded with approximately 3.5 million Euro granted by the European Union's Horizon 2020 research and innovation programme 2014-2020, coordinated by Prof. Ferran Sanz from IMIM and carried out by 9 leading European research institutions and SMEs.

MedBioinformatics started the 1st May 2015, with a duration of 36 months.

The full list of participating institutions is:

- Hospital del Mar Medical Research Institute in Barcelona (Spain)
- University of Copenhagen (Denmark)
- European Bioinformatics Institute, with is part of the European Molecular Biology Laboratory (UK)
- Institute for Molecular Medicine Finland of the University of Helsinki (Finland)
- University of Oxford (UK)
- BMD Software Lda. (Portugal)
- Universitat Pompeu Fabra (Spain)
- Vall d'Hebron Institute of Oncology (Spain)
- Synapse Research Management Partners S.L. (Spain)

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