

Barcelona Teams to Lead \$7M EU Malaria, Diabetes Studies

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NEW YORK (GenomeWeb News) - A group of scientists in Spain will lead studies of malaria and diabetes that will focus on 'omics and bioinformatics with €5 million (\$7 million) in funding from the European Commission between 2009 and 2011.

The Institute for Research in Biomedicine in Barcelona will coordinate both research projects, which are part of the second call of the EU's Seventh Framework Program.

In one project, researchers will seek to understand proteins involved in malaria transmission that may be used to inhibit the disease. Called Mephitis, the project is led by **Lluís Ribas de Pouplana**, head of the Gene Translation Laboratory at IRB Barcelona. These studies will include two groups in **Barcelona**, two in **India**, one in **France**, one in **Italy**, one from **Portugal**, and another from **Australia**.

Ribas de Pouplana said we currently "have enough knowledge about protein synthesis in organisms such as the bacteria *E. coli* or the yeast *Saccharomyces cerevisiae*, and we now want to transfer this knowledge base to organisms of medical relevance such as *Plasmodium*," which will help scientists to "fight effectively against the parasite."

This study will involve experts from several specialty areas, including **genome dynamics, bioinformatics, proteomics, transcriptomics**, and *Plasmodium* biology, IRB said.

The second research area funded under the program will involve using bioinformatics to gather information about diabetes and other diseases that are the results of a combination of genetic and environmental factors, IRB said. These studies will be led by **Antonio Zorzano**, head of the Molecular Medicine Program at IRB Barcelona and a senior professor at the University of Barcelona.

This consortium will involve six groups, and will aim to identify the processes that happen in mitochondria that are at the root of insulin resistance, which increases the risk of diabetes and coronary disease, and may be related to hypertension and obesity.

Zorzano said in a statement that systems biology "can hold and integrate many data about a single disease and can reveal the existence of gene networks and interactions between proteins that are responsible for the key alterations in a disease."