

The Hospital del Mar Medical Research Institute receives a European grant of 2.5 million euros to expand knowledge of the human genome

- *The Biomedical Informatics Research Programme of IMIM-Hospital del Mar has received one of the European Research Council (ERC) grants for the NovoGenePop project, the ERC Advanced Grant.*
- *Among the 253 researchers selected, only thirteen are from Spain. The project at the IMIM-Hospital del Mar, the only Spanish biomedical research centre to be selected, will develop bioinformatics tools to identify specific genes in certain individuals or populations. This may pave the way for accelerated research in fields such as cancer and hereditary diseases.*
- *In total, the ERC Advanced Grants have distributed 624 million between 253 European researchers. This is the fourth grant of this type that the IMIM-Hospital del Mar has received in the last years.*

Barcelona, 4 May, 2022. – Dr. [Mar Albà](#), ICREA professor and coordinator of the [Evolutionary Genomics Research Group](#) at the Hospital del Mar Medical Research Institute and director of the [Research Programme on Biomedical Informatics](#) and associate professor at Pompeu Fabra University, has received a **grant of 2.5 million euros** from the European Research Council ([European Research Council](#), ERC), to develop the *NovoGenePop* project. This study seeks to **expand our current knowledge of the human genome** by searching for genes that are specific to certain individuals or populations.

Over the next five years, the group led by Dr. Albà will work on **"opening up new horizons in research, studying the diversity of genes in populations"**. Their field of study focuses on *de novo* genes, those that have been created recently due to mutations that accumulate constantly and which have no negative consequences for the organism. Having bioinformatics tools for identifying these genes can be very useful in a number of fields.

"The aim is to take a step forward in our understanding of how new genes are formed from the genome, not on long evolutionary scales, but at the population level", explains Dr. Albà. The goal of the project is to identify the diversity of these novel genes, based on data from yeast populations and human cell lines, for which genomic sequences are already available. Using massive RNA and protein sequencing tools, it will be possible to detect novel genes and identify the mutations associated with their formation. To refine the research, the data will be compared with information from other related species.

"We have been looking at genes in a very limited way, always using the same database references", explains the researcher. The project seeks to identify individual differences in genes and create tools to analyse them easily. **"It is possible that, depending on the population, there are genes that are unknown to us and we want to identify these systematically. Some of them could play a role in the development of certain diseases"**, adds Dr. Albà. The development of tools to identify the spectrum of mutations associated with the formation of new genes will facilitate the study of new mechanisms linked to pathologies such as cancer or hereditary diseases.

ERC Advanced Grants

The European Research Council is a European Union institution and Europe's leading funder of pioneering research excellence. Its objective is to cover the needs of this type of project from the most basic research to commercial applications. Nearly 1,800 researchers applied in the 2021



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edition. 253 have been selected, from 21 EU countries, who will share 624 million euros. In Spain, only thirteen projects have been chosen. Among these, IMIM-Hospital del Mar was the only biomedical research centre selected.

IMIM's capacity to attract funding

Over the last years, four IMIM-Hospital del Mar researchers have been awarded ERC grants, **three Advanced Grants and one Starting Grant**, demonstrating the institute's potential to attract international funding. In the last decade alone, it has received nearly 67 million euros, almost 14 million from international calls for proposals and more than 53 million from national grants.

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Further information

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