





The EU awards 16 million euros to Can Ruti for two Projects on infectious diseases coordinated by IrsiCaixa and the Germans Trias i Pujol Research Institute

- The European Union has granted 10 projects in all of Europe in the area "prevention, treatment and cure of infectious diseases" in the last call for the Horizon 2020
 Programme. The only two to come to Spain have been awarded to institutions on Can Ruti Campus (Badalona).
- One of the studies will investigate the role of the intestinal microbiome in cases of HIV
 infection and the other the potential of anti-inflammatories as adjuvant therapy for
 tuberculosis.

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The European Union has **granted 16 million euros to the Can Ruti Campus for projects on infectious diseases,** coordinated by the <u>IrsiCaixa AIDS Research Institute</u> and <u>the Germans Trias I Pujol Research Institute</u> (IGTP) respectively, within the framework of the Horizon 2020 Programme. IrsiCaixa, an organization with the joint participation of "la Caixa" and the Government of Catalonia, will study the role of the microbiome in HIV infection and the Experimental Tuberculosis Unit of the IGTP will study how to better personalize the treatment for tuberculosis. Both projects started this January and will last five years.

In the latest call for the Horizon 2020 Programme the European Union has granted ten projects in all Europe in "prevention, treatment and cure of infectious diseases". The only two to come to Spain have been awarded to institutions on Can Ruti Campus (Badalona). "To be coordinators of two new projects within the Horizon 2020 Programme means that Europe recognizes the quality and excellence of Can Ruti as a campus carrying out cutting edge research and as a reference in Europe, especially in the area of infectious diseases," comments Julia Garcia-Prado, Scientific Director of the IGTP and researcher at IrsiCaixa.

With this concession, the Germans Trias I Pujol Hospital further consolidates its position as a reference centre for infectious diseases. The Infectious Disease Service, led by the Director of IrsiCaixa, Bonaventura Clotet, was created in 2017 and since then has expanded to include research and healthcare services for emerging diseases.

"To obtain two of the ten Horizon 2020 grants in this area is the consolidation of a project of vital importance, given that these diseases are showing a come-back at world level and in lower income countries they are still the main causes of death," explains Clotet.

Microbiome and HIV

The project coordinated by IrsiCaixa, called Mistral (GA 847943), will be carried out in collaboration with ten other institutions from Spain, Denmark, the USA and Sweden. With a budget of ten million euros the scientists will analyse the role of the intestinal microbiome in HIV infection with the objective of **designing treatments to prevent HIV infection, reinforce the**







immune system, control the progression of the infection and improve the response to potential vaccinations against the virus.

"The microbiome is an area of enormous potential in the field of biomedical research," explains Roger Paredes, Doctor, IrsiCaixa Researcher and coordinator of Mistral. "We only understand a tiny part of the role the microbes in our bodies play in virtually all aspects of our health, from metabolic processes to the evolution of diseases. With Mistral we will research the influence that intestinal microbes have on HIV infection, which will provide valuable information for future methods of prevention and treatments to cure or eradicate the disease," he adds.

Mistral will create an open-access database with all the data and biomarkers identified from the microbiome by this research. This software will be cloud-based and available to doctors and researchers.

Anti-inflammatories and Tuberculosis

The project coordinated by the IGTP from the Experimental Tuberculosis Unit aims to find a way to predict which patients will benefit from adding anti-inflammatories to their treatment. It has a budget of 6.3 million euros and is called Stratified Medicine Algorithm for HDT in TB (SMA-TB, GA 847762). It will be carried out with 8 institutions from Spain, Georgia, South Africa, France, the Netherlands, Norway and Germany.

"Host-directed treatments are a new type of complementary therapy based on boosting the patients' own defences and ability to fight off the disease. In the case of tuberculosis this complements the effect of the antibiotics, which only eliminate the microorganisms which cause it," explains Cristina Vilaplana, researcher at the IGTP and CIBERES and coordinator of SMA-TB. "Our group have been studying the use of aspirin and other anti-inflammatories in this context for some time. The project will allow us to run a clinical trial to evaluate the impact and potential. It will generate an algorithm based on networked mathematical models, which will serve as a tool to help with the taking of medical decisions. The main idea is that at the moment all tuberculosis patients are treated the same way, we want to find a way to use more personalized medicine," she explains.

The treatment for tuberculosis is very long and whether it is successful depends on the strain of bacteria that is causing it in each case. They are tedious treatments for patients and represent a high cost for health systems. "If we can use these alternative treatments successfully, we could shorten the time needed for the treatment and get better results for the patients," concludes Vilaplana.

More information and interviews

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