



ALIBIRD2020-CM

S2018/BAA-4343

“Therapeutic formulas of precision nutrition for cancer”

ALIBIRD2020-CM in brief

Acronym: ALIBIRD2020-CM

Reference: S2018/BAA-4343

Title: “Therapeutic formulas of precision nutrition for cancer”

Duration: 4 years (01/01/2019 - 31/12/2022)

Funds: Program call of R & D Activities among Research Groups of the Community of Madrid (Technologies 2018) and co-financed with European Union Structural Funds.

Budget: 1.052.421,75€

Coordinator: Guillermo Reglero, Functional Foods Ingredients, INGREEN (UAM) Research Group Leader.

Consortium: The following research groups of the Community of Madrid

- Bioactive Foods, Bioavailability and Action Mechanisms Research Group, ALIMENTA (CSIC).
- Bioengineering and Telemedicine Research Group. GBT (UPM).
- Functional Foods and Nutrition Research Group. NUTRINVEST (IdiPAZ).
- Molecular Oncology Research Group. ONCOGENOM (IMDEA FOOD).
- Precision Oncology Laboratory, POL. Infanta Sofia Hospital (HUIS).
- GENYAL-LAB, genomics laboratory from IMDEA FOOD. Member of REDLAB, the laboratories network of the Community of Madrid, under the registration number 440.

Website: www.alibird.org/2020-CM

Twitter: [@alibird2020](https://twitter.com/alibird2020)

ALIBIRD2020-CM objectives

The ALIBIRD2020-CM Scientific Program is focused to design and validate products together with precision nutrition strategies aimed at improving the prognosis of cancer patients. The aim is to provide new approaches to the design of new therapeutic nutritional supplements through the formulation of self-emulsifying and bioactive lipid carriers, combined with natural extracts from food sources and through synergies in bioavailability and bioactivity, leading to effective products when targeting Metabolic agents involved in processes of tumor proliferation, metastasis or resistance to chemotherapy.

The validation of the nutritional supplements developed within the framework of ALIBIRD2020-CM, that is to say, the demonstration of its effectiveness will be carried out in nutrigenetic clinical trials where the genetic profiles that respond better to the treatments with the therapeutic nutritional complements will be identified. Clinical trials will include the analysis of the relationship between diet and the composition and metabolism of the gut microbiota of patients, to associate the microbiota with cancer. In the use by the patients of the treatments derived from the studies of ALIBIRD2020-CM it is essential to have an ICT tool (an App) that empowers the users in the self-management of the prescribed strategies and that motivates them to adequately comply with the necessary guidelines to achieve the set health goals, in addition to sending doctors useful data for clinical follow-up.



ALIBIRD2020-CM brings together more than 40 researchers in a multidisciplinary consortium, composed of experts in different areas such as Life Sciences, Food Technology, Nutrition, Molecular and Cellular Biology, Biomedicine and Telemedicine belonging to five research organizations of the Community of Madrid: Autonomous University of Madrid (UAM), Polytechnic University of Madrid (UPM), IMDEA Food Institute (IMDEA FOOD), Spanish National Research Council (CSIC), La Paz University Hospital (FIBHULP) and Infanta Sofia Hospital (HUIS).

Also, three companies actively support the activities of the consortium: Natac Group, specialized in natural bioactive extracts; Biopolis-ADM, with capacity for industrial production of new formulas; Canaan Research & Investment, specialized in health sector transfer of technology.

Based on the previous scientific-technological program, ALIBIRD2020-CM intends to make relevant scientific and socio-economic contributions in the field of health.

Likewise, for the food and nutrition industry, it is essential to have innovative strategies that lead to the creation of real value and reinforce their competitiveness. For these strategies to be effective it is necessary to train new nutritionists to obtain their confidence in the prescription of precision food products for cancer. Equally important is that patients and the population, in general, know the possibilities offered by modern nutrition to demand and use. Therefore, it is also the objective of ALIBIRD2020-CM to carry out training and communication actions in this direction.

To face the above challenges, ALIBIRD2020-CM will also have huge potential support within the framework of two major European projects of the European Institute of Innovation & Technology, EIT Food (<https://www.eitfood.eu/>) and EIT Health (<https://www.eithealth.eu/>), thanks to the involvement in them of some of their groups.