Press release, 02/05/2022

Phylogene and the CEA join forces to improve the analysis of microbiota

The Nîmes-based biotechnology company Phylogene and the CEA are combining their skills to improve and develop new microbiota analysis techniques. The integration of more powerful tools is materialized by the acquisition, in early 2022, of a very high-resolution mass spectrometer, thanks to the financial support of the Occitanie region. Ultimately, the industrialization of these analysis techniques will benefit companies in several economic sectors.

European leader in the analysis of microbiota by metaproteomics, the CEA has joined forces with the french company Phylogene, a specialist in genomic and proteomic analysis serving industry and public laboratories, and imagined the DeepMicro project. This aims to offer robust, standardized and more efficient solutions to all of their partners and customers for detecting rapid changes in the functional traits of microbiota. The industrialization of all analytical methods will interest several economic sectors. In medicine, the solutions provided by the CEA and Phylogene will aim to improve the diagnosis of diseases thanks to a more detailed analysis of the intestinal, oral, ocular, cancer or pulmonary microbiomes. Understanding the mechanisms and functioning of microbiota is essential for interpreting the interactions of microorganisms with each other and with their environment including the host, and analyzing any disturbances that may occur.

“The functional exploration of microbiota by metaproteomics is a key to grasp to better understand these complex biological systems. Our know-how in this field and our technologies are recognized by the international scientific community. The field of application of the functional exploration of microbiomes is particularly broad. We are enthusiastic about the idea of progressing in this field with Phylogene, a pioneering private partner recognized for the study of microbiota,” says Jean Armengaud, leader of the DeepMicro project at the CEA.

"We are delighted to share this project with our colleagues at the CEA around metaproteomics, which I remind you is the only omics capable of affecting the microbiota and its environment simultaneously. This will allow us, through the optimization of hardware configurations and data processing to improve our performance in terms of time, depth and delivering of results for understanding the effects and mechanisms of microbiota which for the moment remain limited to description by clinical practice and to potential by metagenomics” adds Gilbert Skorski, CEO of Phylogene.

Press contacts: CEA – Clément Moulet – clement.moulet@cea.fr
Phylogene – Gilbert Skorski – gskorski@phylogene.com

About the CEA:

The CEA is a major player in research, serving the State, the economy and citizens. It provides concrete solutions to their needs in four main areas: energy transition, digital transition, technologies for the medicine of the future, defense and security. The CEA carries out its basic research activities in the fields of biotechnology and health, sciences of matter and the Universe, physics and nanosciences. It places at the heart of its objectives the production and publication of knowledge and know-how at the highest global level. In 2020, nearly 4,000 scientific publications, three-quarters of which stem from international collaborations, were signed by CEA researchers. This knowledge also constitutes essential sources for the other missions of the CEA.

About Phylogene:

Phylogene is a CRO specialized in multi-omics, with metaproteomics and associated bioinformatics approaches supplemented by metagenomics and also metabolomics. It develops commercial

solutions for characterization in dermocosmetics, nutrition, metabolic diseases and oncology, including the characterization of microbiota and induced effects.