PRESS RELEASE

Integrative Phenomics and Sorbonne University, Inserm, and APHP announce PINEAPPL: a project generating personalized nutrition approaches to prevent cardiometabolic diseases and risks

Paris, April 4, 2024

Integrative Phenomics, a French SME based in Paris, developing innovative and evidenced-based models and solutions in precision and personalized nutrition, and the NutriOmics Laboratory (Sorbonne University, the French National Institute of Health and Medical Research (Inserm), the Great Paris University Hospitals (APHP)), a group led by Prof. Karine Clément renowned for its clinical research in nutrition and metabolic diseases and related complications, have announced a groundbreaking collaborative project. The project, *PINEAPPL,* an acronym for "PrecIsion Nutrition and cardiometabolic diseAses Prevention Platform" is financed by the French Public Investment Bank (*Banque Publique d'Investissements, BPIFRANCE*) as part of France 2030's initiative for "Innovating to succeed in agroecological and food transitions". The PINEAPPL project is set to revolutionize personalized nutrition aimed at cardiometabolic disease management and prevention.

Bridging the Gap Between Research and Real-World

The collaboration aims to link the crucial gap between extensive research development, proof of concept stages, and their practical, market-ready application. By combining Integrative Phenomics' industry-leading expertise in personalized nutrition models and user-facing solutions with the NutriOmics Laboratory's excellence in understanding metabolic disease complexity, the project promises to usher in a new era of personalized nutrition through the development of a Personalized Nutrition Platform to prevent Cardiometabolic Diseases: The PINEAPPL platform.

Personalized Nutrition at the Forefront

PINEAPPL represents a commitment to advance technological solutions and the understanding of low-grade chronic inflammation in metabolic disease management and prevention. Cardiometabolic diseases, which encompasses multiple non-communicable disease, such as obesity, diabetes, and related cardiovascular risks represent a significant challenge across the globe, and early intervention is key to curbing the progression of these diseases. Low-grade inflammation is characterized by a subtle but persistent elevation of circulating proteins and is a known risk-factor for the progression of metabolic disease complications. Low-grade inflammation can however be highly variable from one subject to another and there are no therapies or interventions individually targeting it. The project will rely on a large national cohort of 3000 individuals to understand factors related to low-grade chronic inflammation and generate biomarkers. A clinical trial within this population also aims to demonstrate the effectiveness of personalized nutrition to reduce chronic low-grade inflammation. This approach not only aims to

improve the management of existing cardiometabolic conditions but also to pave the way for preventative strategies, reducing cardiometabolic disease burden.

Collaboration for Innovation

"Integrative Phenomics is excited to collaborate with Prof. Clément and her NutriOmics Lab on this transformative project. Our shared vision on targeting low-grade inflammation to prevent or manage metabolic disease and related risks is at the core of this partnership. The project is the perfect opportunity to combine their clinical and biological expertise with our approach to personalized nutrition using our existing models and algorithms within our *in silico* Modeling Core (IMC©). The IMC already powers solutions in personalized nutrition for cardiometabolic disease, and this will allow us to target disease prevention," stated Timothy Swartz, Scientific Program Director at Integrative Phenomics.

Prof. Clément added, "This collaboration represents a significant step forward in our ongoing efforts to understanding the link between metabolism and inflammation in nutrition-related diseases. Personalized nutrition has the potential to change the way we approach these common disorders and their prevention."

Looking to the Future

The project started in April 2023 and runs for over three years. The outcomes are expected to have a profound impact on the nutrition and health sector by identifying novel biomarkers and providing evidence-based, personalized nutrition technology for disease prevention with recommendations that are seamlessly integrated into everyday life.

About Integrative Phenomics:
Integrative Phenomics is a deeptech SME dedicated to advancing evidence-based precision and personalized nutrition through its patented state-of-the-art models and real-world solutions. Its mission is to deliver a future where nutrition is tailored to everyone's health. The company integrates individual factors such as biology, lifestyle, and gut microbiome, as well as eating and consumption habits and preferences, to provide holistic solutions for the prevention and management of metabolic diseases. These solutions are aimed at individual consumers and patients, healthcare professionals and the food industry https://www.integrative-phenomics.com.

About Sorbonne University :
Sorbonne University is a world-class multidisciplinary research-intensive university covering humanities, health, and science and engineering disciplines. Anchored in the heart of Paris and present in the region, Sorbonne University has 55,000 students, 7,300 teaching and research staff, and more than a hundred laboratories. Alongside its partners in the Sorbonne University Alliance, and through its multidisciplinary institutes and initiatives, it conducts and programs research and training activities in order to strengthen its collective contribution to the challenges of three major transitions: a global approach to health (One Health), resources for a sustainable planet (One Earth), and changing societies, languages and cultures (One Humanity). Sorbonne University is also a member of the 4EU+ Alliance, an innovative model of a European university that develops international strategic partnerships and promotes the openness of its community to the rest of the world. https://www.sorbonne-universite.fr

About APHP :
The leading university hospital in Europe, the Greater Paris University Hospitals (AP-HP) and its 38 hospitals are organized into six university hospital groups (AP-HP. Centre - Université Paris Cité; AP-HP. Sorbonne University; AP-HP. Nord - Université Paris Cité; AP-HP. University of Paris-Saclay; AP-HP. Henri-Mondor University Hospital and AP-HP University Hospital. Paris Seine-Saint-Denis University Hospitals) and are structured around five universities in the Ile-de-France region. Closely linked to major research organizations, the AP-HP has eight world-class university hospital institutes (ICM, ICAN, IMAGINE, FOReSIGHT, PROMETHEUS, InovAND, reConnect, THEMA) and the largest French health data warehouse (DHS). A major player in applied research and innovation in health, AP-HP holds a portfolio of 810 active patents, its clinician researchers sign more than 11,000 scientific publications each year and nearly 4,400 research projects are currently under

development, all sponsors combined. In 2020, the AP-HP was awarded the Institut Carnot label, which rewards the quality of partnership research: the Carnot@AP-HP offers industrial players solutions in applied and clinical research in the field of health. In 2015, the AP-HP also created the AP-HP Foundation, which acts in direct contact with caregivers in order to support the organization of care, hospital staff and research within the AP-HP. http://www.aphp.fr

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