

Ariana Pharma Announces Major Artificial Intelligence Collaboration in Cell Therapy with Leading Academic Partners Targeting Immune Regulatory T Cells.

Explainable Artificial Intelligence and multi-modal clinical and omic investigations in immunotherapy applied to organ transplantation.

Paris, France and Cambridge, MA, USA, March 1st, 2024. Ariana® Pharma a leading Artificial Intelligence drug development company announced today that it has entered a \$10 million funded Artificial Intelligence-driven Cell Therapy collaboration with Assistance Publique – Hôpitaux de Paris (AP-HP), Europe's leading hospital and university center, Asfalia Biologics, as well as leading academic partners, aiming to augment autologous immunoregulatory cells in vitro and improve organ transplantation.

The AugmenTreg project addresses a critical medical need in patients who have undergone solid organ transplantation. Despite the prevalent use of immunosuppressive drugs ensuring organ tolerance, these patients often face significant health risks, with over 75% suffering from adverse events such as infections, cancer, and drug-related toxicities. The novel multi-disciplinary approach in this project involves in vitro autologous immunoregulatory cell engineering and further engraftment into transplant recipients. This method aims to reduce and ultimately eliminate the need for immunosuppressive medication, thereby fostering operational organ tolerance.

Led by Professor Makoto MIYARA, AP-HP, AugmenTreg will initiate a clinical trial in liver transplantation and anticipate expanding the application of this innovative approach to kidney, lung, heart, and cornea transplants. The project will generate multiple modality data such as clinical, medical imaging and multi-omic.

Ariana will use its KEM® (Knowledge Extraction and Management) Explainable Artificial Intelligence technology to optimize the complex multiparametric Treg manufacturing parameters, as well as patient selection biomarkers. The biomarkers will be fully validated towards regulatory process as future companion tests.

Ariana's unique AI technology will be used to combine multi-modal data such as clinical, medical images, and multi-omic data. Data generated by AugmenTreg will be used in conjunction with existing data from previous clinical trials conducted by the consortium partners. KEM® will be used to characterize the patient population and derive stratification biomarkers that can evolve to potential companion tests for the transplanted patients.

The \$10 million (€9.8 million) funded 5-year collaboration aims at developing disruptive and transformative approaches in the fields of immunotherapy and organ transplantation. The ability to produce optimized T cells, and a dedicated Cell therapy AI platform, will have a broad therapeutic impact beyond organ transplantation.

Ariana Pharma Media

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Main AugmenTreg partners:

- AP-HP
- UMR 7196 - U1154 - Museum d'histoire naturelle
- UMR 5284 - U1314 - Mechanisms in Integrated Life Science - Université de Lyon
- Établissement français du sang (EFS)
- Asfalia Biologics

About Ariana Pharma: Ariana Pharma is a leading Artificial Intelligence (AI) drug development company. Using its KEM® Artificial Intelligence (xAI) technology, Ariana helps its partners introduce personalized medicine clinical trial design into their protocols and optimize clinical endpoints, identify biomarkers of therapeutic response and potential synergistic therapies. Ariana routinely collects and combines clinical data with omic data, immunological readouts (such as Fluorescence-Activated Cell Sorting (FACS)), microbiota, Patient Reported Outcomes (PRO) as well as Real World Evidence (RWE) data. Combining advanced data analytics, drug development, and regulatory expertise, Ariana helps translate findings into innovative clinical development plans and regulatory approvals. With a growing number of successful therapeutic development programs, KEM® is an FDA-assessed technology that systematically explores combinations of biomarkers, producing more effective biomarker signatures for precision medicine. Ariana has developed Onco KEM®, the most advanced, clinically tested, oncology therapeutic decision support system. Founded in 2003 as a spin-off of the Institut Pasteur, Paris, France, the company operates a subsidiary in the United States since 2012. www.arianapharma.com

About Assistance Publique - Hôpitaux de Paris / Greater Paris University Hospitals

The leading hospital and university centre (CHU) in Europe, Greater Paris University Hospitals and its 38 hospitals are organised into six hospital-university groups (AP-HP. Centre - Université Paris Cité ; AP-HP. Sorbonne Université ; AP-HP. Nord - Université Paris Cité ; AP-HP. Université Paris Saclay ; AP-HP. Hôpitaux Universitaires Henri Mondor et AP-HP. Hôpitaux Universitaires Paris Seine-Saint-Denis) and are centered around five universities in the Île-de-France region. Closely linked to large research bodies, Greater Paris University Hospitals include eight international hospital-university institutes (Institut du Cerveau, ICAN, IMAGINE,

FOReSIGHT, PROMETHEUS, InovAND, Re-Connect, THEMA) and the largest French health data repository (EDS). As a major stakeholder in applied research and health innovation, Greater Paris University Hospitals hold a portfolio of 750 active patents, and each year its clinicians sign off nearly 11000 scientific publications and over 4,000 research projects are under development, all promoters combined. In 2020, Greater Paris University Hospitals were awarded the Institut Carnot label, which is recognition of the quality of partner research: Carnot@AP-HP offers industrial stakeholders applied and clinical research solutions in the health sector. In 2015, Greater Paris University Hospitals also founded the Greater Paris University Hospitals Research Foundation to support the biomedical and health research performed in all its hospitals. www.aphp.fr