



Paris, 03/28/2023

Press release

A new artificial intelligence solution for the reliable, non-invasive and ultra-swift diagnosis of digestive tract lesions.



After signing a research collaboration agreement with the APHP, start-up Augmented Endoscopy and Erganeo have signed an exclusive license for the exploitation of the Axaro.ai solution, an artificial intelligence platform that detects, analyses and diagnoses digestive tract diseases swiftly and reliably.

While the frequency, severity and cost of digestive tract diseases continue to increase, their diagnosis has improved considerably since the advent of the endoscopic video capsule, a non-invasive diagnostic method that appeared in 2000. This examination (an ingestible camera capsule) does not require the patient to be anaesthetised or hospitalised, but it does add considerably to the workload of the gastroenterologist. This is because interpretation of the videos transmitted by the capsule is time-consuming (about an hour) with tens of thousands of images to be analysed in each case. The time spent on this analysis also means a delay in diagnosis that is detrimental to the patient.

Professors Olivier Romain, Xavier Dray, Aymeric Histace and Dr. Romain Leenhardt from the ETIS laboratory (ENSEA/CY Cergy Paris University/CNRS) and the Hôpital Saint-Antoine (Sorbonne University/APHP) have developed a software package on a SaaS platform, called AXARO.AI, to meet this challenge. This artificial intelligence solution performs online automated reading of endoscopic video capsule images. In less than five minutes, the software detects and characterises abnormalities, indicates whether the examination is complete and whether the quality of the intestinal preparation is satisfactory. A diagnosis is then proposed to the practitioner who only has to validate, comment or invalidate the pre-selected images. The report is precisely produced in a semi-automated and fully secure manner, thus considerably reducing the response time for the patient and allowing the practitioner to focus medical tasks of greater added value. These principles and methods, which were initially applied to the small intestine (digestive haemorrhage, Crohn's disease), are now being extended to the colon (in particular for the prevention of colorectal cancer, the second leading cause of cancer mortality in France). An evaluation is underway for the so-called "panenteric" videocapsule, opening up promising applications for the complete and non-invasive examination of the entire length of the digestive tract.

The technology, supported by Erganeo between 2015 and 2020, has been the subject of four patent applications and four software applications, which are being developed by the Augmented Endoscopy start-up created with the research team in 2019. An exclusive license for the exploitation of patents and protected software was signed between Erganeo and Augmented Endoscopy on 12 February 2023. *"Erganeo has followed and supported the development and maturation of AXARO.AI technology to accelerate its market launch by the start-up Augmented Endoscopy. We are proud to see this project come to fruition, which will bring real added value to gastroenterologists and their patients. With this licensing agreement,*



ERG\NEO

L'AVENIR EST FAIT D'AUDACE



Erganeo is once again demonstrating its investment in the development of innovations with high medical potential,” said Naceur Tounekti, President of Erganeo.

The start-up was the winner of the i-Lab 2022 competition organised by Bpifrance. It plans to market its product in Europe during 2024, and then across the Atlantic by 2025.

About Erganeo – www.erganeo.com

Erganeo is a French tech transfer company specialises in breakthrough innovations (deep tech) with a major societal impact. We invest early in the game to secure researchers' newest inventions before they are transferred to companies or before start-ups are founded, across a wide range of scientific fields: Biotech, Infotech (Telecom, connected objects, big data, AI) and Energetech (new energy, chemistry, materials), among others. Erganeo aims to accelerate and simplify links between research and industry for the benefit of society. To do so, we finance and accompany the new generation of French researchers and entrepreneurs on the road to international recognition and success.

As a member of the SATT Network, Erganeo draws on the Ile-de-France network in building the foundations of a better tomorrow, tapping into a talent pool of over 20,000 researchers across 350 cutting-edge, leading laboratories. Since it was founded, Erganeo has invested over €43m, thus contributing to the signing of 110 licensing agreements with companies of all sizes and setting up 30 start-ups.

Press contact: Caroline Pontifice - Communication and Marketing Manager – caroline.pontifice@erganeo.com

About Axaro - www.axaro.ai

Created in July 2019, Augmented Endoscopy is the result of a desire to enhance the research activities of the ETIS laboratory (CNRS / ENSEA / UCP) and the Saint-Antoine Hospital (Sorbonne University, APHP) around the development of artificial intelligence solutions and innovations for gastroenterologists.

Press contact: Flore Tesiorowski f.tesiorowski@augmented-endoscopy.com