

# PRESS RELEASE

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## **Arkhn partners with Owkin and Inria to standardize access to health data from the IUCT-Oncopole, Institut Curie, Institut Bergonié and Toulouse University Hospital in a €10+ million project**

**Paris (France), June 20, 2022** - *The OncoLab project aims to make oncology data from healthcare institutions accessible to all ecosystem stakeholders for research and innovation purposes. The multi-modal data stored in the institutions will be standardized, structured, and studied in a synchronized manner.*

### **A public-private consortium of expert centers to facilitate research and innovation in oncology**

The OncoLab project aims to deploy data architectures for research and innovation in oncology at four leading institutions in the field: the Institut Curie, the Institut Bergonié, the IUCT-Oncopole and the Toulouse University Hospital. The objective is to respond to the various current challenges of health data management and accessibility, by providing a common and standardized technical platform for healthcare institutions and their partners. These data architectures will be developed by Arkhn, the project leader, and studied in a decentralized manner thanks to Owkin's expertise in data science and artificial intelligence, to preserve the confidentiality of the data and the sovereignty of the healthcare institutions. In total, the project has a budget of nearly €11 million.

### **Towards standardized data warehouses that guarantee the sovereignty of institutions to facilitate access to health data**

The data architectures deployed by OncoLab will integrate all types of oncology data (reports, examinations, imaging, biology, etc.) for all types of cancers, collected from the hundreds of thousands of patients monitored by healthcare institutions. A secure platform will considerably simplify technical access to data for each center wishing to make it available for research and innovation projects, thus drastically reducing their costs and implementation times. This direct access to standardized data will open new opportunities for the healthcare institutions where data is produced and their partners. This will enable healthcare organizations to maintain full control over their patient data, including through modern technologies such as Federated Learning, which allows research projects to be conducted without data being extracted from the organization.

### **Training advanced Artificial Intelligence algorithms to better structure and exploit data for cancer research**

The OncoLab project will improve the Natural Language Processing (NLP) methods needed to automatically analyze tens of thousands of medical documents (prescriptions, hospitalization reports, discharge letters, etc.) and extract relevant information for research. Developed in collaboration by the project partners, these methods are based on state-of-the-art Artificial Intelligence models created by Inria's ALMAnaCH project team.

**Emeric Lemaire, Corneliu Malciu and Théo Ryffel, co-founders of Arkhn, said:** *"The OncoLab project is a great opportunity to give healthcare institutions access to their patient data, while paving the way for research projects and public-private partnerships that benefit the entire ecosystem."*

**Nicolas Portolan (Deputy Director of Bergonié):** *"Inventing a common language, thanks to the contributions of AI, will make it possible to remove many of the obstacles that healthcare players face today and make it much easier to answer the questions of our clinicians/researchers. An Esperanto algorithm to accelerate cancer research !"*

**Julien-Aymeric Simonnet (Director of Data and Digital Health):** *"The mission of the Oncolab project consortium is to make heterogeneous and massive medical and biological data speak for themselves by structuring them. This is a fundamental building block for conducting research using real-life data and developing medical innovations for the benefit of patients."*

**Eric Fleury (Director of the Inria research center in Paris):** *"The applications of digital sciences in the health sector are at the heart of Inria's strategic axes. The Oncolab project is a perfect illustration of the contribution of AI and the diversity of public and private partnerships in the service of health."*

**Jean-François Lefebvre (Director of the Toulouse University Hospital):** *"The Oncolab project is the result of a fruitful collaboration between the Toulouse University Hospital and the Claudius Regaud Institute, both of which are part of the Toulouse University Cancer Institute - Oncopole, with the company Arkhn. This strong link between the Toulouse University Hospital and the startup ecosystem aims to structure cancer health data on an unprecedented scale. The integration and development of AI technologies in our data warehouses opens the doors to data research by facilitating their reuse to improve knowledge of the disease, always for the benefit of patients. This is a large-scale project, which reflects the excellence of the Toulouse University Hospital teams, who are fully invested in digital innovation."*

**Pr Jean-Pierre Delord (Director of the Claudius Regaud Institute and administrator of the GCS IUCT-Oncopole):** *"OncoLab fits perfectly with our AI partnership strategy. Data structuring is a major challenge to promote the care-research continuum and is one of the strengths of the IUCT-Oncopole."*

**Amaury Martin (Deputy Director of Institut Curie):** *"The Oncolab project is a great opportunity for the Institut Curie to share its expertise in data standardization, which was initiated several years ago, within a leading consortium, and to amplify this dynamic at the national level before looking to the international level. Data-driven cancer research will necessarily involve dialogue between decentralized databases, placing access to harmonized technical bases and sharing standards at the heart of the issues".*

**Jocelyn Dachary (SVP IT & Data Solutions, Owkin):** *"Ensuring that researchers have access to high quality patient data is a crucial step to future medical discoveries, which are at the heart of our mission. The OncoLab project here provides an excellent opportunity to address data interoperability, a fundamental issue in realizing the full potential of artificial intelligence. It will increase the power of the federated training already provided by Owkin technology, by adding easy access to structured data in a reference format."*

### About Arkhn

ArkhN responds to the issue of accessibility of health data by mobilizing its unique know-how in the development of standard health data warehouses within health institutions. This approach allows healthcare institutions to maintain their sovereignty over the data they produce, while promoting the development of a research and innovation ecosystem around the use of this data.

### About Owkin

[Owkin](#) is a French American startup that uses artificial intelligence to find the right treatment for every patient. Our focus is to use AI to discover and develop better treatments for unmet medical needs, starting with the fight against cancer.

We use AI to identify new drug candidates, de-risk and accelerate clinical trials and build diagnostic tools that improve patient outcomes. Using federated learning, a pioneering collaborative AI framework, Owkin enables medical and biopharma partners to unlock valuable insights from siloed datasets while protecting patient privacy and securing proprietary data.

Owkin was co-founded by Thomas Clozel MD, a former assistant professor in clinical onco-hematology, and Gilles Wainrib, a pioneer in the field of machine learning in biology, in 2016. Owkin has raised over \$300 million and [became a unicorn](#) through a \$180 million investment from biopharma company Sanofi in November 2021.

### About the Institut Curie

France's leading cancer center, the Institut Curie combines an internationally renowned Research Center and a state-of-the-art Hospital Complex that treats all cancers including the rarest ones. A forerunner in the computerization of clinical data, the Institut Curie took a new step forward in 2017 with the creation of a Data Department. This department relies on multidisciplinary expertise through a team of scientists, physicians, bioinformaticians, engineers, and data managers, working in tandem with clinicians to support clinical and translational research projects, and build the foundations necessary to exploit AI in clinical practice. This dedicated structure also promotes the development of academic partnerships and the co-piloting of national and international projects. For more information: [www.curie.fr](http://www.curie.fr)

### About the Institut Bergonié

The Institut Bergonié is the Regional Cancer Center (CLCC) of the Nouvelle-Aquitaine region. It is a Private Health Establishment of Collective Interest (ESPIC) that contributes to medical progress and to the international influence of research in the field of cancer prevention, screening, and treatment. At Bergonié, the teams involved in the OncoLab project have developed expertise in the management of cancer data and their structuring for clinical studies, particularly in the framework of the OSIRIS group, developed in partnership with the Institut Curie. This interdisciplinary team brings together medical professionals and data specialists in the Data and Digital Health Department.

### About the IUCT-Oncopole

The IUCT-Oncopole, a cancer care, research, and training center in Toulouse, brings together the expertise of 1,800 professionals on a single site labeled "Comprehensive Cancer Center". It combines several state-of-the-art clinical facilities for the treatment of cancer with a world-class research infrastructure, on an integrated campus that brings together public and private stakeholders, including industrial partners. The IUCT-Oncopole, which brings together the Claudius Régaud Institute (ICR) and several teams from the Toulouse University Hospital, treats more than 10,000 new patients each year, and more than one in eight patients is enrolled in clinical studies. <http://www.iuct-oncopole.fr>

### About the Toulouse University Hospital

The Toulouse University Hospital treats approximately 280,000 patients each year, making it the fourth largest hospital in France in terms of activity. It is a major player in the field of oncology in Occitania and cancer treatment represents 25% of its activity. The research and innovation missions of the University Hospital are an integral part of both its daily activity and its strategy for the future. With more than 2000 research projects underway, 380 of which are promoted by the Toulouse University Hospital, innovation and digital health are among the priorities and are integrated into the roadmap of the Establishment Project. Thus, an Innov'Pôle

Santé platform has been created with the objective of supporting the evaluation, development, and marketing of technological and organizational innovations. Research is conducted in close collaboration with the University of Toulouse III-Paul Sabatier, faculties, and research organizations such as the National Institute for Health and Medical Research (Inserm), the National Center for Scientific Research (CNRS) and the Artificial and Natural Intelligence Toulouse Institute (ANITI). The teams at the Toulouse University Hospital are working on more than twenty projects in Artificial Intelligence, two of which were promoted by the Toulouse University Hospital and won by the Health Data Hub.

### About Inria

Inria is the French national institute for research in digital science and technology. World-class research, technological innovation and entrepreneurial risk are its DNA. Within 200 project-teams, most of which are shared with major research universities, more than 3,500 researchers and engineers explore new avenues, often in interdisciplinary ways and in collaboration with industrial partners, to meet ambitious challenges. As a technology institute, Inria supports the diversity of innovation paths: from open-source software publishing to the creation of technology startups (Deeptech).

The ALMAnaCH (Automatic Language Modelling and Analysis & Computational Humanities) project-team is part of the Inria research center in Paris. ALMAnaCH's research field is automatic language processing (ALP), at the heart of Artificial Intelligence and Digital Humanities, at the crossroads between theoretical computer science, machine learning and linguistics.

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