



## **Covalab, CimCure and partners receive €1.06M EUREKA Eurostars grant to develop new combination therapy for glioblastoma**

**Covalab and partners CimCure, Amsterdam UMC and the University of Zurich join forces on this project with total public and private fundings of €2.24M, including the Eurostars grant, to develop novel immunotherapy combining CAR-T cells and CimCure's iBoost vaccines to treat glioblastoma**

**Bron, France, September 20, 2022** – Covalab, a biotechnology company that specializes in the development and production of recombinant proteins and antibodies for diagnostics and therapeutics, today announces that together with CimCure, a Dutch biotech company focusing on the development of a novel vaccine-based immunotherapy, Amsterdam UMC (The Netherlands) and the University of Zurich (Switzerland), they have received a €1.06M (\$1.08M) grant from EUREKA Eurostars. With a total budget of €2.24M (\$2.28M,) including investments from the partners, the project aims to develop a new treatment against glioblastoma. CimCure B.V. is the lead coordinator of the project.

Glioblastoma (GBM) is one of the most complex, deadly and treatment-resistant cancers, accounting for [almost half of all primary malignant brain tumors](#). The consortium will develop a combination therapy using CimCure's iBoost vaccines and CAR-T cells against GBM. The project, entitled 'Optimal Synergistic Immunotherapy Strategy (OpSIS)', will take place over 36 months in academic research labs in the Netherlands and Switzerland, as well as in the Covalab and CimCure facilities.

OpSIS aims to deliver preclinical proof of concept for a novel combination of immunotherapy treatment for GBM, to then provide a validation for translation of this strategy in GBM patients. This project strives to demonstrate the efficacy, long-term persistence and synergistic ability of combining GBM-targeting CAR-T cells with tumor vasculature-targeting vaccines.

The project is based on an [initial study conducted by Amsterdam UMC and the Medical Center for Animals \(MCD\)](#), where a vaccine against bone cancer was successful in an efficacy study in client-owned dogs. The vaccine-based immunotherapy developed by the team of Prof. Arjan Griffioen, professor of experimental oncology at Amsterdam UMC and licensed to CimCure, has shown to be highly effective and safe, both in murine animal models and in an efficacy study in dogs with spontaneous bladder cancer. In May 2022, some of the research results which underlie this innovation were published in [Nature Communications](#) (Van Beijnum et al, 2022). Utilizing CimCure's iBoost vaccine-based cancer immunotherapy, the project aims to replicate the results of the Amsterdam UMC trials in humans.

Antibody development is crucial for the advancement of these vaccines and CAR-T cells. Covalab's expertise, as a developer of custom antibodies projects, will enable the production of monoclonal antibodies for vascular targets identified by Amsterdam UMC and will help CimCure to study passive immunization. Additionally, Covalab's experience will allow for the development of full-length and antibody fragments, to be used for CAR-T cells. This novel approach to antibody production by using DNA immunization is vital to the project.



“We are excited to bring our extensive expertise in antibody engineering to the OpSIS project. Additionally, our platforms in molecular biology, immunology and bioproduction will support the preclinical validation of therapeutic molecules and we can use our know-how in anticancer immunotherapy for this unique combination therapy project in oncology,” said Dr Saïd El Alaoui, CEO and founder of Covalab. [“Covalab has already received a Eurostars grant in 2017](#) for the validation of its patented technology CovIsoLink™ in the field of ADC (Antibody Drug Conjugates), a new and innovative technology for cancer therapy, proving its track record in taking on collaborative, international projects.”

The new Covalab platforms in the field of phage display and DNA immunization allow the company to develop different libraries of antibodies and fragments (scFv, VHH, Fab, etc.) from natural (naïve) and immune sources with large sequence diversity. Thanks to the preliminary construction of proprietary libraries against some therapeutic targets, Covalab can select antibody fragments with high specificity and affinity which may prove to be valuable therapeutic molecules.

“The Eurostars funding of OpSIS provides a unique opportunity to test our iBoost vaccines in combination with other immunotherapy approaches. We see an important innovation in testing this combination strategy in glioblastoma, a disease with a dismal clinical outcome. The collaboration with Covalab, the University of Zurich and Amsterdam UMC is unique and promises major achievements,” said Diederik Engbersen, CEO at CimCure.

“Immunotherapy for brain tumors has been a major research focus at the University of Zurich. We are delighted to join forces with colleagues from the Netherlands and France, OpSIS will enable the development of novel treatment approaches by combining innovative immunotherapeutic strategies, to be explored in various clinically relevant models,” said Dr. Patrick Roth, University Hospital Zurich, Department of Neurology.

The OpSIS group will optimize its innovative therapeutic approach by determining the most suitable tumor targets and vaccination strategies. The end goal of the project is to have the combination therapy ready to enter regulatory procedures for testing patients.

[Eurostars](#) is a part of the Horizon Europe program that supports innovative SMEs and project partners (universities, research organizations and other types of organizations) by funding international collaborative R&D and innovation projects. Eurostars is run by EUREKA, an intergovernmental network, which involves 37 countries.

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### **About Cimcure**

CimCure is a 2016 spin-off from Amsterdam UMC. CimCure focuses on the design and development of a novel class of active cancer immunotherapies. The company develops cancer vaccines through its proprietary Immune-Boost (iBoost) technology of targeted conjugate vaccines. They have identified specific targets in tumor vasculature.

The company is privately funded.

[www.cimcure.com](http://www.cimcure.com)

### **About the University of Zurich**

The University of Zurich is Switzerland’s largest university, founded in 1833. The institution is a member of the ‘League of European Research Universities’ (LERU) and the ‘Universitas 21’ (U21) network, belonging to Europe’s most prestigious research institutions. Numerous distinctions highlight the university’s international renown in the fields of medicine,



immunology, genetics, neuroscience and structural biology as well as in economics. To date, the Nobel Prize has been conferred on twelve UZH scholars.

[www.uzh.ch](http://www.uzh.ch)

### **About Amsterdam UMC**

Amsterdam UMC is a leading academic medical center that combines qualitative patient care with innovative scientific research and education for the next generation of healthcare workers. Amsterdam UMC has eight research institutes, with affiliated researchers being internationally recognized at the top of their field in medical scientific research.

[www.amsterdamumc.org](http://www.amsterdamumc.org)

### **About Covalab**

Covalab specializes in the antibody engineering and development of high-quality monoclonal and polyclonal antibodies, their fragments (Fab, scFv, VHH) and related services (DNA immunization, humanization, ADCs, biomanufacturing, etc.).

Its main mission is the discovery of effective therapies to fight cancer. With its unique experience in antibody engineering, acquired by working with academic and private clients since 1995, along with its various technological platforms, Covalab is now focusing on developing potential preclinical therapeutic antibodies in the most promising areas, such as Antibody Drug Conjugate (ADC), Immune-Checkpoint (ICP) and CAR-T cells. Its scientific team includes world-renowned immunologists with over 30 years' experience researching innovative antibodies and their modifications, for use in research and diagnostics, and as potential therapeutics.

Covalab's R&D activities include immunology (ICP & CAR-T); biochemistry related to the study of the enzyme transglutaminase, which has both physiological and physiopathological functions and its use in the development of ADCs; and molecular biology (the development and manufacturing of recombinant proteins and antibodies). The company boasts an extensive bank of antibodies, which it uses to achieve both its own research goals and those of its clients.

Covalab was founded in 1995 by Dr. Saïd El Alaoui. It is based in Bron near Lyon, France, and currently employs around 22 staff.

[www.covalab.com](http://www.covalab.com)

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