

# **Press release**

Besançon, May 26 2025







Oncology • Radiation-resistant cancers • Glioblastoma • Nanodrugs • Targeted therapies • Biotechnologies • Precision medicine • Innovation • Technology transfer • Investissement • Start-up

Fight against cancer: SATT Sayens announces the signature of an exclusive licensing agreement with the biotech ORINOVA and acquires a stake in its capital

Developed at the Marie and Louis Pasteur University (previously University of Franche-Comté) by Arnaud BEDUNEAU, Professor of Galenic Pharmacy in the RIGHT<sup>1</sup> research unit, Stéphane ROUX, Professor of Chemistry, and Gautier LAURENT, Doctor of Chemistry, at the Chronoenvironnement<sup>2</sup> Laboratory, the innovation consists of a highly promising new treatment based on gold nanoparticles and chemotherapy molecules to treat certain radioresistant cancers such as gliobastoma. The innovation is based on a nanomedicine that combines chemotherapy with image-guided radiotherapy.

SATT Sayens has supported this innovation since 2019 by ensuring international patent protection of the invention and the development of a proof of concept (POC) with the support of Gautier LAURENT, recruited as a maturation engineer. Confirmation of the therapeutic potential and market positioning of the innovation have validated the value of creating a startup.

ORINOVA was created at the end of 2024 as a result of a meeting between the research team and the CEO, Jean-Marc ZEIL, an experienced entrepreneur.

SATT Sayens is continuing its commitment by supporting ORINOVA's development alongside the co-founders and acquiring a stake in its capital.

<sup>&</sup>lt;sup>2</sup> **Chrono-environnement** is a multidisciplinary research unit under the joint supervision of the CNRS and the Marie and Louis Pasteur University.



<sup>&</sup>lt;sup>1</sup> **The RIGHT research unit** 'Host-Graft-Tumour Interactions & Cell and Gene Engineering' brings together the Marie and Louis Pasteur University, INSERM and the Etablissement Français du Sang de Bourgogne-Franche-Comté,

# A major innovation in personalised medicine for the treatment of radiation-resistant cancers

Designed to meet the needs of treatments for radio-resistant cancers, and in particular glioblastoma, which remains one of the most aggressive and deadly cancers in the world, the innovation invented and developed by the research team comprising Arnaud BEDUNEAU, Stéphane ROUX and Gautier LAURENT makes it possible to improve the effectiveness of treatments by personalising the therapy while reducing the side effects for the patient.

These advantages are made possible by the use of a nanodrug which, compared with other cancer therapies, contains both radiosensitising agent (improving the effectiveness of radiotherapy) and an encapsulated chemotherapy molecule (improving the effectiveness of better-targeted chemotherapy and patient safety).

The results obtained by the in vivo POC on glioblastoma as part of the innovation derisking programme (technological maturation) launched by SATT Sayens and the research team have shown that the treatment significantly increases the lifespan of treated animals.

On the strength of these results, the team and Sayens have been encouraged to develop the innovation through the creation of a start-up, in which the researchers are involved as scientific advisors.

Professors Arnaud BEDUNEAU and Stéphane ROUX, co-inventors, co-founders and scientific advisors of the ORINOVA start-up, said: 'we are particularly pleased to see our research work, the fruit of close collaboration between the RIGHT and Chrono-environnement teams, promoted through the actions of ORINOVA and its CEO, Jean-Marc ZEIL. This breakthrough would not have been possible without the invaluable support and confidence of SATT SAYENS, which protected our technology and financed the proof of concept. The Bourgogne-Franche-Comté region has also played a key role in the progress of our work, in particular through its Itinéraire Chercheur-Entrepreneur scheme. We would also like to thank our doctoral students, Chahrazad Benbalit and Asli Goctu, who trained at UMLP, and whose commitment and contributions were crucial to the success of this project'.

'At Sayens, we're very proud to have worked alongside the research teams at the Université Marie et Louis Pasteur to enable the emergence and transfer of a major innovation to meet the challenges of the fight against cancer. I would also like to highlight the support of regional partners and innovation players such as the DECA BFC incubator, the Burgundy-Franche-Comté Region and Bpifrance, who were also instrumental in helping to create this start-up. By supporting ORINOVA's development through our investment in its capital, we intend to confirm that our region is a stronghold for innovative therapies for personalised medicine' adds Romain LIEGE, CEO of SATT Sayens.

### ORINOVA a promising player in the nanomedicine market ...

Founded in Besançon on 17 October 2024, the ORINOVA start-up aims to exploit innovation as a biotech specialising in the development of nanomedicines, and intends to provide an innovative dual-therapy solution for the treatment of solid tumours.



In practical terms, the drug is carried in an intelligent nanosphere containing a chemotherapy molecule and gold particles to enhance the effectiveness of radiotherapy. This innovative nano-object shows great potential for treating solid tumours with no satisfactory therapeutic solution, such as glioblastoma (7% survival rate at 5 years), and has produced highly promising preliminary results in this indication. In addition to the programmed efficacy of ORINOVA treatment, it also offers a significant reduction in side-effects, since radiotherapy will be much better targeted and therefore less deleterious, both in terms of the intensity of the radiation administered and the preservation of healthy tissue around the tumour.

Jean-Marc ZEIL, co-founder and CEO of ORINOVA, added: 'I am delighted to have co-founded ORINOVA and to be supporting it alongside a team of leading experts in a rich regional ecosystem, which has made healthcare and therapeutic innovation a major strategic priority. I have great ambitions for ORINOVA, to which my entrepreneurial and industrial experience in healthcare innovation will contribute.

I'm also delighted to be able to count on a strategic partner like SATT Sayens, which we now have on board. The next stages in ORINOVA's development are going to be key, firstly in terms of pre-clinical and then clinical validation of our treatment, and of course in terms of new financing capabilities. I'm confident that we've built a strong, highly complementary team that will rise to the challenge.'



From left to right: Julien BILLET, Lawyer SATT Sayens; Ludmila MONTEIRO, Health Business Developer SATT Sayens, Salma AMENSAG, Investment Project Manager -Health & Medical Devices Transfer SATT Sayens, Asli VALLEGIANI, R&D engineer and co-founder of ORINOVA, Arnaud BEDUNEAU, Professor at Marie and Louis Pasteur University - Co-founder of ORINOVA, Claudine VERMOT-DESROCHES, Director of Programs and co-founder of ORINOVA, Gautier LAURENT, SATT Sayens maturation engineer; Jean-Marc ZEIL, Co-founder and CEO ORINOVA, Stéphane ROUX, Professor at Marie and Louis Pasteur University - Co-founder of ORINOVA; (in the background) Amaury DANTRESSANGLE, SATT Sayens Start-up Development Manager; Romain LIEGE, President SATT Sayens;



#### **About ORINOVA**

The ORINOVA biotech company is developing nanodrugs for oncology based on an invention developed by two research teams at Marie and Louis Pasteur University. ORINOVA's innovation is based on dual therapy: chemotherapy and radiotherapy that act simultaneously and synergistically.

in: ORINOVA

#### **About SATT Sayens**

SAYENS, one of the 13 French Technology Transfer Accelerator Offices (SATT), is a company founded by the 8 major academic institutions (universities and research organizations) from Burgundy Franche-Comté, Lorraine and South Champagne-Ardenne (Troyes) area. Its mission is to improve the socio-economic impact of academic research results by improving, accelerating and fostering technology transfer from public research to companies and start-ups.

SATT SAYENS is an affiliate of University Burgundy Europe, Marie and Louis Pasteur University, Lorraine University, University of Technology of Troyes, Institut Agro Dijon, University of Technology Belfort-Montbéliard, SUPMICROTECH - ENSMM, CNRS, INSERM, French Government.

Website: <a href="http://www.sayens.fr/en/">http://www.sayens.fr/en/</a> | in: <a href="mailto:SATT Sayens">SATT Sayens</a>







#### **About Marie and Louis Pasteur University**

Marie and Louis Pasteur University embodies a new era for higher education and research in the Bourgogne-Franche-Comté region.

Born from the transformation of University of Franche-Comté and UBFC into a new leading institution (EPE), it unites two historical full partner institutions, UTBM and SUPMICROTECH-ENSMM, and six associated partners: Cluny Arts et Métiers campus, the Besançon University Hospital (CHU), the Bourgogne-Franche-Comté CROUS, the BFC French Blood Establishment (EFS), ESTA, and ISBA.

Marie and Louis Pasteur University aims to enhance the attractiveness and inclusivity of its programs, strengthen its academic and scientific excellence and foster innovative socio-economic partnerships, while affirming its strong regional ties and national and international influence.

With over 30,000 students and 2,000 faculty members, the university relies on an innovative administration and reinforced synergies to address the academic, scientific, and societal challenges of today and tomorrow.

Website: https://www.univ-fcomte.fr/

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