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Alpioner Therapeutics, a newly incorporated biotech, to develop a versatile whole-cell vaccine platform in infectious diseases

- **Alpioner Therapeutics signs a global and exclusive license from Université Grenoble-Alpes to develop a whole-cell vaccine platform against multiresistant pathogens**
- **First Killed But Metabolically Active (KBMA) vaccine candidate against *Pseudomonas aeruginosa* (*Pa*)**
- **559 000 deaths associated with *Pa* infections in 2019³**
- **WHO includes *Pa* in its priority list of critical pathogens for which new treatment alternatives are highly required²**

GRENOBLE, FRANCE, January 8th, 2024 – **Alpioner Therapeutics SAS**, a newly incorporated biotechnology company, is proud to report the start of its operations. Three partners, Dr Audrey Le Gouellec, M. Frederic Fasano and SATT-Linksium incubator, have joined forces to create a company whose mission is to contribute to the global fight against anti-microbial resistance (AMR). Alpioner Therapeutics (Alpioner Tx) is developing a whole-cell vaccine platform originally from the Joint Research Unit – UMR 5525 – TIMC Laboratory (CNRS-Université Grenoble Alpes-Grenoble INP, Vetagro Sup). Its first vaccine candidate is targeting a multiresistant human pathogen, *Pseudomonas aeruginosa*.

Research efforts for the last decades have failed to provide an efficient and safe vaccine to prevent *Pa* infections¹. In 2017, The World Health Organization included this pathogen to the «level 1 priority list»² because of the related threat it poses to public health. In 2019, the Global Burden of Disease AMR collaborative group estimated that *Pa* infections were associated with more than 559 000 deaths³.

Alpioner Tx is developing the first Killed But Metabolically Active (KBMA) vaccine candidate against *Pseudomonas aeruginosa*. KBMA refers to a new class of vaccines based on whole microbes which have been attenuated by a photo-chemical process. It exposes immunized subjects to a versatility of native antigens able to induce a broad humoral and cellular immunogenic response⁴ required for an efficient prophylaxis.

*“At TIMC Laboratory, we have been working on *Pseudomonas aeruginosa* for the last 15 years with a particular focus on its virulence factors like secretory systems and on its host-pathogen interactions. This KBMA whole cell vaccine candidate is the results of years of intense research, and its immunogenicity, its efficacy and safety profile have been demonstrated in a preclinical proof of concept»* said Dr Audrey le Gouellec, Associate professor at Université Grenoble-Alpes, and co-founder of Alpioner Tx.

*« With the launch of Alpioner Tx, we are moving this breakthrough pre-clinical research program to the next level. This whole-cell vaccine platform has multiple potential applications and has already generated a lead candidate against, *Pseudomonas aeruginosa*. By leveraging the full platform potential, we will work on generating a pipeline of immuno-infectiology candidates and*



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contribute to the global fight against anti-microbial resistance. » said M. Frederic Fasano, Chief Executive Officer and co-founder of Alpioner Tx.

« We are proud to be part of this new venture. This innovative project has been going through a maturation and incubation process here at [Linksium](#) for the last three years and it is now incorporated as a startup biotech company. Our know-how as incubator is providing great results as part of Grenoble Innovation ecosystem and health techs are a major area of focus» said Francois Hede, President of SATT Linksium – Grenoble.

About Alpioner Therapeutics

Alpioner Tx is a biotech company developing a whole-cell vaccine platform consisting of genetically optimized strains of human pathogens undergoing an attenuation process which delivers a Killed but Metabolically Active (KBMA) vaccine substance. This platform has already generated a first candidate targeting a human multi-resistant pathogen, *Pseudomonas aeruginosa*. It carries on the potential for further applications against other resistant pathogens. Alpioner Tx mission is to build a pipeline of immuno-infectiology candidates to fight against anti-microbial resistance (AMR).

www.alpionertx.com,

About TIMC Lab

The TIMC laboratory gathers scientists and clinicians towards the use of computer science and applied mathematics for understanding and controlling normal and pathological processes in biology and healthcare. TIMC has more than 300 members in 11 research teams, including more than 160 permanent staff: researchers, teacher-researchers, engineers, technicians and administrative staff. Its staff is made up of one-third doctoral students and post-docs.

About Linksium, SATT Grenoble Alpes

Linksium accelerates technology transfer from laboratories to market. Its expertise is dedicated on risky step of startups departure and upstream phases of the development of technological innovation projects. Since 2015, Linksium has funded 55 M€ in 218 selected deeptech technologies and created 80 startups. Linksium is a private company with public capital. The company belongs to a national network of 13 SATT (Society for Accelerating Technology Transfer).

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References

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