

PRESS ALERT Nantes, December 27th, 2021

#Covid19 #Omicron #Treatment

Omicron variant: positive results for XENOTHERA's XAV-19 antibody

The Nantes-based biotech company <u>XENOTHERA</u> has announced the first in vitro efficacy results for its polyclonal anti-Covid antibody against the Omicron variant. The analyses performed demonstrate that XAV-19, already active against previous variants (<u>Vanhove B. et al. Front. Immunol., 2021</u>), has the capacity to block Omicron. XAV-19 is a dedicated treatment for patients with moderate COVID-19, and is expected

to reduce the rate of respiratory worsening, block the progression to severe form, and notably avoid transfer to intensive care.

"We have known since last week that the monoclonal antibodies currently used as treatment lose their therapeutic activity on the Omicron variant. In this context, our results bring a glimmer of hope to fight this new variant. The loss of efficacy of monoclonal antibodies is not really a surprise. As XAV-19 is a polyclonal antibody, its efficacy against the variants is systematically probable, even if it must always be verified, which is what we have just done," said **Odile Duvaux, President of XENOTHERA.**

The analysis by XENOTHERA's researchers was carried out in several stages. In the first step, knowledge of the sequence of the variant allows us to predict recognition by the antibody. Second, the binding of XAV-19 to the Spike protein of the Omicron virus was demonstrated. Finally, XENOTHERA researchers were able to verify that XAV-19 blocked the interaction of the viral protein with the receptor of the cells it was trying to penetrate.

As a reminder, monoclonal antibodies are currently authorized either for patients with early onset Covid (less than 5 days) if they have risk factors, or for seronegative hospitalized patients. In these situations, there is no longer any therapeutic solution if the patient carries the Omicron variant. A polyclonal antibody such as XAV-19 could meet the need. Polyclonal antibodies, which are less sensitive than monoclonal antibodies to mutations or individual variations in their target, are an asset in the face of a virus that has the particularity of undergoing many mutations.

About ten polyclonal anti-COVID antibody projects are in development worldwide. XAV-19 is one of the most advanced, and preliminary information from the POLYCOR clinical trial indicates its safety and therapeutic value.

XENOTHERA's glyco-humanized polyclonal antibodies, by definition closer to the natural immune response, are therefore proving to be an extremely promising therapeutic approach to fight the pandemic.

"Given the urgent health context, we are calling on the government today to ensure that our request for early access to our treatment is given the necessary conditions for its success, given the failure of monoclonal antibodies and the rapid spread of the Omicron variant. As we have been saying for more than a year, vaccines and treatments are the two arms in the fight against the epidemic. We remain hopeful that the doses of XAV-19 already manufactured and ready for use will be able to benefit the patients who need them as soon as possible," concludes **Odile Duvaux**.

ABOUT XENOTHERA:

Founded in 2014, XENOTHERA is a Nantes-based biotech that develops "glyco-humanized" polyclonal antibodies. Its technological platform is built on dual expertise in genetics and immunology. The company has a comprehensive product portfolio, the first of which, LIS1, an immunosuppressant in transplantation, has been in the clinic since 2019. XENOTHERA has also been developing its treatment for coronavirus infections for several years. XAV-19 is XENOTHERA's treatment for patients at the start of hospitalization, it is based on a unique patented antibody production technology, developed and proven for several years by biotech. XENOTHERA, member of the Atlanpole Biotherapies competitiveness cluster, is part of the scientific and medical environment of Pays de la Loire. The company has since been supported by private investors, by the Pays de la Loire region, and by BPI France. More info at: www.xenothera.com

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