



## Abivax publishes review in Drug Discovery Today on mechanism of action and transformative potential of ABX464 as therapy for inflammatory diseases

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Scientific review summarizes the molecular events leading to potent anti-inflammatory effects of lead molecule ABX464, centered around the specific upregulation of microRNA-124 (miR-124)

Scientific data underpins ABX464's potential to treat the root cause of inflammation explaining its efficacious induction and maintenance of clinical remission in Phase 2a ulcerative colitis clinical studies

The conclusions reinforce ABX464's blockbuster potential across various inflammatory disease indications with high unmet medical needs

PARIS, January 5, 2021 – 7:00 p.m. (CET) – Abivax (Euronext Paris: FR0012333284 – ABVX), a clinical-stage biotechnology company harnessing the immune system to develop novel treatments for inflammatory diseases, viral diseases and cancer, today announced that the Company published [an invited review](#) in the renowned journal *Drug Discovery Today* on the "Specific and selective induction of miR-124 in immune cells by ABX464: a transformative therapy for inflammatory diseases".

**Prof. Hartmut J. Ehrlich, M.D., CEO of Abivax, said:** "Our recent publication in *Drug Discovery Today* once again demonstrates the unique mechanism of action and transformative potential of our lead drug candidate ABX464 to effectively and durably treat chronic inflammatory diseases. We are therefore very much looking forward to seeing the results of our ongoing clinical trials which are expected in Q2 2021, namely the Phase 2b trial in UC, the Phase 2a trial in rheumatoid arthritis as well as the Phase 2b/3 study in Covid-19 disease with the objective to prevent hyper-inflammation in high-risk patients. We are also keen to initiate the pivotal Phase 2b/3 clinical study in Crohn's disease in the course of this year. The review, describing the potent anti-inflammatory pathways of ABX464, also backs our assumption of ABX464's blockbuster potential across various chronic inflammatory diseases. Abivax will therefore continue to investigate possible additional indications in which the molecule could substantially improve the lives of patients in need of new, efficient and long-term effective therapeutic options."

In clinical studies for the treatment of ulcerative colitis, ABX464 is the first-in-class small molecule that has shown to induce and upregulate a specific microRNA, miR-124, in human immune cells leading to a robust and long-lasting anti-inflammatory effect in UC patients. The review summarizes the multiple effects of ABX464 in dampening inflammatory processes through the downregulation of several critical pro-inflammatory cytokines and cells, like TNF $\alpha$ , IL-6, MCP-1, IL-17 and Th17+ cells, emphasizing the potential of Abivax's lead drug candidate as an efficient and long-term effective therapy for the treatment of inflammatory diseases.

"By increasing the expression of miR-124 in the immune system cells, ABX464 inhibits the excessive inflammatory response that causes inflammatory diseases, such as ulcerative colitis. The scientific publication shows that miR-124 acts as an endogenous regulator of inflammation that limits the activation of the signalling pathways which are responsible for the expression of pro-inflammatory cytokines," explained **Prof. Jamal Tazi, Ph.D., Vice President Research at Abivax.** "This is the reason why ABX464 treats the root cause of inflammation at the molecular level, and consequently explains its efficacy in inducing and maintaining the clinical remission that we observed in Phase 2a clinical trials in ulcerative colitis patients along with a good safety and tolerability profile."

### About ABX464's Mechanism of Action

ABX464 is a highly differentiated oral drug candidate, with a novel mechanism of action based on the upregulation of a single microRNA (miR-124) with potent anti-inflammatory properties. ABX464 was shown to exert its anti-inflammatory effects through binding to the cap binding complex (CBC), which sits at the 5' end of every RNA molecule in the cell. By binding to the CBC, ABX464 reinforces the biological functions of CBC in cellular RNA biogenesis. Specifically, ABX464 enhances the selective splicing of a single long non-coding RNA to generate the anti-inflammatory microRNA, miR-124, which downregulates pro-inflammatory cytokines and chemokines like TNF $\alpha$ , IL-6, MCP-1 and IL-17, as well as Th17+ cells thereby "putting a brake" on inflammation and suggesting broad potential as a novel anti-inflammatory therapeutic agent. A seven- to ten-fold increase in miRNA-124 levels was observed in colorectal biopsies of UC patients treated with ABX464. ABX464 does not impact the splicing of cellular genes.

### About Abivax ([www.abivax.com](http://www.abivax.com))

Abivax, a clinical stage biotechnology company, is mobilizing the body's natural immune machinery to treat patients with chronic inflammatory diseases, viral infections, and cancer. Abivax is listed on Euronext compartment C (ISIN: FR0012333284 – Mnemo: ABVX). Based in Paris and Montpellier, Abivax has two drug candidates in clinical development, ABX464 to treat severe inflammatory diseases, and ABX196 to treat hepatocellular carcinoma. More information on the company is available at [www.abivax.com](http://www.abivax.com). Follow us on Twitter @ABIVAX\_.

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