



## Press release

### **NFL Biosciences announces a scientific collaboration with McLean Hospital (Boston, USA) to further investigate the mechanism of action of NFL-101**

**Montpellier, France, July 28, 2025, 8:30am CEST – NFL BIOSCIENCES (Euronext Growth Paris – FR0014003XT0 - ALFNL)**, a biopharmaceutical company developing innovative botanical drugs for the treatment of addiction, today announces the launch of a scientific collaboration with McLean Hospital, a member of the Mass General Brigham healthcare system in Boston USA. This new collaboration aims to deepen the understanding of the mechanism of action of NFL-101, its proprietary botanical drug candidate for smoking cessation.

This collaboration follows studies conducted with the Georges Pompidou European Hospital (HEGP) and the French Alternative Energies and Atomic Energy Commission (CEA) which highlighted NFL-101's ability to restore normal brain activity in regions associated with tobacco craving, particularly the thalamus, during withdrawal. This restoration proved to be both specific and sustained. These results suggest the existence of a unique mechanism of action involving an interaction between the immune system and the central nervous system, distinct from existing treatments that directly target nicotinic receptors.

The studies conducted by McLean Hospital will explore in greater detail the links between this brain activity restoration and established biomarkers of tobacco addiction, with the objective of further characterizing NFL-101's pharmacological profile. Three laboratories at McLean Hospital, will be involved in this project: the Integrative Neurochemistry Laboratory, the Behavioral Neuroimaging Laboratory, and the Behavioral Psychopharmacology Research Laboratory.

This collaboration represents a strategic milestone aligned with the upcoming Phase III trial. It also supports NFL Biosciences' international expansion, particularly in the United States, through collaborations with world-renowned experts in addiction science. The results will further strengthen NFL Biosciences' regulatory submission. Launched at a pivotal time, this initiative contributes to the momentum of ongoing discussions with potential industrial partners.

Under this agreement, NFL Biosciences will retain exclusive intellectual property rights, including any potential patent applications resulting from the work conducted jointly with McLean Hospital. The results of this collaboration may lead to co-authored publications in peer-reviewed scientific journals and presentations at international conferences by the McLean Hospital research teams involved in the project. These studies will further enhance the scientific visibility of the NFL-101 program.

**Professor Scott Lukas, Director of the McLean Imaging Center and the Behavioral Psychopharmacology Research Laboratory at McLean Hospital (USA)**, stated: *"With botanical drugs, efficacy often relies on the full extract, making it challenging to identify a precise mechanism of action. Too often, we develop molecules with a clearly defined mechanism, yet based on an incomplete understanding of addiction pathways, which frequently leads to setbacks in clinical trials. Here, it's the opposite: we already have*

*demonstrated clinical effects, and the mechanism remains to be further explored. The next stage is to better understand the mechanism of action, which could strengthen the scientific rationale for the treatment and open the door to additional therapeutic insights, including potential individualized approaches.”*

**Bruno Lafont, Chief Executive Officer and co-founder of NFL Biosciences** commented: *“We are delighted to collaborate with McLean Hospital on this research project. Following the teams at the CEA and the Georges Pompidou European Hospital, this new collaboration further strengthens our program with complementary world-class expertise, particularly in addiction science and botanical drug pharmacology. It represents a key milestone in our commitment to deepen the understanding of NFL-101’s mechanism of action and enhance its scientific and industrial appeal.”*

#### About McLean Hospital

McLean Hospital has a continuous commitment to put people first in patient care, innovation and discovery, and shared knowledge related to mental health. It is consistently named the #1 freestanding psychiatric hospital in the United States by U.S. News & World Report and is #2 in America for psychiatric care in 2024-25. McLean Hospital is the largest psychiatric affiliate of Harvard Medical School and a member of Mass General Brigham. To stay up to date on McLean, follow us on [Facebook](#), [YouTube](#), and [LinkedIn](#).

#### About NFL Biosciences: [www.nflbiosciences.com](http://www.nflbiosciences.com)

NFL Biosciences is a biopharmaceutical company based in the Montpellier region of France, developing plant-based drug candidates for the treatment of addictions. NFL Biosciences' ambition is to bring new, safer and more effective natural therapeutic solutions to the entire world population, including low- and middle-income countries. Its most advanced product, NFL-101, is a standardized tobacco leaf extract protected by three patent families. NFL Biosciences intends to offer smokers wishing to quit a natural, safe, easy-to-administer and personalized alternative. NFL Biosciences is also developing NFL-301, a natural drug candidate for the reduction of alcohol consumption and has a drug development project for the treatment of cannabis use disorders.

NFL Biosciences shares are listed on Euronext Growth Paris (FR0014003XT0 - ALNFL). The company is qualified as an “Innovative Company” eligible for FCPI investment. More information on [www.nflbiosciences.com](http://www.nflbiosciences.com)

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