



Press release

NFL Biosciences is strengthening its personalized medicine approach to smoking cessation with a new patent application

- Personalized medicine approach that could represent a first in smoking cessation
- Biomarker rooted in NFL-101's immunomodulatory mechanism of action
- Rigorous analytical validation paving the way for an accessible laboratory test
- Strategy aimed at improving clinical efficacy, reducing the size of Phase 3 trials and strengthening the program's partnership attractiveness
- NFL Biosciences now holds 5 patent families in the field of smoking cessation based on tobacco extracts
- Detailed efficacy results and size of the biomarker-positive ("BM+") target population expected in early June 2026

Montpellier, France, May 25, 2026 – at 5:45 pm CEST – NFL BIOSCIENCES (Euronext Growth Paris – FR0014003XT0 – ALFNL), a biopharmaceutical company developing innovative botanical drugs for the treatment of addictions, today announces the filing of a patent application protecting a predictive efficacy biomarker associated with NFL-101, drug candidate for smoking cessation.

Bruno Lafont, Chief Executive Officer and co-founder of NFL Biosciences, states: *"The filing of this patent application marks an important strategic milestone for NFL Biosciences. Personalized medicine is progressively emerging as a major evolution across many therapeutic fields, with the objective of identifying patients most likely to benefit from a given treatment. We believe this approach could represent a first in smoking cessation. By combining NFL-101 with a predictive efficacy biomarker, our ambition is to improve both the clinical efficacy observed in responder patients and the efficiency of clinical development. This patent application represents a structuring milestone for NFL Biosciences and further strengthens our barriers to entry."*

Detailed results from the efficacy analyses conducted in the biomarker-positive ("BM+") population are expected in early June 2026.

A predictive biomarker rooted in the mechanism of action

This patent application aims to protect the use of a biomarker enabling the identification of a substantial population of smokers with an increased probability of response to NFL-101. The biomarker is based on baseline levels of IgG1 immunoglobulins directed against NFL-101. Additional analyses currently ongoing and conducted using data from the Phase 2 CESTO2 clinical study suggest that baseline levels of specific IgG1 below a defined threshold are associated with a better response to treatment with NFL-101.

NFL-101 acts by reactivating pre-existing immune memory associated with smoking, through an immunomodulatory mechanism involving immunoglobulin G (IgG). Specific IgG1 directed against the tobacco extract composing NFL-101 plays a central role in this adaptive immune response. High pre-treatment IgG1 levels reflect an immune response already strongly activated, potentially limiting the additional immunomodulatory effect of NFL-101. Conversely, patients with IgG1 levels below the defined threshold provide an immunological environment in which NFL-101 can fully exert its action. It is precisely this biological anchoring within the product's mechanism that gives this biomarker strong scientific robustness.

A simple and accessible test to identify responding patients

These results are supported by rigorous analytical validation conducted at the Georges-Pompidou European Hospital (Paris), with particularly strong technical performance confirming the reproducibility and robustness of the specific IgG1 assay test. Building on these data, NFL Biosciences now intends to take an additional step by working on the development of a standardized test usable in medical analysis laboratories. In practical terms, upon medical prescription, the patient would undergo a simple blood test in a local or hospital laboratory, the result of which — positive or negative according to the defined threshold — would enable the physician to confirm the indication for NFL-101. This approach, which is already well established in oncology for the treatment of cancer using biomarkers such as HER2 or BRCA, is ideally suited to the context of smoking cessation. NFL Biosciences thus aims to eventually develop a simple and accessible diagnostic tool that is fully aligned with the Company's vision of personalized medicine.

Strengthened intellectual property

This new patent application increases to five the number of patent families held by NFL Biosciences in the field of smoking cessation based on tobacco extracts. The Company held only two patent families at the time of its IPO. The scientific work conducted since then has enabled the filing of three additional patent families, progressively strengthened the protection of its intellectual property and given NFL Biosciences a differentiated and sustainable position in a field whose importance is increasingly recognized by the international scientific community.

Two products under development in smoking cessation

The Company is also developing NFL-102 in parallel, a drug candidate enriched with certain compounds and featuring an extended mechanism of action, intended for the general population, with a study aimed at confirming safety, efficacy and dose selection, for which the clinical trial application is planned in mid-2026. The order of priority for Phase 3 advancement between NFL-101 and NFL-102 will depend on NFL-101 efficacy results in the population possessing the predictive biomarker, the size of this population and the efficacy of NFL-102 in the general population.

About NFL Biosciences: www.nflbiosciences.com

NFL Biosciences is a biopharmaceutical company based in the Montpellier region (France) developing botanical drug candidates for the treatment of addictions. NFL Biosciences' ambition is to provide new natural therapeutic solutions that are safer and more effective for people worldwide, including in low- and middle-income countries. NFL-101 and NFL-102 are standardized tobacco leaf extracts protected by five patent families. NFL Biosciences aims to offer smokers who wish to quit a natural, safe, easy-to-administer and personalized alternative. NFL Biosciences is also developing NFL-301, a natural drug candidate intended to reduce alcohol consumption and has a drug development program targeting cannabis use disorders.

NFL Biosciences shares are listed on Euronext Growth Paris (FR0014003XT0 - ALNFL).

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