

# Common cholesterol drug stimulates the same receptors as marijuana

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If you want the benefits of medical marijuana without the "unwanted side effects" of cannabis, new research should leave you on a high note. According to a research report appearing in the April 2015 issue of *The FASEB Journal*, fenofibrate, also known by the brand name Tricor, may benefit a wide range of health issues, such as pain, appetite stimulation, nausea, as well as immune and various psychiatric and neurological conditions. This suggests that fenofibrate may be the starting point for a new class of cannabis-like drugs to treat these types of conditions.

"By illustrating the relationship between fenofibrate and the cannabinoid system, we aim to improve our understanding of this clinically important drug," said Richard S. Priestley, Ph.D., a researcher involved in the work from the School of Life Sciences at the University of Nottingham Medical School in Nottingham, United Kingdom. "Our study provides the basis for the investigation of new drugs targeting these important receptors."

To make this discovery Priestly and colleagues cultured cells containing [cannabinoid receptors](#) and exposed them to a tracer compound, which binds to cannabinoid receptors. They found that fenofibrate was able to displace the tracer, suggesting that it also binds to the receptors. Furthermore, they discovered that fenofibrate actually switched the cannabinoid receptors "on," not only in these cells, but also in sections of intestine. This led to the relaxation of the tissue in a way that mimicked what marijuana does. Despite the fact that fenofibrate has been used for many years, and its mechanism of action was presumed to be through a

completely different family of receptors, this suggests that at least some of the effects of [fenofibrate](#) may be controlled by cannabinoid receptors. Furthermore, these cannabinoid [receptors](#) may be a future target for drugs used to treat pain and a variety of immune and psychiatric diseases.

"It may be difficult to persuade people in Colorado, Washington, and the District of Columbia that there are people who want the beneficial effects of marijuana without actually getting high," said Gerald Weissmann, M.D., Editor-in-Chief of *The FASEB Journal*, "but there are people who do not want to get stoned just to get the relief that marijuana brings. This new work suggests that possibility."

**More information:** Richard S. Priestley, Sarah A. Nickolls, Stephen P. H. Alexander, and David A. Kendall. A potential role for cannabinoid receptors in the therapeutic action of fenofibrate. *FASEB J.* April 2015 29:1446-1455; [DOI: 10.1096/fj.14-263053](https://doi.org/10.1096/fj.14-263053)

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