

Pharma aims to make a better CBD

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Cannabidiol (CBD) is an increasingly popular wellness trend. The compound, which occurs naturally in cannabis plants, is added to many products that claim to reduce anxiety, alleviate pain and more, without the intoxication of its cousin tetrahydrocannabinol (THC). While CBD products are largely unregulated and unproven, companies are working to create CBD-like molecules to develop pharmaceutical therapies. Their progress is reported in *Chemical & Engineering News*, the weekly newsmagazine of the American Chemical Society.

From skincare to snacks, CBD can be found in a vast array of products. Although many consumers tout the benefits of CBD, scientists argue that the [health claims](#) are unsubstantiated. In fact, only one CBD-based drug, which helps control seizures in children, is approved for use by the U.S. Food and Drug Administration (FDA), writes Senior Editor Britt E. Erickson. While CBD's mechanisms are not fully understood, researchers are looking at how it influences [cannabinoid receptors](#) in the brain known as CB1 and CB2. CBD itself does not bind to CB1 and CB2 receptors, but instead causes endocannabinoid compounds made by the body to do so, leading pharmaceutical researchers down a

new path toward CBD-based treatments.

The CB2 receptor is of special interest to drug developers, as it is associated with anti-inflammatory effects. By activating this receptor directly with a potent CBD derivative, researchers can take aim at treating chronic inflammatory diseases, including lupus, cystic fibrosis and multiple sclerosis. In addition, companies are working to enhance the aqueous solubility of CBD, meaning that it can be more readily absorbed by the body when taken orally. By doing so, scientists hope to create drugs that are up to 50 times more potent than CBD, which could help with nerve damage, neurodegenerative diseases and even opiate abuse. Most of these potential drugs are still in the early stages of development, and researchers caution that clinical trials might not pan out. However, the amount of interest and investment in developing these drugs could signal a new era of pharmaceutical innovation.

More information: Britt E. Erickson. Like CBD, but better: Companies aim to treat myriad disorders with molecules akin to cannabinoids. *Chemical & Engineering News* August 29, 2020. Appeared In Volume 98, Issue 33

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