Cannabinoids as Therapeutics
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Cannabinoids in appetite and obesity

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Introduction

In contrast to most drugs, many of the pharmacological activities of cannabinoids were described in humans before being investigated by pharmacologists in laboratory animals. This peculiarity is of course due to the use of *Cannabis sativa* preparations for recreational purposes from ancient civilizations up to modern times.

The effects of cannabinoids on appetite makes no exceptions: the fact that cannabis can stimulate appetite has been observed since AD 300 [1]. Recent experiments using potent synthetic or natural endogenous cannabinoid agonists, as well as transgenic animals in which the cannabinoid system has been disrupted confirm the role of the cannabinoid system as a modulator of food intake.

Particularly interesting are the opposite effects of the newly developed cannabinoid antagonists. These compounds have been shown to decrease food intake and to regulate body-weight gain, and are expected to provide a new therapeutic approach to treat obesity, a condition that affects up to 27% of the US population and is now considered by the World Health Organization as a global epidemic that poses a serious threat to world health, particularly in adolescents [2].

However, the mechanism by which the cannabinoid system modulates food intake is far from fully understood, and its elucidation is the subject of much research at the moment.

Cannabinoid agonists and appetite

A large anecdotal and descriptive literature suggest that smoking cannabis stimulates hunger, and selectively increases the appetite for sweet and palatable food, which smokers sometimes refer to as ‘the munchies’. Starting in the 1970s, a series of well-controlled scientific studies was conducted to better characterize this effect [3].