

'Marijuana receptor' might hold the key to new fertility treatments for men

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In a research report appearing in the April 2016 issue of *The FASEB Journal*, scientists show that a cannabinoid receptor, called "CB2," helps regulate the creation of sperm. Not only does this provide more evidence that marijuana can disrupt fertility in males, but it also suggests a therapeutic strategy for treating male infertility.

"The possibility to improve [male fertility](#) is one of the main focuses of this study, since infertility is a worldwide problem that affect up to 15% of couples in which male factors account for almost 20-70%," said Paola Grimaldi, Ph.D., a researcher involved in the work from the Department of Biomedicine and Prevention, School of Medicine at the University of Rome Tor Vergata in Rome, Italy.

To make their discovery, Grimaldi and colleagues treated three groups of mice with different agents for 14 to 21 days. The first group was treated with a specific activator of the CB2 receptor. The second group was treated with a specific inhibitor of the CB2 receptor. The third group received only a saline solution and served as the control group. The group treated with the CB2 activator showed an acceleration of spermatogenesis, while the group treated with the inhibitor displayed a slower rate of the process. This suggests that a tight balance of CB2 activation is required for the proper progression of spermatogenesis.

"That the normal beneficial effects of endogenous cannabinoids on spermatogenesis can be stimulated further by a chemical mimic, an agonist, is a potentially promising new idea for treating [male infertility](#),"

said Thoru Pederson, Ph.D., Editor-in-Chief of *The FASEB Journal*.

More information: D. Di Giacomo et al. Type 2 cannabinoid receptor contributes to the physiological regulation of spermatogenesis, *The FASEB Journal* (2016). [DOI: 10.1096/fj.15-279034](https://doi.org/10.1096/fj.15-279034)

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