

# Does a placebo gene exist?

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A short time ago, Swedish scientists published a paper suggesting the existence of a genetic disposition to respond to placebo, thus giving rise to debate in the media about a possible "placebo gene." In the current issue of *Deutsches Ärzteblatt International* (Dtsch Arztebl Int 2009; 106[46]: 751), Matthias Breidert and Karl Hofbauer summarize the most recent data about placebos.

A [placebo](#) is a sham medical drug, without a pharmacologically active substance, that is externally indistinguishable from the active drug. The main way in which the placebo effect is brought about is that the patient is familiar with effective drugs (conditioning) and expects an effect. The way in which the drug is given, and the patient's relationship with the doctor, also influence the effectiveness: for example, red pills suggest a stimulatory effect, whereas blue pills suggest a calming effect.

Furmark et al. of Uppsala University have shown that two genes that play an important part in serotonin metabolism determine the effectiveness of placebo treatment in social phobia.

Breidert and Hofbauer contend that it is misleading to speak of a "placebo gene" in this connection, however, because the gene-related sensitivity is associated with only one illness and one mechanism of effect. They also found that, contrary to earlier assumptions, the effect of a placebo is variable, does not correlate with the severity of symptoms, and can last for anything from minutes to years.

More information: [www.aerzteblatt.de/v4/archiv/pdf.asp?id=66780](http://www.aerzteblatt.de/v4/archiv/pdf.asp?id=66780)

Source: Deutsches Aerzteblatt International

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