

From: Deepak Chopra <[REDACTED]>
To: Jeff Epstein <jeevacation@gmail.com>
Subject: Fw: Exploring the placebo effect
Date: Mon, 01 Aug 2016 00:19:26 +0000

See what you started !!!! The head of clinical research at Pfizer is interested !!
Love

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[Super Genes: Unlock the Astonishing Power of Your DNA for Optimum Health and Wellbeing](#)

From: Freda Lewis-Hall <[REDACTED]>
Sent: Sunday, July 31, 2016 8:06 PM
To: Deepak Chopra
Cc: Eric Schadt; Rudolph Tanzi; Carolyn Rangel
Subject: Re: Exploring the placebo effect

This is indeed very interesting! I am currently in Cuba. But will reach out to the team as soon as I return!
Hope you are having an enjoyable and productive summer.
Freda

Sent from my iPhone

On Jul 31, 2016, at 7:58 PM, Deepak Chopra <[REDACTED]> wrote:

Dear Freda

Our study on the effects of meditation on Gene expression will be published soon in Nature Translational Psychiatry . Eric Schadt was the lead scientist in that study and Rudy as well. See his note that I'm forwarding . Perhaps he and I and Rudy if he is available can come and pay you a visit at your Pfizer office in NYC . I think this is worth exploring . Do let us know.
Love

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From: Schadt, Eric <[REDACTED]>

Sent: Sunday, July 31, 2016 7:37 PM

To: Deepak Chopra; Rudolph Tanzi

Subject: Exploring the placebo effect

Deepak and Rudy,

Given the identification of a strong "vacation" and "meditation" molecular response signature in your SOS study, I became interested in whether such a molecular response could exist in the placebo arms of clinical trials. As you know, in the placebo arms of clinical trials there is almost always what is known as a placebo effect in which those receiving the placebo realize a significant response to the placebo that improves the condition of the trial participant in a way that directly relates to the primary hypothesis of the trial (i.e., those in the placebo arm realize a benefit from the placebo as anticipated for the drug arm of the trial).

I have been interested in whether those who respond to the placebo have a molecular profile in blood or other tissues collected in the trial that differs significantly from those who do not respond to the placebo. Today it is the placebo effect is acknowledged in nearly every single clinical trial. In fact, in your SOS study, controlling for the "vacation" effect was in my opinion somewhat akin to controlling for the placebo effect with respect to the meditation intervention. Deriving a molecular signature for the placebo effect would have many advantages that would aid in our understanding of wellness, establish whether a placebo response may relate to the vacation and/or meditation effects, and help elucidate the causes of the placebo effect that may aid those running clinical trials in better accounting for such effects and distinguishing them from the action of a drug (it would almost certainly significantly improve the power in clinical trials to demonstrate the efficacy of a drug).

I think there may be significant data already available toward this end. I think assembling these data, perhaps going to pharma as well and seeing how many blood samples exist from the placebo arm of clinical trials that could be molecularly profiled as we did in your study (i.e., there may be many samples in clinical studies already run and we simply identify the extreme responders and non-responders in the placebo arms and profile those), would be worth some effort. I think pharma would be open to this given the placebo arm of the trials are unrelated to the drug arm that they typically want to keep very protected.

Worth a discussion! Let me know if any interest.

Eric