Can a placebo pill actually serve as drug therapy?

Placebos have helped to ease symptoms of illness for centuries and have been a fundamental component of clinical research to test new drug therapies for more than 70 years. But why some people respond to placebos and others do not remains under debate.

With the advent of genomics, researchers are learning that placebo responses are modified by a person's genetics, a discovery that raises important new questions regarding the role of the placebo in patient care and in drug development: How many genetic biomarkers exist? Can the medical field harness the placebo response to enhance personalized medical treatment? What might be the impact of placebo-drug interactions? And what will this new information mean for randomized clinical trials, which depend on placebo controls to test the efficacy of new drug candidates? Should a "no-treatment" control be added to future trials?

Researchers from the Program in Placebo Studies (PiPS) at Beth Israel Deaconess Medical Center (BIDMC) and from the Department of Medicine at Brigham and Women's Hospital (BWH) explore these provocative issues in a review of evidence from placebo studies and randomized clinical trials. Published online in *Trends in Molecular Medicine*, the article introduces the concept of "the placebome,"and identifies a network of genes that could significantly influence medicine and clinical trial design — suggesting that placebos play a larger role in health care than previously recognized.

Read full, original article: The placebome: Where genetics and the placebo effect meet