# Predicting the Placebo Response and Placebo Responders in Medicated and Unmedicated Patients Using Baseline Psychometric and Clinical Assessment Score

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## SUMMARY

UCLA researchers have developed a method and model to predict the placebo effect and placebo responsiveness using the 30-item baseline positive and negative syndrome scales (PANSS) scores, within both the medicated and unmedicated Schizophrenia patients.

## BACKGROUND

The placebo effect is used to describe the effect of inert interventions to yield a positive treatment benefit. The placebo effect is greater in studies with a large number of trials, but was found to not be influenced by the frequency of clinician contact. The medication effect is larger in comparator studies than in placebo controlled studies, possibly because the patient realizes (s)he is guaranteed to receive an active medication. There is a need to predict both who will respond to a placebo treatment, and how strongly they will respond.

## INNOVATION

A model and method to predict who will respond to a placebo treatment, and how stronglySchizophrenia patients will respond.

## APPLICATIONS

- Predicting the placebo response
- Characterizing placebo responders vs. non-responders via predictability, patterns, and profiling
- Trial development based on baseline PANSS patterns and placebo risk scores
- Screening tool for drug interactions and responsiveness to interventions

## ADVANTAGES

- Can predict change in PANSS with Standard Covariates within the medicated patient group
- Can predicted change in PANSS score including Placebo Risk Score within the medicated patient group
- Baseline-derived placebo risk score significantly increases the ability to predict the treatment response in the medicated patient group
- Characterization within response groups
- Placebo risk scores and the predicted placebo responder IDs are significantly correlated
- Placebo responders show stronger changes in the Positive, Negative, Excited and Disorganized domains
- Placebo Non responders show the stronger changes in the Anxiety/Depression domains

## RELATED MATERIALS

- A. Anderson and M. S. Cohen, Decreased small-world functional network connectivity and clustering across resting state networks in schizophrenia: an fMRI classification tutorial, in Front. Hum. Neurosci., 2013.

## PATENT STATUS

| Country | Type | Number | Dated | Case |
|---|---|---|---|---|
| United States Of America | Published Application | 20200058380 | 02/20/2020 | 2016-487 |

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## INVENTORS

- Anderson, Ariana E.

## OTHER INFORMATION

### KEYWORDS

Placebo effect, method, prediction model, placebo responsiveness, positive and negative syndrome scales, PANSS scores, Schizophrenia, placebo risk scores, responders, non responders

### CATEGORIZED AS

- **Biotechnology**
  - Health
- **Computer**
  - Software
- **Medical**
  - Diagnostics
  - Disease: Central Nervous System
  - Research Tools
  - Screening
  - Therapeutics
- **Research Tools**
  - Other
  - Screening Assays

### RELATED CASES

2016-487-0

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