### **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

### **FORM 8-K**

#### CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): November 2, 2009

### **CNS RESPONSE, INC.**

(Exact name of Company as specified in its charter)

0-26285

Delaware (State or other jurisdiction of incorporation)

(Commission File No.)

87-0419387 (I.R.S. Employer Identification No.)

2755 Bristol Street, Suite 285 Costa Mesa, CA 92626

(Address of principal executive offices)

(714) 545-3288 (Registrant's telephone number, including area code)

Not Applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

#### Item 8.01 Other Events.

On November 3, 2009, CNS Response, Inc. (the "Company") issued a press release reporting the results of a study presented by Charles DeBattista, D.M.H, M.D., at the U.S. Psychiatric and Mental Health Congress. A copy of the press release is included as Exhibit 99.1 to this Form 8-K and is incorporated herein by reference. A copy of the poster presented by Dr. DeBattista on November 2, 2009 at the U.S. Psychiatric and Mental Health Congress is included as Exhibit 99.2 to this Form 8-K and is incorporated herein by reference.

The Company will be holding a conference call to discuss the top-line results of its recently completed study. CNS stockholders are encouraged to participate in the conference call, which will be held today at 8:00 a.m. PST. Please call Suzanne Schnitzer at 949.553.9748 to register for the call. You will be given the toll-free dial-in number and access code to the conference call, along with the login instructions to join the simultaneous web conference. A copy of the materials to be presented by the Company over the web are included as Exhibit 99.3 to this Form 8-K and are incorporated herein by reference.

#### Item 9.01 Financial Statements and Exhibits.

#### (d) Exhibits

The following exhibits are filed herewith:

99.1	Press Release Issued November 3, 2009.
99.2	Copy of poster presented at U.S. Psychiatric and Mental Health Congress.
99.3	Copy of web presentation materials.

### SIGNATURES

Pursuant to the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CNS Response, Inc.

November 3, 2009

By: /s/ George Carpenter

George Carpenter Chief Executive Officer

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9	9.1	Press Release Issued November 3, 2009.
9	9.2	Copy of poster presented at U.S. Psychiatric and Mental Health Congress.
9	9.3	Copy of web presentation materials.

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Breakthrough Results in Depression Care Announced by CNS Response at the U.S. Psychiatric and Mental Health Congress

Patients Using rEEG<sup>®</sup>-Guided Treatment Had Considerably Better Outcomes with Statistical Significance "Exceeding Expectations"

Costa Mesa, CA – November 3, 2009 – CNS Response, Inc. (OTCBB: CNSO) reported the results of a landmark study presented by Charles DeBattista, D.M.H, M.D., at the U.S. Psychiatric and Mental Health Congress. The poster presentation, titled *Referenced-EEG*<sup>®</sup> (*rEEG*) *Efficacy Compared to STAR\*D For Patients With Depression Treatment Failure: First Look At Final Results*, highlighted a dramatic improvement in personalized medicine technology for use in treatment of patients with depression. In this study, rEEG proved effective at predicting medication response for treatment-resistant patients approximately 65 percent of the time.

The study included 114 patients in 12 medical centers, including Harvard, Stanford, Cornell, UCI and Rush. The 12-week study found that rEEG significantly outperformed the modified STAR\*D treatment algorithm. The difference, or separation, between rEEG and the control group was 50 and 100 percent for the study's two primary endpoints. Typically, separation between a new treatment and a control group is about 10 percent in antidepressant studies.

"These outcomes are consistent with previous rEEG studies, which included three prospective, controlled trials and eight case series, but the robustness and statistical significance of these results exceeded our expectations," said CNS president and chief medical officer Daniel Hoffman, M.D.

"Psychiatry has lacked useful laboratory tests to select medications for treatment-resistant depressed patients. While needing further study, this trial is one of the larger ones to demonstrate that there may be a role for technology that assists physicians in selecting better treatment options for their patients," said Dr. Charles DeBattista, an award-winning doctor at Stanford University Medical Center, who helped lead the study on rEEG.

Depression costs U.S. employers \$83 billion annually, with treatment-resistant depression accounting for over half of that cost. On average, these patients cost \$8,500 more per year than patients with ordinary depression. rEEG is the first objective, physiology-based, personalized medical technology consistently shown to guide psychiatrists to appropriate treatment for the most challenging patients.

- more - -

### Breakthrough Results in Depression Care Announced by CNS Response at the U.S. Psychiatric and Mental Health Congress Page 2

The CNS Response study, the largest in the company's history, was a randomized, blinded, controlled, parallel group, multicenter study. The patients in the study experienced depression treatment failure of one of more SSRIs and/or had failure with at least two classes of antidepressants. The patients fell into two groups: 1) those treated with rEEG medication guidance, and 2) those treated with the modified STAR\*D treatment algorithm.

"This is the promise of personalized medicine, tailoring therapies to the unique medication response profile of each individual patient," said George Carpenter, chief executive officer of CNS Response, Inc., which developed the patented technology. "Those suffering from the most resistant forms of depression will now have an effective treatment option, and doctors will no longer have to play an extended and costly guessing game to see what works best."

#### About CNS Response

Today, most physicians are able to base treatment on objective test data, such as EKGs, MRIs, blood tests, etc. Broadly speaking, such advances have not yet come to those physicians practicing psychiatry.

CNS Response has developed a patented data-analysis capability that, with the help of a simple, non-invasive EEG, will analyze a patient's brain waves and compare the results to an extensive patient outcomes database. The process produces a rEEG® report providing a psychiatrist with guidance to personalize medication regimens for a patient, based on the patient's own brain physiology. To read more about the benefits this patented technology provides physicians, patients and insurers, please visit the CNS Response website, www.cnsresponse.com.

#### Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995

Except for the historical information contained herein, the matters discussed are forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended. These statements involve risks and uncertainties as set forth in the Company's filings with the Securities and Exchange Commission. These risks and uncertainties could cause actual results to differ materially from any forward-looking statements made herein.

###

#### Referenced-EEG (rEEG) Efficacy Compared To STAR\*D For Patients With Depression Treatment Failure:

First Look At Final Results Charles DeBattista, M.D.<sup>+</sup>, Gustavo Kinrys, M.D.<sup>+</sup>, Daniel Höfman M.D.<sup>+</sup>, Mark Schlier, M.D.<sup>4</sup> Barket Uwenig School Meatas, Contribute Interactive and Markat School Charles Researce, in-Unterlange Chik

#### BACKGROUND

Reference-EEG (#EEG#) is a noiet looi that provides medication quantantie excrementation of the provides medication quantantie excrementation of the provides medication quantantie excrementation of the provides medication metagoates the set of expressed points. Develop that has have nestinguates the set of expressed points. Develop that have nestinguates the set of expressed points. Develop that have have been applied on the provides of the provides of the however, by the rank sample acts. A plot that were hempered, however, by the rank sample acts. A plot that were hempered provides the provides of the provides of the first apporthm as the control. Due to design problems pre study blanding was componited and the tria was stopped. A new design was developed using a modified medication apporthm based on the acute and long-term ouccomes from the NIMH deduenced Treatment Alternatives to releave expression tability. This standard was holden because of its value in identifying the most effective andioesensating to the source of the source in the source of the course was component based by the most effective and long-term ouccomes from the NIMH deduenced Treatment Alternatives to reasone relation based in the course. antidepressants for treatment resistant patients

#### OBJECTIVE

This study was designed to evaluate the efficacy of rEEG-based pharmacoherapy in comparison to medications guideo by a leading standard (374.870) in the treatment of patients with depression treatment failure.

#### METHODS

METHODS This was a randomized, controlled, single-bind, parallel group, multicenter subject, of rEBG-guide medication recommendations versus the most successful treatment regimens from the UTARD Study. Statents were reclude at tawks centers across the ULB, and from two basic stratus, patients with depreseion itsetment failure of one or more regiments in the subject work of the ULB, and from two basic stratus, patients with depreseion itsetment failure of one or more of all east two classes of antideopresamils. Subjects were trajuled to nave a Quick classes of antideopresamils. Subjects were regulated to clare (wh.Map Depresave Obsorder (MOD). Subjects were regulated to parts a Quick classes of antideopresamils. Subjects were regulated to clare (wADR) score of >52 st baseline. Forthall subjects were excluded for medically netwark conditions, substance abuse, prepandry prescription pain medication, at subjects underwent a washout of all patients of the depresent on addition of the bankfores priors microking an OEBO, the QEBO was analyzed usiting rEBG technology. After the subject treatment regimen would have been the same as the testment province bottment regimen would have been the same as the testment province business tamonomized to the rEBO group were assigned the

## METHODS, continu

METHODS, continued treatment regiment that was based on the rEEG report. Bubjects andomitted to learning organize were assigned a treatment regimen based upon the GTARTD algorithm. Control subjects who had failed OBR's only were treated with a vertilatarus XR; and subjects who had failed on medicators from two or more classes of antidepresants were assigned a treatment regenite visiting with the 2 of the modified GTARTD algorithm. The treatment period was 12 were an whole at Week 1, 2, 4, 5, 8, 10 that the subject of the subject of the subject and based (AES) at each visit. RESULTS

Demography: A total of 465 subjects were screened and 114 subjects them analysis (57 1626, 57 07AR/D). Of these 44 levels house the standard screeness of the standard screeness of the screeness enforcements. This population was non-average 44 years ofd, 109 poinds, 63.35 female, 65.84 (Jucaciahn, 156 Heijkand, and 56% Black. A total of 32 of the 114 randomized subjects (15) ere group) premaively translate for: A56 (Jucaciahn, 156% Hispand, and 56% Black. A total of 32 of the 114 randomized subjects (15) ere group) premaively translate for: A56 (Jucaciahn, 156% Hispand, and 56% Black. A total of 32 of the 114 randomized subjects (15), white content (5), never took medications (3), and other reasons (6). The Modified Intend-torTrate (MTT) population constants of 164 subjects who were randomized and delivered valid data for the primary endpoints. The Per-Postool (PP) population constants of dis 14 Jucylects who completed at level 31 weeks of treatment and fulfied, protocol stratts. Out of the 89 PF subjects were in the 3TAR/D group (Tabe 11.

were in the STARTD provid (Table 1). Efficacy Results: The primary endpoints instance change from labeline for Starts Form (SERS) (SE



STARTD

-4.51 8.16 <0001

35.76% 25.55% -16.43 44.50% 25.57% -1.30 53.06% 20.41% -4.40 45.56% 35.75% -1.48

p-value

0.0583 0.0228 0.0535

<0001 <0001 0.0008

6.0002 6.0062 6.0055 6.0055 6.0007

Investor Conference Call: Top-line results from Depression Efficacy Trial

November 3, 2009



## A new prescription:

rEEG® brings personalized medicine to Psychiatry

CNS Response

www.cnsresponse.com

## Safe Harbor

The statements and discussions contained in this summary that are not historical facts constitute forward-looking statements, which can be identified by the use of forward-looking words such as "believes," "expects," "may," "intends," "anticipates," "plans," "estimates" and analogous or similar expressions intended to identify forward-looking statements. CNS Response wishes to caution the reader of this summary that these forward-looking statements and estimates as to future performance, estimates as to future valuations and other statements contained herein regarding matters that are not historical facts, are only predictions, and that actual events or results may differ materially. CNS Response cannot assure or guarantee you that any future results described in this summary will be achieved, and actual results could vary materially from those reflected in such forward-looking statements.

Information contained in this summary has been compiled by CNS Response from sources believed to be credible and reliable. However, CNS Response cannot guarantee such credibility and reliability. The forecasts and projections of events contained herein are based upon subjective valuations, analyses and personal opinions.

This summary shall not constitute an offer to sell or the solicitation of an offer to buy any securities. Such an offer or solicitation, if made, will only be made pursuant to an offering memorandum and subscription documents prepared by CNS Response specifically for such purposes.

**CNS** Response

## Today's agenda

- Background on rEEG Technology Research
- Depression Efficacy Trial Objective Design Investigators & locations Review of results Other views of the data
- Closing Thoughts

Questions

**CNS** Response



### Speakers:

George Carpenter, CEO, CNS Response Charles DeBattista, MD, Stanford University School of Medicine

Daniel Hoffman, MD, Chief Medical Officer, CNS Response

www.cnsresponse.com

## Trial & Error prescribing, explained

Psychiatry has relied on historical accounts, behavioral observations, and mental status examination as the basis for prescribing.

The psychopharm literature acknowledges that within any diagnostic category there is broad variation in patients' response to classes of medicines as well as specific agents within each class. This is a consequence of the DSM having been constructed as a behavioral sorting system and not as a pharmacotherapeutic response predictor.

...This inductive leap may lead to a protracted trial and error process, requiring extreme patience and endurance of morbidity until a satisfactory treatment outcome is achieved.



Suffin & Emory, Clinical Electroencephalography, 1995 vol. 26 no. 2

**CNS** Response









### Progressive research interest in EEG/Quantitative EEG



Journal publications indexed in PubMed as "quantitative EEG" or "EEG" since 1960

## Comparable studies -- Aspect Medical, 2009



## **BRITE Study:**

- n = 375
- Biomarker = "cordance"
- 5-lead EEG
- Design: Dose-loading at I week
- Successfully predicted response to a single antidepressant

## rEEG<sup>®</sup> Clinical Research





Suffin & Emory, Journal of Clinical Electroencephalography, 1995



Controlled Trials	Population	rEEG Efficacy	Control Group
Multi-site Depression Efficacy Trial 2009	114	65%	39%
ADD & Depression Blinded Trial <sup>1,3</sup>	100	68%	22%
VA Blinded Study <sup>3,5</sup>	13	85%	17%
TRD Pilot post hoc	18	58%	0%
Open Label Case Series	Population	Efficacy	
Dr. Greenblatt Scientific Pres APA 20087	13	92%	
CIGNA-Atlanta Pilot <sup>3</sup>	56	70%	
Dr. Davis Case Series <sup>3</sup>	15	100%	
Monte Nido Case Series <sup>2,3</sup>	104	83%	
Dr. Hamilton Case Series <sup>3</sup>	34	78%	
Dr. Hoffman Case Series <sup>3</sup>	74	76%	
Rancho L'Abri Case Series <sup>3,4</sup>	58	93%	
Dr. Schiller Case Series <sup>7</sup>	19	89%	

2 MC/BE/ Poster st Annual Meeting 2004 3 APA Poster st Annual Meeting 2005 4 APA Poster st Annual Meeting 2005 5 Ametican College of Physicians & Surgeons, 2007 6 CPDP Poster 3 Annual Meeting 2003 7 2008 UIS Psychiatric & Mental Heath Congress 2008

## What STAR\*D proved: Treatment Resistant Depression is tough

MEDICATION	DECREASING REMISSION RATES <sup>1</sup> (TABLE 4 PAGE 1911)	DECREASING RESPONSE RATES 1 (TABLE 4 PAGE 1911)	INCREASING RELAPSE RATES <sup>1</sup> (TABLE 5 PAGE 1912)	INCREASING DROPOUT RATES (FIGURE 1 PAGE 1967)
Step 1	36.8%	48.6%	40.1%	20.1%
Step 2	30.6%	28.5%	55.3%	29.7%
Step 3	13.7%	16.8%	64.6%	44.8%
Step 4	13.0%	16.3%	71.1%	60.1%

The STAR\*D trial provides robust, real-world data that can be applied broadly to both primary and specialty care settings. The study confirms that different people respond to different treatment strategies, but it does not pinpoint what treatments work best for whom. The STAR\*D team concluded that future research should be targeted to identify the best multi-step treatment options for individuals, especially those with treatment-resistant depression.

"This new STAR\*D report reminds us that treating depression remains a formidable challenge," said NIMH Director Thomas Insel M.D. "While roughly two-thirds of patients report remission, many subsequently relapse. We need new treatments that are rapid, enduring, and individualized to facilitate recovery."

**CNS** Response

National Institute of Mental Health, Science Update, 11/1/06

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CNS Response

## Multi-site Depression Efficacy Trial -- Objective

### OBJECTIVE

This study was designed to evaluate the efficacy of rEEG-based pharmacotherapy in comparison to medications guided by a leading standard (STAR\*D) in the treatment of patients with depression treatment failure.



Referenced-EEG (rEEG) Efficacy Compared To STAR\*D For Patients With Depression Treatment Failure: First Look At Final Results Charles DeSatista, M.D.1; Gustavo Kinys, M.D.2; Daniel Hofman M.D.3; Mark Schiller, M.D.4; Tathred University School Medices, Solemotics - comparisonate Medica School, Stok Resolver, Inc. Allientmenty Clinic

## Multi-site Depression Efficacy Trial -- Design

METHODS

This was a randomized, controlled, single-blind, parallel group, the most successful treatment regimens from the STAR\*D study Patients were recruited at twelve centers across the US, and from two basic strata: patients with depression treatment failure of one or more Selective Serotonin Reuptake Inhibitors (SSRIs), and those with failure of at least two classes of antidepresents. multicenter study, of rEEG-guided medication recommendations versus 4 = 19995 9 = 19995 1 = 19995 of at least two classes of antidepressants. Subjects were 18 years or 3 adder with Major Depressive Disorder (MDD). Subjects were required to have a Quick Inventory of Depressive Symptomatology-Self Report-16 QIDS-16-SR) of ≥13 and a Montgomery-Asberg Depression Rating Scale (MADRS) score of >26 at baseline. Potential subjects were excluded for medically relevant conditions, substance abuse, pregnancy or intent to become pregnant, lactation, or acute or chronic pain requiring prescription pain medication. All subjects underwent a washout of all current medications (except insulin, thyroxin, oral contraceptives, and hydrochlorothiazide) for a minimum of five half-lives prior to receiving a QEEG. The QEEG was analyzed utilizing rEEG technology. After the EEG, subjects were also excluded for reasons related to the EEG such as potential physiologic abnormalities or low abnormality in comparison to the current rEEG database. Also, subjects were excluded if the rEEGguided treatment regimen would have been the same as the treatment regimen that the subject would receive if randomized to the control group. Subjects randomized to the rEEG group were assigned the reatment regimen that was based on the reed report. Subje

randomized to the control group were assigned a treatment regimen based upon the STAR\*D algorithm. Control subjects who had failed SSRI's only were treated with a veniafaxine XR; and subjects who had failed on medications from two or more classes of antidepressants were assigned a treatment regimen starting with Step 2 of the modified STAR\*D algorithm. The treatment period was 12 weeks with site visits at Week 1, 2, 4, 6, 8, 10, 12. The primary and secondary outcome measures are listed in Table 1 Safety was assessed through collection of vital signs and adverse events (AEs) at each visit.

Referenced-EEG (FEEG) Efficacy Compared To STAR D For Patients With Depression Treatment Failure: *First Look At Final Results* Charles DeBattista, M.D.1; Gustavo Kinys, M.D.2; Daniel Hofman M.D.3; Mark Schiller, M.D.4 Ustardro University School / Medicent, Schwicky e Hostialwave Weets Donos 1000 Represe, Ind. WintThesay Circ

- A randomized, controlled, single-blind, parallel group, multicenter study
- Patients with Major Depressive Disorder treatment failure
- rEEG medication guidance vs most successful treatments from STAR\*D
- Two basic strata (patient groups):
  - failure on one or more Selective Serotonin Reuptake Inhibitors (SSRIs)
  - failure of at least two classes of antidepressants in the current episode
- Subjects required to have both:
  - Quick Inventory of Depressive Symptomatology-Self Report-16 (QIDS-16-SR) of >13
  - Montgomery-Åsberg Depression Rating Scale (MADRS) score of >26 at baseline

## Multi-site Depression Efficacy Trial -- Design (cont'd)



With Depression Treatment Failure: First Look At Final Results Charles DeBatista M.D.1: Gustave Kinys, M.D.2: Daniel Hofman M.D.3: Mark Schiller, M.D.4 Indrees DeBatista Saw M.D.1: Gustave Kinys, M.D.2: Daniel Hofman M.D.3: Mark Schiller, M.D.4

- All subjects underwent a washout of all current meds for minimum of five half-lives
- Subjects were excluded if rEEG-guided treatment regimen would have been identical if randomized to the control group – this occurred in \_\_\_% of screened cases
- Treatment protocol:
  - Subjects randomized to rEEG group were assigned the treatment regimen that was based on the rEEG report
  - Subjects randomized to the control group were assigned a treatment regimen based upon the OPTIMIZED STAR\*D algorithm
    - Control subjects who had failed SSRI's only were treated with venlafaxine XR
    - Subjects who had failed on medications from two or more classes of antidepressants were assigned a treatment regimen starting with Step 2 of the Optimized STAR\*D algorithm

### Multi-site Depression Efficacy Trial -- Investigators & Locations

### Investigators:

Charles DeBattista, MD Gustavo Kinrys, MD Martin Teicher, MD James Kocsis, MD Steven Potkin, MD Corey Goldstein, MD

### Locations:

Stanford University Medical Center Harvard/Cambridge Hospital Harvard/McClean Hospital Cornell University UCI Medical Center Rush Medical Center

and 6 commercial sites

Referenced-EEG (rEEG) Efficacy Compared To STAR\*D For Patients With Depression Treatment Failure: First Look At Final Results Charles DeBattista, M.D.1; Gustavo Kinys, M.D.2; Daniel Hoffman M.D.3; Mark Schiller, M.D.4 Itanford University School of Medicine, Schending Holpitalisawa Medical School, SON Response, Inc., Allementery Clink

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### rEEG<sup>®</sup> Multi-site Depression Efficacy Trial -- Clinical Endpoints

Table 1. Efficacy Results (Per Protocol Population)	rEEG	STAR*D
Primary Measures QIDS-16-SR mean change (a) Q-LES-Q-SF mean change (a)		
Secondary Measures QIDS-16-SR response (c) QIDS-16-SR remission (c) MADRS mean change (b) MADRS remission (d) CGI-I mean change (a) CGI-I scores of 2 or 1 (c) CGI-I scores of 1 (e) PHQ-9 mean change (b) PHQ-9 remission (d) CGI-Severity mean change (b)		
(a) Repeated measures, LS means/mixed proced GENMOD. (d) Logistic analysis.	lure. (b) LS means fro	m ANCOVA. (c) LS means from
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Referenced-EEG (rEEG) Efficacy Compared To STAR\*D For Patients With Depression Treatment Failure: *First Look At Final Results* Charles DeBatista, M.D.1; Gustavo Kinrys, M.D.2; Daniel Hoffman M.D.3; Mark Schiller, M.D.4 Heatrot University School & Machin, Zhanbidge Hostahamarak Wedal Botod, SCH8 Register, Eng. WhitTherapy Child

## **Primary outcome measures** were a 1-tailed assessment of change from baseline for:

- QIDS-16-SR (Quick Inventory of Depression Symptoms)
- Q-LES-Q-SF (Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form)
- These were chosen to match closely to the original STAR\*D study

#### Secondary outcome measures were:

- QIDS-16-SR response and remission
- MADRS mean change, response & remission
- PHQ-9 (Patient Health Questionaire) mean change, response & remission
- CGI-S (Severity) mean change
- CGI-I (Improvement) of 2 or 1 (much improved or very much improved)
- CGI-I only (very much improved)



## rEEG<sup>®</sup> Multi-site Depression Efficacy Trial -- All Endpoints



Referenced-EEG (rEEG) Efficacy Compared To STAR\*D For Patients With Depression Treatment Failure: *First Look At Final Results* Charles DeBatista, M.D.1; Gustavo Kinrys, M.D.2; Daniel Hoffman M.D.3; Mark Schiller, M.D.4 Teatrot University School of Matchin, Zomendiq Hospital Patient 2018 Reprinte. Inc. 4MirtIlmergy Child

- QLESQ: The mean change for the Experimental group (rEEG) was 18 point vs. 8.95 for the Control group (StarD) or a 100% improvement
- This was statistically significant at < .0001. This means that there is a greater than 99.99% chance that rEEG really is better than the StarD
- The QIDS Response rate for the rEEG group was 65% vs. 39% for the Control which is a spread of 26 percentage points and a 68% improvement over control (i.e. 26%/39%)
- The QIDS remission rate for the experimental group was 35% vs. 27% for Control for a spread of 8 points or an improvement of 32%
- The percentage of subjects who achieved a CGI of 1 for the rEEG group was 48% vs 20% for the control for a spread of 28% or a percent improvement of 133%
- QIDS mean change from baseline was 50%

### rEEG<sup>®</sup> Multi-site Depression Efficacy Trial -- All Endpoints



Referenced-EEG (rEEG) Efficacy Compared To STAR\*D For Patients With Depression Treatment Failure: *First Look At Final Results* Charles DeBatista, M.D.1; Gustavo Kinnys, M.D.2; Daniel Hoffman M.D.3; Mark Schiller, M.D.4 Teatros University School of Matchin, Zomendique Hospital Marcal, SCNB Require, Inc., MintTheory Chie SECONDARY: % improvement over control (i.e., rEEG 12 week improvement – Control 12 week improvement /Control improvement x 100)

- QIDS-16-SR response (reduction by 50%) and remission (score of 5 or less); RESPONSE WAS 68% AND REMISSION WAS 32%
- MADRS mean change and response were statistically significant with mean change being 33.3%, response was 28%. Remission was 40%
- Clinical Global Impression of Improvement (CGI-I) of either a 2 or 1 (much improved or very much improved) had a 36.6% improvement over control as well as those ONLY reaching 1 – a more difficult measurement – of 133% improvement over control
- Patient Health Questionnaire (PHQ-9) mean change was 50% and response was 33% - both were statistically significant; remission was 29%
- CGI-S mean change was 49% and significant

## rEEG<sup>®</sup> Multi-site Depression Efficacy Trial -- Results

Table 1. Efficacy Results (Per Protocol Population)	rEEG <u>N=40</u>	STAR*D <u>N=49</u>	p-value
Primary Measures			
QIDS-16-SR mean change (a)	-6.77	-4.51	<.0001
Q-LES-Q-SF mean change (a)	18.0	8.95	<.0001
Secondary Measures			
QIDS-16-SR response (c)	65.00%	38.78%	<.0001
QIDS-16-SR remission (c)	35.00%	26.53%	0.0077
MADRS mean change (b)	-21.85	-16.43	0.0383
MADRS response (d)	57.50%	44.90%	0.0228
MADRS remission (d)	40.00%	28.57%	0.0635
CGI-I mean change (a)	-1.75	-1.30	<.0001
CGI-I scores of 2 or 1 (c)	72.5%	53.06%	<.0001
CGI-I scores of 1 (c)	47.5%	20.41%	0.0008
PHQ-9 mean change (b)	-13.73	-9.40	0.0062
PHQ-9 response (d)	65.00%	48.98%	0.0055
PHQ-9 remission (d)	47.50%	36.73%	0.0645
CGI-Severity mean change (b)	-2.32	-1.46	0.0007
(a) Repeated measures 15 means/mixed proce	edure. (b) IS means from	m ANCOVA (c) IS r	means from

(a) Repeated measures, LS means/mixed procedure. (b) LS means from ANCOVA. (c) LS means from GENMOD. (d) Logistic analysis.

Referenced-EEG (rEEG) Efficacy Compared To STAR\*D For Patients With Depression Treatment Failure: *First Look At Final Results* Charles DeBatista, M.D.; Gustavo Kinys, M.D.; Daniel Hoffman M.D.; Mark Schiller, M.D.4 Ibatrice University School & Medicens, Zohndeger Indeatwireved World Reback, StOR Reporter, M. Merd Heagy Chic  TWO-TAILED: a two-tailed analysis of the primary endpoints was still statistically significant and 9 out of 12 secondary endpoints also met statistical significance

## Multi-site Depression Efficacy Trial -- 2009



### Take-aways:

- I. Remarkably consistent with previous trials: rEEG predicted medication response 65% of the time
- 2. Statistically significant improvement over control group on all primary & most secondary endpoints (9/12 two tailed)
- STAR\*D is a tough control group: only 10% of MDs offer this level of treatment in US
- 4. Significant separation (50-100% on primary endpoints)
  - well above typical antidepressant trial (<10%)</li>
  - response was early, durable, & still growing at week 12
- 5. Strong statistical significance -- adequately powered to show a significant difference

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# closing thoughts

CNS Response





## Mental Health Parity

The Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (Public Law 110-343)

- Reimbursement of behavioral therapies
  must be on same basis as physical medicine
- Parity will increase behavioral spending --1-3% increase in total health care spend



## Health Care Reform



Roughly \$700 billion each year goes to health-care spending that can't be shown to lead to better health outcomes, according to the non-partisan Congressional Budget Office.

<u>Comparative effectiveness</u> quite simply means comparing two or more treatments for a given condition. Studies may compare similar treatments, such as two drugs, or may analyze very different approaches, such as surgery and drug therapy.

In some cases, a given treatment may prove to be more effective clinically or more cost-effective for a broad range of patients, but frequently a key issue is determining which specific types of patients would benefit most from it.

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### Corporate Information

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