Name of the Sponsor/Company: AB Biotics S.A.	**Individual Study Table Referring to Module 5 of the Dossier** **Volume:** **Page:** **Study No.:**	**(For National Authority Use only)**
Name of Finished Product: NEUROFARMAGEN®		
Name of Active Ingredient: Personalized medicine test		

STUDY CODE:
AB-GEN-2013

TITLE OF STUDY:

A randomized controlled clinical trial for assessing the effectiveness of pharmacogenetic information with NEUROFARMAGEN in the treatment of patients with mental disorders

INVESTIGATORS:

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STUDY PERIOD (YEARS):

Date of first enrolment/first subject first visit: 29-JUL-2014

Date of last completed/last subject last visit: 16-OCT-2015

PHASE OF DEVELOPMENT: III

OBJECTIVE:

To assess the NEUROFARMAGEN test effectiveness in selecting drug treatments for major depressive disorder by the proportion of patients achieving sustained response over a period of 12 weeks. Sustained response was

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considered when the patient gets a PGI-I of 2 points or less (i.e. “much improved” or “very much improved”) in two consecutive assessments after the last change in treatment.

METHODOLOGY:

This was a randomised, controlled and parallel multi-centre 3-month clinical trial. This study assessed the effectiveness of NEUROFARMAGEN test in selecting drug treatments for major depressive disorder.

NEUROFARMAGEN is a personalized medicine test developed by AB Biotics that enables the specific analysis of Single-Nucleotide Polymorphisms (SNPs) related to the pharmacokinetics and pharmacodynamics of different psychoactive drugs. The test also allows psychiatrists to specify concomitant medications and clinical conditions, and searches for potential drug-drug and drug-clinical condition interactions. The aim of the test is to provide the psychiatrist with information that can help him/her identify the most suitable medication for each patient.

In the study group, the psychiatrist had the results of the NEUROFARMAGEN test as supporting information to help him/her select the best treatment for the patient. In the control patient group, the treatment was selected and prescribed in accordance with routine clinical practice.

NUMBER OF SUBJECTS (planned and analysed):

No. planned:	518
No. included:	520
No. randomised:	316
No. ITT population:	316
No. PP population:	237

DIAGNOSIS AND MAIN CRITERIA FOR INCLUSION:

Patients eligible for inclusion in this study had to fulfil all of the following criteria:

1. Patients of either sex over 18 years.
2. Patients with any of the following psychiatric diagnoses according to DSM-IV-TR: bipolar disorder, schizophrenia, major depressive disorder or obsessive-compulsive disorder.
3. Patients who have given their written informed consent to participate in the study. In the case of disabled patients, informed consent of the legal representative of family member.
4. Patients with a value on the physician-rated clinical global impression scale of severity (CGI-S) equal or higher than 4.
5. Patients who are newly diagnosed and that require antidepressant medication or that are undergoing treatment and require a substitution or addition of medication.

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TEST PRODUCTS, DOSE AND MODE OF ADMINISTRATION, BATCH NUMBER:

NEURFARMAGEN is a personalized medicine test that assesses drug response. It is no an IMP. This trial had been considered a clinical trial since the test results can modify doctor's intention to treat.

DURATION OF TREATMENT:

A 3-month treatment period.

REFERENCE THERAPY, DOSE AND MODE OF ADMINISTRATION, BATCH NUMBER:

NA

STATISTICAL METHODS:

The assessment of the primary variable was performed by determining the difference between two patient groups in the proportion of patients who obtained sustained response over a period of three month. It was considered that a patient has a sustained response when submitting a PGI-I score of 2 or less for two consecutive points. Assessment of PGI-I were conducted by monthly telephone interviews. The interviewer did not know the group assigned to the patient, so that the evaluation of the primary endpoint was a double-blind evaluation.

To compare the two patient groups, we contrasted them with a bilateral significance level of 0.05.

SUMMARY AND CONCLUSION(S):

No statistically significant differences were observed between patient groups in the proportion of subjects achieving sustained response. However, the number of patients with positive response to treatment at 12 weeks (end of follow-up) was significantly higher in the study group than in the control group.

Significant differences between study groups were observed for the frequency, intensity and burden of side effects items scores from visit 1 to visit 2, with patients in the study group presenting a better improvement in tolerance. Additionally, patients in the study group experienced a greater improvement in social disability subscale of SDI, in disease severity according CGI-S (both physician-rated during visits and patient-rated during phone interviews), in severity of depression with HAM-D, and a higher treatment satisfaction with the SATMED-Q.

Nevertheless, investigator evaluated the usefulness of the NEUROFARMAGEN test with a mean score of 4.01 through a Likert scale of five points (corresponding to useful).

The safety profile was similar in the study and control groups.