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**Datasheet for the decision
of 14 March 2018**

**Case Number:**               T 0582/15 - 3.5.05

**Application Number:**         09006140.9

**Publication Number:**         2083368

**IPC:**                        G06F19/00, A61B5/0476,
                                A61B5/048, A61B5/04

**Language of the proceedings:**  EN

**Title of invention:**
Database and method for creating a database for classifying
and treating physiologic brain imbalances using quantitative
EEG

**Applicant:**
CNS Response, Inc.

**Headword:**
Automated treatment of brain imbalance I/CNS

**Relevant legal provisions:**
EPC Art. 76(1), 123(2)
RPBA Art. 15(3)

**Keyword:**
Oral proceedings - non-attendance of the party
Added subject-matter - (yes)

**Case Number: T 0582/15 - 3.5.05**

D E C I S I O N
of  Technical Board of Appeal 3.5.05
of 14 March 2018

| | |
|---|---|
| **Appellant:**<br>(Applicant) | CNS Response, Inc.<br>2755 Bristol Street, Suite 285<br>Costa Mesa, CA 92626 (US) |
| **Representative:** | Kinsler, Maureen Catherine<br>Marks & Clerk LLP<br>Atholl Exchange<br>6 Canning Street<br>Edinburgh EH3 8EG (GB) |
| **Decision under appeal:** | Decision of the Examining Division of the<br>European Patent Office posted on 29 October 2014<br>refusing European patent application<br>No. 09006140.9 pursuant to Article 97(2) EPC |

**Composition of the Board:**

| | |
|---|---|
| **Chair** | A. Ritzka |
| **Members:** | K. Bengi-Akyuerek |
| | F. Blumer |

**Summary of Facts and Submissions**

I.      The appeal is against the decision of the examining
        division to refuse the present European patent
        application, divided from its parent application
        EP 01908996.0, on the grounds of added subject-matter
        (Articles 76(1) and 123(2) EPC) and lack of inventive
        step (Article 56 EPC), having regard to the disclosure
        of

        **D2:**   E.R. John: "Principles of Neurometrics",
                American Journal of EEG Technology,
                pp. 251-266, December 1990.

II.     With the statement setting out the grounds of appeal,
        the appellant filed amended sets of claims according to
        a main request and first and second auxiliary requests.
        It requested that the examining division's decision be
        set aside and that a patent be granted on the basis of
        one of the above claim requests. In addition, oral
        proceedings were requested as an auxiliary measure.

III.    In a communication annexed to the summons to oral
        proceedings pursuant to Article 15(1) RPBA, the board
        gave its preliminary opinion on the appeal. In
        particular, it raised objections under Articles 76(1),
        123(2), 84 and 83 EPC, and indicated that all the claim
        requests on file appeared to lack inventive step
        (Article 56 EPC), mainly having regard to D2.

IV.     With a letter of reply dated 12 March 2018 (i.e. two
        days before the scheduled oral proceedings), the
        appellant indicated that it would not be attending the
        oral proceedings. It did not submit any comments on the
        substance of the board's communication either.

V.      Oral proceedings were held as scheduled on 14 March
        2018 in the absence of the appellant. The board
        established from the file that the appellant's final
        requests were that the decision under appeal be set
        aside and that a patent be granted on the basis of the
        main request or, subsidiarily, on the basis of either
        of the first and second auxiliary request, all requests
        as submitted with the statement setting out the grounds
        of appeal filed on 6 March 2015.

        After due deliberation on the basis of those final
        requests and the written submissions, the board's
        decision was announced at the end of the oral
        proceedings.

VI.     Claim 1 of the **main request** reads as follows:

        "A method for predicting a response to a treatment
        therapy regime, the method comprising:
            using a treatment-response database that has (a) a
        plurality of multivariate Z scores related to clinical
        manifestations of a symptomatic reference population,
        said population comprising a plurality of
        medication-free subjects diagnosed with a plurality of
        psychiatric imbalances, wherein said plurality of
        multivariate Z scores is derived from EEG/QEEG
        information, and (b) a plurality of known medication
        response profiles for a plurality of therapy regimens
        associated with said multivariate Z scores of said
        plurality of medication-free subjects;
            using a rule based classifier to compare a
        plurality of pretreatment multivariate Z scores derived
        from EEG/QEEG information from a patient with the said
        plurality of multivariate Z scores in the
        treatment-response database, and
                predicting a response to at least one of said

plurality of therapy regimens for said patient based on said comparison of the patient multivariate Z scores and the database multivariate Z scores."

Claim 1 of the **first auxiliary request** reads as follows (amendments to claim 1 of the main request highlighted by the board):

"A method for predicting a response to a treatment therapy regime, the method comprising:
    using a treatment-response database that has (a) a plurality of multivariate Z scores related to clinical manifestations of a symptomatic reference population, said population comprising a plurality of medication-free subjects diagnosed with a plurality of psychiatric imbalances, wherein said plurality of multivariate Z scores are derived from EEG/QEEG information, and (b) a plurality of known medication response profiles for a plurality of drug therapy regimens associated with said multivariate Z scores of said plurality of medication-free subjects;
    ~~using a rule based classifier to compare~~ comparing a plurality of pretreatment multivariate Z scores derived from EEG/QEEG information from a patient with the said plurality of multivariate Z scores in the treatment-response database, and
    predicting a response to at least one of said plurality of said drug therapy regimens for said patient based on said comparison of the patient multivariate Z scores and the database multivariate Z scores."

Claim 1 of the **second auxiliary request** reads as follows (amendments to claim 1 of the first auxiliary request indicated by the board):

"A method for predicting a response to a treatment therapy regime, the method comprising:

using a treatment-response database that has (a) a plurality of multivariate Z scores related to clinical manifestations of a symptomatic reference population, said population comprising a plurality of medication-free subjects diagnosed with a plurality of psychiatric imbalances, wherein said plurality of multivariate Z scores are derived from EEG/QEEG information, and (b) a plurality of known medication response profiles for a plurality of drug therapy regimens associated with said multivariate Z scores of said plurality of medication-free subjects;

comparing a plurality of pretreatment multivariate Z scores derived from EEG/QEEG information from a patient with the said plurality of multivariate Z scores in the treatment-response database;

identifying multivariate Z scores in the treatment-response database that match the pretreatment multivariate Z scores derived from EEG/QEEG information from a patient;

identifying at least one candidate medication for the patient based on the known medication responses in the treatment response database for the matched multivariate Z scores, and

predicting a response to said at least one of said plurality of said drug therapy regimens for said patient candidate medication based on said comparison of the patient multivariate Z scores and the database multivariate Z scores."

## Reasons for the Decision

1.    *Non-attendance of the appellant at oral proceedings*

1.1    The appellant decided not to attend the scheduled oral
       proceedings before the board (cf. point IV above).
       Pursuant to Article 15(3) RPBA, the board is not
       "obliged to delay any step in the proceedings,
       including its decision, by reason only of the absence
       at the oral proceedings of any party duly summoned who
       may then be treated as relying only on its written
       case."

1.2    In the present case, the appellant did not respond in
       substance to the objections raised in the board's
       communication under Article 15(1) RPBA. So, in the
       exercise of its discretion under Article 15(3) RPBA,
       the board took a decision at the end of the oral
       proceedings, in the absence of the duly summoned
       appellant.

2.    MAIN REQUEST

      Claim 1 comprises the following features, as labelled
      by the board:

      A method for predicting a response to a treatment
      therapy regime, the method comprising:

         A) using a treatment-response database that has
            A1) a plurality of multivariate Z scores related
                to clinical manifestations of a symptomatic
                reference population, said population
                comprising a plurality of medication-free
                subjects diagnosed with a plurality of
                psychiatric imbalances, wherein said

plurality of multivariate Z scores is derived
from EEG/QEEG information,
A2) a plurality of known medication response
profiles for a plurality of therapy regimens
associated with said multivariate Z scores of
said plurality of medication-free subjects;
B) using a rule-based classifier to compare a
plurality of pretreatment multivariate Z scores
derived from EEG/QEEG information from a patient
with said plurality of multivariate Z scores in
the treatment-response database;
C) predicting a response to at least one of said
plurality of said therapy regimens for said
patient based on said comparison of the patient
multivariate Z scores and the database
multivariate Z scores.

2.1     *Added subject-matter (Articles 76(1) and 123(2) EPC)*

In reaction to the objections raised under
Articles 76(1) and 123(2) EPC in the decision under
appeal (see Reasons 2), claim 1 was amended with the
statement setting out the grounds of appeal so as to
further specify that the multivariate Z scores are
derived from EEG (electro-encephalography) or QEEG
(quantitative electro-encephalography) information. The
board, however, holds that claim 1 still infringes
Articles 76(1) and 123(2) EPC, for the reasons set out
below.

2.1.1   Claim 1 is evidently based on the embodiment relating
to "Treating Physiologic Brain Imbalance" (cf. page 23,
line 21 to page 27, line 9 and page 4, lines 10-26 of
the present and parent applications as originally
filed).

2.1.2   As to feature A1) of claim 1, the present and parent
        applications as filed teach that the treatment-response
        database (i.e. "Outcomes Database" or "symptomatic
        database") not only contains the corresponding
        multivariate Z scores but also "the treatment
        modalities that convert the abnormal multivariate Z
        scores of these patients to normal" (cf. page 25,
        lines 10-13). Hence, feature A1) amounts to an
        intermediate generalisation of the present and parent
        application's original content.

2.1.3   As to feature B), the present and parent applications
        as filed indicate that the "rule-based classifier"
        associates the current patient study with data of
        patients with known abnormalities and medication
        responses (cf. Fig. 1, step k) and may review
        pretreatment EEG/QEEG information from each study
        patient (cf. page 44, lines 1-3). However, there is no
        disclosure as to any comparison whatsoever of a
        patient's pretreatment multivariate Z scores derived
        from EEG/QEEG information with the multivariate Z
        scores in the treatment-response database. Accordingly,
        feature B) constitutes an unallowable extension of the
        present and parent application's original content.

2.1.4   Lastly, as to feature C), the present and parent
        applications as filed teach merely that the probability
        that a patient will respond to different types of
        medication is established (cf. page 25, lines 19-20).
        However, it cannot be directly and unambiguously
        derived that a patient's therapy response is actually
        predicted based on a comparison of patient and database
        multivariate Z scores. Thus, feature C) gives rise to
        an unallowable limitation of the original content.

2.1.5   The appellant did not comment on the above objections
        indicated in the board's communication under
        Article 15(1) RPBA.

2.2     As a consequence, in view of the above deficiencies
        under Articles 76(1) and 123(2) EPC alone, the board
        concludes that the main request is not allowable.

3.      AUXILIARY REQUESTS

3.1     Given that claim 1 of the first and second auxiliary
        requests still includes features A1) and C) in
        unamended form, the objections set out in points 2.1.2
        and 2.1.4 above clearly also apply to the present
        auxiliary requests.

3.2     Hence, the first and second auxiliary requests are
        likewise not allowable under Articles 76(1) and 123(2)
        EPC.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.


The Registrar: The Chair:


K. Götz-Wein A. Ritzka


Decision electronically authenticated