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(72) Inventor: **BOUCHON, Axel**; Winzerweg 3, 14532 Kleinmachnow (DE).

(74) Agent: **CRAWFORD, Joshua A.** et al.; Morrison & Foerster LLP, 2100 L ST, NW, Suite 900, Washington, District of Columbia 20037 (US).

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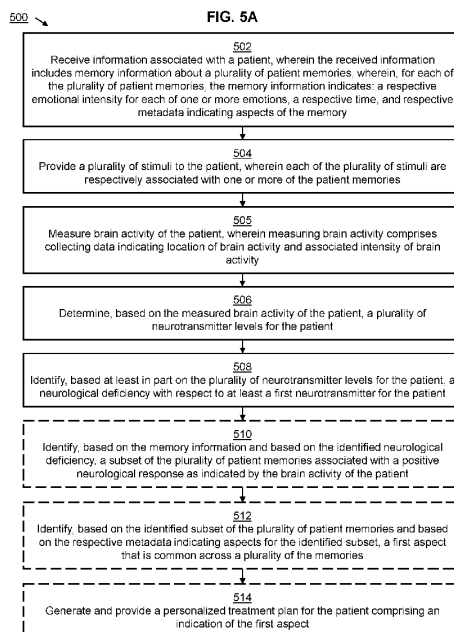
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(71) Applicant: **MATTER NEUROSCIENCE INC.** [US/US];
3200 Carbon Pl., Suite 101, Boulder, Colorado 80301-6135
(US).

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(54) Title: SYSTEMS AND METHODS FOR DETECTING AND MITIGATING NEURO-DEFICIENCIES USING BRAIN IMAGING DATA



(57) Abstract: Disclosed herein are systems and methods for evaluating the underlying molecular (e.g., brain reward system molecules) cause for a depressive disorder and developing a treatment plan based on the identified molecular cause. In one or more examples, the systems and methods described herein can utilize any combination of brain imaging techniques, subjective emotion data taken from a patient, and/or one or more algorithms for translating emotional states to brain reward system molecules (e.g., neurotransmitters) to determine an underlying molecular cause for a depressive disorder of a patient. Once the underlying molecular cause of the depressive disorder of the patient is determined, a treatment plan that includes both behavioral and pharmacological aspects can be selected based on the identity of the reward system molecule that is determined to be deficient and the level of deficiency.

[Continued on next page]

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