



(51) International Patent Classification:
A61N 1/02 (2006.01)

(21) International Application Number:
PCT/US2022/036115

(22) International Filing Date:
05 July 2022 (05.07.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/218,625 06 July 2021 (06.07.2021) US
63/277,086 08 November 2021 (08.11.2021) US

(71) Applicant: SINAPTICA THERAPEUTICS, INC.
[US/US]; 245 First St. Riverview, II, 18th Floor, Cam-
bridge, Massachusetts 02142 (US).

(72) Inventors: KOCH, Giacomo; Via Labicana 92, 00184
Rome (IT). SANTARNECCHI, Emiliano; 99 Pond Ave-
nue, Apt. D426, Brookline, Massachusetts 02445 (US).

(74) Agent: ZHANG, Qi; Wilson Sonsini Goodrich & Rosati,
650 Page Mill Road, Palo Alto, California 94304 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH,
KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA,
MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU,
RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

(54) Title: SYSTEMS AND METHODS FOR PROVIDING PERSONALIZED TARGETED NON-INVASIVE STIMULATION TO
A BRAIN NETWORK

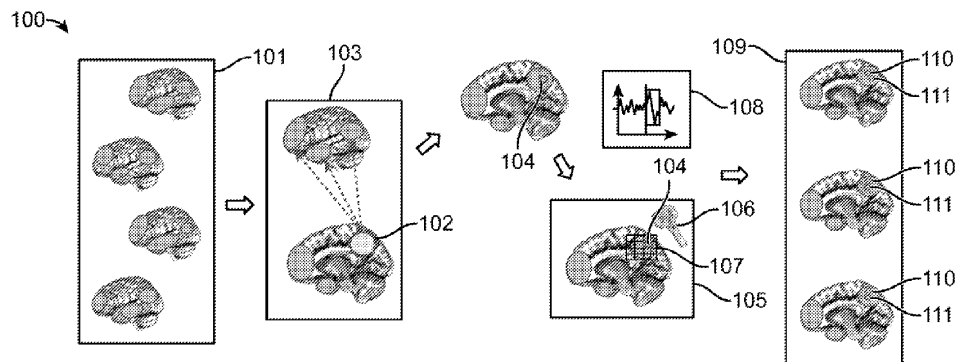


Figure 1A

(57) Abstract: Disclosed herein are devices, systems, and methods for ameliorating or treating or preventing Alzheimer's Disease and related dementias. Methods may include using individual patients' data to identify the optimal treatment target(s) as well as the stimulation intensity, frequency, or waveform, or any combination thereof, for transcranial electromagnetic induction delivered via a device as in the case of Transcranial Magnetic Stimulation. Systems and methods include a platform or infrastructure for treatment delivery and data processing. In some embodiments, methods are applied to restore cognitive function, ameliorate clinical symptoms, modify altered mechanisms of plasticity, modulate cortical excitability and reactivity, or induce changes in local brain metabolism.

Published:

- *without international search report and to be republished
upon receipt of that report (Rule 48.2(g))*