

## AI-DRIVEN EARLY DETECTION THERAPEUTIC PLATFORM FOR OPTIMAL BRAIN HEALTH

**FOR ACADEMIA** 

- Incidence of major Central Nervous System (CNS) disorders such as dementia, Parkinson's, depression, ADHD has increased rapidly. However, there are no biomarkers for those disorders. With quantitative EEG (QEEG) technology, you will be able to screen, classify, and predict them at an early stage.
- COVID-19 pandemic has urged the need of home-based, continuous mental care service. Our innovative EEG device will open the future of telemental care.
- Current clinical trials to test neurological drug effectiveness have continuously failed. QEEG biomarker could support successful clinical trial in selecting feasible subjects and measuring drug effectiveness
- QEEG could be an alternative for expensive amyloid PET scan. To be prescribed newly developed drugs for Alzheimer's disease, a surrogate biomarker is required.

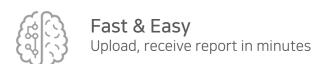


- iMediSync Inc is a Al-driven early detection therapeutic platform for optimal brain health.
- iMediSync originated from National Standard Data Center for Korean EEG, Seoul National University which has developed Asia's first QEEG normative DB with more than 1300 healthy subjects ranging from 4 – 90 years old.
- iSyncBrain® (https://isyncbrain.com) is an Al driven analysis cloud platform. It has been registered as a class II medical device by the Korean FDA, and users from more than 30 countries are using the platform.
- Our early detection EEG algorithm for aMCI, "iSyncBrain MCI Classifier" was developed and clinically validated with three Korean university hospitals (sensitivity, specificity >90%). It also got the clearance from Korean FDA as a class II medical device for (different underlying pathology)
- iSyncHeart<sup>®</sup>is an AI cloud-based solution for heart rate variability (HRV). It was launched and has been registered as a class II medical device by the Korean FDA. It has been used for remote ECG monitoring of participants in clinical trials.
- iSyncBrain® and iSyncHeart® platform are primarily used by doctors and clinical psychologists for research purposes. And it will be expanded for virtual telemental care by June 2021.



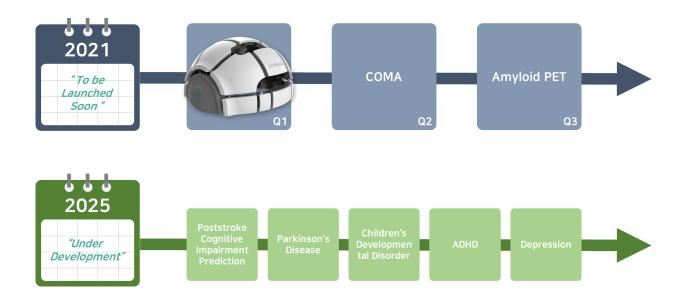
- Al-based Automatic Denoising Technology
- Innovative EEG Feature Engineering Technology Using Machine Learning Techniques
- Innate High Quality of Normative EEG DB Covering from Young Kids to Elderlies
- Capability of Expanding the Neurological Field Research Network locally and globally







Science-based Advanced analysis & provision of references



- Classification algorithm to discriminate Alzheimer's or Lewy body pathology underlying in MCI
- Endophenotype classification algorithm for Parkinson's disease
- Prediction algorithm for coma recovery after cardiac arrest
- Estimation algorithm of "Brain Age" for developmental problem of children and adolescents
- Classification and Categorization of Depression including Validation of Drug Effectiveness
- Nineteen channel dry-electrode EEG headset with LED therapeutic capability (Q1, 2021)



## **CONTACT INFORMATION**



Jay Chung Ph.D.

**Chief Operating Officer** Email: jchung@imedisync.com



Juan Alberto Aguayo

**Administrative Manager** Sales & Marketing Email: juanalb@imedisync.com



Jane Han

**Administrative Manager** Sales & Marketing Email: janehan@imedisync.com

## **THANK YOU**

