Business summary

Neuronostics is a medical technology company. Our customers are healthcare providers and those involved in the epilepsy care pathway. Our competitors rely on observing rare epileptic activity in brain signal data; events which occur rarely. Instead our technology captures information from apparently normal brain signals to predict risk of future seizures. This expedites accurate diagnosis, and indicate prognosis and response to treatment for more tailored, effective management of epilepsy.

Clinical problem

Epilepsy is a serious brain condition affecting over 65M people globally, causing over 2,500 UK deaths per year and is the leading cause of unplanned A&E admissions. Diagnosis is slow (~1yr) and inaccurate (~40% misdiagnosed) and drug treatment is a process of trial and error. Data from brain electrical activity (EEG) is routinely recorded but must capture epileptic activity which is rare, in order to support a diagnosis. Waiting lists for EEGs and reports are months long and increasing due to the pandemic. Epilepsy is estimated to cost the NHS £2B/yr with a further economic cost of £2B to the UK.

Our solution

Our #BioEP algorithm uses short segments of background EEG to predict the risk of future seizures without the need to observe epileptic activity. As a clinical decision support system, #BioEP makes epilepsy diagnosis and prognosis faster, accurate and more objective than current clinical practice. A Health Economic Assessment estimated a per person saving to the NHS of £627. This represents an opportunity to make savings of £80M annually against the cost of epilepsy diagnosis alone in the UK.

Market potential

Across our key target markets the addressable market for epilepsy diagnosis and use of our #BioEP technology is an estimated 3.5M EEGs recorded annually.

Territory	UK	Europe	US	Canada
No. Active epilepsy cases	600,000	5,400,000	3,400,000	240,000
No. suspected epilepsy cases/yr	125,000	1,100,000	625,000	66,000
No. confirmed epilepsy cases/yr	40,000	350,000	200,000	21,000
No. EEGs recorded/yr	**205,000**	**1,800,000**	**1,450,000**	**110,000**

Competitors

Persyst and Seer Medical rely on the need to observe epileptic activity directly from the data, so the majority of EEGs will continue to be considered inconclusive.

Competitive advantage

Our technology is informed by background EEG, enabling the #BioEP risk score to be calculated using any EEG recorded. Fewer EEGs are required to reach a diagnosis.

Revenue Model

16 NHS primary and secondary care sites contribute data, collaborate on grants and are willing to trial products. They form core early adopters. We will employ a direct sales model for the 55 neurology clinics within the NHS, offering either an annual fixed price to block contract customers or a per subject fee for those on a national tariff based on a global list price of £400.

Potential growth

Digital biomarkers of the risk of dementia, mental health disorders, and traumatic brain injury offer significant potential.

Management
John Terry – MD
10 years leadership experience
Wessel Woldman – Scientific
Emerging Leader Fellow, Epilepsy Research UK
Ross Parkman - Technical
15 years commercial experience
Yolanda Hill – Business Dev
UKRI Innovation Fellow

Achievements
£300,000 seed fund Mar 21
Grown from 4-11 employees
#BioEP CE marked

EIS
Our investment round qualifies for the government Enterprise Investment Scheme.

General information
Sector: medical technology
Stage: SME
Year established: 2018
No. staff: 11
Yr end: £470k turnover
Yr on yr growth: 320%
Projected breakeven: Dec 23
Shareholders:
   48.7% Between cofounders
   16.8% Exeter University
   11.8% QantX
   7.8% King's College London
   15% Options pool

Funding
Seeking £2.5M to recruit key roles, accelerate product development and complete validation studies.

Contact
John Terry
j.terry@neuronostics.com
+44 (0) 117 457 1517
www.neuronostics.com