

# Crowd sourced open data collection study of pre- and post Coronavirus (COVID-19) infection measurements with a hand-to-hand ECG smartwatch.

Friday 13 March, 2020

Vagus.co – the Cambridge (UK) based ECG smartwatch manufacturer is launching a crowd sourced open data study to collect as much ECG data as possible. The target group includes people who will potentially become infected by the Covid-19 respiratory infectious disease.

**The aim of this study is to obtain ECG data from people who have not yet been infected by COVID-19 but during the course of the data-collection become infected by it or some other viral or bacterial disease. The study hypothesis is that this data can provide vital information of the disease progress and find new early detection and monitoring methods for cardiac-respiratory infections such as COVID-19.**

There are no previous studies of ECG recordings in humans for both pre and post Coronavirus contraction. We believe that this type of large data collection can only be obtained with crowd sourced methods. According to the study hypothesis, it is necessary to complete a specific 'Vagus ECG test' protocol with controlled breathing to detect the subtle cardiac/respiratory changes which can occur early in the disease progress.

The study is carried out with participants who own Vagus ECG smartwatches and its 'Vagus ECG Test' recorded data. This data collection study is not a formal clinical disease detection study. The study's purpose is to provide a platform for voluntary data collection and distribution to scientists who can then benefit from the data when researching new and better ways for Covid-19' early detection and disease progress diagnostics.

The participants are required to complete three 90 second 'Vagus ECG Tests' per day. One in the morning after getting up from bed, one at noon (before eating) and one in the evening before going to bed. The test lasts for 90 seconds and is as simple as sitting with your hands resting on a table (or own legs) and following the instructions displayed on the watch. After each test there is an option to include a health status note and for body temperature measurements if the person is self-monitoring. With post disease onset we recommend more frequent testing and regular downloads of the ECG recordings to a medical professional or relevant health care provider. These downloads are sent out free for all study-participants. People in the same household can use the same watch as long as they have a separate smartphone, Vagus App and user account. The watch is waterproof and can be disinfected between each use.

The data collection period is one year. All data will be anonymized and made available for free to researchers and individuals. Vagus Health Ltd and data collection by this study is GDPR compliant. We hope for a large and diverse participants group. Study team members will monitor that the full and unselected data is provided for the open data platform access and publish a monthly summary. The data will be uploaded bi-weekly on the open access data portal at [www.vagus.co](http://www.vagus.co).

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Cambridge March 13<sup>th</sup>  
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