## Autonomic Systems achieves key IP position for next generation wearable tech

Autonomic Systems is proud to announce the granting of its patent for 4<sup>th</sup> generation health and fitness devices: **WEARABLE PHYSIOLOGICAL MONITORING AND NOTIFICATION SYSTEM BASED ON REAL-TIME HEART RATE VARIABILITY ANALYSIS,** by the United States Patent and Trademark Office.

Heart Rate Variability (HRV) is confirmed, in numerous studies, to be capable of the early identification of the onset of many physiological conditions, such as detecting the proximity to anaerobic threshold in athletes, prediction of epileptic events, sleep apnea monitoring, and allergic reaction detection. Further, HRV is capable of detecting changes in stress; the invention will ultimately provide valuable feedback in workplace wellness initiatives as well as in high stress occupations such as air traffic control and financial trading. As a window into the autonomic nervous system, HRV provides a quantified view of body response unattained through other diagnostic means.

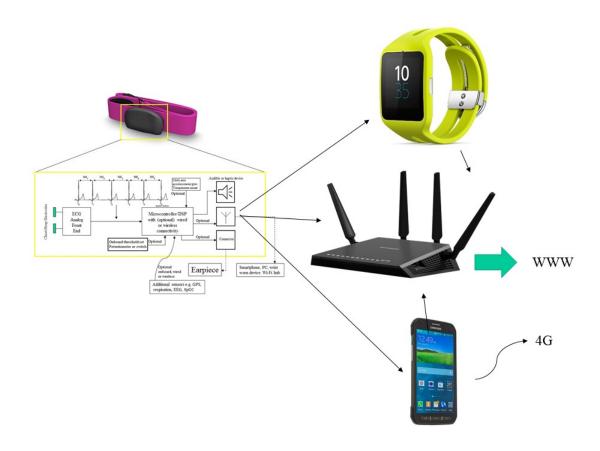
By embedding an HRV calculation engine within a wearable, ANS is able to detect, analyze and alert, in real time, potentially life-threatening conditions, thus providing capabilities previously unavailable in the current generation of wearables. This core design provides for the detection of HRV combined with other specified input(s), resulting in highly robust detection, analysis and notification. A demonstration device has been developed which fits inside the enclosure of a common athletic chest strap with an estimated final retail price of less than \$100. This patent is part of a substantial portfolio providing innovation for the next generation of wearables - for alerting people to imminent, real time changes in their physiological condition.

Dr. Alice Ferng, ANS CMO, said, "This represents a real step forward in creating a genuinely effective means of alerting to a known condition. The real breakthrough was to monitor HRV whilst simultaneously monitoring other parameters (e.g., activity level, heart rate, respiration), such that the changes in HRV relating to the condition being monitored could be separated from HRV changes caused by other activities."

ANS filed a broad provisional patent application in June 2015 and followed this with the application which was granted in March 2017. Currently the company has filed continuations to this patent with the aim of further reinforcing their already commanding position in the HRV space.

Autonomic Systems LLC is an Arizona company focused on innovating and developing unique systems solutions in the application of HRV for athletic performance, lifestyle enhancement and chronic illness management.

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