

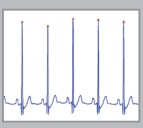
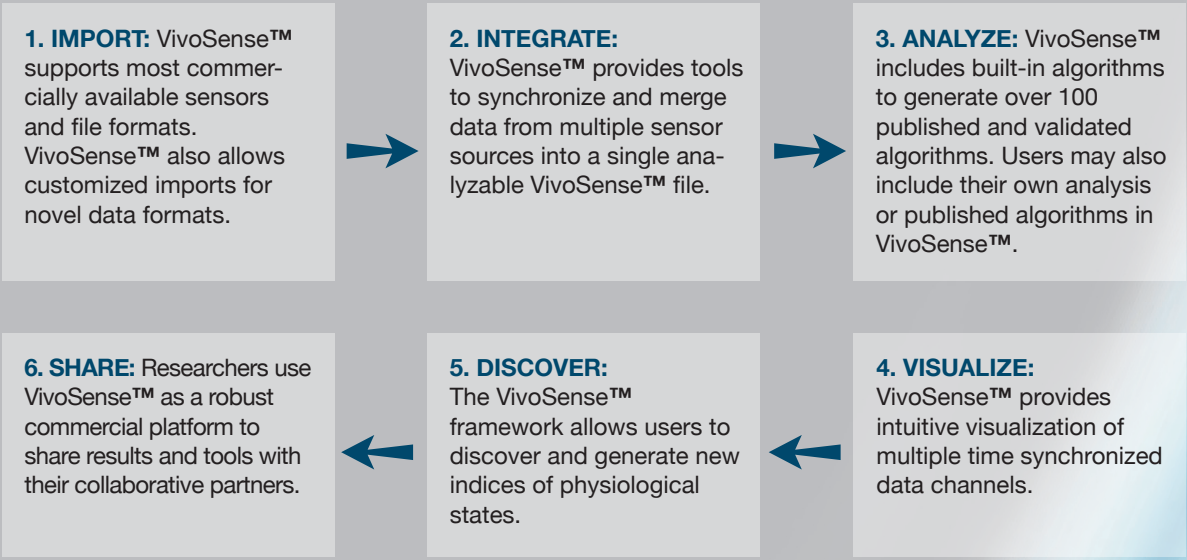


VIVONOETICS

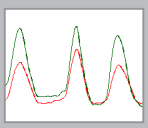
“Vivonoetics is a physiometrics* company offering VivoSense™; the #1 choice for researchers in physiological monitoring and analysis software for body-worn sensor systems.”

* Physiometrics – definite measurement of physiological endpoints

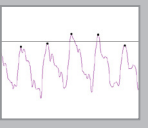
VIVOSENSE™



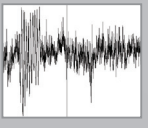
ECG/HRV



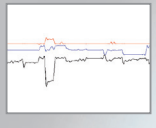
RESPIRATION



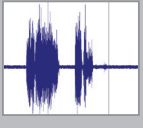
PPG



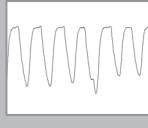
EEG



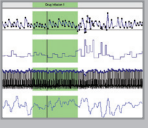
ACTIGRAPHY



EMG



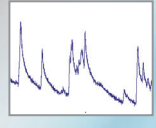
BLOOD PRESSURE



DIARY EVENTS



AUDIO



GSR

CASE STUDIES

Vivonoetics provides affordable software customization services to create and implement new algorithms and functionality in VivoSense™.

STUDY 1: IMPORT, SYNCHRONIZATION AND MERGE

A Vivonoetics customer requested **analysis** of respiratory inductance plethysmography data alongside spirometric data, captured simultaneously with separate sensor systems. VivoSense™ was used to **import** this data and intelligently **synchronize and merge** the separate sensor data into a single file. Spirometry data was then used to accurately calibrate the plethysmographic signals to study exercise induced breathlessness in COPD subjects.

STUDY 3: HEART RATE VARIABILITY PHYSIOMETRICS

A Vivonoetics customer developing a “guilty knowledge” test using wearable heart rate monitors implemented the Heart Rate Variability Module in VivoSense™ to reliably remove artifact from the measured data. The data was used to **derive** a series of indices representing autonomic tone.

STUDY 2: COMPLEX RESPIRATORY ANALYSIS, VISUALIZATION AND DISCOVERY

A Vivonoetics customer investigating non-invasive diagnosis of infant asthma measured respiratory signals and used VivoSense™ Complex Respiratory Analysis Module to **analyze and visualize** a variety of VivoSense™ generated respiratory metrics. Subsequent statistical analysis was used to **discover** that measures of phase relationship showed promise in objective identification of airway limitation in this population.

STUDY 4: DISCOVERY, CLASSIFICATION AND SHARING

A Vivonoetics customer interested in developing a novel **index** of acute stress recorded several time **synchronized** physiological channels. The VivoSense™ Classification module was used to identify relevant VivoSense™ metrics and intelligently combine these to develop a single new **index**. VivoSense™ was used to **share** this index with research partners to reliably reproduce and test this **discovery** in their own studies.

