



RESP™ Biosensor

Continuous, real-world cough and lung sound data capture for clinical trials

Technology Overview

Strados Labs developed the *RESP* Biosensor for remotely capturing cough and lung sound data in response to the increasing demand for objective, real-world evidence to supplement patient self-reporting in clinical trials. FDA 510(k) cleared and CE marked, the *RESP* Biosensor offers researchers the ability to monitor cough frequency and additional measurements in a way that reduces subject burden, offers stronger evidence and allows for new insight into treatment response.



Strados™ Respiratory Care Platform including the *RESP* Biosensor

Metrics-at-a-Glance

189K+ validated lung events by clinicians
14M+ breath sounds recorded
3 continents and **7** languages
1st FDA-cleared device that remotely captures lung sounds

Cough and Respiratory Parameters

Enabling concurrent measurement of primary and exploratory endpoints:

- Cough frequency
- Cough intensity
- Bouts, spasms and patterns
- Wheeze, rhonchi, and crackles

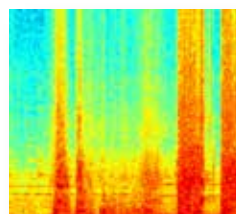
Additional measurement capabilities:

- Respiratory rate*
- Activity level*
- Sleep/wake*
- Body positioning*

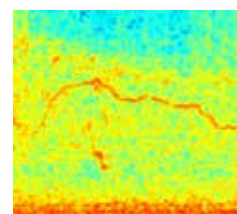
*Not yet FDA cleared

Sound Visualizations

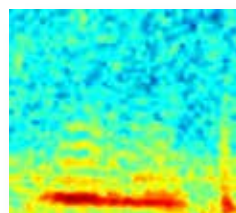
Cough and lung sound events are displayed as spectrograms for objective interpretation



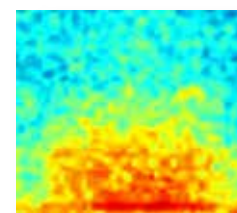
Cough



Wheeze



Rhonchi



Crackles

A Seamless Trial Experience: For Subjects, Sites & Researchers

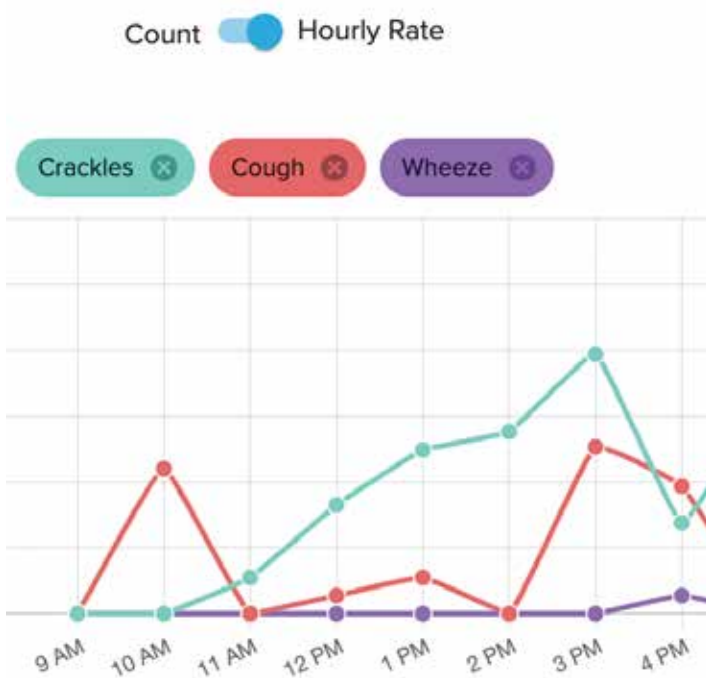
Optimized for Decentralized Clinical Trials

The *RESP* Biosensor is designed to be worn at home and in the real world without altering daily routine and transfers data directly to the cloud via the *Strados* Mobile App.

Clinically Validated

Our supporting evidence includes 6 peer reviewed clinical studies published by the American Thoracic Society, including a stepwise validation of our cough detection algorithm.*

Explore our studies at stradoslabs.com/clinical-evidence.



Proprietary machine learning algorithms can be used to provide varying levels of automation in the annotation process.*

*Not yet FDA cleared



Enhanced Screening

Enroll the right participants in your trial with richer data and faster results

Adherence Reporting

Weekly adherence reports inform researchers earlier if patients don't follow protocol

Wireless Data Sync

See study results before subjects return to sites

Features

- Lightweight
- Wireless & unobtrusive
- Passive
- Patient privacy-focused with end-to-end encryption
- 24+ hour battery life
- Rechargeable
- Noise filtering



Respiratory trial and cough monitoring success hinges on the ability to obtain clinically accurate symptom records and strong evidence for treatment efficacy. The *RESP* Biosensor allows clinical trialists to capture objective cough and lung sound data at scale, reducing variability in reports and providing new insights about respiratory status in connection with treatments.

Interested in learning more? Reach out to schedule a demo at sales@stradoslabs.com.

Making Every Breath Count™

stradoslabs.com | 1-888-STRADOS

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