A Simple Integrated Device For Assessing Lung Health

Tech ID: 29430 / UC Case 2018-530-0

BRIEF DESCRIPTION

Chronic lung diseases, like asthma, impose critical challenges on both the patients and the physicians due to the complexity of the diseases. Not only are these diseases tough to accurately assess, many of the diseases can be impacted by other physical and sociological factors. Perhaps a greater difficulty lies in measuring the effectiveness and compliance of the medications including inhaled medications. The invention discovered at the University of California, Irvine, is an “all-in-one,” portable device that offers complete assessment of lung health. It also incorporates a novel technology for monitoring the effectiveness and compliance of a medication, thereby, providing a personalized treatment and care plan for adults and children with asthma.

FULL DESCRIPTION

Chronic lung diseases are among the most widespread diseases that can benefit from personalized treatment. Unfortunately, treatment can be costly because there are no reliable biomarkers that can diagnose the disease. Moreover, disease symptoms can be variable, dynamic and influenced by a number of factors including environmental exposure, psychosocial stress, medication compliance and extent of patient reporting, which can all be sources for errors.

Inventors at UCI created an all-in-one portable device for assessing lung health. This personalized medical technology provides an integrated solution that measures the compliance and medical effectiveness of inhaled medications by analyzing patient’s exhaled breath. The technology is easily accessible and provides quickly the effectiveness of inhaled drugs to remedy chronic lung diseases such as asthma.

SUGGESTED USES

· Assessment of lung health for patients with chronic lung diseases

· Provides the effectiveness and compliance of inhaled medications

ADVANTAGES

· Simple and portable device that assesses lung health using a comprehensive test

· Used for both lung health assessment and medical compliance

· Provides a method for measuring the effectiveness of the inhaled medication, which is valuable for both the patient and the doctor in the selection of the treatment and technique

· Accurate treatment monitoring facilitates personalized treatment plans

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20190307364	10/10/2019	2018-530

CONTACT

Alvin Viray
aviray@uci.edu
tel: 949-824-3104.

OTHER INFORMATION

CATEGORIZED AS

- » **Medical**
  - » Devices
  - » Diagnostics
  - » Disease: Respiratory and Pulmonary System
  - » Research Tools
- » **Sensors & Instrumentation**
  - » Biosensors
  - » Medical

RELATED CASES

2018-530-0

STATE OF DEVELOPMENT

Prototype developed

UCI Beall
Applied Innovation

5270 California Avenue / Irvine,CA
92697-7700 / Tel: 949.824.2683