

Accelerating Innovations into CarE – Validate Program (AICE-Validate)



New Nasal Interface to Improve Portable Oxygen Delivery

PROJECT FAST FACTS

RECIPIENT: Pulmvita Inc.

AWARD: \$163,147

AWARD DATE: March 1, 2024

PROJECT DURATION: 24 months

THE PROBLEM

Long term oxygen therapy (LTOT) helps people with conditions like chronic obstructive pulmonary disease or pulmonary hypertension, breathe easier and live longer. Using LTOT for at least 15 hours a day can improve survival rates. However, transporting portable oxygen equipment can limit a patients' mobility, daily activities, and independence. Oxygen tanks are heavy and difficult to move while some equipment doesn't work well overnight, leading to patients switching to a bulkier system to assist with sleep. Switching out equipment is tiring and strenuous, reducing quality of life.

THE SOLUTION

Pulmvita's new nasal interface ensures oxygen is efficiently delivered to the patient during a variety of breathing scenarios. Nasal pillows provide a seal around the user's nostrils, drawing inhaled air through an adjustable body with mechanisms to control pressure. The current prototype has two settings, with the first similar to equipment currently used for rest, while the second setting enhances inhalation signals during sleep and oral breathing. A simple slide panel allows users to easily change settings.

PROJECT OBJECTIVES

This project's objectives are to:

- 1. Obtain an investigational testing authorization (ITA).*
- 2. Manufacture prototypes equipment.*
- 3. Conduct patient trials.*
- 4. Submit documents for regulatory approvals and compliance*

ABOUT THE AICE-VALIDATE PROGRAM

AICE-Validate is an opportunity for Alberta's health-tech innovators to accelerate commercialization of digital and data-enabled health technologies through the early validation phase. If you'd like to learn more, please check out [AICE Validate on the Alberta Innovates website](#).

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