

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



## Validating Laser Treatment Technologies for Vitreous Floaters: Generating Vital Clinical Evidence

### PROJECT FAST FACTS

**RECIPIENT:** PulseMedica Corp.

**AWARD:** \$300,000

**AWARD DATE:** March 1, 2024

**PROJECT DURATION:** 22 months

## THE PROBLEM

Symptomatic vitreous opacities (SVOs) are microscopic collagen fibers within the eye that clump and cast shadows on the retina, appearing as 'eye floaters' to the patient. The standard of care for diagnosis and treatment of SVOs is limited, with no existing safe, effective non-invasive treatment options. Patients are often advised by clinicians to simply get used to the floaters. In severe cases, patients receive a surgical procedure called vitrectomy, a risky procedure that involves the removal of the vitreous and can result in severe outcomes, such as vision loss. Furthermore, patients also develop early cataracts. Treatment procedures with current technology involve manually aiming a special laser at the floaters to break them up. This manually administered laser treatment often requires multiple lengthy sessions, further increasing safety risks and often resulting in poor outcomes.

## THE SOLUTION

PulseMedica has developed a proprietary, automated, real-time 3D imaging and laser targeting platform, capable of 3D imaging and laser treatment. PulseMedica is leveraging this technology into two separate products, an imaging and diagnostics device called SVO-Dx, and a 3D image-guided femtosecond laser treatment, called SVO-Tx. The SVO-Tx is an image-guided treatment device consisting of a 3D imaging head and a femtosecond laser, enabling precise treatment of floaters.

## PROJECT OBJECTIVES

1. **Complete pre-clinical studies.**
2. **Verify and validate two prototype SVO-Tx devices.**
3. **Complete a submission package to the regulatory agency of the country where the study will be conducted.**
4. **Evaluate the safety and efficacy of PulseMedica's SVO-Tx device in a clinical trial.**

## 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](#).*

Learn how

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