

AHSC AFP Innovation Fund – 2017

One page answering the following 4 questions (MS Word or PDF):

1) **Transformation:** How will each project transform health care delivery?

Our project will enable local and provincial hospitals and Local Health Integration Networks (LHINs) to build their own high-quality, safe and affordable medical devices. This allows for better supply chain management, reduces repair costs, and minimizes time during which equipment is inoperable. This will result in significant cost savings for clinics, hospitals and LHINs.

The availability of research-validated open source designs will also allow current low-cost manufacturers to re-enter the market with higher quality devices and will exert overall downward pressure on commodity pulse oximeter costs. The availability of high quality generic brands will in turn exert pressure on premium brand manufacturers to match or reduce prices.

2) **Adoptability:** Can the project be adopted by other centres to improve outcomes?

Yes. The core of our project is adaptability to local conditions based on need and available human and technical resources. Our project allows underserved hospitals and clinics to access, own and maintain high-quality pulse oximeters with decreased cost burden. Our project will aid hospitals and LHINs in the direct manufacture of this device, as well as provide them support in training engineers in the required techniques.

3) **Multi-site:** Does the project include other sites, other GOs or other partners?

Yes. The project involves London Health Sciences – University Campus, LHSC – Victoria Campus, Saint Joseph's Health Centre – Grosvenor Campus.

4) **Outcome:** Will the results obtained convince other institutions to adopt the new approach?

Yes. If the results of our calibration and validation studies show that the pulse oximeter is equivalent in quality to premium brand devices, we expect other institutions will be interested for a number of reasons:

- Will allow for better access to an important, life-saving medical device
- Will provide significant cost savings
- Will give the ability to produce and repair devices as needed, with minimal cost or logistical barriers
- Will foster innovation within other hospitals and LHINs and provide opportunity for further development and needs-based customization