

**TECH NEED**

## Seeking Solutions For Management And Treatment Of Chronic Wounds



### KEY INFORMATION

**TECHNOLOGY CATEGORY:**

Electronics - Sensors & Instrumentation

Healthcare - Diagnostics

Healthcare - Medical Devices

Healthcare - Pharmaceuticals & Therapeutics

Healthcare - Telehealth, Medical Software & Imaging

**TECHNOLOGY READINESS LEVEL (TRL):** TRL7 TO TRL9

**COUNTRY:** SINGAPORE

**ID NUMBER:** TN174469

### BACKGROUND/DESCRIPTION

Diabetic foot ulcer is a devastating complication of diabetes mellitus and significant cause of mortality and morbidity all over the world and can be complex and costly. The development of foot ulcer in a diabetic patient has been estimated to be 19%-34% through their lifetime. The pathophysiology of diabetic foot ulcer consist of neuropathy, trauma and, in many patients, additional peripheral arterial disease. In particular, diabetic neuropathy leads to foot deformity, callus formation, and insensitivity to trauma or pressure. The management of DFU is usually complex and challenging to clinicians in clinical practice. The critical aspects of the wound healing mechanism and host physiological status in patients with diabetes necessitate the selection of an appropriate treatment strategy based on the complexity and type of wound. Additionally, costs of diabetic foot ulcerations have been increased to the treatment cost of many common cancers. Estimated costs of DFU management are greater than 1 billion in both

developed and developing countries. Moreover, infection of a DFU frequently leads to limb amputation, causing significant morbidity, psychological distress and reduced quality of life and life expectancy.

## TECHNOLOGY SPECIFICATION

We are seeking technology owners who have novel solutions that can offer alternatives and/or enhance traditional wound care practices such as debridement, offloading, moist wound care, treatment of infection, and revascularization of the ischemic limb.

Example of such solutions include but are not limited to nonsurgical debridement agents, oxygen therapies, and negative pressure wound therapy, topical drugs, cellular bioproducts, human growth factors, energy-based therapies, and systematic therapies. We are also interested in deep learning solutions for the prediction, diagnostic assistance and prevention of ulcer formations.

## WHAT WE ARE NOT INTERESTED IN

- Commercial ready solutions that are not available for piloting or technical co-development collaborations.
- Buy-sell or promotion of market ready solutions.
- Conceptual ideas in which there is no prototype developed yet.

## PREFERRED BUSINESS MODEL

- Business Collaboration (Joint Venture)
- Licensing
- R&D Collaboration