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(71) Applicant: **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH** [SG/SG]; 1 Fusionopolis Way,
#20-10 Connexis, North Tower, Singapore 138632 (SG).

(72) Inventors: **OLIVO, Malini**; c/o Institute of Bioengineering and Bioimaging, 11 Biopolis Way, #02-02 Helios, Singapore 138667 (SG). **PERUMAL, Jayakumar**; c/o Institute of Bioengineering and Bioimaging, 11 Biopolis Way, #02-02 Helios, Singapore 138667 (SG). **UNNIMADHA VA KURUP SOUDAMINI AMMA, Dinish**; c/o Institute of Bioengineering and Bioimaging, 11 Biopolis Way, #02-02 Helios, Singapore 138667 (SG).

(74) Agent: **VIERING, JENTSCHURA & PARTNER LLP**, P.O. Box 1088, Rochor Post Office, Rochor Road, Singapore 911833 (SG).

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(54) Title: DEVELOPMENT OF FLEXIBLE PLASMONIC MEMBRANE-BASED SERS PLATFORM FOR MONITORING THE HEALING

(57) Abstract: Herein disclosed includes a biocompatible SERS-active polymer membrane configured to detect biomarkers in a sample, comprising: a flexible and porous polymer membrane; and SERS-active nanoparticles formed on the flexible and porous polymer membrane, wherein the flexible and porous polymer membrane comprises cellulose or an elastomeric polymer. Also disclosed herein is a method of forming the biocompatible SERS-active polymer membrane and a method of determining a state of wound healing in a diabetic individual involving the use of the biocompatible SERS-active polymer membrane.

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