

Healthcare: Diagnostics

Patient Stratification For Transoral Robotic Surgery In Oropharyngeal Cancers Through Development Of A Non-invasive HPV Detection Panel

APPLICATION

The HPV detection panel will detect the HPV status in the Indian population and stratify the patients based on tumour biomarkers towards optimal treatment and follow up protocols.

COMPANY NAME

Sephirah Innovations Pvt Ltd

TECHNOLOGY READINESS LEVEL (TRL)

TRL: 6 (Under clinical trials)

INTELLECTUAL PROPERTY

PCT: WO2021028950 NP in :
US: US20230135802A1
EP: EP4028559A1

FOUNDERS' NAME

Devjani Ghosh Shrestha

Granted Indian Patent: 404036

PROBLEM ADDRESSED

Human papilloma virus or HPV, in particular HPV-16, is recognized to be responsible, with different epidemiological, clinical, anatomical, radiological, behavioural, biological and prognostic characteristics from HPV negative OPSCC. The only head and neck site with a definite etiological association between persistent high-risk, HR HPV infection and development of SCC is the oropharynx. Treatment selection in these patients is now becoming a critical issue and current strategies may represent an over treatment.

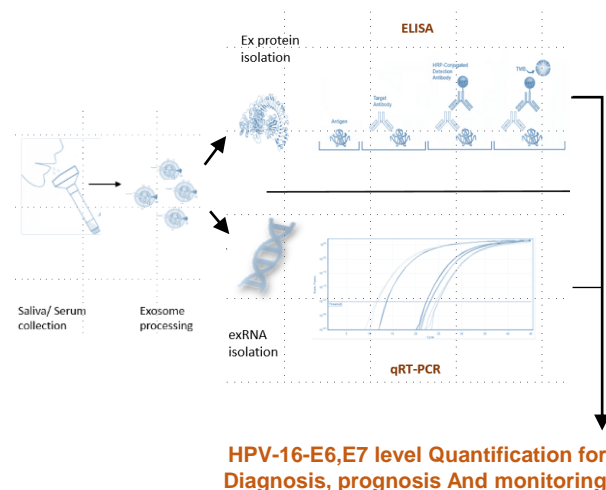
ABOUT THE TECHNOLOGY

The strategy behind the proposed project is to introduce a first of its kind diagnostic panel for diagnosing HPV status in all newly diagnosed cases of OPSCC, thereby stratifying the patients towards optimal minimally invasive surgical treatment and follow up protocol through non invasive serum and saliva tests. This panel would be vital in the clinical decision-making processes, to select patients for less aggressive, single modality treatment and follow up regimens. This would in turn lead to improved overall and disease-free survival compared to patients with HPV negative oropharyngeal cancers. Patient stratification for transoral robotic surgery in oropharyngeal cancers through development of a non-invasive HPV detection is the aim of this project.

FUNDS RAISED/ACHIEVEMENTS

- Supported under BIRAC BIG grant of INR 49.00 Lakhs
- AHERF seed fund Faculty Development program. Funds received: INR 5.00 lakhs
- Selected and participated in the BIRAC-IGNITE 2020 Cambridge Judge Business School Fellowship Programme
- Selected till the pre-final round of the National Bio-entrepreneurship Competition 2020

PRODUCT IMAGE



USP

This study is the first of its kind in India, not only by introducing the first comprehensive HPV diagnostic panel but by determining the prevalence of HPV positive OPSCC disease burden in India, stratifying these prognostically favourable subgroup of patients towards optimal treatment and establishing a non invasive follow up protocol based on viral biomarkers in body fluids to detect early recurrences. This would further help to standardize the management protocol and also provide the patient with the most cost-effective treatment possible.

END USERS/CUSTOMERS

- The proposed commercialization strategy will be an establishment of the test panel and generation of clinical data for regulatory filing at DCGI, CE and FDA through AHERF infrastructure