HYPOSENS

Minimally invasive system for faster, simpler and cheaper detection of breast cancer metastasis

Overview

Current diagnosis is through the sentinel lymph nodes biopsy which comes with several drawbacks: invasive surgery, possible allergic reaction, highly trained clinicians required, long-waiting time, false negatives and high cost.

Given these drawbacks, the new designed technology, object of this project, will facilitate the work to the specialists and improve the life to the patients.

Why use this system?

Label-free · Sensors for intracellular T °C and O_2

Minimally-invasive · No need of surgery

Fast · Real time results

Accurate · Antigens and dual parameter sensing

Safe · No ionizing radiation

Affordable · Decrease in the diagnostic costs

Simple · 'Plug and play'

Further information:

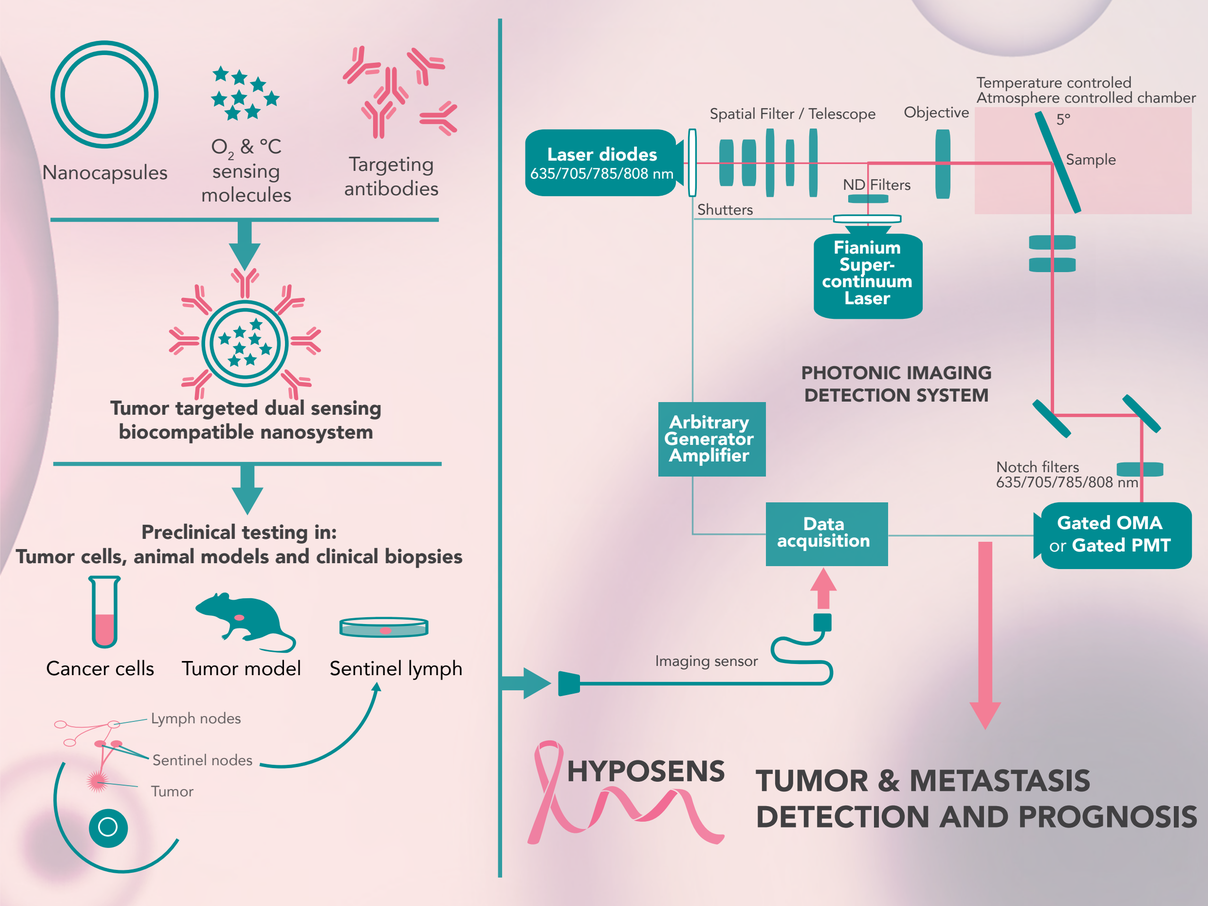
http://hyposens.eu

How does HYPOSENS work?

Nanocapsules (containing sensors) will be coupled with specific antibodies that target the lymph sentinel.

An optical system will be designed and developed to read (completely externally) the signals emitted by the sensors (O_2 and T °C) to detect the presence or absence of tumor cells in the lymph.

The new HYPOSENS system will be developed initially for HER2 positive breast cancer. However, its versatility will make it suitable also for other cancers simply by changing one component: the antibodies that direct the nanocapsules.



PARTNERS

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