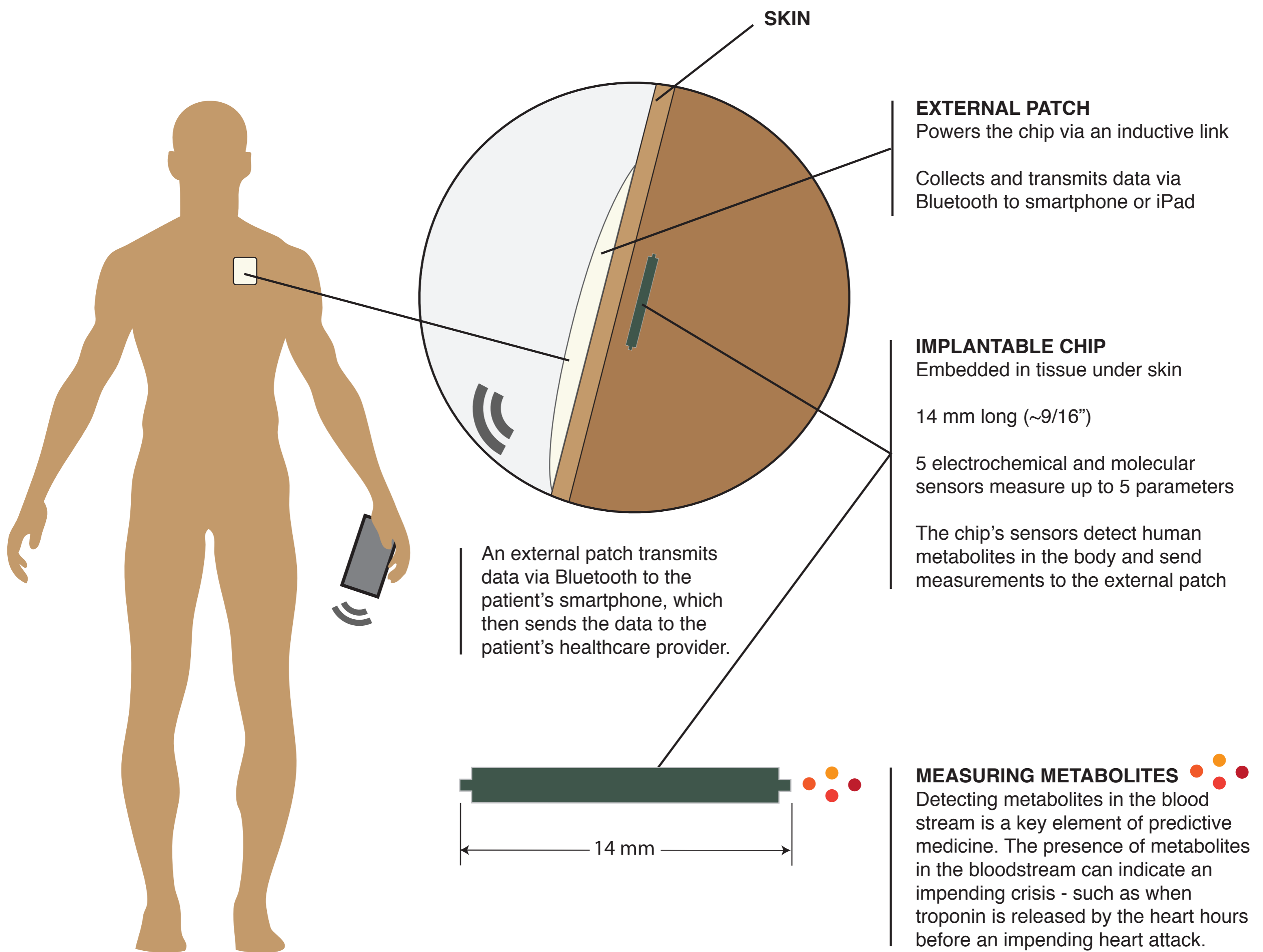


A Blood Lab under the Skin

Wireless, implantable medical devices are set to transform predictive medicine

Scientists at École Polytechnique Fédérale de Lausanne (EPFL) have developed a tiny, portable personal blood testing laboratory. A miniature device implanted under the skin provides an immediate analysis of substances in the body, and an external patch transmits the data via Bluetooth to a smartphone which sends the results to a doctor over the cellular phone network.



The healthcare provider receives data from the patient's smartphone or iPad and monitors the patient's condition remotely.



BENEFITS

- Enables predictive medicine.
- Monitors patients from far away.
- Facilitates monitoring of patients with chronic conditions.
- Can detect and predict imminent crises hours earlier.
- Can potentially predict a heart attack hours before it happens by detecting key metabolites such as troponin in the blood.