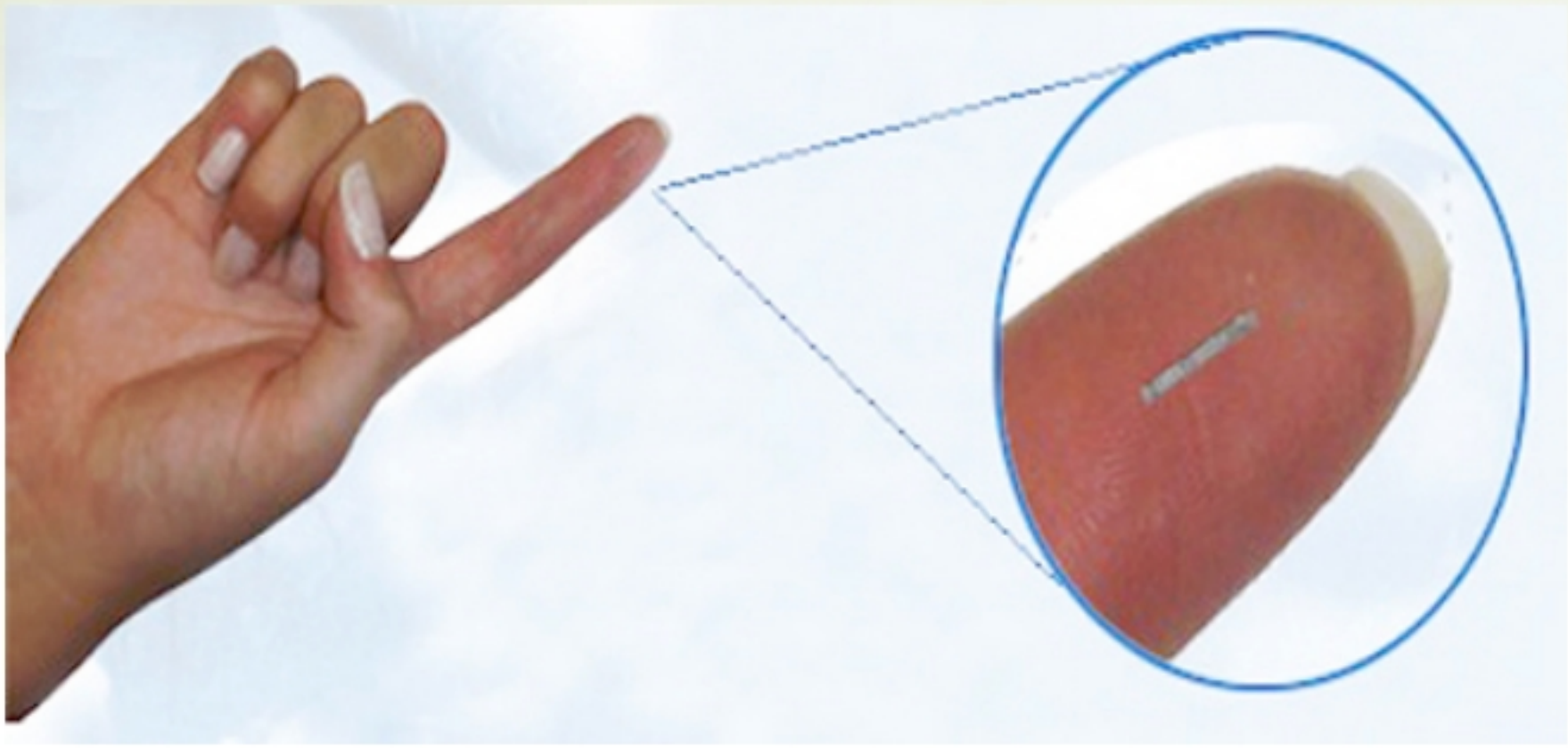
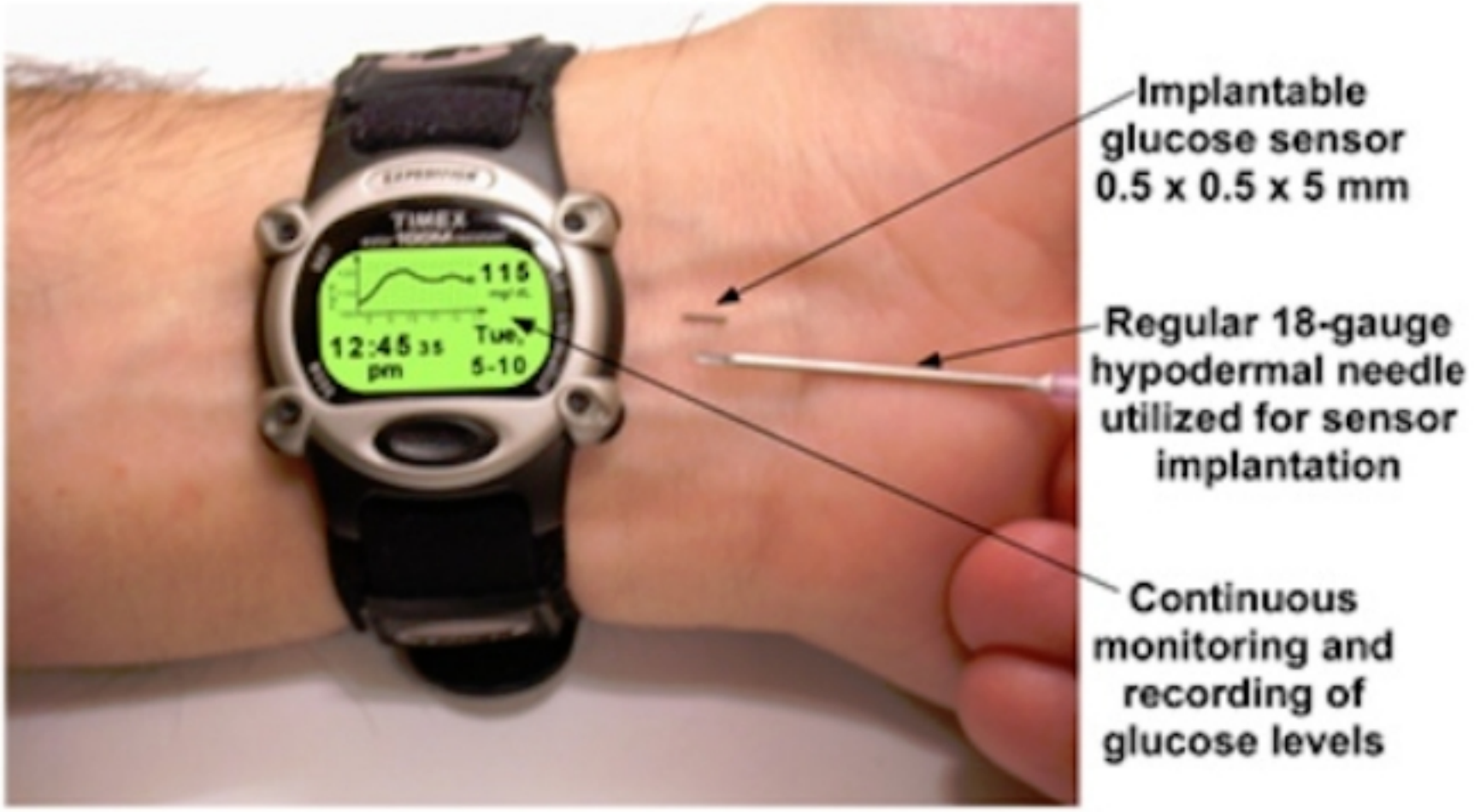
Implantable, Solar-Powered Chip Monitors Blood Sugar Levels

by Ariel Schwartz, 03/03/10



Diabetics rejoice: a new rice-sized, implantable glucose sensor could eliminate the need to use conventional finger-prick monitors. The solar-powered device, dubbed **Glucowizzard**, is implanted under a patient's skin, where it monitors glucose levels continuously until it needs to be replaced approximately a year later.



Glucowizzard works much like conventional glucose monitors, which use an enzyme that reacts to glucose levels in blood. The enzyme frees electrons in a number proportionate to the glucose level, and a running log of data is sent to a wristband that juices up the sensor's **photovoltaic** cells by sending pulses of flashing light through the skin. If **sugar** levels get too high, the patient is alerted.

The Glucowizzard device is far from being commercialized–clinical trials will start in two years and University of Connecticut researchers expect that it will go on sale by 2017. But when the **sensor** finally hits store shelves, it could make life a lot easier for diabetics that currently have to prick their fingers multiple times each day to check sugar levels.