



Press release

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CTI Medtech Award 2012: soldering to replace sutures

KKL Luzern, Monday, 24 September 2012 – today the Commission for Technology and Innovation CTI issued the CTI Medtech Award 2012 and corresponding cheque for CHF 10,000. The experts present selected the winner from three projects nominated. The prize was awarded to Storz Endoskop Produktion GmbH and the University of Bern, which jointly developed a procedure for abdominal cavity operations without abdominal incisions.

Martin Frenz (University of Bern) and Martin Leonhard (Storz Endoskop Produktion GmbH) received their Valaisian quartzite award at the KKL Luzern from CTI Director Klara Sekanina along with a cheque for CHF 10,000. The 400 experts from research and industry who attended the event considered this project to be the best of the three projects nominated.

“Closing wounds without sutures”

Light in all of its forms, from laser pulses to infrared radiation, is becoming increasingly important in day-to-day clinical procedures. Light-based imaging techniques or using laser scalpels to cut through tissues have become standard medical practice. And light has even more to offer. A team of physicists, materials scientists, doctors and engineers have shown that lasers can also be used to join tissues.

“It’s like cooking an egg on the open wound,” says Martin Frenz from the University of Bern’s Institute of Applied Physics. In concrete terms, protein molecules on the edge of the wound are denatured and transformed into a mechanical state in which they take on the stabilising function of a thread or staple.

Researchers were able to demonstrate in two CTI-sponsored projects that the procedure works: it has already been successfully tested on pigs. If everything goes according to plan, this very promising innovation will be launched in 2015.

The CTI Medtech Initiative

The CTI Medtech Initiative was launched in 1997 and has funded around 300 projects thus far. The CTI Medtech is intended to achieve two main objectives: improve the innovativeness and competitiveness of Swiss medical technology and stimulate the transfer of know-how between researchers, medical technology companies, start-up companies and SMEs. Each year, an average of 35 projects are sponsored. In 2011, an additional 35 projects received CHF 15 million in federal funding as part of a special package of measures to compensate for the strong Swiss franc.

Contact/questions:

Eliane Ritler, CTI Communication, Tel.: 031 324 19 95, eliane.ritler@kti.admin.ch

Prof. Dr. Lutz Nolte, Head of CTI Medtech, Tel.: 031 631 59 58, lutz.nolte@istb.unibe.ch