

## Technology Offer

# Loop Device with ready-made surgical knot

Ref. No.: CH712/2014

## Background

Under restricted spatial conditions e.g. in minimal invasive surgery, tying and closing of surgical knots is difficult and time-consuming in particular when high demands concerning closeness and durability is required. Extracorporal knots solve this problem, however the state of the art methods are time-consuming and loosening of knots after initial knotting remains a problem

## Technology

A new loop device with a new yarn arrangement of a ready-prepared knot has been developed which can be applied in laparoscopic surgeries for the ligation of tissue such as appendix base, gall bladder duct, vessel stumps, etc. The device contains a hollow cylindric carrier, through a surgical yarn is laid. At the one end of the cylinder a preformed, still open knot with loop is attached. For ligation process, the device is introduced intraabdominally. Tissue, which shall be ligated, is pulled through the loop and by simultaneously pulling both yarn's ends, the loop is tightened. First surgical tests with the loop device have been performed successfully. Tighten knots withstand pressures of up to 4 Bar as measured with a dilation device.

## Benefits

- ✓ Ready-made knot with loop for surgical applications allows time- and cost-effectiveness in surgery
- ✓ Automatic self-locking function and stabilization of the ligation – no additional stabilization knot is necessary
- ✓ Facilitation of surgical knotting in difficult to access applications
- ✓ Closeness and durability of knot
- ✓ Knot can withstand pressure of 4 bar (shown with a dilation device)

## Application

- Surgical applications: ligation of tissue structures

## Commercial Opportunity

Searching for a strategic / licensing partner or financial investor

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### Key Words

ready-made knot, loop, device, surgery, ligation, medical technology

### Developmental Status

*Prototype, surgical tests*

### IP Status

DE patent application (07/2014)

### Patent Owner

Charité- Universitätsmedizin Berlin

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## Contact

Dr. Bettina Büttner  
Technology Manager

Tel.: +49 30 450 570 874  
Fax: +49 30 450 7570 964

Bettina.Buettner@charite.de  
<http://technologietransfer.charite.de>