

Technology offer: IllumiNati

innovative lighting device for medical interventions

Let there be light!

Project status

- Multiple prototypes available
- Proof of feasibility in vivo

Key advantages

- Light source freely movable wherever needed
- Different modes of illumination
- Seamless combination with additional med. instruments such as suction, grasping, etc.

Patents

- German patent application filed on 19-May-2020
- DE 10 2020 113 465.7
- Titel: Vorrichtung zur Unterstützung der Ausleuchtung und der anatomischen Grenzdarstellung bei medizinischen Eingriffen

Offer

- Further information will be gladly disclosed under confidentiality
- Intellectual Property Rights can be licensed or assigned
- Cooperation for further development welcome

An interdisciplinary team of researchers at Mainz University Medical Center has developed an innovative lighting method in combination with a wide variety of additional tools for medical interventions.

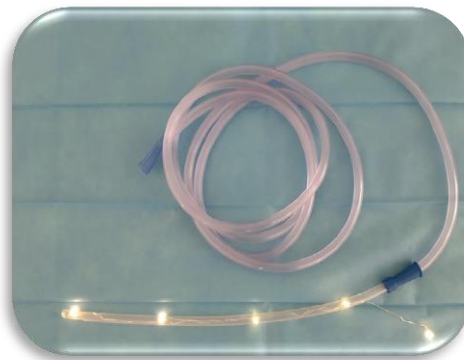
The physicians were faced with the problem that potential light sources are usually located above the surgeon during a surgery. There is often no possibility of fluoroscopy or fluorescence staining of tissue with standard surgical illumination instruments. As a result, anatomical structures are often not well distinguished and handling of different instruments is complicated if they are independently used.

The invention offers a solution for those challenges: combining an innovative "IllumiNati" light source with a wide variety of additional instruments. The special light source can be inserted directly into the body during medical interventions and is freely movable. Among other features controllable light frequencies allow for fluorescence staining of the tissue.

The light source can be combined with various additional functions. The IllumiNati series so far consists of six different instruments, each of which enables better visualization of tissue during an endoscopic or surgical procedure. It also enables diaphanoscopy (fluoroscopy of tissue).

Alternative embodiments so far: *IllumiNati lap retractor*, *IllumiNati G-Poem*, *IllumiNati urinary catheter*, *IllumiNati stomach probe* oder *IllumiNati wireless*.

Features such as sucking, grasping or catheterization are provided.



The versatile opportunities of the invention also define a wide range of applications, including among others endoscopy, open surgery - especially the visualization of physiological and non-physiological anatomical boundaries, laparoscopy - marking of organ boundaries, and fluorescence - tumor marking.

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The University Medical Center Mainz is open for partners interested in further development of the technology as well as for licensing or assignment of the underlying intellectual property rights. After signing an NDA further detailed information will be gladly provided.