

Artificial Urinary Bladder

The innovation

Understanding the Challenge

Cancer of the Urinary Bladder is a malignancy with high incidence in both men and women. It occurs with an average of 29.000 new cases per year in Germany alone. The treatment with an autologous cell based therapy still is far from commercialisation and so far bladder carcinoma can only be treated by creating an unsatisfactory surgical substitute that only partially compensates the physiological properties of the removed organ. We offer an optimised solution to this challenge by creating a fully functional artificial bladder implant.

Presenting our Solution

Our Artificial Urinary Bladder offers a solution to bladder carcinoma patients following full organ removal. The artificial organ consists of a urine reservoir with a control unit and an activation unit. The urine level is monitored and a feedback is given to the patient of enabling him to activate a remote controlled micturition. The implant is recharged through a contact free inductor in the electronic unit.

Development Plan and Status

The aim is to present a solution with a reduced mid-term need for additional surgery. This goal is reached by cooperation with strong external partners from industry, health care and academia.

The main components of our Artificial Urinary Bladder are:

- The connection between the Artificial Organ and the ureter (anastomosis)
- The electronic unit for activation, monitoring and recharge (Telemetric control system)
- The reservoir and its components

The development goal is to pass the animal testing and to provide a certifiable prototype within a period of two years.

The Commercial Opportunity

We offer the opportunity to participate in the development process that fulfils an unmet medical need with a reduced surgical impact and the ability to provide a strong quality of life gain for patients. Bearing in mind the growing incidence of bladder cancer, this offers an attractive commercial opportunity.



Advantages at a glance

- Fully functional bladder replacement
- Wireless data and energy transfer
- Controlled micturition
- Reduced surgical risk

Keywords

- Artificial urinary bladder
- Bladder carcinoma
- Remote controlled active implant
- Reduced surgical impact
- Controlled micturition
- Non-contact recharge

Areas of application

- Urinary bladder carcinoma
- Bladder radiation damage
- Contracted bladder

Patent status

The invention is filed internationally and partially granted. It is owned by Dritte Patentportfolio Beteiligungsgesellschaft mbH & Co. KG. The application was filed in March 1999.

To acquire a licence for this new technology, please don't hesitate to contact us!



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