

## Press Release

### **LINDIS Biotech Announces Publication of Patient Data Highlighting the Potential of Trifunctional Antibody CATUMAXOMAB for Treatment of Non-Muscle-Invasive Bladder Cancer in Peer-Reviewed Journal**

- **Follow up data from two patients published in *Cancer Immunology, Immunotherapy (CII)* suggest that intravesical administration of the trifunctional antibody is feasible, safe and demonstrates first signs of efficacy**
- **Following exclusive treatment with CATUMAXOMAB (no TUR-B), tumors were undetectable and no tumor cells were observed in the patient's urine samples. Both patients treated were endoscopically confirmed recurrence free at 32 and 25 months.**
- **Phase 1 study to evaluate safety and initial signals of efficacy in up to 30 patients initiated; results from dose escalation stage anticipated in H2 2021**
- **CATUMAXOMAB would be the first specific immunotherapy for non-muscle-invasive bladder cancer, an indication with an extremely high unmet medical need due to high recurrence rates and considerable side effects and costs of standard therapy**

**Martinsried, Germany, June 1, 2021** - LINDIS Biotech GmbH, a biopharmaceutical company with a proprietary multi-specific antibody platform and an advanced development pipeline with three clinical product candidates in immuno-oncology, today announced the publication of its peer-reviewed scientific article "*First time intravesically administered trifunctional antibody catumaxomab in patients with recurrent non-muscle invasive bladder cancer indicates high tolerability and local immunological activity*" in the *Journal of Cancer Immunology, Immunotherapy (CII)*.

Researchers evaluated the potential of intravesically administered (administration via a catheter directly into the bladder) CATUMAXOMAB, a trifunctional bispecific epithelial cell adhesion molecule (EpCAM) targeting antibody, as a potential first in class immuno-oncology treatment option for non-muscle invasive bladder cancer (NMIBC).

Data from two patients with recurrent NMIBC, treated with intravesically administered CATUMAXOMAB on a named-patient basis, suggest that the trifunctional bispecific EpCAM targeting antibody highly efficiently binds and kills EpCAM-positive bladder

cancer cells in urine milieu. Intravesically administered CATUMAXOMAB was well tolerated without any treatment-related toxicity. Relevant cytokine plasma levels were not detected, and no significant systemic drug release was observed. Human anti-mouse-antibodies (HAMA) were either not detected at all or were only detected in very low amounts - despite the high inherent immunogenicity of CATUMAXOMAB. Following the treatment, no tumors were detected in the bladder and no tumor cells were observed in the patients' urine samples. Both patients were endoscopically confirmed recurrence free at 32 and 25 months. Furthermore, a growing papillary lesion, which represents a typical precancerous structure for superficial bladder cancer, has been visible via endoscopic imaging two weeks before the start of CATUMAXOMAB treatment. Following the last application of CATUMAXOMAB this lesion was not detectable anymore. No transurethral resection (TUR-B) was performed.

**Dr. Peter Ruf, Chief Operating Officer of LINDIS Biotech and first author of the paper, commented:** "The data published in CII confirm our presumption that the remarkable clinical successes of CATUMAXOMAB in malignant ascites can indeed be transferred to other indications. In this proof-of-concept study, we were able to show that intravesical administration in NMIBC was feasible and safe and demonstrated initial signs of efficacy, as well as a remarkably long recurrence free interval. We are very excited about this data and are looking forward to further investigate this antibody and its potential in this indication."

Based on the encouraging findings, a clinical Phase I dose escalation study (Catunibla; EUDRACT number: 2019-002850-22; clinicaltrials.gov: NCT04819399) was initiated to evaluate the safety and potential preliminary efficacy signals of the intravesical administration of CATUMAXOMAB.

**Dr. Horst Lindhofer, founder and Chief Executive Officer of LINDIS Biotech and inventor of CATUMAXOMAB, commented:** "The publication of this paper in CII is a further validation of our decision to take CATUMAXOMAB into clinical development for NMIBC. Our goal is to reduce the rate of radical bladder removal (cystectomy) as well as decrease recurrence and progression rates. Due to its local tumor specificity, CATUMAXOMAB has the potential to become the first specific immunotherapy for recurrent NMIBC, an indication with an extremely high unmet medical need. We are very much looking forward to communicate the results from the dose escalation stage in the second half of 2021."

CII is an open-access peer-reviewed medical journal serving as a forum for new concepts and advances in basic, translational, and clinical cancer immunology and immunotherapy.

The article is freely available for download at:

<https://link.springer.com/content/pdf/10.1007/s00262-021-02930-7.pdf>

## **More Information:**

### **About NMIBC**

Bladder cancer is the 9<sup>th</sup> leading type of cancer worldwide with 430,000 new cases and about 165,000 deaths occurring every year. Advanced and metastasized bladder cancer remains a fatal disease. However, a majority of about 75% of diagnosed bladder cancers are local and non-muscle-invasive. NMIBC is a cancer indication with an extremely high burden for both patients and the healthcare system because its tumors tend to be multifocal, recur chronically and usually are resistant to chemotherapy. The current standard of care – after surgical removal of tumor - is direct instillation of BCG (Bacille Calmette Guerin) into the urinary bladder, which is performed repeatedly over a period of up to 3 years. This is characterized by high tumor recurrence rates (60–70%) and considerable side effects, which require close monitoring and continuous treatment. Should this therapy fail, patients with high-risk NMIBC tumors must often resort to cystectomies in order to prevent the tumor from progressing, which is an invasive surgery that has a significant impact on their quality of life. The BCG therapy itself often causes a painful, nonspecific cystitis, which is associated with a high dropout rate and severe side effects.

### **About CATUMAXOMAB**

CATUMAXOMAB is a bispecific trifunctional antibody that binds directly to the tumor cell with one of its binding sites and activates two essential components of the immune system with the other binding sites: T cells and macrophages (scavenger cells). The antibody recognizes and binds to all EpCAM-positive tumor cells, including critical cancer stem cells and all CD3-positive T cells. The EpCAM marker is present on almost all carcinomas and, therefore, is a promising approach for targeted cancer treatment. In 2009, CATUMAXOMAB was approved in Europe for the indication of malignant ascites (the buildup of fluid containing cancer cells in the space around the organs in the abdomen) and has proven its safety and anti-tumor efficacy in the clinic.

### **About LINDIS Biotech GmbH**

LINDIS Biotech GmbH, a biopharmaceutical company with a proprietary multi-specific antibody platform and an advanced development pipeline with three clinical product candidates in immuno-oncology, was founded in 2010 by Dr. Horst Lindhofer, inventor of the Triomab<sup>®</sup> platform. LINDIS Biotech is the only company that owns a technology

which combines extremely effective tumor cell destruction with a patient-specific vaccination based on trifunctional bispecific antibodies. The Company is therefore ideally positioned in the area of cancer immunotherapeutic agents. As the first product to emerge from this platform and a breakthrough in the development of bispecific antibodies, CATUMAXOMAB was approved in 2009 in Europe under the name Removab® for the indication of malignant ascites and has proven its safety and anti-tumor efficacy in the clinic. In 2017, LintonPharm, partner of LINDIS Biotech, in-licensed four Triomab® antibodies from LINDIS Biotech for further development and commercialization in the Asia-Pacific region. In early February 2021, LintonPharm, has been authorized by China Health Authority (NMPA) to proceed with a Phase 1/2 clinical trial (clinicaltrials.gov: NCT04799847) of CATUMAXOMAB for the same indication (non-muscle-invasive bladder cancer), which represents another great opportunity to evaluate the therapeutic potential of CATUMAXOMAB in patients with NMIBC.

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