



Transgene to start clinical development of lead myvac[™] individualized immunotherapy, TG4050, in 2019, under its partnership with NEC

- TG4050 is a neoantigen therapeutic vaccine developed for individual patients, based on the specific mutations identified in the patient's own tumor
- Two clinical trials in ovarian cancer and head and neck cancer patients will start in 2019
- Both studies will be co-funded by Transgene and NEC

Strasbourg, France, March 05, 2019 - 5:45 pm CET - Transgene (Euronext Paris: TNG), a biotech company that designs and develops virus-based immunotherapies against cancers and infectious diseases, announces its decision to initiate clinical developments of its lead myvacTM candidate, TG4050, and the finalization of its collaboration agreement with NEC. This product is designed and manufactured by Transgene using its proprietary platform myvacTM (*1) and integrating neoantigens selected by NEC's Neoantigen Prediction System (*2).

TG4050 capitalizes on the tremendous progress in the field of artificial intelligence (AI) and on advances in genome sequencing to create an individualized immunotherapy, targeted to mutated antigens identified by sequencing and predicted to be relevant target by the NEC's algorithm.

Transgene will be responsible for the clinical development and will sponsor two clinical studies starting in H2 2019:

- A study in ovarian cancer patients after first line surgery and chemotherapy
- A study in head and neck cancer patient after surgery and radiation therapy.

These studies, which will be co-financed by Transgene and NEC, will evaluate safety and immunogenicity of TG4050 and, pave the way for combination studies with different classes of therapies.

"Individualized vaccination is being increasingly perceived as a promising therapeutic modality to specifically activate the immune system to attack tumor cells. We are pleased, together with NEC, to be advancing in the clinic TG4050 in H2 2019. We are confident that this approach has the potential to transform the treatment of a broad range of solid tumors," said **Éric Quéméneur, Pharm.D., Ph.D., Executive VP, Chief Scientific Officer of Transgene**.

"Individualized immunotherapy is a breakthrough science which holds great promises to achieve clinical benefits for cancer patients. We are honored to partner with Transgene in the initiation of these clinical trials this year. The success of this product would create immense impact that could improve the quality of life for many cancer patients", commented **Osamu Fujikawa**, Senior Vice President, Business Innovation Unit, of NEC Corporation.

Notes:

*1) *myvac*™

myvac[™] is a viral vector (MVA) based, individualized immunotherapy platform that has been developed by Transgene to target solid tumors. The myvac[™]-derived products are designed to stimulate the patient's immune system, recognize and destroy tumors using the patient's own cancer specific genetic mutations. Transgene has set up an innovative network that combines bioengineering, digital transformation, established vectorization know-how and unique manufacturing capabilities.

*2) NEC's Neoantigen Prediction System

NEC's neoantigen prediction utilizes its proprietary AI, such as graph-based relational learning, which is combined with other sources of data to discover candidate neoantigen targets. NEC comprehensively evaluates the candidate neoantigens with a primary focus placed on its in-house MHC-binding affinity prediction. These allow NEC to effectively prioritize the numerous candidate neoantigens identified in a single patient.

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About Transgene

Transgene (Euronext: TNG) is a publicly traded French biotechnology company focused on designing and developing targeted immunotherapies for the treatment of cancer and infectious diseases. Transgene's programs utilize viral vector technology with the goal of indirectly or directly killing infected or cancerous cells. The Company's lead clinical-stage programs are: TG4010, a therapeutic vaccine against non-small cell lung cancer, Pexa-Vec, an oncolytic virus against liver cancer, and TG4001, a therapeutic vaccine against HPV-positive head and neck cancers. The Company has several other programs in clinical development, including TG1050 (a therapeutic vaccine for the treatment of chronic hepatitis B) and TG6002 (an oncolytic virus for the treatment of solid tumors).

With its proprietary Invir.IO[™], Transgene builds on its expertise in viral vectors engineering to design a new generation of multifunctional oncolytic viruses.

 $myvac^{TM}$, an individualized MVA-based immunotherapy platform designed to integrate neoantigens, completes this innovative research portfolio. TG4050, the first candidate selected from the $myvac^{TM}$ platform, will enter the clinic for the treatment of ovarian cancer and head and neck cancer.

Additional information about Transgene is available at <u>www.transgene.fr</u>

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