



**VIRAL VECTOR BASED
IMMUNOTHERAPIES
AGAINST CANCER**

TRANSGENE, IMMUNOTHERAPIES AGAINST CANCER

The scientific expertise and commitment of some 160 Transgene employees enable the Company to develop innovative cancer treatments.






















The principle: to stimulate and to educate the immune system with the goal of enabling it to recognize and destroy cancer cells.

To achieve this goal, Transgene has developed **two technological approaches: therapeutic vaccines and oncolytic viruses.**

We design these drug candidates by integrating a comprehensive therapeutic arsenal within the genome of optimized viruses (also known as viral vectors).

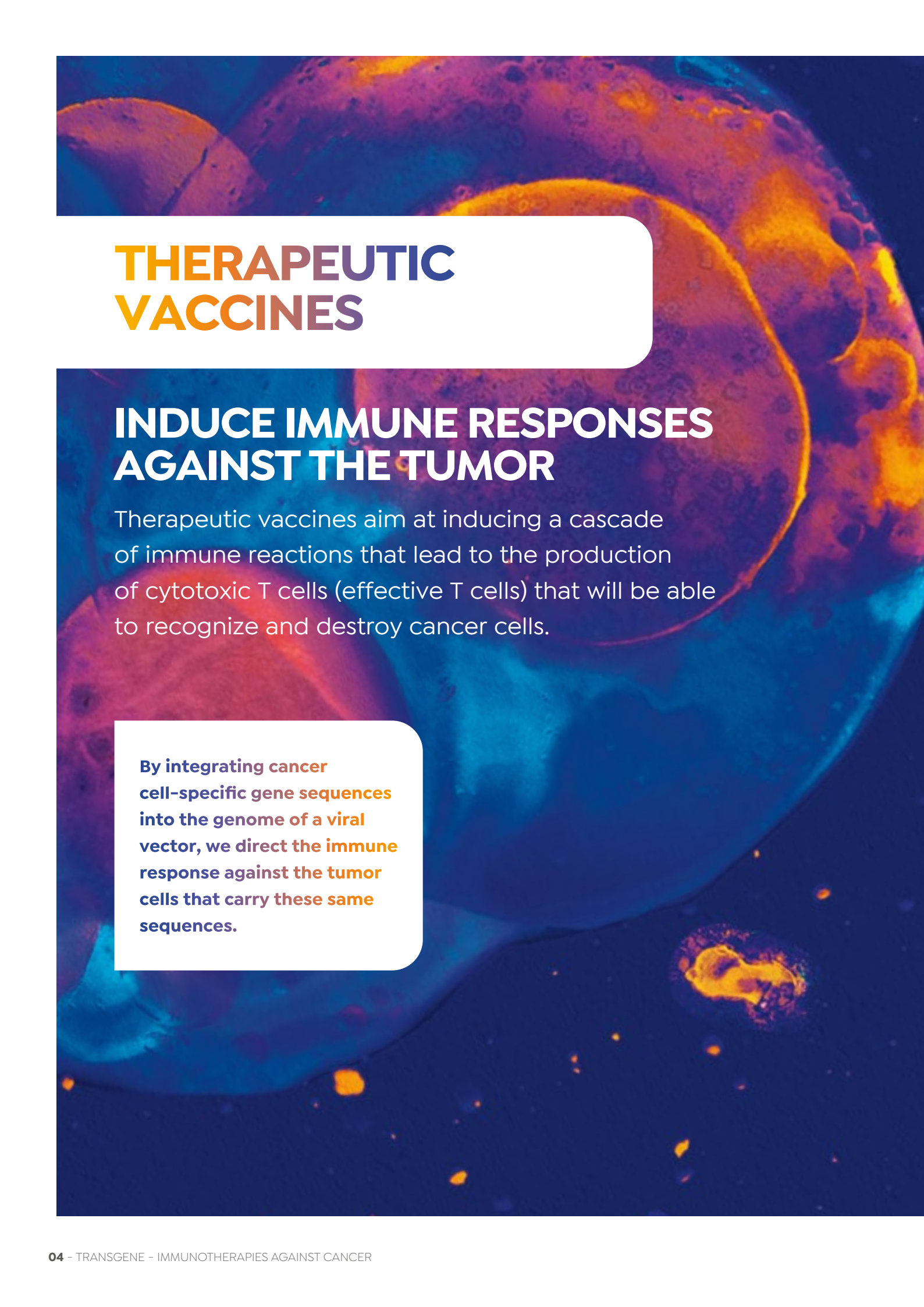
The recent clinical results are particularly promising and offer real hope to cancer patients.

A DIVERSIFIED DRUG-CANDIDATE PORTFOLIO

Product	Target/transgene	Indication	Collaboration	Preclinical	Phase I	Phase II
THERAPEUTIC VACCINES						
 TG4050	30 neoantigens	Ovarian cancer	 <small>Orchestrating a brighter world</small>			
		Head and neck cancers				
TG4001	HPV16 E6 - E7	Anogenital HPV+ cancers				
ONCOLYTIC VIRUSES						
 TG6050	IL-12 + Anti-CTLA4	Non-small cell lung cancer (IV**)				
 BT-001	Anti-CTLA4 + GM-CSF	Solid tumors				
TG6002	5-FU chemotherapy	Gastro-intestinal cancers (IV**)				
		Colorectal cancer (IHA**)				

* Agreement with AstraZeneca to develop preclinical OV in solid tumours. Includes 1 licensed product

** IV: intravenous administration, IHA: intrahepatic artery administration

A fluorescence microscopy image of a cell, likely a tumor cell, showing internal structures. The cell is stained with blue and orange dyes, highlighting various organelles and components. The background is dark, making the stained cell stand out.

THERAPEUTIC VACCINES

INDUCE IMMUNE RESPONSES AGAINST THE TUMOR

Therapeutic vaccines aim at inducing a cascade of immune reactions that lead to the production of cytotoxic T cells (effective T cells) that will be able to recognize and destroy cancer cells.

By integrating cancer cell-specific gene sequences into the genome of a viral vector, we direct the immune response against the tumor cells that carry these same sequences.



**ONE PATIENT, ONE CANCER,
ONE VACCINE**



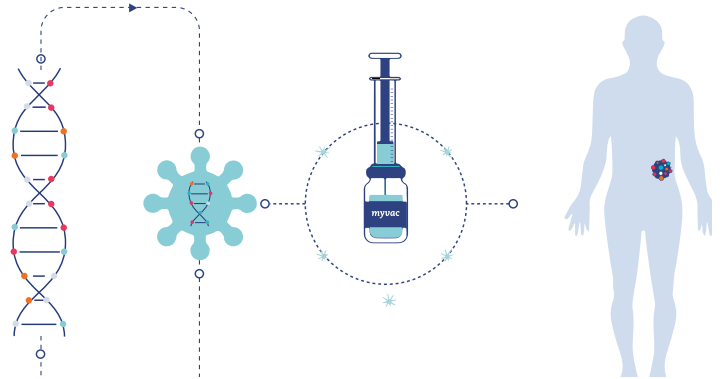
**▶ Watch our video
on myvac®**



**▶ First promising results
with this innovative
individualized therapy**

Transgene developed *myvac*®, an immunotherapy platform, which leverages cutting-edge Artificial Intelligence (AI) capabilities to customize the treatment for each patient.

Transgene’s highly innovative technology platform, *myvac*®, enables the generation of a virus-based immunotherapy, which encodes patient-specific cancer cell mutations (neoantigens) identified and selected by NEC’s Neoantigen Prediction System, an advanced AI technology approach. The company has also set up a unique in-house Good Manufacturing Practices (GMP) unit.



TG4050 is the first drug candidate based on the technology *myvac*®.

Interim data from the two ongoing Phase I trials confirm the strong potential of this personalized therapeutic vaccine.

Based on the data presented in 2023, a Phase II trial will be launched, with the ambition of redefining the treatments available to patients in this indication the ambition to redefine the treatments available to patients in this indication.



TG4001 targets cancers induced by human papillomavirus (HPV).

This therapeutic vaccine provided particularly promising results in a Phase Ib/II clinical trial in 2020.

The pooled analysis of this Phase Ib/II trial demonstrated pronounced anti-tumor activity of the combination of TG4001 and avelumab.

At the end of 2022, positive results from the interim analysis allowed for optimization of the number of patients in the trial. The last patient is expected to be enrolled in H1 2024, with final results to be reported in 2024.

Transgene is continuing the clinical development of TG4001 in a randomized, controlled Phase II trial with the support of Merck KGaA.



**▶ Discover our video
on TG4001**



**▶ Interview of Prof. Le Tourneau
and of our Chief Medical Officer
on the Phase Ib/II data**

ONCOLYTIC VIRUSES

DIRECTLY TARGET AND DESTROY CANCER CELLS

Oncolytic viruses are designed to selectively multiply in cancer cells and induce their breakdown (a process called cell lysis).

This process is also involved in activating the patient's immune system. In addition, oncolytic viruses have the ability to act as Trojan horse by carrying therapeutic payloads in their genome, which are expressed during replication in the tumor.

These 'armed' or multifunctional viruses then allow to attack the tumor on several fronts.



Discover the
mechanism of action
of oncolytic viruses



Transgene's proprietary platform, Invir.IO®, is dedicated to the design and development of a new generation of oncolytic viruses.

TG6002 Proof of concept of intravenous administration of an Invir.IO® virus.

The two Phase I trials show that the treatment is well tolerated. The virus is able to reach the tumor, to replicate there selectively and to durably express its armament. It also induces the activation of the immune system. Transgene thus demonstrates the feasibility of intravenous administration of Invir.IO® oncolytic viruses. The use of this route of administration considerably expands the target market for oncolytic viruses.



 **Discover the mechanism of action of TG6002**

TG6050 virus expressing IL-12.

TG6050 is armed with interleukin 12 and an anti-CTLA4 antibody: two therapies known to trigger a powerful antitumor immune response. TG6050 is in a Phase I trial in advanced lung cancer, in which is administered intravenously.



 **Discover how TG6050 works**

BT-001 administered directly into the tumor.

It is armed with an anti-CTLA4 antibody from our partner BioInvent. In monotherapy, BT-001 is well tolerated. Early signs of anti-tumor activity were observed in a difficult-to-treat population.

Transgene and BioInvent were rewarded at SITC 2022 for a scientific article on the preclinical data of BT-001.



 **Discover BT-001 mechanism of action**



Environmental and social responsibility (ESG)

To develop **innovative**
treatments against **cancers**
for which there is **no**
satisfactory **treatment**.



Our mission carries the values of ESG in itself. Transgene has always paid particular attention to ESG and has always promoted the values of humanism, citizenship and respect for the environment.

Transgene's ESG strategy is based on six commitments to:

- **patients**
- **partners**
- **employees**
- **society and territories**
- **the planet**
- **shareholders and investors**

Based in **Strasbourg, France**
Listed on **Euronext Paris**



Learn more
about **Transgene**