transgene

2022 Half-year results and business update

PRESS RELEASE

Positive Readouts for Transgene's Clinical Stage Candidates Generated by its Two Innovative Platforms, with Further Clinical Data Expected in the Second Half of 2022

- ***TG4001*** *– Results from the interim analysis of the randomized Phase II trial in HPV-positive anogenital cancers to be released in Q4 2022*
- ***TG4050 (*****myvac®** ***platform)*** *– New positive Phase I data presented at AACR and ASCO - Additional data from the two Phase I trials to be communicated in H2 2022*
- ***TG6002*** *– Phase I data confirming the potential of the intravenous administration of Transgene's Invir.IO™ oncolytic viruses will be presented at ESMO 2022 on September 11 at 12 pm CET*
- ***BT-001 (Invir.IO™ platform)*** *– Initial Phase I data demonstrated good tolerability and first signs of antitumor activity - Phase Ib (BT-001 in combination with pembrolizumab) expected to start in the second half of 2022*
- *Financial visibility until the end of 2023*
- *Transgene will host an R&D on 27 September 2022 at 2 p.m. CET*

Conference call scheduled today at 6 p.m. CET (in English). See details below.

Strasbourg, France, September 7, 2022, 5:45 p.m. CET – **Transgene (Euronext Paris: TNG), a biotech company that designs and develops virus-based immunotherapies for the treatment of cancer,** today publishes its financial results for the six-month period ended June 30, 2022 and provides an update on the progress of its portfolio of clinical-stage drug candidates.

"Our goal is to transform the outlook for cancer patients with solid tumors by developing immunotherapies that can become vital components of the therapeutic arsenal. To achieve this, Transgene has created two highly innovative technology platforms that have delivered multiple therapeutic vaccine and oncolytic drug candidates now being evaluated in clinical trials," commented **Hedi Ben Brahim, CEO of Transgene**.
"We have made remarkable progress in the first half of 2022, with initial results in patients reinforcing my confidence that we are on track to progress through the clinic successfully. With several further important clinical milestones to be announced before the end of the year, we are approaching a critical moment to become a world leader in innovative cancer therapies."

Highlights and expected news flow

TG4001 – Result of the Phase II interim analysis to be released in Q4 2022

Just over 50 patients have been enrolled in the randomized Phase II trial evaluating the combination of TG4001 and avelumab in HPV-induced anogenital cancers. Transgene expects to report the results of the interim analysis in Q4 2022.

The objective of this trial is to demonstrate the superiority of the combination of TG4001 + avelumab versus avelumab as a single agent to improve progression-free survival (primary endpoint of the trial) and, in the longer term, overall patient survival.

In this Q4 2022 communication, Transgene will specify, based on the results of the interim analysis, the total number of patients that must be included in the trial to confirm the efficacy of the therapy and achieve statistically significant progression-free survival improvement. Indeed, the design of the trial allows for the total number of patients to be adjusted according to the results obtained in the interim analysis and based on the recommendations of the IDMC (independent data monitoring committee).

TG4050 - Patients treated with our neoantigen vaccine show a robust, vaccine specific immune response

Transgene presented new positive preliminary data from TG4050, its proprietary cancer vaccine based on the *myvac*® platform, at the AACR (April 2022) and **ASCO** (June 2022) **meetings**. These data show good safety and robust immunogenicity. The induction of immune responses is particularly efficient (100% of patients evaluated at the data cut-off date showed a specific cellular response) and is associated with disease regression.

Transgene has also produced data on circulating tumor DNA (ctDNA); signals of this increasingly validated surrogate marker of efficacy are particularly encouraging. **Combined with the first signs of clinical activity, these results suggest that the individualized TG4050 vaccine has the potential to extend the period of remission, potentially offering a new treatment option for cancer patients.**

Additional data from the two ongoing Phase I trials (ovarian cancer and head and neck cancers) are expected in the second half of 2022. The information generated will be key to designing the Phase II trial of TG4050, which could start as early as 2023.

In addition, Transgene has completed patient inclusion in the two Phase I trials. These patients are now being monitored until they become eligible for treatment per study protocol.

An article on Transgene's personalized vaccine technology was published in the Journal for ImmunoTherapy of Cancer[i]. The publication demonstrated that Transgene successfully developed a patient specific vaccine within a few weeks for a study case patient with a low tumor mutational burden (TMB).

TG6002 – Phase I trials completed – Confirms the strong potential of IV administration of the Invir.IO™ oncolytic viruses

Patient enrollment has been completed in the Phase I trial evaluating the intravenous (IV) route of administration: 51 patients received TG6002 at different doses and with different schedules.

This route of administration has considerable therapeutic and market potential as it allows targeting many types of internal lesions and metastases inaccessible by intratumoral injection (injection of the oncolytic virus directly into the tumor) which is currently the only approved route of administration for an oncolytic virus.

[i] McCann K, von Witzleben A, Thomas J, *et al,* Targeting the tumor mutanome for personalized vaccination in a TMB low non-small cell lung cancer, *Journal for ImmunoTherapy of Cancer* 2022;10:e003821. doi: 10.1136/jitc-2021-003821

New data from this trial will be presented in a poster at the ESMO Congress on September 11, 2022 at 12:00 pm CET. **The data confirm the safety and feasibility of the IV route for TG6002 and support the potential of IV administration of Invir.IO™-based oncolytic viruses**, extending the use of these therapies to a broad range of solid tumors.

In the TG6002 Phase I trial evaluating the intrahepatic artery route of administration (IHA), enrollment has been completed. Data are currently being analyzed and will be presented at a conference in the first half of 2023.

BT-001 – Good safety and first signs of antitumor activity as a monotherapy

Transgene and BioInvent provided an update on the progress of the clinical trial of BT-001, an oncolytic Vaccinia virus encoding an anti-CTLA-4 antibody and GM-CSF, in June 2022. Initial data from Part A of the Phase I trial demonstrated that BT-001 as a single-agent is well tolerated, with first signs of anti-tumor activity observed in a hard-to-treat patient population. The mechanism of action for BT-001, as a single agent, was also confirmed: the virus replicates in the tumor and the anti-CTLA-4 antibody is expressed in the tumor.

A clinical collaboration and supply agreement for KEYTRUDA® (pembrolizumab) was signed with MSD (Merck & Co) at the end of June 2022. The Phase Ib part of the clinical trial (combination with pembrolizumab) is expected to start in the second half of 2022.

Promising preclinical data with BT-001 were presented at AACR 2022 and published in the Journal for ImmunoTherapy of Cancer[ii] demonstrating the broad and robust antitumor activity of this Invir.IO™ oncolytic virus.

Change in governance and appointment within the executive committee

Transgene reinforced its corporate governance by separating the roles of Chairman and CEO. Dr. Alessandro Riva, MD, became Non-Executive Chairman of the Company (May 25, 2022). With 30 years' experience in the Life Sciences industry, Dr. Riva is closely working with Transgene's CEO Hedi Ben Brahim to realize the potential of the Company's technology platforms and products to benefit cancer patients.
Prof. Jean-Yves Blay, MD, PhD, and Laurence Espinasse were appointed as members of the board of directors.

Steven Bloom joined Transgene as Vice President, Chief Business Officer (CBO). In this position, he has become a member of the executive committee, leading global business development strategy, alliance management and program management. In particular, he is focused on building the profile of Transgene in the USA, where he is based, as part of establishing the Company as a world leader in virus-based immunotherapies.

R&D Day

Transgene is organizing an R&D Day intended for the financial community, in particular analysts and institutional investors. It will be accessible to investment professionals in person and, online to everyone on Transgene's website (via webcast). It will take place on September 27, from 2 p.m. to 6 p.m. CET (8 a.m. EST to 12 p.m. EST).

The event will include presentations by several Key Opinion Leaders, independent and active in Transgene's clinical trials, as well as a review of Transgene's immunotherapy portfolio and its positioning in the immuno-oncology landscape. In particular, Transgene will disclose new data on TG4050 and provide insights on the progress of the Invir.IO™ platform.

[ii] Semmrich M, Marchand J, Fend L, *et al.* Vectorized Treg-depleting αCTLA-4 elicits antigen cross-presentation and $CD8^+$ T cell immunity to reject 'cold' tumors. *Journal for ImmunoTherapy of Cancer* 2022;10:e003488. doi: 10.1136/jitc-2021-003488

Summary of key ongoing clinical trials

TG4001
+ avelumab
Phase II
NCT03260023

Targets: HPV16 E6 and E7 oncoproteins

Recurrent/metastatic anogenital HPV-positive – 1st (patients ineligible for chemotherapy) and 2nd lines

- ✓ Randomized Phase II trial comparing the combination of TG4001 with avelumab versus avelumab alone
- ✓ Active patient enrollment in Europe (France and Spain) and in the USA
- ➲ **Results of the interim analysis expected in Q4 2022 (N≈50)**

myvac®

TG4050
Phase I
NCT03839524

TG4050
Phase I
NCT04183166

Targets: tumor neoantigens

- ✓ Codeveloped with NEC
- ✓ New positive data in first patients demonstrating the immunogenicity of the vaccine as well as first signs of clinical activity presented at AACR and ASCO 2022
- ➲ **Additional data on the 2 trials expected in H2 2022**

Ovarian cancer – after surgery and first-line chemotherapy

- ✓ Trial ongoing in the USA and in France
- ✓ Patient enrollment completed

HPV-negative head and neck cancer – after surgery and adjuvant therapy

- ✓ Trial ongoing in the UK and in France
- ✓ Patient enrollment completed

TG6002
Phase I/IIa
NCT03724071

TG6002
Phase I/IIa
NCT04194034

Payload: FCU1 for the local production of a 5-FU chemotherapy

Advanced gastro-intestinal cancer (colorectal cancer for Phase II) – Intravenous (IV) administration

- ✓ Multicenter trial ongoing in France, Belgium and Spain
- ✓ Proof-of-concept data of the IV administration presented in 2021 (ESMO & AACR)
- ✓ Patient enrollment completed in Phase I part
- ➲ **Poster to be presented at ESMO 2022 (September 11, 2022)**

Colorectal cancer with liver metastasis – Intrahepatic artery (IHA) administration

- ✓ Multicenter trial ongoing in the UK and in France
- ✓ Patient enrollment completed in Phase I part
- ➲ **Data to be presented in H1 2023**

Invir.IO™
BT-001
Phase I/IIa

NCT04725331

Payload: anti-CTLA4 antibody and GM-CSF cytokine

Solid tumors

- ✓ Co-development with BioInvent
- ✓ Trial ongoing in France, Belgium and approved in the USA
- ✓ Initial data showing safety and first signs of clinical activity
- ✓ Collaboration agreement with MSD, supplying pembrolizumab for the trial
- ➲ **Start of part B of the Phase I trial in H2 2022**

Key financials

The Board of Directors of Transgene met on September 7, 2022 and approved the financial statements for the six-month period ended June 30, 2022. The Statutory Auditors have conducted a limited review of the interim consolidated financial statements.

The half-year financial report is available on Transgene's website, www.transgene.fr.

Key elements of the income statement

(in thousands of euros)	**June 30, 2022**	**June 30, 2021**
Operating income	**6,087**	**4,989**
Research and development expenses	(16,974)	(15,339)
General and administrative expenses	(3,944)	(3,080)
Other expenses	(4)	(2)
Operating expenses	**(20,922)**	**(18,421)**
Operating income/(loss)	**(14,835)**	**(13,432)**
Financial income/(loss)	**(444)**	**1,632**
Net income/(loss)	**(15,279)**	**(11,800)**

Operating income amounted to €6.1 million for the first six months of 2022 compared to €5.0 million for the same period in 2021.

- In 2019, the Company entered into a collaboration agreement with AstraZeneca, which included exclusive licensing options to co-develop oncolytic immunotherapies derived from the Invir.IO™ platform. As a result, in the first half of 2019 Transgene received €8.9 million (US$10 million) in fees for access to its platform. This initial payment is recognized as revenue based on the stage of completion of the related activities. In the first half of 2022, the income recognized under this collaboration agreement was €2.3 million (€1.3 million in the first half of 2021). Of this amount €0.4 million reflects recognition of the initial payment for work done during the period and €1.9 million in respect of the supply of candidates and the performance of R&D services.
- The research tax credit amounted to €3.7 million for the first half of 2022, compared to €3.5 million for the first half of 2021.

Research and Development (R&D) expenses amounted to €17.0 million in the first half of 2022 compared to €15.3 million for the same period in 2021, reflecting the acceleration of clinical trials.

General and administrative expenses amounted to €3.9 million for the first half of 2022 compared to €3.1 million for the same period in 2021.

Financial income is a loss of €0.4 million in the first half of 2022 compared to a gain of €1.6 million for the same period in 2021.

As a consequence, the **net loss** amounted to €15.3 million for the first half of 2022 compared to a loss of €11.8 million for the same period in 2021.

Transgene's cash burn amounted to €6.8 million in the first half of 2022 compared with €11.9 million for the same period in 2021.

As of June 30, 2022, the Company's **cash, cash equivalents and other financial assets** amounted to €42.8 million (€49.6 million as of December 31, 2021).

The Company has financial visibility until the end of 2023.

A conference call **in English** is scheduled today, on September 7, 2022, at 6 p.m. CET / 12 p.m. EST.

Webcast link to English language conference call:
https://channel.royalcast.com/landingpage/transgene/20220907_1/

Participant telephone numbers:
France: +33 (0) 1 70 37 71 66
United Kingdom: +44 (0) 33 0551 0200
United States: +1 212 999 6659

Confirmation code: Transgene

A replay will be available on the Transgene website (www.transgene.fr) following the live event.

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About Transgene

Transgene (Euronext: TNG) is a biotechnology company focused on designing and developing targeted immunotherapies for the treatment of cancer. Transgene's programs utilize viral vector technology with the goal of indirectly or directly killing cancer cells.
The Company's clinical-stage programs consist of two therapeutic vaccines (TG4001 for the treatment of HPV-positive cancers and TG4050, the first individualized therapeutic vaccine based on the *myvac*® platform) as well as two oncolytic viruses (TG6002 for the treatment of solid tumors and BT-001, the first oncolytic virus based on the Invir.IO™ platform).
With Transgene's *myvac*® platform, therapeutic vaccination enters the field of precision medicine with a novel immunotherapy that is fully tailored to each individual. The *myvac*® approach allows the generation of a virus-based immunotherapy that encodes patient-specific mutations identified and selected by Artificial Intelligence capabilities provided by its partner NEC.
With its proprietary platform Invir.IO™, Transgene is building on its viral vector engineering expertise to design a new generation of multifunctional oncolytic viruses. Transgene has an ongoing Invir.IO™ collaboration with AstraZeneca.
Additional information about Transgene is available at: www.transgene.fr
Follow us on Twitter: @TransgeneSA

Disclaimer

This press release contains forward-looking statements, which are subject to numerous risks and uncertainties, which could cause actual results to differ materially from those anticipated. The occurrence of any of these risks could have a significant negative outcome for the Company's activities, perspectives, financial situation, results, regulatory authorities' agreement with development phases, and development. The Company's ability to commercialize its products depends on but is not limited to the following factors: positive pre-clinical data may not be predictive of human clinical results, the success of clinical studies, the ability to obtain financing and/or partnerships for product manufacturing, development and commercialization, and marketing approval by government regulatory authorities. For a discussion of risks and uncertainties which could cause the Company's actual results, financial condition, performance or achievements to differ from those contained in the forward-looking statements, please refer to the Risk Factors ("Facteurs de Risque") section of the Universal Registration Document, available on the AMF website (http://www.amf-france.org) or on Transgene's website (www.transgene.fr). Forward-looking statements speak only as of the date on which they are made, and Transgene undertakes no obligation to update these forward-looking statements, even if new information becomes available in the future.