Immunotherapy: Tollys presents new data at OTS 2022, demonstrating anti-tumor activity of TL-532

- **Results highlight specificity of TLR3-agonist TL-532, that induces lifelong anti-tumor auto-vaccination and reverses resistance to immune checkpoint inhibitors**
- **Results to be presented at 18th Congress of Oligonucleotide Therapeutics Society (OTS) in Phoenix on October 2-5, 2022**

Lyon, France, September 26, 2022 — Tollys, a biopharmaceutical company developing TL-532, the first anti-cancer immunotherapy based on a new generation of synthetic toll-like receptor 3 (TLR3) specific agonist, today announces that it will present the latest data on TL-532 at the Oligonucleotide Therapeutics Society (OTS) congress in Phoenix (Arizona, United States), on October 3rd 2022 (Poster number 30).

The new data shows the anti-tumor activity of TL-532, a 70 base pair double stranded RNA oligonucleotide. It features a well-defined homogenous structure demonstrating strict TLR3 specificity and resulting in optimal tolerance. As such, TL-532 has the potential to be the best-in-class and first-to-market TLR3 agonist.

"We're very proud to present these new results for TL-532. The new data on our compound's tolerance shown in non-human primates is especially encouraging," said Marc Bonnin, PhD, head of the discovery unit at Tollys, who will present the data at the OTS congress. "This proof of tolerance, combined with the strict TLR3 specificity, and its well described mechanism of action brings us one step closer to our goal to be first-to-market."

In the coming months, Tollys plans to accelerate the development of its TLR3 agonist candidate for systemic administration in immuno-oncology.

Key highlights from the poster
Title: '*TL-532, a novel rationally designed Toll-like receptor 3 agonist, induces tumor-specific apoptosis, immune stimulation, life-long anti-tumor auto-vaccination, and reverses resistance to immune checkpoint inhibitors*'

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- TL-532 is a druggable double stranded RNA, chemically synthetized and perfectly defined demonstrating strict TLR3 specificity, composed of blocks of poly(A:U) (Polyadenylic–polyuridylic acid) and polyI-C (Polyinosinic:polycytidylic acid)
- After intravenous-bolus injections in non-human primates, TL-532 demonstrated optimal tolerance with Maximum Tolerated Dose ≥ 280mg/kg
- In monotherapy:
  - TL-532 led to promising anti-cancer activity (Tumor Growth Inhibition (TGI) of 88%, Tumor Growth Delay (TGD) of 370%) resulting in a Complete Response (CR) rate of 35% and, interestingly, in life-long tumor auto-vaccination after consecutive rechallenges up to 30 months
  - *Ex vivo* and *in vivo* the tumor cell death by apoptosis induced by TL-532 was associated with a tumor microenvironment switch and activation of conventional Dendritic Cells (cDCs) and Cytotoxic T-Lymphocytes (CTLs) at the tumor site
- In combo-therapy:
  - TL-532, when combined with anti-PD-L1, demonstrated a remarkable ability to overcome Immune Checkpoint Inhibitors (ICI) tumor-resistance, leading to doubling of the CR rate

About TL-532

TL-532 is a chemically synthetized double stranded RNA with a well-defined homogenous structure demonstrating strict TLR3 specificity, resulting in optimal tolerance. As such, TL-532 has the potential to be the best-in-class and first-to-market TLR3 agonist. TL-532 was shown to have a triple mechanism of action inducing 1) death by apoptosis selective to cancer cells - not in normal cells -, leading to the *in-situ* release of tumor specific antigens, 2) activation of the myeloid dendritic cells of the immune system to mount a specific T-cell response against the tumor antigens and 3) a switch of the tumor microenvironment by producing cytokines and chemokines which are unfavorable to tumor development. The result is the immunogenic cell death of tumor cells, accompanied by an auto-vaccination preventing the recurrence of cancer.

About Tollys

Tollys is a biopharmaceutical company focused on cutting-edge cancer immunotherapy and on the biology and modulation of the TLR3 receptor. Tollys discovered and patented a family of new structurally-defined dsRNA sequences able to activate the TLR3 receptor. TL-532 was selected as the lead candidate for development. TL-532 is a structurally-defined double-stranded RNA; produced synthetically and highly specific to the TLR3 receptor. The specificity for the TLR3 receptor and its defined 70 base pair sequence differentiates TL-532 from all other TLR3 agonists tested to date in clinical trials. In 2021, TL-532 was named the 'best-in-class innovation of the year' by the international board of MATWIN, a European oncology innovation acceleration program.

Tollys was founded in 2015 by pharmaceutical executives and scientists from the Cancer Research Center in Lyon. Its offices and research laboratories are based in the city. The company has raised a total of €7M ($7.9M) from private investors and received a grant of €1.5M ($1.7M) from Bpifrance.

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