

PRESS RELEASE

NANOBIOTIX ANNOUNCES PLAN FOR GLOBAL PHASE III HEAD AND NECK CANCER REGISTRATION TRIAL ALONG WITH OVERALL DEVELOPMENT UPDATE

- After establishing proof-of-concept and first market approval for NBTXR3 in soft tissue sarcoma of the extremities and trunk wall, Nanobiotix is now focused on developing this product in the United States and the European Union for the treatment of head and neck cancers
- As per the plan, the Company’s resources are focused on head and neck cancers, as these indications have a high incidence, unmet medical needs, and offer a prime opportunity to demonstrate medical and economic value for NBTXR3
- The Company is also moving forward with its evaluation of NBTXR3 as a potential pillar of immuno-oncology, given positive data showing that the product may generate an immune response in patients on its own, and also increase the efficacy of immune checkpoint inhibitors in combination
- In parallel, Nanobiotix collaborators will continue to develop NBTXR3 across several additional indications including lung, esophageal, pancreatic, and others

“After the achievement of major development milestones in 2019, 2020 offers great opportunity for Nanobiotix and NBTXR3 to fulfill unmet patient needs across oncology. Given NBTXR3’s universal mode of action, our proof-of-concept in soft tissue sarcoma, and promising results from our phase I trial in head and neck cancers, we are confident that NBTXR3 activated by radiation therapy has the potential to significantly improve treatment outcomes for head and neck cancer patients. Beyond head and neck, we will continue to expand into additional indications and combination therapies. Ultimately, we aim to change the oncology treatment paradigm for millions of patients around the world.” – Laurent Levy, CEO of Nanobiotix

Paris, France; Cambridge, Massachusetts (USA); January 7, 2020 – [NANOBIOTIX](#) (Euronext : NANO – ISIN : FR0011341205 – the “Company”) today announced its global development strategy for 2020 and beyond, following proof-of-concept (POC) and European market approval for NBTXR3 in locally advanced soft tissue sarcoma of the extremities and trunk wall (Brand Name: Hensify®) in 2019. The Company will continue to prioritize its registration pathway in the US and EU for the treatment of head and neck cancers, while also working to advance the Nanobiotix immuno-oncology (I/O) program and evaluate NBTXR3 in other indications such as lung, pancreatic, esophageal, hepatocellular carcinoma (HCC), prostate, and rectal cancers. To execute this plan, Nanobiotix will focus on H&N cancers while its collaborators (i.e. [The University of Texas MD Anderson Cancer Center](#) (MD Anderson) in the US and [PharmaEngine](#) in Asia) are working on other indications.

Global Development Plan Visualization

TRIAL	STATUS	ANTICIPATED NEXT STEPS
Development in Head and Neck Moving Forward		
<i>Phase III Registration Trial for NBTXR3 in head and neck patients ineligible for cisplatin</i> TRIAL NAME: STUDY 312 Nanobiotix trial	Design completed based on last interactions with FDA and European payers (EUnetHTA)	Jan 2020 - Submission of final protocol to FDA and other global regulatory bodies
<i>Phase I and Phase I Expansion Trial for NBTXR3 in head and neck patients ineligible for cisplatin or intolerant to cetuximab</i> TRIAL NAME: Study 102/ 102 Expansion Nanobiotix trial	Phase I dose escalation completed / data reported – 19 patients Dose Expansion – 38 of 44 patients recruited	Q1 2020 - Update of dose escalation patients follow-up Mid 2020 - First expansion phase data on efficacy and safety of dose expansion
<i>Phase I/II Trial for NBTXR3 combined with cisplatin for head and neck patients</i> TRIAL NAME: PEP503-HN-1002 PharmaEngine trial	3 rd dose level recruiting	H2 2020- Last patient in for 5 th (last) dose level
Immuno-Oncology Program with NBTXR3		

<p><i>Phase I Basket Trial for NBTXR3 combined with pembrolizumab or nivolumab in H&N, lung metastasis, liver metastasis patients</i> TRIAL NAME: Study 1100 Nanobiotix trial</p>	<p>First patients treated Protocol extended to include patients with lung and liver metastases from any primary tumor. Recruitment ongoing</p>	<p>Mid-year 2020 - first data reported</p>
<p><i>Phase II Trial of reirradiation with NBTXR3 combined with anti-PD-1/L1 for inoperable, locally advanced HN cancer</i></p> <p><i>Phase II Trial for NBTXR3 combined with anti-PD-1 or anti-PD-L1 in Stage IV lung cancer</i></p> <p><i>Phase I Trial for NBTXR3 combined with anti-CTLA4 and anti-PD-1 or PD-L1 in patients with advanced solid tumors and lung or liver mets</i></p> <p><i>Phase II Trial for NBTXR3 for recurrent/metastatic HNSCC patients with limited PD-L1 expression</i></p> <p>MD Anderson trials</p>	<p>Final stage of protocol development</p>	<p>Q2-Q3 2020 - Submission of protocols to FDA</p>
<p>Development Across Other Indications</p>		
<p><i>Phase I Trial for NBTXR3 in hepatocellular carcinoma and liver metastasis patients</i> TRIAL NAME: Study 103 Nanobiotix trial</p>	<p>Recruitment of the last patient at the 5th (last) dose level (one patient left to be treated)</p>	<p>Q1 2020 - Update on results</p>
<p><i>Phase I Trial for NBTXR3 in prostate cancer patients</i> TRIAL NAME: Study 104 Nanobiotix trial</p>	<p>2nd dose level recruiting</p>	<p>Q4 2020 - Update on results</p>
<p><i>Phase I Trial for NBTXR3 in pancreatic cancer</i></p> <p><i>Phase I Trial for NBTXR3 in lung cancer patients in need of reirradiation</i></p> <p><i>Phase I Trial for NBTXR3 in esophageal cancer patients</i></p> <p>MD Anderson trials</p>	<p>Pancreas – Regulatory process ongoing</p> <p>Lung re-irradiation / Esophageal – Submission of final protocol to regulatory process</p>	<p>Q2 2020 - First patient treated in pancreas</p> <p>Q3 2020 - Lung re-irradiation / Esophageal first patient treated</p>
<p><i>Phase I/II Trial for NBTXR3 combined with chemotherapy in rectal cancer patients</i> TRIAL NAME: PEP503-RC-1001 PharmaEngine trial</p>	<p>4th (last) dose level recruiting</p>	<p>H2 2020 - Report phase I results</p>
<p>Next Steps in Soft Tissue Sarcoma</p>		
<p><i>Phase III Trial for NBTXR3 in soft tissue sarcoma of the extremities and trunk wall patients</i> TRIAL NAME: Act.In.Sarc Nanobiotix trial</p>	<p>Trial completed / data reported</p>	<p>H2 2020- Further follow up of the patients</p>
<p><i>Post-Approval Trial for NBTXR3 in soft tissue sarcoma of the extremities and trunk wall patients</i> TRIAL NAME: TBD Nanobiotix trial</p>	<p>Design established (100 patients)</p>	<p>H2 2020 - Trial authorization by the relevant regulatory bodies expected</p>

Development in Head and Neck Moving Forward

There are approximately 700,000 new head and neck cancer patients worldwide each year—300,000 of these patients reside in the US and the European Union (EU) ¹. Of these patients at diagnosis, 90% suffer from local disease and the remaining 10% have metastatic disease. 70-80% of all Head and Neck patients will receive radiation therapy, but significant unmet medical needs remain regarding either local control, systemic control, toxicity, or some combination of the three². This is especially challenging for patients ineligible for platinum-

¹ Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R. L., Torre, L. A., & Jemal, A. (2018). Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: a cancer journal for clinicians, 68(6), 394-424.

² Delaney, G., Jacob, S., Featherstone, C., & Barton, M. (2005). The role of radiotherapy in cancer treatment: estimating optimal utilization from a review of

based chemotherapy (cisplatin).

Global Registration Trial for NBTXR3 in Head and Neck Patients Ineligible for Cisplatin

As previously announced, Nanobiotix has begun interacting with the US Food and Drug Administration (FDA) on its regulatory pathway and met with the agency in October 2019 to refine the design elements of Study 312—a phase III investigator's choice, dual-arm, randomized (1:1) global registration trial including elderly head and neck cancer patients who are ineligible for platinum-based chemotherapy (cisplatin).

More than half of head and neck cancers include large primary tumors which may invade underlying structures and/or spread to regional nodes. Treatment of these locally advanced forms of the disease ordinarily requires aggressive, concerted measures. Due to potential comorbidities and toxicities associated with treatment, elderly and frail patients suffer from limited therapeutic options. Study 312 aims to target the unmet needs of this population.

Patients in the control arm will receive radiation therapy with or without cetuximab (investigator's choice), and patients in the treatment arm will receive NBTXR3 activated by radiation therapy with or without cetuximab (investigator's choice). The trial will recruit around 500 patients, the initial readout will be based on event-driven progression-free survival (PFS), and the final readout will be based on PFS and overall survival (OS). The study will be powered to demonstrate the OS superiority of NBTXR3 activated by radiation therapy. In addition, quality of life (QoL) will be measured as a key secondary outcome.

The Company's next step is to submit the final trial design to FDA and other global regulatory bodies within the month. A futility analysis is expected 18 months after the first patient is randomized, the interim analysis for PFS superiority is expected at 24-30 months, and final analysis will report on PFS and OS. In the event of favorable data from the initial readout, Nanobiotix plans to apply for conditional registration in the US.

Confirming Efficacy with Phase I (Study 102) Expansion

Nanobiotix has already [reported promising early signs of efficacy for patients with head and neck cancer through Study 102³](#)—a phase I trial of NBTXR3 nanoparticles activated by intensity-modulated radiation therapy (IMRT) in the treatment of advanced-stage head and neck squamous cell carcinoma (HNSCC). The patient population for Study 102 includes elderly and frail patients who are ineligible for cisplatin or intolerant to cetuximab.

As a result of this report, the Company launched an expansion cohort with 44 additional patients to strengthen preliminary efficacy data. Recruitment for the expansion cohort has reached 38 of 44 patients and the initial readout is expected by mid-2020. Depending on the favorability of the final expansion phase data, the Company may seek to expedite the regulatory process in the EU.

Additional Development in Head and Neck with Collaborators

To serve as many head and neck cancer patients as possible and as mentioned above, the Company has engaged in ongoing clinical collaborations with MD Anderson in the US and PharmaEngine in Asia.

The Company is collaborating with MD Anderson on nine (9) clinical trials across multiple indications, three (3) of which are expected to evaluate head and neck cancer in patient populations outside of the trials Nanobiotix is executing alone (e.g. borderline resectable, inoperable and neck cancer (re-irradiation), etc.)

The head and neck portion of the PharmaEngine collaboration features a phase I/II trial designed to evaluate the safety and feasibility of NBTXR3 activated by radiation therapy in combination with cisplatin for patients with locally advanced cancer of the oral cavity and oropharynx.

Immuno-Oncology Program with NBTXR3

In addition to the main program evaluating the use of NBTXR3 as a single agent, and as mentioned above, Nanobiotix is running a global I/O program. For the past decade, there has been excitement around the ability of I/O agents (immune checkpoint inhibitors or ICIs) to activate the immune system to attack tumor cells.

evidence-based clinical guidelines. Cancer: Interdisciplinary International Journal of the American Cancer Society, 104(6), 1129-1137.

³ See Company's press release dated September 20, 2019.

However, many tumors exhibit little or no response to these therapies and are considered “cold,” due to a lack of immunogenicity. As a result, a small fraction of patients realize the benefits of ICIs⁴.

The Nanobiotix I/O program is comprised of [Study 1100](#)—an I/O basket trial in the US—a [pre-clinical collaboration with MD Anderson](#), and a [large-scale clinical collaboration with MD Anderson](#) including several trials. The program aims to evaluate the potential for NBTXR3 activated by radiation therapy in combination with immune checkpoint inhibitors to convert checkpoint inhibitor non-responders into responders; provide better local and systemic control; and increase survival.

Study 1100 evaluates NBTXR3 in combination with anti-PD-1, includes three cohorts, is recruiting and has four activated sites. The head and neck cohort includes patients with locoregional recurrent (LRR) or recurrent and metastatic (R/M) head and neck squamous cell carcinoma (HNSCC). The remaining cohorts include patients with lung and liver metastasis. While cohorts two and three initially called for liver and lung metastasis patients with HNSCC or non-small cell lung cancer (NSCLC) as the primary tumor, the protocol was recently expanded to include patients with lung and liver metastases from any primary cancer eligible for anti-PD-1 therapy (e.g. metastatic melanoma, metastatic NSCLC, metastatic small cell lung cancer, metastatic HNSCC, metastatic cervical cancer, metastatic urothelial cancer, metastatic gastric cancer, metastatic Merkel cell carcinoma, and metastatic microsatellite-high or mismatch repair deficient cancers, etc.).

The I/O portion of the Nanobiotix clinical collaboration with MD Anderson plans to evaluate NBTXR3 activated by radiation therapy in combination with immune checkpoint inhibitors (anti-PD-1, anti-PD-L1, and anti-CTLA-4) in patients with locally advanced and metastatic lung cancer.

Development Across Other Indications

[Study 103](#)—evaluating NBTXR3 activated by radiation therapy for the treatment of patients with HCC and liver metastasis—is recruiting the last patient at the 5th (last) dose level and final results are expected in the first quarter of this year.

Furthermore, the Company is evaluating NBTXR3 activated by radiation therapy for patients with prostate cancer through Study 104; for patients with naïve esophageal cancer, and pancreatic cancer through the clinical collaboration with MD Anderson; and in combination with chemotherapy for patients with rectal cancers through the PharmaEngine collaboration. Two additional trials with MD Anderson are under discussion.

Next Steps in Soft Tissue Sarcoma

Given [positive phase III results](#) and [market approval](#) for NBTXR3 in Europe for the treatment of soft tissue sarcoma of the extremities and trunk wall, the Company is currently preparing a post-registrational trial that will continue evaluating safety and efficacy, and will provide patients with access to the product. Around 100 patients should be recruited for this trial, which is expected to launch in the second half of 2020.

About NBTXR3

NBTXR3 is a first-in-class product designed to destroy tumors through physical cell death when activated by radiotherapy. NBTXR3 has a high degree of biocompatibility, requires one single administration before the first radiotherapy treatment session, and has the ability to fit into current worldwide standards of radiation care. The physical mode of action of NBTXR3 makes it applicable across solid tumors such as lung, prostate, liver, glioblastoma, and breast cancers.

About NANOBIOTIX: www.nanobiotix.com

Incorporated in 2003, Nanobiotix is a leading, clinical-stage nanomedicine company pioneering new approaches to significantly change patient outcomes by bringing nanophysics to the heart of the cell.

The Nanobiotix philosophy is rooted in designing pioneering, physical-based approaches to bring highly effective and generalized solutions to address unmet medical needs and challenges.

⁴ Spigel, David R., et al. (2015): 8009-8009. ; Ferris, Robert L., et al. *New England Journal of Medicine* 375.19 (2016): 1856-1867. ; Borghaei, Hossein, et al. *New England Journal of Medicine* 373.17 (2015): 1627-1639. ; Garon, Edward B., et al. *New England Journal of Medicine* 372.21 (2015): 2018-2028. ; Seiwert, Tanguy Y., et al. *The Lancet Oncology* 17.7 (2016): 956-965. ; Antonia, Scott J., et al. *New England Journal of Medicine* 377.20 (2017): 1919-1929.

Nanobiotix's first-in-class, proprietary lead technology, NBTXR3, aims to expand radiotherapy benefits for millions of cancer patients. Nanobiotix's Immuno-Oncology program has the potential to bring a new dimension to cancer immunotherapies.

Nanobiotix is listed on the regulated market of Euronext in Paris (Euronext: NANO / ISIN: FR0011341205; Bloomberg: NANO: FP). The Company's headquarters are in Paris, France, with a U.S. affiliate in Cambridge, MA, and European affiliates in France, Spain and Germany

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