



## TransCode Therapeutics Announces Strategic Expansion of its Product Portfolio

April 26, 2023

### Submits Provisional Patent Application entitled “Nanoparticles Comprising Payloads and Their In Vivo Delivery.”

BOSTON, April 26, 2023 (GLOBE NEWSWIRE) -- TransCode Therapeutics, Inc. (NASDAQ: RNAZ), a leading clinical-stage oncology company committed to using its proprietary platform delivery system to defeat cancer, today announced a strategic expansion of its diverse product portfolio. New capabilities for TransCode's TTX delivery platform are embodied in the new provisional patent application entitled, “ *Nanoparticles Comprising Payloads and Their In Vivo Delivery*” (U.S. patent application 63/456,602 or the ‘602 application).

The therapeutic potential of RNA in oncology has remained an unrealized promise due to what is believed to be the difficulty in safely and effectively delivering oligonucleotides to tumors. Despite well documented targets that have been shown to be important for cancer onset, progression and recurrence, delivery mechanisms have fallen short in delivering RNA therapeutic payloads due to systemic inflammation, toxicity and the inability to efficiently reach their targets. Additionally, targeted delivery of therapeutic agents outside of RNA approaches has also remained a significant challenge for treatment of many other diseases besides cancer.

The technology disclosed in the ‘602 application represents an expansion of TransCode's therapeutic delivery platform to include applicability to gene editing by repairing and/or replacement of genes using CRISPR technology and cancer vaccines using messenger RNA (mRNA).

TransCode's CEO, Michael Dudley, said, “Our scientists have been working to expand the potential of our nanoparticle delivery system for some time in order to overcome the challenges of targeted delivery of therapies in oncology. We believe that by expanding our delivery platform and our resulting product portfolio including CRISPR, mRNA vaccines and potentially other targeted therapies outside of RNA positions the company as a platform delivery company.”

The filing of the ‘602 application directly supports TransCode's goal of deploying the right therapy for individual cancer patients. If issued, the proposed patent would join other granted patents controlled by TransCode, including US 9,629,812 and EP 2 961 386. As part of its overall patent strategy, TransCode is actively pursuing intellectual property protection for additional components of its discovery engine built around its TTX delivery platform. The TTX platform currently comprises a hemodynamic and metabolic targeting delivery system suitable for deploying a variety of therapeutic candidates including RNAi, pattern recognition receptors, mRNA, gene repair/replacement and radiolabeled therapeutics.

Dudley added, “While our major focus is on advancing TTX-MC138, our lead therapeutic candidate targeting miR-10b, shown to be a master regulator of metastatic cell viability in a number of solid tumor types, we are excited by our platform's expanded potential to be used more broadly for a variety of therapeutic approaches to relevant documented targets responsible for cancer onset, progression and recurrence. The approach represented by the ‘602 application, if successful in development, could expand our ability to deploy the right therapy for individual patients using the therapeutic capabilities our platform offers.”

### About TransCode Therapeutics

TransCode is a leading oncology company created on the belief that cancer can be defeated using targeted delivery of therapeutics. The Company has created a platform of drug candidates designed to target a variety of tumor types with the objective of significantly improving patient outcomes. The Company's lead therapeutic candidate, TTX-MC138, is focused on treating metastatic cancer, which is believed to cause approximately 90% of all cancer deaths totaling over nine million per year worldwide. The Company believes that TTX-MC138 has the potential to produce regression without recurrence in a range of cancers, including breast, pancreatic, ovarian and colon cancer, glioblastomas and others. Two of the Company's other drug candidates, TTX-siPDL1 and TTX-siLIN28b, focus on treating tumors by targeting PD-L1 and Lin28b, respectively. TransCode also has three cancer-agnostic programs: TTX-RIGA, an RNA-based agonist of the retinoic acid-inducible gene 1 designed to drive an immune response in the tumor microenvironment; TTX-CRISPR, a CRISPR/Cas9-based therapy platform for the repair or elimination of cancer-causing genes inside tumor cells; and TTX-mRNA, an mRNA-based platform for the development of cancer vaccines designed to activate cytotoxic immune responses against tumor cells.

### Forward-looking Statements

This release contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, including, without limitation, statements concerning the potential of TransCode's TTX platform, statements concerning the likelihood of issuance of any patent application and the benefits from issued patents, statements concerning the effects any of our treatments may deliver in the future and whether they will successfully deliver certain outcomes, statements concerning preclinical studies and the outcomes of those studies, statements about what early trials may indicate about the effects of any of our drug candidates, statements about TransCode's goals to advance its drug portfolio, and statements concerning TransCode's development programs and its TTX technology platform generally. Any forward-looking statements in this press release are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: the risk associated with drug discovery and development; the risk that the results of our planned clinical trials will not be consistent with our pre-clinical studies or expectations; risks associated with the timing and outcome of TransCode's planned regulatory submissions; risks associated with TransCode's planned clinical trials for its product candidates; risks associated with obtaining, maintaining and protecting intellectual property; risks associated with TransCode's ability to enforce its patents against infringers and defend its patent portfolio against challenges from third parties; the risk of competition from other companies developing products for similar uses; risks associated with TransCode's financial condition and its need to obtain additional funding to support its business activities, including TransCode's ability to continue as a going concern; risks associated with TransCode's dependence on third parties; and risks associated with the COVID-19 coronavirus. For a discussion of these and other risks and

uncertainties, and other important factors, any of which could cause TransCode's actual results to differ from those contained in or implied by the forward-looking statements, see the section entitled "Risk Factors" in TransCode's Annual Report on Form 10-K for the period ended December 31, 2022, as well as discussions of potential risks, uncertainties and other important factors in any subsequent TransCode filings with the Securities and Exchange Commission. All information in this press release is as of the date of the release; TransCode undertakes no duty to update this information unless required by law.

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