



## TransCode Therapeutics Announces Expansion of Global RNA Oncology Patent Portfolio

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BOSTON, July 11, 2022 (GLOBE NEWSWIRE) -- TransCode Therapeutics, Inc. (NASDAQ: RNAZ), the RNA oncology company committed to defeating cancer using RNA therapeutics, today announced extension of its intellectual property portfolio through the filing of a provisional patent application (US 63/356,449) entitled *RADIOLABELED NANOPARTICLES AND TEMPLATE DIRECTED IMMUNOMODULATION FOR CANCER THERAPY* (the '449 application). TransCode expects to convert the '449 application into an international application in approximately one year.

The '449 application is directed at introducing radiotherapy into the delivery of nanoparticles carrying RNA-based agonist precursors of pattern recognition receptors (PRR). Radiotherapy can be deployed for use in cancer in either a systemic or focused manner, potentially inducing tumor cells to release tumor-derived neoantigens along with activation of the RIG-I signaling pathway. Once inside a tumor cell, as described in the '449 application and in TransCode's preclinical testing, the nanoparticle carrying the selected PRR-activating oligonucleotide encounters a microRNA specific to that tumor, activating a type I interferon-driven immune response. The resulting immune response combined with tumor-derived antigens from the radiation may have the potential to reengage the patient's immune system and deliver synergistic therapeutic efficacy.

TransCode's CEO, Michael Dudley, said, "We believe that by combining radiotherapy with RIG-I activation, this technology could become an important approach to how we potentially treat cancer. Activating the RIG-I mechanism has the potential of building immunological memory and giving patients' immune systems the ability to reject tumors as though they were foreign bodies."

The filing of the '449 application supports TransCode's goals of deploying the right therapy for individual cancer patients. TransCode's intellectual property portfolio comprises several patent families representing issued patents, pending patent applications and new provisional patent applications. If issued, the proposed patent would join a number of other granted patents TransCode owns or licenses, including US 9,629,812 and EP 2 961 386. As part of its overall patent strategy, TransCode pursues intellectual property protection for additional components of its discovery engine built around its TTX delivery platform. The TTX platform consists of a hemodynamic and metabolic tumor targeting delivery system designed to enable deployment of a variety of RNA therapeutic candidates including RNAi, pattern recognition receptors, messenger RNA, gene repair/replacement and radiolabeled therapeutics.

Dudley added, "While we are focused on advancing TTX-MC138, our lead therapeutic candidate targeting microRNA-10b, into first-in-human studies, we are excited by our platform's potential to be used more broadly in a variety of RNA approaches targeting genes responsible for cancer. The approach represented by the '449 application filing, if successful in development, could expand our ability to deploy multimodal therapy for individual patients based on the versatility our platform offers."

### About TransCode Therapeutics

TransCode is an RNA oncology company created on the belief that cancer can be defeated using RNA therapeutics. The Company is developing a platform of therapeutic 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. The Company is also developing other therapeutic candidates and diagnostic products related to its planned therapeutics business.

### 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 therapeutic potential of TransCode's TTX platform and product candidates, including the therapeutic approach described in the '449 application, and statements concerning TransCode's intellectual property portfolio and whether the patent applications and provisional patent applications contained therein will issue. 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 year ended December 31, 2021, 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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