

RADIOPHARM THERANOSTICS EXPANDS SUPPLY AGREEMENT WITH TERTHERA FOR TERBIUM-161 ISOTOPE USE IN PROSTATE CANCER

Agreement will supply Tb-161 for RAD 402, a potential next generation radiopharmaceutical for treatment of advanced prostate cancer

SYDNEY, August 24, 2023 - Radiopharm Theranostics (ASX:RAD, "Radiopharm" or the "Company"), a developer of radiopharmaceutical products for both diagnostic and therapeutic uses, is pleased to announce an expanded agreement with TerThera to supply the Company with Terbium-161 (Tb-161).

The Tb-161 isotope will be linked to a proprietary monoclonal antibody (mAb) to form RAD 402, a radiotherapeutic that is being developed by Radiopharm to target KLK3 expression. KLK3 is highly expressed in prostate cancer cells but has limited expression in healthy tissue. Radiopharm will initiate a Phase I dose escalating trial evaluating the safety and efficacy of RAD 402 in patients with advanced prostate cancer, during the second half of 2024.

"We are excited about bringing this highly differentiated technology (Tb161-RAD402) to patients with advanced prostate cancer. Until now, Prostate-Specific Membrane Antigen (PSMA) targeting agents represent the only theranostic option in the market or in development. RAD has decided to leverage a different mechanism of action by targeting KLK3, and the combination with Tb-161 is unique and highly promising" said Riccardo Canevari, CEO and Managing Director of Radiopharm Theranostics. "Tb-161 has shown superior preclinical results in comparison with Lu-177, which may translate into higher absorbed doses in micrometastatic disease, with less kidney toxicity. This novel radiopharmaceutical has the potential to become the first KLK-based theranostic option for individuals with advanced prostate cancer. We signed a first agreement with TerThera in April 2023 for RAD 602 in brain cancer and now we have decided to amplify, developing a second molecule linked with Terbium-161. We are the first company that has access to Terbium-161 for the clinical development of two different molecules. This is a really exciting innovation!"

Terbium-161 is a highly promising isotope for targeted cancer treatment due to its unique characteristics of radiation emitted, which includes both Auger electrons and short-range beta particles. The beta radiation travels only a few millimeters and Auger electron emission has a higher linear energy transfer that travels less than the width of a single cell. Tb-161 has shown excellent bioequivalence presenting a biodistribution comparable to currently used radiolanthanides and is potentially superior to Lutetium-177 (Lu-177) due to Auger effect increasing potency and efficacy in selectively destroying tumor cells while leaving surrounding healthy tissue largely unaffected.^{1,2}

"TerThera is positioned to meet the growing global demand for radioisotopes in oncology by providing a highly sustainable and uninterrupted supply of Terbium-161, a radionuclide that could potentially be positioned right in between conventional Beta- energy emitting

therapeutic radionuclides and Alpha energy emitting therapeutic radionuclides. The properties of Tb-161 should make it one of the radionuclides of choice within the current and future theranostic landscape” said Philippe van Overeem, CEO of TerThera. “We are proud to partner with Radiopharm Theranostics to supply their innovative radioligand pipeline and to help enable development of a new generation of therapeutic radiopharmaceuticals.”

The costs associated with the purchase of Tb-161 are not material in relation to RAD’s annual budgeted expenditure and will be met from existing funds. The initial order with TerThera is expected to occur during Q4 2023. The effective date of the supply agreement is 28 August 2023 and there are no material preconditions. The supply agreement is for an initial period of 3 years and may be extended for additional two years, unless agreed otherwise by either party. Cancellation provisions are at industry standard rates. Radiopharm will own all data generated and all inventions and discoveries made or conceived from its clinical trials.

About TerThera BV

TerThera is a radionuclide production focussed company based in The Netherlands. The founders and staff of TerThera have decades of experience in the nuclear medicine industry and are giving their full focus on the production of the innovative radionuclide Terbium-161 (Tb-161). TerThera is building a global platform to meet the growing demand for radionuclides in oncology and nuclear medicine. **About Radiopharm Theranostics**

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Radiopharm Theranostics is a clinical stage radiotherapeutics company developing a world-class platform of innovative radiopharmaceutical products for diagnostic and therapeutic applications in areas of high unmet medical need. Radiopharm has been listed on ASX (RAD) since November 2021. The company has a pipeline of six distinct and highly differentiated platform technologies spanning peptides, small molecules and monoclonal antibodies for use in cancer, in pre-clinical and clinical stages of development from some of the world’s leading universities and institutes. The pipeline has been built based on the potential to be first to market or best in class. The clinical program includes one Phase II and three Phase I trials in a variety of solid tumour cancers including breast, kidney and brain. Learn more at RadiopharmTheranostics.com.

Authorised on behalf of the Radiopharm Theranostics board of directors by Executive Chairman Paul Hopper.

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References

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- 2 Müller C, Umbricht C, Gracheva N, Tschan V, Pellegrini G, Bernhardt P, et al. *Eur J Nucl Med Mol Imaging.* 2019;46(9):1919–30.