

ITM Executes License Agreement to Obtain Worldwide Exclusive License for the Clinical Development and Commercialization of Folate-Based Radiotheranostics

- ITM secures first-in-class folate precursors for radiolabeling to advance clinical and commercial development of its folate-based pipeline candidates
- Licensing agreement broadens indication areas to include all folate-receptor-positive malignant tumors

Garching / Munich Germany, December 14, 2023 – [ITM Isotope Technologies Munich SE \(ITM\)](#), a leading radiopharmaceutical biotech company, today announced that it has executed its [license agreement](#) with the life science business of Merck KGaA, Darmstadt, Germany, to obtain a worldwide exclusive license for the clinical development and commercialization of radiolabeled folate derivatives for therapeutic and diagnostic applications against folate-receptor-positive malignant tumors. Under the terms of the agreement, the company will supply ITM with its first-in-class folate precursors for radiolabeling, which ITM will use to advance the clinical and potential future commercial development of its folate receptor-targeting radiopharmaceutical pipeline candidates. The worldwide exclusive license has been expanded to all folate-receptor-positive malignant tumors. The patented folate precursors provided to ITM by Merck KGaA, Darmstadt, Germany was originally developed by scientists at the company, and the Paul Scherrer Institute (PSI), a leading Swiss research institute in the natural and engineering sciences. Financial terms of the agreement were not disclosed.

ITM is currently developing ITM-52, a radiopharmaceutical candidate comprised of a folate receptor α (FR α) targeting moiety coupled with a medical isotope, which the company intends to advance to phase I clinical testing. ITM's theranostic pairing, ITM-55D/ITM-52 is designed to address current limitations in both the screening and treatment paradigm.

Folate receptors are industry-validated targets that are being addressed in cancer diagnosis and treatment paradigms, particularly for use in hard-to-treat solid tumors including indications such as ovarian cancers.

“Exercising and expanding our licensing agreement with Merck KGaA, Darmstadt, Germany will greatly support our efforts to rapidly progress our folate-receptor targeting candidate toward phase I clinical evaluation,” commented **Steffen Schuster, CEO of ITM**. *“As we continue striving to meet the needs of patients living with an array of life-threatening cancers, this agreement and collaboration will be invaluable as it expands the breadth of indications we can address.”*

“The folate receptor has long been known as an interesting tumor target, however, the potential of folate radioconjugates for imaging and therapy of cancer has not yet been sufficiently exploited in the clinic. As scientists at the Paul Scherrer Institute, we welcome the development of folate radioconjugates for clinical use as an important step towards offering a benefit especially to patients with ovarian cancer, who have a notoriously poor prognosis,” added **Cristina Müller, PhD, Research Group Leader at the PSI**.

About Folate and Folate-based Radiotheranostics

Folate is a B vitamin that is critical to cell functions including DNA synthesis and cell metabolism and repair.¹ Cancer cells can overtake the folate metabolic process, an activity that is widely recognized as a key indicator of cancer.² Folate derivatives retain their receptor binding properties when conjugated to pharmaceuticals and have therefore shown promise as anti-cancer agents. Folate receptor α (FR α) in particular, is an attractive diagnostic and therapeutic target for use in Radiopharmaceutical Therapy

¹ Zarou MM, Vazquez A, Helgason GV. Folate metabolism: a re-emerging therapeutic target in haematological cancers. *Leukemia*. 2021;35(6):1539-1551. doi:10.1038/s41375-021-01189-2

² Shuvalov O, Petukhov A, Daks A, Fedarova O, Vasileva E, Barlev NA. One-carbon metabolism and nucleotide biosynthesis as attractive targets for anticancer therapy. *Oncotarget*. 2017;8(14):23955-23977. doi:10.18632/oncotarget.15053

(RPT) for solid tumors. While it remains minimally detected in healthy tissue, it is overexpressed in several solid tumor types³, including ovarian, lung, kidney, and breast cancer. For diagnostic applications, medical radioisotopes with shorter half-lives are combined with the folate receptor-targeting molecule. For targeted treatment, folate derivatives are complexed with medical radioisotopes with long half-lives. The radiopharmaceutical is administered via injection and binds to corresponding receptors on the surface of tumor tissue.

About Radiopharmaceutical Therapy

Radiopharmaceutical Therapy (RPT) is an emerging class of targeted cancer therapeutics, which seeks to deliver radiation directly to the tumor while minimizing radiation exposure to normal tissue. Targeted radiopharmaceuticals are created by linking a therapeutic radioisotope to a targeting molecule (e.g., peptide, antibody, small molecule) that can precisely recognize tumor cells and bind to tumor-specific characteristics, like receptors on the tumor cell surface. As a result, the radioisotope accumulates at the tumor site and decays, releasing a small amount of ionizing radiation, with the goal of destroying tumor tissue. The precise localization enables targeted treatment with potentially minimal impact to healthy surrounding tissue.

About ITM Isotope Technologies Munich SE

ITM, a leading radiopharmaceutical biotech company, is dedicated to providing a new generation of radiomolecular precision therapeutics and diagnostics (“theranostics”) for hard-to-treat tumors. We aim to meet the needs of cancer patients, clinicians, and our partners through excellence in development, production, and global supply. With improved patient benefit as the driving principle for all we do, ITM advances a broad precision oncology pipeline, including two phase III studies, combining the company’s high-quality radioisotopes with a range of targeting molecules. By leveraging our nearly two decades of pioneering radiopharma expertise, central industry position and established global network, ITM strives to provide patients with more effective targeted treatment to improve clinical outcome and quality of life.

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³ Scaranti M, Cojocaru E, Banerjee S, Banerji U. Exploiting the folate receptor α in oncology. *Nat Rev Clin Oncol*. 2020;17(6):349-359. doi:10.1038/s41571-020-0339-5