



Bayer AG
Communications
51368 Leverkusen
Germany
Phone +49 214 30-1
www.bayer.com/en/media

News Release

Not intended for U.S. and UK Media

Bayer starts Phase I study with novel targeted radionuclide therapy ^{225}Ac -PSMA-Trillium in advanced metastatic prostate cancer

- ^{225}Ac -PSMA-Trillium (BAY 3563254) is an investigational next-generation PSMA-targeted alpha therapy with potential to treat patients with advanced metastatic prostate cancer
 - Prostate cancer is the second most commonly diagnosed cancer in men¹, with less than three years median survival among metastatic patients, who have developed castration-resistance²
 - Bayer remains committed to advancing medical innovations for patients across all stages of prostate cancer
-

Berlin, Germany, May 15, 2024 – Bayer announced today initiation of dosing in a Phase I first-in-human clinical study with ^{225}Ac -PSMA-Trillium (BAY 3563254), a next-generation targeted alpha therapy. The investigational candidate, labeled with actinium-225 and comprising a novel PSMA (prostate-specific membrane antigen) -targeting small molecule with a customized albumin-binding moiety, is designed to improve therapeutic efficacy and reduce side effects in normal organs such as salivary glands. The dose-escalation study ([NCT06217822](https://clinicaltrials.gov/ct2/show/study/NCT06217822)) will evaluate the safety, tolerability and efficacy of ^{225}Ac -PSMA-Trillium in patients with advanced metastatic castration resistant prostate cancer (mCRPC).

“Despite recent advances in the treatment landscape for prostate cancer, there is still a high unmet need for novel precision therapy options to improve outcomes for patients with metastatic castration-resistant prostate cancer,” said Fred Saad, MD, FRCS, Professor and Chairman of Surgery at University of Montreal and Director of Genitourinary Oncology at University of Montreal Hospital Center (CHUM), Canada. “ ^{225}Ac -PSMA-Trillium is a novel approach, which could provide a new treatment to address this unmet need in mCRPC.”

“Targeted radionuclide therapy is a strategic pillar of precision oncology at Bayer, holding the promise to shift the treatment paradigm for patients, including those whose disease has developed resistance to other treatments,” said Dominik Ruettinger, M.D., Ph.D., Head of Research and Early Development for Oncology at Bayer. “We are excited to announce initiation of the Phase I and dosing of the first patient with ²²⁵Ac-PSMA-Trillium. With its unique design, we believe it could offer a meaningful benefit for patients with metastatic prostate cancer, and we look forward to advancing the program through clinical development.”

Prostate cancer is the second most commonly diagnosed cancer in men¹ and a key area of focus at Bayer. Despite significant advances in the last decade, mCRPC remains a deadly disease with a median survival of about 31 months.² Bayer remains committed to advancing medical innovations for patients across all stages of prostate cancer. The company’s franchise includes two products on the market (Nubeqa™ and Xofigo™) and several compounds in development, including ²²⁵Ac-pelgifatamab (BAY 3546828), an actinium-225-labeled PSMA-targeted antibody conjugate, in Phase I.

In April, Bayer introduced ²²⁵Ac-PSMA-Trillium during the New Drugs on the Horizon session at the AACR (American Association of Cancer Research) Annual Meeting.³ Along with preclinical in vitro and in vivo characterization, the results were presented for a Phase 0 clinical imaging and dosimetry study conducted in participants with prostate cancer.

About Targeted Alpha Therapy

Targeted alpha therapy is an emerging class of radionuclide therapy that can be used against a variety of tumors. It delivers alpha particle radiation directly to the tumor inside the body, either via its bone-seeking property (radium-223) or by combining alpha radionuclides, such as actinium-225, with specific targeting moieties. Compared to beta particles, alpha particles deposit highly ionizing radiation over a short range. This localized delivery of the radioactive payload induces difficult to repair double-strand DNA breaks in tumor cells; damage that can cause cell cycle arrest or cell death. At the same time, because the energy does not travel very far, there is a potential for reduced damage to nearby normal tissues.⁴⁻⁶ Xofigo™ (radium-223 dichloride, radium-223) is the first approved targeted alpha therapy proven to extend the lives of men with metastatic

castration-resistant prostate cancer (mCRPC) with bone metastases and the first approved targeted radionuclide therapy for prostate cancer.

About Bayer

Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. In line with its mission, “Health for all, Hunger for none,” the company’s products and services are designed to help people and the planet thrive by supporting efforts to master the major challenges presented by a growing and aging global population. Bayer is committed to driving sustainable development and generating a positive impact with its businesses. At the same time, the Group aims to increase its earning power and create value through innovation and growth. The Bayer brand stands for trust, reliability and quality throughout the world. In fiscal 2023, the Group employed around 100,000 people and had sales of 47.6 billion euros. R&D expenses before special items amounted to 5.8 billion euros. For more information, go to www.bayer.com.

References:

1. GLOBOCAN. World fact sheet. 2022. Available at: <https://gco.iarc.who.int/media/globocan/factsheets/populations/900-world-fact-sheet.pdf>. Accessed March 2024.
2. Amit D Raval et al. Prediction model for real-world survival in men with castration-resistant prostate cancer and bone metastases in the United States: A real-world database study. JCO Oncol Pract 19, 507-507 (2023).
3. Zitzmann-Kolbe S, et al. Presented at: American Association of Clinical Research Annual Meeting; April 5-10, 2024; San Diego, CA, USA. Abstract ND09.
4. Parker C, et al. JAMA Oncol. 2018;4(12):1765-1772.
5. Tafreshi NK, et al. Molecules. 2019;24(23):4314.
6. Hagemann UB, et al. Cancer Biother Radiopharm. 2020;35(7):497-510.

Contact for media inquiries:

Julia Schulze, phone +49 175 5866 432

Email: <mailto:julia.schulze@bayer.com>

Contact for investor inquiries:

Bayer Investor Relations Team, phone +49 214 30-72704

Email: ir@bayer.com

www.bayer.com/en/investors/ir-team

Find more information at www.pharma.bayer.com

jds (2024-0083E)

Forward-Looking Statements

This release may contain forward-looking statements based on current assumptions and forecasts made by Bayer management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports which are available on the Bayer website at www.bayer.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.