



ASX ANNOUNCEMENT

3 October 2023

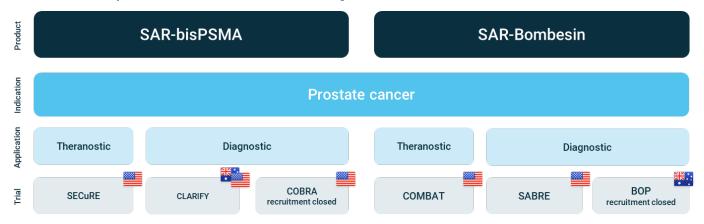
First patient treated with Cu-67 SAR-Bombesin in theranostic prostate cancer trial

Clarity Pharmaceuticals (ASX: CU6) ("Clarity"), a clinical-stage radiopharmaceutical company with a mission to develop next-generation products that improve treatment outcomes for children and adults with cancer, is pleased to announce the dosing of the first patient in its theranostic ⁶⁴Cu/⁶⁷Cu SAR-Bombesin Phase I/II trial in metastatic castrate resistant prostate cancer (mCRPC). No issues were observed during the administration of 6GBq of ⁶⁷Cu SAR-Bombesin and the participant continues to be followed for further safety and efficacy assessments as per protocol.

COMBAT, which derives from "**C**opper-67 SAR-B**omb**esin in metast**at**ic castrate resistant prostate cancer (NCT05633160)¹ is a dose escalation and cohort expansion trial for up to 38 participants. ⁶⁴Cu SAR-Bombesin is used to visualise gastrin-releasing peptide receptor (GRPr)-expressing lesions and select candidates for subsequent ⁶⁷Cu SAR-Bombesin therapy. The aim for the trial is to determine the safety and efficacy of ⁶⁷Cu SAR-Bombesin in participants with GRPr expressing mCRPC who are ineligible for therapy with ¹⁷⁷Lu PSMA-617. These patients are unlikely to benefit from prostate-specific membrane antigen (PSMA)-targeted agents and represent a significant unmet need for both imaging and therapy. Doses of up to 14GBq of ⁶⁷Cu SAR-Bombesin, in up to four cycles, are planned to be investigated in this trial (pending safety reviews).

Clarity's Executive Chairperson, Dr Alan Taylor, commented, "SAR-Bombesin has already resulted in improvements to the management of prostate cancer for patients with PSMA-negative or low PSMA expressing lesions through diagnostic trials and we hope to confirm its safety and efficacy in this theranostic trial. We look forward to progressing the COMBAT trial and building on the compelling data from our preclinical and clinical studies to date. Combined with the logistical and manufacturing benefits of Targeted Copper Theranostics and with commercial quantities of the ⁶⁷Cu radioisotope now being routinely produced domestically in the US, we see a clear path to bringing SAR-Bombesin and SAR-bisPSMA to the prostate cancer patient population in need of novel treatments."

Overview of Clarity's Prostate Cancer Clinical Trial Program



About SAR-Bombesin

SAR-Bombesin is a highly targeted pan-cancer radiopharmaceutical with broad cancer application. It targets the gastrin-releasing peptide receptor (GRPr) present on cells of a range of cancers, including but not limited to prostate, breast and ovarian cancers. GRPr is found in up to 100% of prostate cancers, including prostate cancers that don't express PSMA (PSMA-negative)²⁻⁶. The product utilises Clarity's proprietary sarcophagine (SAR) technology that securely holds copper isotopes inside a cage-like structure, called a chelator. Unlike other commercially available chelators, the SAR technology prevents copper leakage into the body. SAR-Bombesin is a Targeted Copper Theranostic (TCT) that can be





used with isotopes of copper-64 (Cu-64 or ⁶⁴Cu) for imaging and copper-67 (Cu-67 or ⁶⁷Cu) for therapy.

⁶⁴Cu SAR-Bombesin and ⁶⁷Cu SAR-Bombesin are unregistered products. Individual results may not represent the overall safety and efficacy of the products. The data outlined in this announcement has not been assessed by health authorities such as the US Food and Drug Administration (FDA). A clinical development program is currently underway to assess the efficacy and safety of these products. There is no guarantee that these products will become commercially available.

About Prostate Cancer

Prostate cancer is the second most common cancer diagnosed in men globally and the fifth leading cause of cancer death worldwide⁷. The American Cancer Institute estimates in 2023 there will be 288,300 new cases of prostate cancer in the US and around 34,700 deaths from the disease8.

Approximately 25% of mCRPC patients have low or no uptake of a PSMA-targeting tracer. ⁹ These patients are therefore unlikely to respond to therapeutic PSMA-targeted products and currently have few treatment options available to them. Given the prostate cancer indication is one of the largest in oncology, there is a significant unmet medical need in this segment. The SAR-Bombesin product could offer valuable imaging and therapeutic options for not only PSMA-negative patients, but also the large number of patients that have the target receptor on their cancers.

About Clarity Pharmaceuticals

Clarity is a clinical stage radiopharmaceutical company focused on the treatment of serious disease. The Company is a leader in innovative radiopharmaceuticals, developing targeted copper theranostics based on its SAR Technology Platform for the treatment of cancer in children and adults.

www.claritypharmaceuticals.com

References

- 1. ClinicalTrials.gov NCT05633160, https://www.clinicaltrials.gov/ct2/show/NCT05633160
- 2. Markwalder R, Reubi JC. Gastrin-releasing peptide receptors in the human prostate: relation to neoplastic transformation. Cancer research. 1999;59(5):1152-1159.
- 3. Fleischmann A, Waser B, Reubi JC. High expression of gastrin-releasing peptide receptors in the vascular bed of urinary tract cancers: promising candidates for vascular targeting applications. Endocrine-related cancer. 2009;16(2):623-633.
- 4. Ananias HJ, van den Heuvel MC, Helfrich W, de Jong IJ. Expression of the gastrin-releasing peptide receptor, the prostate stem cell antigen and the prostate-specific membrane antigen in lymph node and bone metastases of prostate cancer. The Prostate. 2009;69(10):1101-1108.
- 5. Reubi JC, Wenger S, Schmuckli-Maurer J, Schaer JC, Gugger M. Bombesin receptor subtypes in human cancers: detection with the universal radioligand (125)I-[D-TYR(6), beta-ALA(11), PHE(13), NLE(14)] bombesin(6-14). Clin Cancer Res. 2002;8(4):1139-1146.
- 6. Sun B, Halmos G, Schally AV, Wang X, Martinez M. Presence of receptors for bombesin/gastrin-releasing peptide and mRNA for three receptor subtypes in human prostate cancers. The Prostate. 2000;42(4):295-303.
- 7. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries https://acsjournals.onlinelibrary.wiley.com/doi/10.3322/caac.21660
- 8. American Cancer Society, Cancer Statistics Center, https://cancerstatisticscenter.cancer.org/?_ga=2.79808020.284532473.1620009137-1916069442.1615761164#!/cancer-site/Prostate
- 9. Vlachostergios PJ, Niaz MJ, Sun M, et al. Prostate-Specific Membrane Antigen Uptake and Survival in Metastatic Castration-Resistant Prostate Cancer. Frontiers in oncology. 2021;11.





For more information, please contact:

Clarity Pharmaceuticals

Dr Alan Taylor **Executive Chairman**ataylor@claritypharm.com

Catherine Strong
Investor/Media Relations
cstrong@citadelmagnus.com
+61 406 759 268

This announcement has been authorised for release by the Executive Chairperson.