ASX MEDIA RELEASE

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Clarity Update: Complete response in first patient ever treated with 2 doses of Cu-67 SAR-bisPSMA at 8GBq

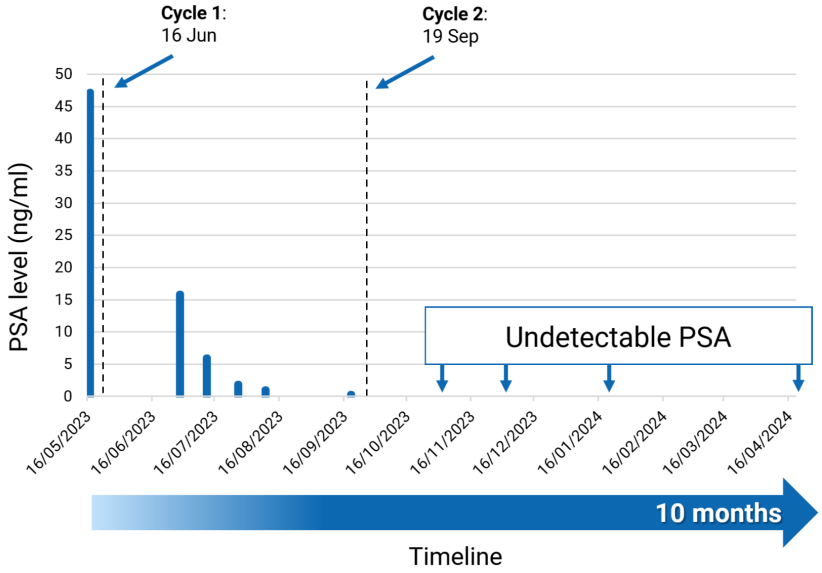
HIGHLIGHTS

- A complete response, based on Response Evaluation Criteria In Solid Tumours (RECIST v1.1) assessment, has been reported from the first patient with metastatic castrate-resistant prostate cancer (mCRPC) to ever receive two cycles of Clarity's ^{67}Cu-SAR-bisPSMA at the 8GBq dose level.
- The patient remains with undetectable levels of Prostate Specific Antigen (PSA) for almost 6 months, following the administration of the second dose of ^{67}Cu-SAR-bisPSMA. PSA is a marker used to assess clinical response to treatment and an indicator of the recurrence of prostate cancer.
- The patient had no detectable lesions using positron emission tomography (PET) imaging with ^{64}Cu-SAR-bisPSMA following the treatment.
- The first cycle of ^{67}Cu-SAR-bisPSMA was administered under the SECuRE trial protocol, and the second cycle under the US Food and Drug Administration's (FDA) Expanded Access Program (EAP).
- The participant was heavily pre-treated having failed multiple lines of therapy, including androgen deprivation therapy (ADT), androgen receptor pathway inhibitors (ARPIs), chemotherapy and a poly (ADP-ribose) polymerase (PARP) inhibitor.
- No adverse events related to ^{64}Cu-SAR-bisPSMA were observed. The safety profile of ^{67}Cu-SAR-bisPSMA was favourable, with all adverse events related to the product showing improvement or resolution over time.
- No dose limiting toxicities (DLTs) have been reported in any of the patients treated in the SECuRE trial to date. The recruitment is ongoing for cohort 4, the first multi-dose cohort, at the highest dose level of 12GBq.

Clarity Pharmaceuticals (ASX: CU6) ("Clarity", "the Company"), 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 that the first patient ever to be dosed with two cycles of ^{67}Cu-SAR-bisPSMA at 8GBq achieved a complete response to treatment based on RECIST criteria.

The patient received the first cycle of ^{67}Cu-SAR-bisPSMA as part of cohort 2 of Clarity's theranostic trial, SECuRE (NCT04868604)[1], evaluating ^{64}Cu/^{67}Cu-SAR-bisPSMA in patients with mCRPC, and a second cycle under the US FDA EAP, as requested by the patient's clinician. Prior to ^{67}Cu-SAR-bisPSMA, the patient had failed multiple lines of treatment, including hormone therapy, an investigational agent and chemotherapy.

Following the administration of the first cycle of ^{67}Cu-SAR-bisPSMA, the patient showed a reduction of PSA level of >99%. The patient then received a second cycle of ^{67}Cu-SAR-bisPSMA, which resulted in further reduction of his PSA to undetectable levels (confirmed by two consecutive tests) (**Graph 1**). PSA is a well characterised marker of tumour burden and clinical response to treatment as well as an indicator of the recurrence of disease for prostate cancer[2-4]. Moreover, PSA decline is an independent prognostic indicator of improved overall survival following radioligand therapy[5,6].



Graph 1. *PSA reduction following 2 doses of ^{67}Cu-SAR-bisPSMA (8GBq). A reduction of 99.4% in PSA was observed after the administration of the first cycle of ^{67}Cu-SAR-bisPSMA (from the baseline of 47.2 to 0.3 ng/ml). PSA reached undetectable levels following the administration of the second cycle of ^{67}Cu-SAR-bisPSMA. Dash lines: administration of ^{67}Cu-SAR-bisPSMA. "Ten months" call-out in the timeline: time since the first dose of ^{67}Cu-SAR-bisPSMA to most recent follow-up. Lower level of PSA detection: 0.05 ng/ml. Data cut off: 19 April 2024.*

A complete response (absence of detectable cancer after treatment) was observed in all but one lesion assessed by computed tomography (CT) in November 2023 (one lesion showed a reduction in size from 27 mm to 12 mm, missing the complete response cut-off by only 2 mm based on RECIST assessment). No PSMA uptake was observed in any of the lesions using ^{64}Cu-SAR-bisPSMA following the second cycle of ^{67}Cu-SAR-bisPSMA (**Figure 1**).

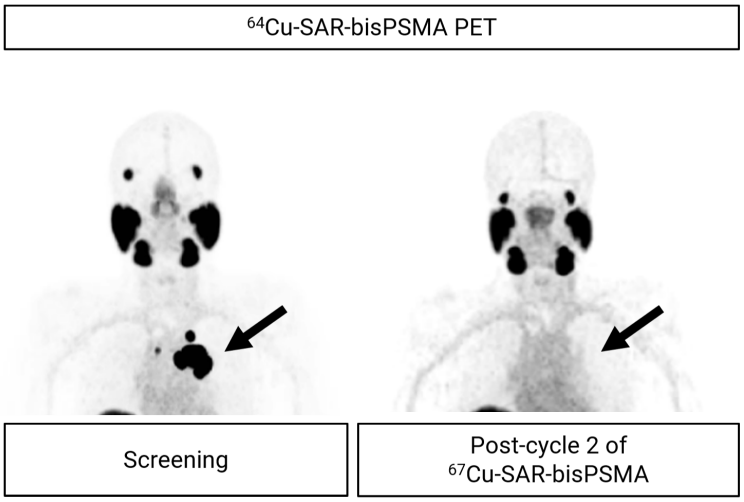


Figure 1. *PET images showing uptake of ^{64}Cu-SAR-bisPSMA in prostate cancer lesions at screening (arrow, left image; maximum standardised uptake value [SUVmax] 140.1). Image post-treatment show no ^{64}Cu-SAR-bisPSMA uptake (arrow, right image). Images shown as maximum intensity projection.*

A complete response (no detectable cancer) has now been confirmed by CT at the last follow-up (April 2024, based on RECIST assessment). The patient's PSA remains undetectable for almost 6 months since the administration of the second cycle of ^{67}Cu-SAR-bisPSMA (**Graph 1**).

No adverse events were reported as related to ^{64}Cu-SAR-bisPSMA. Adverse events related to ^{67}Cu-SAR-bisPSMA included dry mouth, altered taste, thrombocytopenia (all Grade 1, improved), fatigue (Grade 2, resolved) and anaemia (Grade 3, improved to Grade 2). At the last follow-up, haematological parameters were considered non-clinically significant. No DLTs have been reported in the SECuRE trial in any of the patients dosed with ^{67}Cu-SAR-bisPSMA to date. Recruitment is ongoing into cohort 4, the first multi-dose cohort in the trial, at the dose level of 12GBq.

Dr Luke Nordquist, CEO, Urologic Medical Oncologist and Principal Investigator at the Urology Cancer Center / XCancer Omaha, NE, commented, "This was a very special moment, delivering the news to this patient that his cancer is now undetectable following the treatment with 2 doses of 8GBq of ^{67}Cu-SAR-bisPSMA. After going through a number of therapies over the years with all of them having limited effect on the progression of his cancer, we have now been unable to detect any signs of his cancer, using PSA assessment, CT and PET imaging. The safety profile of ^{67}Cu-SAR-bisPSMA appears to be favorable with few side effects observed following treatment, which is remarkable for a patient who was heavily pre-treated with ADT, ARPIs, chemotherapy and a PARP inhibitor.

"We are very excited to continue working with Clarity on the SECuRE trial as it has now entered a multi-dose cohort at a dose level of 12GBq, exploring the potential therapeutic benefit we might see from multiple doses of the product. The EAP has given us an early insight into what these benefits might look like, and we believe that ^{67}Cu-SAR-bisPSMA might become a best-in-class therapeutic agent once approved, providing patients with an effective treatment option with a manageable safety profile."

Clarity's Executive Chairperson, Dr Alan Taylor, commented, "We are very excited with this incredible response of the very first patient ever to be dosed twice at what we would consider a therapeutic dose. Our team and collaborators are encouraged by the results we are seeing with our bisPSMA product to date, and we are more dedicated than ever to continue progressing this agent through clinical trials. Seeing a patient that has gone through so many prior therapies now have undetectable disease with few side effects is extremely inspiring. Especially as we have now entered our first multi-dose cohort of the SECuRE trial, cohort 4, at a dose level of 12GBq, where we have already seen incredible benefits in patients that have failed so many lines of therapy. We hope to replicate this remarkable result in many patients and confirm the favourable safety profile of this agent.

"We believe our optimised SAR-bisPSMA product, which overcomes the issues of poor uptake and retention of current PSMA agents, combined with our dose optimisation protocol, clearly differentiates Clarity from our competitors. We hope that one day this product will become the gold standard therapeutic agent for men with mCRPC. Further enhancing our position, we recently signed a product supply agreement with NorthStar, becoming the only radiopharmaceutical company where therapeutic isotope and finished product are both centrally manufactured in the United States under one roof, solving the many manufacturing issues that have plagued our industry. This strong position has been made possible by an incredible effort from our team and collaborators and uniquely places Clarity as the major independent player in the radiopharmaceutical space.

"We will continue to focus on the rapid progression and completion of the SECuRE trial and look forward to sharing further updates as we move towards achieving our ultimate goal of better treating patients with cancer."

About the SECuRE Trial

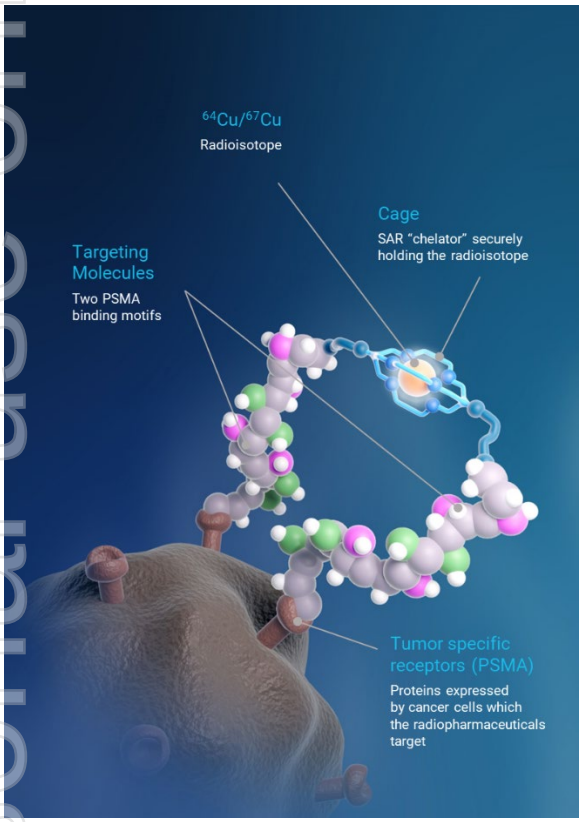
The SECuRE trial (NCT04868604)[1] is a Phase I/IIa theranostic trial for identification and treatment of Prostate-Specific Membrane Antigen (PSMA) expressing mCRPC using Targeted Copper Theranostics (TCTs). ^{64}Cu-SAR-bisPSMA is used to visualise PSMA expressing lesions and select candidates for subsequent ^{67}Cu-SAR-bisPSMA therapy. The trial is a multi-centre, single arm, dose escalation trial with a cohort expansion involving up to 44 patients in the US. The aim of this trial is to determine the safety and efficacy of ^{67}Cu SAR-bisPSMA for the treatment of prostate cancer.

About SAR-bisPSMA

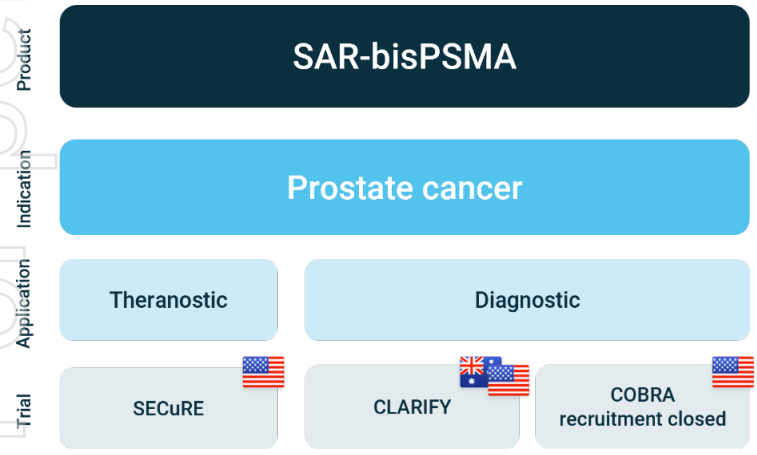
SAR-bisPSMA derives its name from the word "bis", which reflects a novel approach of connecting two PSMA binding motifs to Clarity's proprietary sarcophagine (SAR) technology that securely holds copper isotopes inside a cage-like structure, called a chelator. Unlike other commercially available chelators, the SAR technology prevents copper leakage into the body. SAR-bisPSMA is a TCT that can be used with isotopes of copper-64 (Cu-64 or ^{64}Cu) for imaging and

copper-67 (Cu-67 or ^{67}Cu) for therapy.

^{64}Cu-SAR-bisPSMA and ^{67}Cu-SAR-bisPSMA 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 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.



Overview of Clarity's SAR-bisPSMA clinical trial program



About Prostate Cancer

Prostate cancer is the second most common cancer diagnosed in men globally and the fifth leading cause of cancer death worldwide[7]. The American Cancer Institute estimates in 2024 there will be about 299,010 new cases of prostate cancer in the US and around 35,250 deaths from the disease[8].

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 TCTs based on its SAR technology platform for the treatment of children and adults with cancer.

www.claritypharmaceuticals.com

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