

## **Carina Biotech Doses First Patient in Phase 1/2a Clinical Trial of LGR5-Targeted CAR-T Cell Therapy**

- First patient dosed in Australia where 3 clinical trial sites have been activated.
- The trial will enrol advanced colorectal cancer patients whose cancer expresses the cancer stem cell marker LGR5, and who have failed two prior lines of therapy.
- Colorectal cancer is the second leading cause of cancer deaths among men and women combined, and it is the deadliest form of cancer in Australians aged 25 to 34 years.
- LGR5 is a stem cell marker expressed in most colorectal cancer cells and is a highly promising target for cell therapies.

ADELAIDE, AUSTRALIA, December 19, 2023 -- Carina Biotech Limited (Carina), a cell therapy immuno-oncology company, today announced the dosing of the first patient in a Phase 1/2a clinical trial of its LGR5-targeted CAR-T cell therapy candidate CNA3103 for the treatment of adult patients with metastatic colorectal cancer (mCRC). Enrolment in the Phase 1 segment commenced in Australia with three sites currently activated.

CAR-T therapy is a personalised cell therapy that harnesses a patient's immune system to fight their cancer.

Carina's Phase 1/2a trial is a multi-centre, open-label study in patients with mCRC (NCT05759728) being conducted under a US FDA Investigational New Drug application.

The Phase 1 segment of the trial follows a Bayesian Optimal Interval (BOIN) study design during dose escalation to determine the Recommended Phase 2 Dose (RP2D) level safely and efficiently. A minimum of three subjects per cohort will be enrolled at each dose level.

In the Phase 2a segment of the trial, additional patients will be treated at the RP2D of CNA3103 to further evaluate the safety, anti-tumor activity, as well as pharmacokinetic and pharmacodynamic properties of CNA3103.

"We are delighted to have dosed the first patient in the Phase 1/2a trial evaluating our LGR5-targeted CAR-T candidate CNA3103. The initiation of our clinical trial in colorectal cancer is a major milestone for Carina. Preclinical studies of CNA3103 have demonstrated highly promising results with complete tumor regression and no tumor recurrence following rechallenge. We look forward to evaluating its profile in patients," said Deborah Rathjen PhD, Carina's Chief Executive Officer. "A significant unmet need exists in the treatment of colorectal cancer. Colorectal cancer is the second leading cause of cancer deaths among men and women combined, and it is the deadliest form of cancer in Australians aged 25 to 34 years. We are thrilled to play a role in the introduction of a potentially revolutionary and targeted cancer treatment option that harnesses a patient's own immune system to fight their cancer, which is CAR-T cell therapy."

Carina's Chief Medical Officer Dr Jose Iglesias commented, "I look forward to working with my Australian colleagues in the development of CNA3103, a novel, and to our knowledge, first-in-class

CAR-T directed against LGR5, a key player in the pathogenesis and dissemination of colorectal cancer. LGR5 is overexpressed in most colorectal cancers and is a marker of stemness, endowing cells with resistance to most forms of chemotherapy. CNA3103 may offer a new way to target this important molecule”.

The study’s Principal Investigator at Royal Adelaide Hospital, Professor Michael Brown, said, “We are very grateful to the first patient for their involvement in a study that will be of great interest to other patients with metastatic colorectal cancer. Chemotherapy has been the mainstay of treatment for this disease. We hope that the results of this study will provide another way to bring benefit to patients”.

### **About Carina Biotech**

Immuno-oncology company Carina Biotech is developing CAR-T and other adoptive cell therapies for the treatment of solid cancers. In addition to its LGR5-targeted CAR-T cell therapy CNA3103 for advanced colorectal cancer, Carina has a deep pipeline of CAR-T programs.

Using its proprietary chemokine receptor platform, Carina aims to improve access to and infiltration of solid cancers by CAR-containing cells, resulting in more potent and specific cancer killing and reduced off-target effects.

Carina also has a fully integrated, proprietary manufacturing process that has both reduced manufacturing time and improved CAR-T cell quality, capable of delivering robust “serial-killing” CAR-T cells to patients.

### **About CNA3103**

Carina’s proprietary CNA3103 CAR-T cell targets LGR5, a cancer stem cell marker that is highly expressed on advanced colorectal cancer and some other cancers. In colorectal cancer patients, LGR5 expression has been correlated with poor prognosis. Cancer stem cells are a small sub-population of cells within a tumor with the ability to self-renew, differentiate into the many cell types of a tumor, initiate new tumors, and resist chemotherapy and radiotherapy (leading to relapses). By targeting cancer stem cells, it is anticipated that this therapy will reduce the tumor’s ability to generate new cancer cells, resulting in durable tumor suppression and preventing the relapses that are common in patients with colorectal cancer.

Carina’s pre-clinical studies of CNA3103 have shown promising results with complete tumor regression and no tumor recurrence following a single administration. CNA3103 has also demonstrated impressive tumor access and prolonged survival enabling rejection of new tumors.

### **For more information please contact:**

#### **Deborah Rathjen, PhD**

CEO & Managing Director  
Carina Biotech  
+61 418 160 425  
deborah@carinabiotech.com

#### **Rudi Michelson**

Monsoon Communications  
+61 (0)3 9620 3333  
rudim@monsoon.com.au

#### **Stephanie Carrington**

ICR Westwicke  
+1 646 277 1282  
stephanie.carrington@westwicke.com