

ASX ANNOUNCEMENT 15 April 2020

# RECRUITMENT COMPLETED IN THE PHASE 2 BNC105 / NIVOLUMAB COMBINATION CLINICAL TRIAL IN COLORECTAL CANCER PATIENTS

Bionomics Limited (ASX:BNO, OTCQX:BNOEF), a global, clinical stage biopharmaceutical company, announces that an experimental Phase 2 clinical trial of its cancer drug candidate, BNC105, in combination with Bristol-Myers Squibb's nivolumab (OPDIVO®), has completed recruitment of patients with metastatic colorectal cancer. Final results from the trial are projected for early 2023.

The trial, MODULATE, is being sponsored by the Australasian Gastro-Intestinal Trials Group (AGITG) and supported by Bristol-Myers Squibb. It is being conducted at 16 clinical oncology sites around Australia.

The AGITG (<u>www.gicancer.org.au</u>) is conducting the MODULATE trial to evaluate new experimental approaches to immunotherapy treatment in colorectal cancer patients. In one arm of the trial, it is investigating whether Bionomics' BNC105, a vascular disrupting agent, combined with nivolumab, a PD-1 (programmed death-1) immune checkpoint inhibitor, can be used to treat advanced colorectal cancer patients who have exhausted other treatment options. A second group of patients are receiving nivolumab in combination with a Signal Transduction Activator of Transcription (STAT3) inhibitor.

Immunotherapy is a promising treatment for a number of cancers and uses the patient's own immune system to target and attack the cancer tumour. It works by stimulating lymphocytes, a type of white blood cell, which have infiltrated the tumour. The MODULATE trial aims to investigate whether BNC105, as a vascular disrupting agent that damages the tumour blood vessels leading to changes in the tumour microenvironment, will encourage lymphocytes to enter the tumour, and provide a new treatment option for patients with colorectal cancer. In mice bearing tumours comprising of colon adenocarcinoma cells, the administration of BNC105 with anti-PD-1 antibodies has led to a synergistic reduction in tumour size.

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# FOR FURTHER INFORMATION PLEASE CONTACT:

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# **Clinical Appendix**

## **Study Title:**

Modulation of the tumour microenvironment using either vascular disrupting agents or STAT3 inhibition in order to synergise with PD-1 inhibition in microsatellite stable, refractory colorectal cancer (MODULATE)

#### **Study Number:**

Protocol Number CA209-99U

#### Study Design:

Approximately 90 microsatellite stable refractory colorectal cancer patients randomised 1:1 to Arm (1) nivolumab + BNC105, or Arm (2) nivolumab + a STAT3 inhibitor. Patients remain on study for 24 months or until disease progression or unacceptable toxicity.

# **Primary Objective:**

 To determine the objective response rates of the combination of nivolumab and BNC105 and the combination of nivolumab and a STAT3 inhibitor

## **Secondary Objectives:**

- To determine progression free survival
- To evaluate the adverse event profile of the drug combinations
- To determine overall survival

# **Exploratory Objective:**

To evaluate selected biomarkers related to immunomodulation and inflammation

## **About Bionomics Limited**

Bionomics (ASX: BNO) is a global, clinical stage biopharmaceutical company leveraging its proprietary platform technologies to discover and develop a deep pipeline of best in class, novel drug candidates. Bionomics' lead drug candidate BNC210 is a novel, proprietary negative allosteric modulator of the alpha-7 (α7) nicotinic acetylcholine receptor. Beyond BNC210, Bionomics has a strategic partnership with Merck & Co., Inc (known as MSD outside the United States and Canada) and a pipeline of pre-clinical ion channel programs targeting pain, depression, cognition and epilepsy.

#### www.bionomics.com.au

#### **About BNC105**

BNC105 is Bionomics' proprietary tubulin polymerization inhibitor that exerts direct anti-cancer activity by a number of different mechanisms. These mechanisms include starving the tumour through activation of acute tumour hypoxia following selective destruction of tumour blood vessels, induction of cancer cell death by upregulation of pro-apoptotic proteins, suppression of tumour growth by inhibiting cancer cell proliferation, modulation of the tumour microenvironment and amplification of the immune response to fight cancer, in synergy with immune checkpoint inhibitors.

#### About Bristol-Myers Squibb

Bristol-Myers Squibb is a global biopharmaceutical company whose mission is to discover, develop and deliver innovative medicines that help patients prevail over serious diseases. For more information about Bristol-Myers Squibb, visit us at https://www.bms.com/au.

## **Bristol-Myers Squibb: Advancing Oncology Research**

At Bristol-Myers Squibb, patients are at the centre of everything we do. The focus of our research is to increase quality, long-term survival for patients and make cure a possibility. Through a unique multidisciplinary approach powered by translational science, we harness our deep scientific experience in oncology and Immuno-Oncology (I-O) research to identify novel treatments tailored to individual patient needs. Our researchers are

developing a diverse, purposefully built pipeline designed to target different immune system pathways and address the complex and specific interactions between the tumor, its microenvironment and the immune system. We source innovation internally, and in collaboration with academia, government, advocacy groups and biotechnology companies, to help make the promise of transformational medicines, like I-O, a reality for patients.

## **About Immuno-Oncology (I-O)**

Immuno-oncology is based on the premise that the immune system could be a powerful and effective tool for recognising and fighting disease. Immuno-oncology treatments are designed to harness the patient's own immune system to combat cancer by targeting the same immune pathways that tumour cells use to evade recognition and destruction.

OPDIVO® has been approved by the Therapeutic Goods Administration (TGA) for the treatment of a range of cancers including lung, head and neck, kidney, bladder and liver cancer.

## **Factors Affecting Future Performance**

This announcement contains "forward-looking" statements within the meaning of the United States' Private Securities Litigation Reform Act of 1995. Any statements contained in this announcement that relate to prospective events or developments, including, without limitation, statements made regarding Bionomics' drug candidates (including BNC210, BNC101 and BNC105), its licensing agreements with Bristol-Myers Squibb and any milestone or royalty payments thereunder, drug discovery programs, ongoing and future clinical trials, and timing of the receipt of clinical data for our drug candidates are deemed to be forward-looking statements. Words such as "believes," "anticipates," "plans," "expects," "projects," "forecasts," "will" and similar expressions are intended to identify forward-looking statements.

There are a number of important factors that could cause actual results or events to differ materially from those indicated by these forward-looking statements, including unexpected safety or efficacy data, unexpected side effects observed in clinical trials, risks related to our available funds or existing funding arrangements, our failure to introduce new drug candidates or platform technologies or obtain regulatory approvals in a timely manner or at all, regulatory changes, inability to protect our intellectual property, risks related to our international operations, our inability to integrate acquired businesses and technologies into our existing business and to our competitive advantage, as well as other factors. Results of studies performed on our drug candidates and competitors' drugs and drug candidates may vary from those reported when tested in different settings.