cyclopharm

15 September 2020

technegas
ultralute

Cyclopharm Ltd
ABN 74 116 931 250
Unit 4, 1 The Crescent
Kingsgrove NSW 2208 Australia
T 61 2 9541 0411
F 61 2 9543 0960
www.cyclopharm.com.au

The Manager
Company Announcements Office
Australian Securities Exchange Limited
20 Bridge Street
Sydney NSW 2000

TECHNEGAS CLINICAL TRIAL CYC-009 SUCCESSFULLY MEETS PRIMARY ENDPOINT

Highlights:

- **An Independent Data Monitoring Efficacy Committee (DEMC) has unanimously recommended Cyclopharm's Technegas Phase 3 trial in the US has met the Primary Efficacy Endpoint**
- **Following DEMC's positive recommendation, CYC will conclude its Phase 3 trial**
- **The recommendation validates Technegas' efficacy and further de-risks the USFDA approval process**
- **Technegas commercial sales expected in the United States in 2021**

Radiopharmaceutical company, Cyclopharm Limited (ASX: CYC) is pleased to confirm that an independent Data Monitoring Efficacy Committee (DEMC), requested by the USFDA as part of its assessment process, has reviewed the efficacy data of the current Technegas Phase 3 clinical trial (CYC-009) and has provided the following recommendation:

> *"The three member DEMC is unanimous in recommending that the CYC-009 trial should be terminated because of success. On the basis of the DEMC's review of the Interim Efficacy Analysis Report, the DEMC deems that the trial has met the Primary Efficacy Endpoint."*

As a consequence of the DEMC announcement, Cyclopharm is now advising the investigators of the trial sites that recruitment should be suspended and, following consultation with the USFDA, the CYC-009 study will be terminated with orderly formal site close out and notification to reviewing Investigational Review Boards.

Commenting on the significant milestone today, Managing Director and CEO James McBrayer stated, "We are very pleased with the outcome of the DEMC review."

"Given over three decades of clinical use, hundreds of clinical papers and references in practice guidelines featuring the benefits of Technegas, we were always confident of a positive outcome."

"The recommendation handed down by the DEMC overnight Australian time validates our confidence in our Technegas technology and further de-risks our pathway to USFDA approval to sell Technegas in the USA market in 2021."

Background

In review of Cyclopharm's recently submitted 505(b)(2) New Drug Application for Technegas, the USFDA requested that the company carry out an unscheduled interim efficacy analysis of the clinical data generated from the 9 sites in the United States that are participating in CYC-009 study.

The CYC-009 clinical trial is a prospective, 240-patient, non-inferiority comparison against Xe-133. The Phase 3 trial design was approved under a Special Protocol Assessment granted on 4 October 2016. For more information on the specifics of the trial please refer to ClinicalTrials.gov at https://clinicaltrials.gov/ct2/show/NCT03054870.

Due to the impact of the COVID-19 pandemic, patient recruitment for our clinical trial had significantly slowed. To date, 204 of the targeted 240 patients had been imaged. Given that 85% of the target number of patients have been recruited, the USFDA determined that it would be helpful, in its review of the Technegas NDA, to understand the substance of the CYC-009 efficacy data. To achieve this outcome and maintain the integrity of the trial by keeping the data blinded to the company, the USFDA recommended an independent Data Monitoring Committee conduct an interim analysis focused on efficacy.

Next Steps towards USFDA Approval

Commenting on next steps, Mr McBrayer stated "We are engaged in regular dialogue with the various departments within the Center for Drug Evaluation and Research (CDER), the division within the USFDA responsible for evaluating our Drug-Device/combination product submission. We are very appreciative of the collegial approach the Agency is taking in reviewing our Technegas NDA."

The Milestones to Approval has been updated to include this significant announcement:

Milestones (Represented in Calendar Quarters)	**USA Approval Pathway**	**Status**
FDA Submission	Q1 2020	✓ Lodged
Fee Waiver / Reduction Determination	Q2 2020	✓ Approved - $2.9m USD Refund Received
FDA Approval to File Determination	Q2 2020	✓ Approved
Review Period Confirmed[1]	Q2 2020	✓ 10-month Review Period Determined
Data Efficacy Monitoring Committee (DEMC)	Q3 2020	✓ DEMC determines CYC-009 Primary Endpoints have been met and the trial should be terminated because of success.
Initiate Inventory Increase	Q3 2020	✓ Critical suppliers on notice – Targeting 200 Generator Launch – Generator Build Underway
FDA Q&A Response	Ongoing	Iterative process
Manufacturing Site Inspection	Q1 2021	Site inspection can occur anytime during NDA review
Target NDA Approval	Q2 2021	

[1] PDUFA - Prescription Drug User Fee Act, authorizes the FDA to collect fees from drug manufacturers to fund the drug approval process and establishes deadlines by which the FDA must review new drug applications.

Mr McBrayer said, “We are now in a position to move to final approval for sales of Technegas in the United States.”

“This will be a great milestone for the company. We are planning for first commercial sales in 2021 and expect to grow market share quickly given our success in 60 other markets.”

Mr McBrayer concluded by stating, “Technegas is established in 60 countries around the world with over 4.2 million procedures completed to date. Technegas is extensively documented in hundreds of peer reviewed papers and clinical guidelines as the functional ventilation imaging agent of choice in determining PE[2,3].

“During the COVOD-19 pandemic where concerns of infection control is heightened, Technegas™, with its unique product characteristics and method of administration, our innovative product is considered to be the safest lung ventilation imaging agent in its class. Our announcement last week regarding our COVID-19 research partnership with McMaster University further underscores the potential clinical applications of Technegas in fighting this viral predator.”

“We are moving closer towards final approval for sales of Technegas in the US, a great milestone for the company. We are planning for first commercial sales in 2021 and expect to grow market share quickly given our success in other markets around the world.

“We look forward to updating investors as we progress.”

[ENDS]

This ASX announcement was approved and authorised for release by James McBrayer, Managing Director, CEO and Company Secretary.

For more information, please refer to our website at www.cyclopharm.com or contact:
Mr James McBrayer
Managing Director, CEO and Company Secretary
Cyclopharm Limited
T: +61 (02) 9541 0411

Cyclopharm Limited
Cyclopharm is an ASX Listed radiopharmaceutical company servicing the global medical community. The Company’s mission is to provide nuclear medicine and other clinicians with the ability to improve patient care outcomes. Cyclopharm achieves this objective primarily through the provision of its core radiopharmaceutical product, Technegas™ used in functional lung ventilation imaging.

Technegas™
The Technegas™ technology is a structured ultra-fine dispersion of radioactive labelled carbon, produced by using dried Technetium-99m in a carbon crucible, micro furnaced for a few seconds at around 2,700° C. The resultant gas like substance is inhaled by the patient (lung ventilation) via a breathing apparatus, which then allows multiple views and tomography imaging under a gamma or single photon emission computed tomography (SPECT) camera for evaluating functional ventilation imaging. Historically used in the diagnosis of pulmonary embolism, Technegas™, together with advancements in complementary technology to multimodality imaging and analytical software, is being used in other disease states to include COPD, asthma, pulmonary hypertension and certain interventional applications to include lobectomies in lung cancer and lung volume reduction surgery.

---

[2] European Association of Nuclear Medicine Guidelines for Ventilation/Perfusion Scintigraphy Part 1. Pulmonary imaging with ventilation/perfusion single photon emission tomography. Eur J Nucl Med Mol Imaging (2009) 36:1356–1370 DOI 10.1007/s00259-009-1170-5
[3] CANM Guidelines for Ventilation/Perfusion (V/P SPECT) in Pulmonary Embolism. November 2018