

**Cover page:**

**Clinical Trial Protocol: A Phase 2/3, Randomized, Double-Blind,  
Placebo-Controlled,  
Multi-Center Study to Evaluate the Safety and Efficacy of  
TJ003234 in Subjects with Severe Coronavirus Disease 2019  
(COVID-19)**

**(Protocol Number TJ003234COV201)**

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# STATISTICAL ANALYSIS PLAN

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***PROTOCOL TITLE:*** A Phase 2/3 Randomized, Double-blind, Placebo-Controlled, Multi-Center Study to Evaluate the Safety and Efficacy of TJ003234 in Subjects with Severe Coronavirus Disease 2019 (COVID-19)

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## APPROVAL SIGNATURE PAGE

**Protocol Title:** A Phase 2/3 Randomized, Double-blind,  
Placebo-Controlled, Multi-Center Study to  
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### Sponsor Approval

By signing this document, I acknowledge that I have read the document and approve of the planned statistical analyses described herein. I agree that the planned statistical analyses are appropriate for this study, are in accordance with the study objectives, and are consistent with the statistical methodology described in the protocol, clinical development plan, and all applicable regulatory guidances and guidelines.

I have discussed any questions I have regarding the contents of this document with the biostatistical author.

I also understand that any subsequent changes to the planned statistical analyses, as described herein, may have a regulatory impact and/or result in timeline adjustments. All changes to the planned analyses will be described in the clinical study report.

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## LIST OF ABBREVIATIONS AND DEFINITION OF TERMS

Abbreviation	Definition
ADA	Anti-drug antibody
AE	Adverse event
AESI	Adverse event of special interest
ARDS	Acute respiratory distress syndrome
CAR	Chimeric antigen receptor
CCL	Chronic Lymphocytic Leukemia
CI	Confidence interval
CMH	Cochran-Mantel-Haenszel test
COVID-19	Novel coronavirus 2019
CRF	Case report form
CRS	Cytokine release syndrome
CSR	Clinical study report
ECG	Electrocardiogram
EE	Efficacy Evaluable
GM-CSF	Granulocyte-macrophage colony-stimulating factor
IFN	Interferon
IL	Interleukin
ITT	Intent-to-treat
IV	Intravenous
LDH	Lactic dehydrogenase
MAS	Macrophage activation syndrome
MCP-1	Monocyte chemoattractant protein 1
MedDRA	Medical Dictionary for Regulatory Activities
MIP	Macrophage inflammatory protein
NLR	Neutrophils-to-lymphocyte ratio
NMLR	Neutrophils-to-(monocyte + lymphocyte) ratio
PK	Pharmacokinetic(s)
PR	Interval between P wave and QRS complex
QT	Interval between Q and T waves
QTc	Corrected interval between Q and T waves
RTSM	Randomization and trial supply management system
SAP	Statistical analysis plan
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
SD	Standard deviation
SI	International System of Units
SOC	System organ class
SOFA	Sequential Organ Failure Assessment



Abbreviation	Definition
SpO <sub>2</sub>	Oxygen saturation
TEAE	Treatment-emergent adverse event
TNF $\alpha$	Tumor necrosis factor alpha
WHO	World Health Organization

## 1. INFORMATION FROM THE STUDY PROTOCOL

### 1.1. Introduction and Objectives

#### 1.1.1. Introduction

Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF), also known as Colony-Stimulating Factor 2 (CSF2), is a member of the colony-stimulating factor family of hematopoietic growth factors. It was first known as an *in vitro* inducer for bone marrow progenitor cells to differentiate and proliferate into a single colony. GM-CSF is a monomeric glycoprotein cytokine, which may be produced by many cells including myeloid cells, dendritic cells, T cells, B cells, non-hematopoietic cells (such as endothelial cells, chondrocytes and alveolar epithelial cells) and even tumor cells ([Avci et al., 2016](#)). GM-CSF binds to heterodimeric receptors on bone marrow cells and neutrophils and activates GM-CSF receptors to initiate a variety of downstream signaling pathways, including Janus kinase signal transducer transcription-suppressor of cytokine signaling (JAK/STAT-SOCS), mitogen-activated protein kinase (MAPK), phosphatidylinositol 3 kinase (PI3K), and nuclear factor  $\kappa$ B signaling pathway (NF- $\kappa$ B) ([Hansen et al., 2008](#); [Jenkins et al., 1998](#); [Sato et al., 1993](#); [Broughton et al., 2015](#); [Hercus et al., 2017](#)).

GM-CSF, as a key upstream trigger factor in the inflammatory cytokine cascade, can enhance the effects of neutrophils and macrophages, to increase the expression of adhesion molecules, produce inflammatory cytokines and activate the phagocytosis. In addition, GM-CSF is also an important cytokine that induces the polarization of monocytes to the inflammatory M1 phenotype and promotes the activation of macrophages, and the macrophages secrete a large number of inflammatory cytokines such as IL-6, TNF- $\alpha$ , etc., to involve in tissue inflammation ([Hamilton, 1980](#)).

Indeed, the strong proinflammatory effects of GM-CSF make it a prime target in acute inflammatory conditions where elevated GM-CSF has been implicated in orchestrating a cytokine storm. At least three such syndromes share immunological and pathologic features of a cytokine storm: chimeric antigen receptor (CAR)-T cell therapy related cytokine release syndrome (CRS) and neurotoxicity, macrophage activation syndrome (MAS) and most recently, acute respiratory distress syndrome (ARDS) in severe coronavirus disease (COVID-19) cases caused by SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2).

CAR-T therapy is revolutionizing cancer treatment, but its application is limited by life-threatening toxicities such as CRS and neurotoxicity ([Gust, 2019](#)) attributable to hyperactive T cells and monocytes/macrophages. It has been reported that GM-CSF neutralizing antibody during CAR-T therapy prevented CRS and neuroinflammation and both GM-CSF neutralization and GM-CSF knockout in CAR-T cells enhanced antitumor activities in a mouse ALL xenograft model ([Sternier et al., 2019](#)). In addition, GM-CSF inactivation in this setting abolished macrophage-dependent secretion of factors, including monocyte chemoattractant protein 1 (MCP-1), interleukin 6 (IL-6), and IL-8 ([Sachdeva M, 2019](#)). Compared to tocilizumab that has been widely used to treat cytokine storm caused by CAR-T cells, GM-CSF antibodies can achieve better treatment effect, especially in regulating the broad spectrum of cytokines and inhibiting neurotoxicity. Based on these findings, a clinical trial of GM-CSF antibody lenzilumab in CAR-T therapy is planned ([Sternier et al., 2019](#)).

Both T cells and monocytes produce large amounts of cytokines and chemokines which feed forward on the immune cells to precipitate a cytokine storm and tissue damage ensues. GM-CSF neutralization could stop this cycle.

In the recent COVID-19 epidemic caused by the coronavirus SARS-CoV-2 in China, 10-20% of patients with pneumonia developed severe or critical conditions that required intensive care. These complications included ARDS, multiple organ failure, and sometimes death. The clinical features (Huang, 2020) and immunopathology (Xu, 2020) of patients with COVID-19 in China have now been reported, and they remarkably resembled those found in SARS (Channappanavar, 2017). Common features among COVID-19 patients particularly those seriously or critically ill included lymphopenia and significantly higher than normal levels of inflammatory cytokines (IL-1, IL-7, IL-8, IL-9, IL-10, basic fibroblast growth factor [FGF], granulocyte colony stimulating factor [G-CSF], GM-CSF, interferon [IFN]- $\gamma$ , interferon gamma-inducible protein [IP]-10, MCP-1, macrophage inflammatory protein [MIP]-1A, MIP-1B, platelet-derived growth factor [PDGF], TNF $\alpha$ , and vascular endothelial growth factor [VEGF]) (Huang, 2020). Most studies also reported massive production of IL-6, C-reactive protein (CRP), D-dimer, and ferritin – all consistent with cytokine storm (Wang, 2020). Importantly, lung pathology revealed heavy interstitial lymphocytic infiltrates along with diffuse alveolar damage with fibromyxoid exudates, multinucleated giant cells and hyaline membrane formation, indicative of ARDS (Xu, 2020). Interestingly, these pathological features and lung CT imaging characteristics are also remarkably similar to those reported for a subset of systemic Juvenile Idiopathic Arthritis (JIA) patients that developed MAS that led to severe immunopathology and lung disease (Schulert, 2019). Finally, peripheral blood mononuclear cell (PBMC) immunophenotyping showed an abundance of highly active GM-CSF-producing T helper cells and pathogenic monocytes in COVID-19 patients (Xu, 2020; Zhou, 2020).

It seems clear from these recent reports that severe COVID-19 bears all the hallmarks of a cytokine storm instigated by exuberant immune cells producing GM-CSF and IL-6. They drive aberrant monocyte and T cell activation which in turn produce more cytokines and chemokines in a feed forward cycle that culminates in profound tissue injury, airway constriction, vascular collapse and organ failure. Without intervention, the clinical course is expected to be dire for COVID-19 patients in severe or critical conditions. Currently, based on the experience of IL-6R antibody tocilizumab in managing CAR-T induced CRS, tocilizumab is being tested for reducing cytokine storm and its complications in a clinical trial of COVID-19 patients. Based on the analysis above and progress made in CAR-T therapy with the introduction of GM-CSF inhibition, GM-CSF neutralizing antibodies such as TJ003234 may prevent or curb cytokine storm and immunopathology in COVID-19 and consequently buy more time for viral clearance.

TJ003234 is a recombinant anti-GM-CSF humanized monoclonal antibody independently developed by I-Mab Biopharma Co., Ltd. At present, a number of preclinical studies have been conducted with TJ003234, demonstrating that TJ003234 is a specific and effective antagonist of human GM-CSF/GM-CSFR pathway. TJ003234 has shown significant inhibitory effect on GM-CSF mediating GM-CSFR signaling in vitro and in vivo. Blocking the biological activity of GM-CSF suppresses the activation of pro-inflammatory monocytes, leading to the potential clinical benefits to patients with cytokine storms.

In December 2018, the US Food and Drug Administration (FDA) approved the first study of TJ003234 for human use in healthy volunteers. The phase I study was expected to obtain safe

tolerated doses and pharmacokinetic characteristics of TJ003234 in humans, and currently the study has been completed. In this first human study, a single dose of TJ003234 up to 10 mg/kg in healthy subjects was well tolerated. The maximum tolerated dose was not reached. The increased TJ003234 exposure (C<sub>max</sub> and AUC) was roughly proportional to the increase in dose. The T<sub>1/2</sub> was about 3 weeks within the test dose range of 0.3mg/kg to 10mg/kg. The clearance rate of TJ003234 decreased with increasing dose. The volume of distribution decreased slightly with the increasing dose. In the subjects in 3 mg/kg and 10 mg/kg cohorts, TJ003234 inhibited GM-CSF-stimulated pSTAT5 levels by more than 90% for up to 2 weeks in 4 hours after dosing (full clinical study report submitted to FDA in January 2020).

### 1.1.2. Study Objectives

The primary study objective is to evaluate the efficacy and safety of TJ003234 in subjects with severe COVID-19 with supportive care.

Secondary objectives are as follows:

- To evaluate the effects of TJ003234 on cytokines in subjects with severe COVID-19
- To assess the pharmacokinetics (PK) and immunogenicity potential of TJ003234 when administered as a single dose intravenous (IV) infusion in subjects with severe COVID-19

This statistical analysis plan (SAP) is designed to outline the methods to be used in the analysis of study data in order to answer the study objective(s). Populations for analysis, data handling rules, statistical methods, and formats for data presentation are provided. The statistical analyses and summary tabulations described in this SAP will provide the basis for the results sections of the clinical study report (CSR) for this trial.

This SAP will also outline any differences in the currently planned analytical objectives relative to those planned in the study protocol.

## 1.2. Study Design

### 1.2.1. Synopsis of Study Design

This trial is designed as a two-part study to evaluate the efficacy and safety of TJ003234 administered by an IV infusion in subjects with severe COVID-19 with supportive care, and to assess the effect of cytokine elevations on the disease as well as the effect of TJ003234 on the levels of cytokines.

#### 1.2.1.1. Part 1

Part 1 is designed as a randomized, double-blind, placebo-controlled, 3-arm, parallel-group study to evaluate the safety of TJ003234 in subjects with severe COVID-19. Potential subjects will be screened to assess their eligibility to enter the study within 3 days prior to study drug administration. A total of 24 eligible subjects will be enrolled and randomized at a ratio of 1:1:1 to receive either a single dose of 3 mg/kg TJ003234, a single dose of 6 mg/kg TJ003234, or placebo administered by IV infusion. Before and after the treatment, all subjects will be allowed

to receive supportive care and/or additional treatments for COVID-19 and its complications per the Investigator. Up to twenty-four subjects will be enrolled in Part 1. If no more than 2 out of 8 subjects experience a Grade  $\geq 3$  treatment-related adverse event (AE) within 7 days of the subjects receiving the study drug in either TJ003234 arm, and no more than 4 out of 16 subjects experience a Grade  $\geq 3$  treatment-related AE within 7 days of the subjects receiving the study drug in both TJ003234 arms combined, Part 2 will be initiated. The end of Part 1 is defined as 30 days after the last subject is dosed or until study termination.

Enrolled subjects will complete the follow-up visits for 30 days after dosing to assess the safety and efficacy of the study drug. Subjects will be followed until they complete all study visits, the subject (or their legally authorized representative [LAR]) withdraws consent, the subject is lost to follow-up, or the subject dies.

#### 1.2.1.2. Part 2

Part 2 is designed as a randomized, double-blind, placebo-controlled, 2-arm, parallel-group study to evaluate the efficacy and safety of TJ003234 in subjects with severe COVID-19. Part 2 contains two phases; in the first phase, Phase 2, 120 subjects will be enrolled, and in the second phase, Phase 3, approximately 450 subjects will be enrolled. The data collected from Phase 2 will be used to make decisions for Phase 3 and may be used to re-estimate the sample size of the Phase 3 portion. Potential subjects will be screened to assess their eligibility to enter the study within 3 days prior to the first dose administration. A total of 570 eligible subjects will be enrolled and randomized at a ratio of 2:1 to receive either a single dose of TJ003234 or placebo, administered by IV infusion. Randomization will be stratified by age at randomization ( $< 60$  years *versus*  $\geq 60$  years) and use of remdesivir (yes *versus* no). Before and after the treatment, all subjects will be allowed to receive supportive care and/or additional treatments for COVID-19 and its complications per the Investigator.

Enrolled subjects will complete the follow-up visits for 30 days after dosing to assess the safety and efficacy of the study drug. Subjects will be followed until they complete all study visits, the subject meets the withdrawal criteria in protocol Section 4.4, or the subject dies.

#### 1.2.2. Randomization Methodology

Both parts of this study are randomized, double-blind, and placebo controlled.

##### 1.2.2.1. Part 1

There will be approximately 24 subjects randomized 1:1:1 (eight subjects each) to the following treatment arms:

- Treatment 1A: TJ003234 3 mg/kg (initial dose assignment based on weight at screening); single dose.
- Treatment 1B: TJ003234 6 mg/kg (initial dose assignment based on weight at screening); single dose.
- Treatment 1C: placebo (administered as normal saline); single dose.

Randomization will not be stratified. Each investigational site will randomize subjects to treatment groups using a randomization scheme generated by a randomization and trial supply management (RTSM) system.

#### 1.2.2.2. Part 2 Phase 2

There will be approximately 120 subjects randomized 2:1 (80 TJ003234:40 placebo) to the following treatments arms:

- Treatment 2A: TJ003234 6 mg/kg (initial dose assignment based on weight at screening); single dose.
- Treatment 2B: placebo (administered as normal saline); single dose.

Randomization will be stratified by age ( $< 60$  years *versus*  $\geq 60$  years) and use of remdesivir (yes *versus* no). Each investigational site will randomize subjects to treatment groups using a randomization scheme generated by an RTSM system.

#### 1.2.2.3. Part 2 Phase 3

There will be approximately 450 subjects randomized 2:1 (300 TJ003234:150 placebo) to the following treatments arms:

- Treatment 3A: TJ003234 10 mg/kg (initial dose assignment based on weight at screening); single dose.
- Treatment 3B: placebo (administered as normal saline); single dose.

Randomization will be stratified by age ( $< 60$  years *versus*  $\geq 60$  years) and use of remdesivir (yes *versus* no). Each investigational site will randomize subjects to treatment groups using a randomization scheme generated by an RTSM system.

#### 1.2.3. Stopping Rules and Unblinding

Stopping rules for Part 1 are detailed in [Section 1.2.1.1](#).

As a double-blind, placebo-controlled study, both the subjects and Investigators are blinded to the study treatment assignment. In addition, it is anticipated that all clinical research personnel, laboratory personnel, except for personnel needed to prepare the study drug, are blinded to the treatment assignment and will remain blinded through the completion of the study.

In the event emergency unblinding of study treatment is necessary, the Investigator shall utilize the RTSM system to obtain subject dose details. The individual subject dose details should be revealed only in case of an emergency where further treatment of the subject is dependent on knowing the study medication he or she has received. The date and time of breaking the blind as well as the reason must be recorded on the subject study medication record. The subject will be automatically discontinued from the study in the event emergency unblinding of study treatment takes place. If a blind is broken due to an AE, a corresponding AE entry must be completed in

the case report form (CRF). Any ongoing AEs will be followed in accordance with Section 7.1.5 of the protocol.

It is strongly encouraged that unblinding only be completed after consultation with the medical monitor, provided this does not compromise subject safety. If unblinding should occur (either by accident or for a medical emergency), the Investigator must promptly and immediately notify the Sponsor, study medical monitor, and Institutional Review Board/Independent Ethics Committee, and document the circumstances surrounding this action in a memorandum to the study file.

#### 1.2.4. Study Procedures

The schedule of procedures, as outlined in the study protocol, is provided in [Table 1](#).

**Table 1 Schedule of Procedures**

Procedure	Screening period*	Baseline period*	Follow-up period						
	-D3-D1	D1	D2	D3	D5	D7**	D11** ±1	D14** ±2	D30**±2
Informed Consent	√								
Demographics	√								
Body weight	√								
Medical history, smoking history and medication history, and baseline respiratory support requirements	√	√							
Pregnancy test or FSH test <sup>[1]</sup>	√								
SARS-CoV-2 diagnostic test <sup>[2]</sup>	√					(√)		(√)	(√)
Radiographic lung imaging <sup>[3]</sup>	√	√				√		√	√
Arterial blood gas analysis <sup>[4, 16]</sup>	√	√				√		√	√
PaO <sub>2</sub> /FiO <sub>2</sub> <sup>[16]</sup>	√	√				√		√	√
Physical Examination	√	√	√	√	√	√		√	√
Pulse Oximetry <sup>[5]</sup>	√								
Clinical status <sup>[6]</sup>		√				√		√	√
Vital signs	√	√	√	√	√	√	√	√	√
12-lead ECG <sup>[7]</sup>	√	√				√		√	√
Routine complete blood count, blood biochemistry test, coagulation assessment <sup>[8]</sup>	√	√	√	√	√	√		√	√



Procedure	Screening period*	Baseline period*	Follow-up period						
	-D3-D1	D1	D2	D3	D5	D7**	D11** ±1	D14** ±2	D30**±2
Urinalysis <sup>[9]</sup>	√	√	√	√	√	√		√	√
Troponin		√				√		√	
C-reactive protein, LDH, serum ferritin	√	√	√	√	√	√		√	√
Cytokine levels <sup>[10]</sup>	√	√	√	√	√	√		√	√
SOFA (Sequential Organ Failure Assessment score) <sup>[11, 16]</sup>		√				√		√	√
Review subject eligibility	√	√							
Randomization		√							
Dosing <sup>[12]</sup>		√							
Pharmacokinetic Sampling <sup>[13]</sup>		√				√		√	√
Anti-drug Antibody Sampling <sup>[14]</sup>		√						√	√
Concomitant medication/treatment <sup>[15]</sup>	√								
Adverse events	√								

- [1] Pregnancy test is required for women of childbearing potential and follicle stimulating hormone (FSH) is required if confirmation of postmenopausal status is needed.
- [2] SARS-CoV-2 diagnostic test by polymerase chain reaction (PCR) or other commercial or public health assay: If a subject has a positive test within the 14 days prior to study drug administration, an additional test at screening does not need to be performed. Tests during follow-up are requested, but if missed or done out of window, this will not be considered a protocol deviation.
- [3] Radiographic lung imaging examination: Including lung CT or chest X-ray. If this procedure was performed as standard of care in the 14 days prior to study drug administration and radiographic infiltrates are present, this may be used, and imaging is not required at Screening or Day 1.
- [4] Arterial blood gas analysis, finger blood oxygen saturation: arterial blood gas analysis: PH, partial pressure of oxygen, partial pressure of carbon dioxide, total carbon dioxide, oxygen saturation, actual bicarbonate, standard bicarbonate, base excess, anion gap. If the interval between arterial blood gas analysis performed during screening and dosing is less than 24 hours, a repeated test is not required on Day 1 predose. If Day 7 and/or

- 14 visits are conducted as outpatient visits, it is not necessary to perform any of these procedures.
- [5] Pulse oximetry should be recorded on a daily basis while the subject is hospitalized. The lowest registered level from each day should be recorded.
- [6] Clinical status evaluation: 8-category ordinal scale score: 8, Death; 7, ventilation in addition to ECMO, CRRT or pressors; 6, Intubation and mechanical ventilation; 5, NIV or high-flow oxygen; 4, Hospitalization with oxygen by mask or nasal prongs; 3, Hospitalization without oxygen supplementation; 2, Limitation of activities, discharge from the hospital; and 1, No limitation of activities, discharge from hospital.
- [7] ECG: Including but not limited to heart rate, QT, QTc, QTcF and P-R interval.
- [8] Routine CBC: White blood cells, red blood cells, hemoglobin, hematocrit, mean cell volume, platelets, absolute neutrophil count and percentage, absolute lymphocyte count and percentage, absolute monocyte count and percentage, absolute eosinophil count and percentage, absolute basophil count and percentage. Blood biochemistry test: blood glucose; liver and kidney functions: alanine aminotransferase (ALT), aspartate aminotransferase (AST), total protein, albumin, total bilirubin, direct bilirubin, alkaline phosphatase (ALP),  $\gamma$ -glutamyltransferase (GGT), creatinine, blood urea nitrogen (BUN), uric acid; serum electrolytes: potassium, sodium, chlorine, calcium, magnesium, inorganic phosphorus. Coagulation function: prothrombin time (PT), activated partial thromboplastin time (aPTT), international normalized ratio (INR), D-dimer. For screening, labs drawn before informed consent may be used if they are collected within 72 hours of study drug administration. Please see Section 6.2 for details.
- [9] Dipstick is acceptable. Microscopic analyses if dipstick abnormal.
- [10] Cytokines such as IL-1RA, IL-1 $\beta$ , IL-2, IL-6, IL-7, IL-10, GCSF, GM-CSF, CCL2, CCL3, CCL17, CXCL10, TNF- $\alpha$  and IFN- $\gamma$  in serum.
- [11] SOFA (Sequential Organ Failure Assessment score): see Appendix 3.
- [12] Dosing: intravenous infusion. On Day 1, all corresponding assessments will be completed before dosing.
- [13] Only applies to subjects in Part 2 randomized to the PK/ADA subgroup. Pharmacokinetic Samples will be collected on Day 1 predose, Day 1 end of infusion ( $\pm 15$  minutes), Day 7, Day 14, and Day 30. The Day 30 sample only must be collected if the subject is still hospitalized or is able to come in for an outpatient blood draw.
- [14] Only applies to subjects in Part 2 randomized to the PK/ADA subgroup. The Day 30 sample only must be collected if the subject is still hospitalized or is able to come in for an outpatient blood draw.
- [15] Recording concomitant medication/treatment: The concomitant medication mainly includes antiviral drugs, antibiotics, Glucocorticoid, and circulatory support drugs. Concomitant treatment mainly includes oxygen therapy, non-invasive/invasive mechanical ventilation, ECMO, and continuous renal replacement therapy (CRRT). Any SARS-CoV-2 vaccine history will be collected. For subjects who report they have received the SARS-CoV-2 vaccine, the following will be collected: Number of doses, date of dose(s) and brand name.
- [16] If subject is discharged from the hospital during the study, complete an unscheduled SOFA score, ABG and PaO<sub>2</sub>/FiO<sub>2</sub> ratio based on the last arterial blood gas analysis performed while the subject was hospitalized.

\*If dosing occurs within 24 hours of screening, any Predose procedures done during screening do not need to be repeated. SOFA, troponin, clinical status assessment must be collected prior to dosing. Please see Section 6 of protocol for details.

\*\*If subject is discharged prior to these visits, they may occur as outpatient or telephone visits. Please see Section 6 of protocol for details.

### 1.2.5. Efficacy, Pharmacokinetic, and Safety Parameters

#### 1.2.5.1. Efficacy Parameters (Part 2 only)

The primary efficacy endpoint is the proportion (%) of subjects who are alive and free of mechanical ventilation by Day 30, among subjects who are free of mechanical ventilation at baseline. Free of mechanical ventilation by Day 30 is defined as subjects who are discharged from the hospital or have a score of 1 to 5 in the following 8-category ordinal scale by Day 30:

1. Discharged from hospital, with no limitation of activities
2. Discharged from hospital, with limitation of activities
3. Hospitalization without oxygen supplementation
4. Hospitalization with oxygen by mask or nasal prongs
5. Noninvasive mechanical ventilation (NIV) or high-flow oxygen
6. Intubation and mechanical ventilation
7. Ventilation in addition to extracorporeal membrane oxygen (ECMO), continuous renal replacement therapy (CRRT), or pressors
8. Death

Key secondary efficacy endpoints include the following:

- The proportion (%) of subjects recovered by Day 14. Sustained recovery in clinical status is defined as a score of 1, 2, or 3 on the 8-category ordinal scale defined in the primary endpoint by Day 14, without subsequently progressing to a score  $\geq 4$  for the remainder of the study. If a subject has a baseline score of 3, then recovery is defined as a score of 1 or 2 by Day 14.
- The proportion (%) of subjects recovered by Day 30. Sustained recovery in clinical status is defined as a score of 1, 2, or 3 on the 8-category ordinal scale defined in the primary endpoint by Day 30, without subsequently progressing to a score  $\geq 4$  for the remainder of the study. If a subject has a baseline score of 3, then recovery is defined as a score of 1 or 2 by Day 30.
- All-cause mortality rate on Day 30.

Other secondary efficacy endpoints include the following:

- Time to sustained recovery among subjects alive by Day 30 (Time Frame: Day 1 through Day 30). Day of sustained recovery is defined as the first day on which a subject scores 1, 2, or 3 on the 8-category ordinal scale defined in the primary endpoint and maintains such score through Day 30. If a subject has a baseline score of 3, then day of recovery is defined

as the day on which the subject has a score of 1 or 2 and maintains such score through Day 30.

- Length of hospitalization

#### 1.2.5.2. Exploratory Efficacy Parameters

Exploratory efficacy endpoints include the following:

- Improvement in clinical status (Day 7, Day 14, and Day 30 from the day of dosing)
- Sequential Organ Failure Assessment (SOFA) score (Day 7 and Day 14 from the day of dosing)
- Change from baseline in the ratio of arterial oxygen partial pressure ( $\text{PaO}_2$ ) to fractional inspired oxygen ( $\text{FiO}_2$ ) (Day 7 and Day 14 from the day of dosing)
- Length of time to normalization of oxygen saturation ( $\text{SpO}_2$ ) which is defined as  $\text{SpO}_2 \geq 94\%$  sustained minimum 24 hours
- Proportion of subjects requiring mechanical ventilation (Day 7 and Day 14 from the day of dosing)
- Changes from baseline in serum cytokines including IL-1RA, IL-1 $\beta$ , IL-2, IL-6, IL-7, IL-10, GCSF, GM-CSF, CCL2, CCL3, CXCL10, TNF- $\alpha$ , and IFN- $\gamma$  (Day 2, Day 3, Day 5, Day 7, and Day 14 from the day of dosing)
- Change from baseline in D-dimer, cardiac troponin, lactate dehydrogenase (LDH), and ferritin levels (Day 7 and Day 14 from the day of dosing)
- Peripheral blood neutrophils-to-lymphocyte ratio (NLR)

#### 1.2.5.3. Pharmacokinetic and Anti-Drug Antibody Parameters

In Part 2 Phase 2 stage, 40 subjects will be randomly assigned to a subgroup to collect PK and ADA samples. PK samples will be collected on Day 1 (predose and at End of Infusion), Day 7 and Day 14. ADA samples will be collected on Day 1 predose and Day 14. Of these 40 subjects, 30 will be from the 6 mg/kg TJ003234 treatment arm and 10 will be from the placebo arm.

In Part 2 Phase 3 stage, 40 subjects will be randomly assigned to a subgroup to collect PK and ADA samples. PK samples will be collected on Day 1 (predose and at End of Infusion), Day 7 and Day 14. ADA samples will be collected on Day 1 predose and Day 14. Of these 40 subjects, 30 will be from the 10 mg/kg TJ003234 treatment arm and 10 will be from the placebo arm.

The PK endpoint includes serum concentration of TJ003234. Anti-drug antibody parameters include incidence and titer of ADAs.

Planned analyses of PK and ADA parameters will be described in a separate analysis plan.

#### 1.2.5.4. Safety Parameters

Safety evaluations performed during the study included physical examinations, measurement of vital signs, 12-lead electrocardiograms (ECGs), clinical laboratory evaluations including hematology, serum chemistry, and urinalysis, radiographic lung imaging, and monitoring of AEs and concomitant medications.

## **2. SUBJECT POPULATION**

### **2.1. Population Definitions**

The following subject populations will be evaluated and used for presentation and analysis of the data:

- **Modified Intent-to-Treat (mITT) Population:** All subjects randomized to treatment who were mechanical ventilation free at baseline. Subjects in the mITT population will be analyzed based on the treatment to which they were randomized, regardless of what treatment they actually received. The mITT population will be used for the analysis of the primary efficacy endpoint of Part 2.
- **Intent-to-Treat (ITT) Population:** All subjects randomized to treatment. Subjects in the ITT population will be analyzed based on the treatment to which they were randomized, regardless of what treatment they actually received. The ITT population will be used for the primary analysis for Part 1, and for Part 2 secondary and exploratory efficacy endpoints.
- **Efficacy-Evaluable (EE) Population:** All randomized and treated subjects with at least one post baseline efficacy evaluation. Subjects in the EE population will be analyzed based on the treatment actually received. The EE population may be used for supportive analyses of Part 2.
- **Safety Population:** All subjects randomized to treatment and who received study drug. Subjects in the Safety population will be analyzed based on the treatment actually received. This safety population will be used for the analysis of demographic data, baseline characteristics, and safety.

### **2.2. Protocol Violations**

At the discretion of the Sponsor, major protocol violations, as determined by a review of the data prior to unblinding of the study results and the conduct of statistical analyses, may result in the removal of a subject's data from the EE population. The Sponsor or designee will be responsible for producing the final protocol violation file (formatted as a Microsoft Excel file), in collaboration with Veristat and the data monitoring group as applicable; this file will include a description of the protocol violation and clearly identify whether the violation warrants exclusion from the EE population. This file will be finalized prior to hard database lock.

All protocol violations will be presented in a data listing.

### **3. GENERAL STATISTICAL METHODS**

#### **3.1. Sample Size Justification**

This is a 2-part study. Part 1 will enroll about 24 subjects to establish the safety of TJ003234 in subjects with severe COVID-19 before initiating Part 2.

The estimated rate of mechanical ventilation free subjects in the control arm is based on recent observations in COVID-19 studies.

The sample size for Part 2 Phase 2 is calculated based on the following assumptions:

- Randomization ratio of 2:1 (TJ003234 6 mg/kg : placebo);
- Rate of mechanical ventilation free subjects by Day 30: 88% in the TJ003234 arm and 77% in the placebo arm;
- 2-sided alpha of 0.20 and 80% power;
- 10% drop out rate.

The sample size for Part 2 Phase 3 is calculated based on the following assumptions:

- Randomization ratio of 2:1 (TJ003234 10 mg/kg : placebo);
- Rate of mechanical ventilation free subjects by Day 30: 88% in the TJ003234 arm and 77% in the placebo arm;
- 2-sided alpha of 0.05 and 80% power;
- 10% drop out rate.

The planned enrollment for Part 2 is 714 subjects, with 264 in Phase 2 and 450 in Phase 3. The results of Phase 2 may be used to re-estimate the sample size for Phase 3.

#### **3.2. General Methods**

All data listings that contain an evaluation date will contain a relative study day (Rel Day). Pre-treatment and on-treatment study days are numbered relative to the day of the first dose of study medication which is designated as Day 1. The preceding day is Day -1, the day before that is Day -2, etc.

All output will be incorporated into Microsoft Word or Excel files, or Adobe Acrobat PDF files, sorted and labeled according to the International Council for Harmonisation (ICH) recommendations, and formatted to the appropriate page size(s).

Tabulations will be produced for appropriate demographic, baseline, efficacy, PK, and safety parameters. For categorical variables, summary tabulations of the number and percentage of subjects within each category (with a category for missing data) of the parameter will be

presented. For continuous variables, the number of subjects, mean, median, standard deviation (SD), minimum, and maximum values will be presented. Time-to-event data will be summarized using Kaplan-Meier methodology using 25<sup>th</sup>, 50<sup>th</sup> (median), and 75<sup>th</sup> percentiles with associated 2-sided 95% confidence intervals (CIs), as well as percentage of censored observations.

### **3.3. Computing Environment**

All descriptive statistical analyses will be performed using SAS statistical software Version 9.4, unless otherwise noted. Medical history and adverse events will be coded using the Medical Dictionary for Regulatory Activities (MedDRA) Version 23.0. Concomitant medications will be coded using the World Health Organization (WHO) Drug Dictionary Global Version B3 March 1, 2020.

### **3.4. Baseline Definitions**

For all analyses, baseline will be defined as the most recent measurement prior to the first administration of study drug.

### **3.5. Methods of Pooling Data**

Data from Part 1 will not be included in summaries and analyses of Part 2.

For the primary analysis of pooled Phase 2 and Phase 3, a single TJ003234 arm will be compared to placebo, i.e., the 6 mg/kg and 10 mg/kg dose groups will be combined. A supportive analysis will compare each planned dose group (TJ003234 6 mg/kg and TJ003234 10 mg/kg) with placebo. For this analysis, subjects enrolled in Phase 3 with a planned dose of 6 mg/kg will be included in the 6 mg/kg group.

Demographics and baseline characteristics, and all summaries of safety, will be presented by planned dose group, i.e., TJ003234 6 mg/kg, TJ003234 10 mg/kg, or placebo, and overall. For these summaries, subjects enrolled in Phase 3 with a planned dose of 6 mg/kg will be included in the 6 mg/kg group.

### **3.6. Adjustments for Covariates**

The primary efficacy endpoint will be analyzed using an exact method. The difference in proportions between the two arms will be tested by a stratified logistic regression model, using the randomization stratification factors as strata. An exact p-value is obtained using the EXACT statement in PROC LOGISTIC. This is equivalent to a Cochran–Mantel–Haenszel (CMH) test; however, only an asymptotic p-value is available using the CMH option in PROC FREQ.

### **3.7. Multiple Comparisons/Multiplicity**

For Part 2, multiplicity will be adjusted by a gatekeeping procedure. If the null hypothesis for the primary endpoint is rejected, then the key secondary endpoints will be tested in the following order: proportion of recovered subjects by Day 14, proportion of recovered subjects by Day 30, and all-cause mortality rate by Day 30. If at any point in the gatekeeping procedure



the null hypothesis is not rejected, no further hypothesis testing will be performed, and analyses of any remaining endpoints will be descriptive only. The gatekeeping procedure applies only to the primary analyses of pooled TJ003234 *versus* placebo. Analyses of the individual dose levels *versus* placebo are considered supportive and are not subject to the gatekeeping procedure.

### **3.8. Subpopulations**

The following subgroups will be analyzed for the primary and key secondary endpoints:

- age (< 65 years *versus* ≥ 65 years)
- use of remdesivir (yes *versus* no)

### **3.9. Withdrawals, Dropouts, Loss to Follow-up**

Subjects who are withdrawn or discontinue from the study will not be replaced.

### **3.10. Missing, Unused, and Spurious Data**

In general, there will be no substitutions made to accommodate missing data points. All data recorded on the CRF will be included in data listings that will accompany the CSR.

When tabulating AE data, partial dates will be handled as follows:

- If the day of the month is missing, the onset day will be set to the first day of the month unless it is the same month and year as study treatment. In this case, to conservatively report the event as treatment-emergent, the onset date will be assumed to be the date of treatment.
- If the onset day and month are both missing, the day and month will be assumed to be January 1, unless the event occurred in the same year as the study treatment. In this case, the event onset will be imputed as the day of treatment in order to conservatively report the event as treatment-emergent.

A missing onset date will be imputed as the day of treatment. Any imputed start date that is after a reported end date will be imputed as the end date. Imputed start dates are used only to determine treatment emergence. Partial dates as recorded in the eCRF will be presented in subject listings.

### **3.11. Visit Windows**

It is expected that all visits should occur according to the protocol schedule. All data will be tabulated per the evaluation visit as recorded on the CRF even if the assessment is outside of the visit window. In data listings, the relative day of all dates will be presented.

## **4. STUDY ANALYSES**

Unblinded summaries of data from Part 1 were performed in July 2020. Summaries included descriptive statistics of patient disposition, demographic characteristics, the 8-category clinical status scale, adverse events, pulse oximetry, serum cytokines, and neutrophils-to-lymphocyte ratio. No analyses of efficacy data were performed in Part 1. All efficacy analyses are exclusive to Part 2.

### **4.1. Subject Disposition**

Subject disposition will be tabulated and include the number screened, the number randomized by treatment group and overall, the number in each subject population for analysis, the number who withdrew prior to completing the study and reason(s) for withdrawal.

A by-subject data listing of study completion information including the reason for premature study withdrawal, if applicable, will be presented.

### **4.2. Demographics and Baseline Characteristics**

Demographics and baseline characteristics will be summarized and presented by treatment group and overall. Summaries will be provided for the ITT, mITT, EE, and Safety populations. Age, height, weight, and body mass index will be summarized using descriptive statistics (number of subjects, mean, SD, median, minimum, and maximum). The numbers and percentages of subjects in each sex, ethnicity and race category also will be presented. Age group ( $< 60$ ,  $\geq 60$ ) and remdesivir use (Yes/No) will be based on the randomization stratification factors from the RTSM system. Dexamethasone use (Yes/No) and an additional age group summary ( $< 40$ ,  $40 - 65$ ,  $> 65$ ) will be included. Supplemental oxygen use (Yes/No), non-invasive ventilation use, and mechanical ventilation use (as reported on the Baseline Respiratory Support Requirements CRF) will be summarized. No formal statistical comparisons will be performed.

Medical history will be summarized by treatment group and overall for the ITT population. Summaries will be provided by MedDRA system organ class (SOC) and preferred term.

Demographic and baseline data for each subject will be provided in data listings. Listings will include smoking history, baseline respiratory support requirements, and results from the Screening SARS-CoV-2 diagnostic test.

### **4.3. Efficacy Evaluation**

#### **4.3.1. Primary Efficacy Endpoint**

The primary analysis of the primary efficacy endpoint will be based on the mITT population. Supportive analyses will be based on the EE population.

The primary efficacy endpoint is the proportion (%) of subjects who are alive and free of mechanical ventilation at Day 30, among subjects who were mechanical ventilation free at baseline. Mechanical ventilation free by Day 30 is defined as subjects who are discharged from

hospital or score 1 to 5 on the 8-category ordinal clinical status scale by Day 30. The numbers and percentages of subjects who are alive and ventilation free will be presented along with exact (Clopper-Pearson) 95% CIs. The risk difference, i.e., the difference in ventilation-free rates, will be calculated for the active treatment arm *versus* placebo. The risk difference will be presented along with a 95% CI based on the score statistic ([Miettinen and Nurminen 1985](#)). The risk difference will be calculated as active minus placebo (thus a positive difference suggests a benefit from active treatment). The significance of the risk difference will be assessed using the CMH test, stratified by randomization stratification factors. An exact p-value will be presented.

The above analysis will be based on observed cases. For the primary analysis of the primary and key secondary efficacy endpoints, the pooled TJ003234 dose groups will be compared to placebo. As a supportive analysis, each individual active dose group (i.e., combined 6 mg/kg and 10 mg/kg) will be compared to placebo. See [Section 3.5](#) for additional information on pooling of data.

#### 4.3.2. Key Secondary Efficacy Endpoints

The primary analysis of the key secondary efficacy endpoints will be based on the ITT population. Supportive analyses will be based on the EE population.

Key Secondary endpoints are:

- The proportion (%) of subjects recovered by Day 14. Sustained recovery in clinical status is defined as a score of 1, 2, or 3 on the 8-category ordinal scale defined in the primary endpoint by Day 14, without subsequently progressing to a score  $\geq 4$  for the remainder of the study. If a subject has a baseline score of 3, then recovery is defined as a score of 1 or 2 by Day 14.
- The proportion (%) of subjects recovered by Day 30. Sustained recovery in clinical status is defined as a score of 1, 2, or 3 on the 8-category ordinal scale defined in the primary endpoint by Day 30, without subsequently progressing to a score  $\geq 4$  for the remainder of the study. If a subject has a baseline score of 3, then recovery is defined as a score of 1 or 2 by Day 30.
- All-cause mortality rate on Day 30.

Key secondary endpoints will be analyzed similarly to the primary endpoint.

#### 4.3.3. Secondary Efficacy Endpoints

Secondary efficacy endpoints will be analyzed based on the ITT population.

##### 4.3.3.1. Time to recovery among subjects alive by Day 30

Day of recovery is defined per protocol as the first day on which the subject scores 3, 2 or 1 from the 8-category ordinal scale as defined in the primary endpoint. If a subject is scored at 3 at baseline, day of recovery is defined as the day on which the subject's score improves to 1 or 2. Day of recovery may also be determined by hospital discharge or removal from oxygen support.

Therefore, time to recovery shall be defined as the number of days from randomization to the earliest of (1) date removed from oxygen support, (2) date of discharge from hospital, or (3) date of recovery as assessed at the Day 14 or Day 30 visit.

A proportional hazards model will be used to estimate the hazard ratio and associated 95% CI. The model will include treatment group as the sole independent variable, with randomization factors as strata variables.

Median time to recovery and associated 95% CI will be estimated from the product-limit (Kaplan-Meier) method. Estimates of the 25<sup>th</sup> and 75<sup>th</sup> percentiles will also be presented. Differences in time to recovery between treatment groups will be tested by a stratified log-rank test, with randomization factors as strata. Kaplan-Meier plots of the survivor function will be presented. A summary of recovery events and censored observations will be included. Subjects will be censored for the following:

- Not recovered: subjects alive and not recovered by Day 30 will be censored at Day 31
- Death prior to Day 30: subjects will be censored on Day 31.
- Lost to follow-up: subjects will be censored at their last clinical status assessment date

#### 4.3.3.2. Length of hospitalization

Length of hospitalization, defined as the number of days from randomization to hospital discharge, will be analyzed similarly to time to recovery. Subjects who are not hospitalized at baseline will be excluded from the analysis. Subjects will be censored for the following:

- Not discharged: subjects alive and not discharged by Day 30 will be censored at Day 30
- Death prior to Day 30: subjects will be censored on Day 31.
- Lost to follow-up: subjects will be censored at their last assessment date

#### 4.3.4. Exploratory Efficacy Endpoints

Analyses of exploratory efficacy endpoints will be based on the ITT population.

- Clinical status will be summarized by presenting the numbers and percentages of subjects in each treatment group within each of the 8-point ordinal scale categories. Change from baseline in clinical status, categorized as Improved, Stable, or Deteriorated, will be summarized as well. Median values will be plotted by treatment group over time. “Error” bars will be included, represented by the 25<sup>th</sup> and 75<sup>th</sup> percentiles (i.e., first and third quartiles).
- Observed values and change from baseline in the SOFA score will be summarized using descriptive statistics, including quartiles.
- Observed values, change from baseline, and percent from baseline in NLR will be summarized using descriptive statistics, including quartiles. Changes from baseline with

standard error bars will be plotted over time. Spaghetti plots of individual patient values over time will be presented separately by treatment group.

- Observed values and change from baseline in pulse oximetry will be summarized using descriptive statistics, including quartiles.
- By-subject listings will be provided for D-dimer, cardiac troponin, LDH, and ferritin levels (Day 7 and Day 14 from the day of dosing).

#### **4.4. Safety Analyses**

Safety analyses will be conducted using the Safety population.

##### **4.4.1. Study Drug Administration**

The number of subjects who experienced dose interruptions will be tabulated, as well as the reason for the interruption (AE, any reason).

Dosing information for each subject will be presented in a data listing.

##### **4.4.2. Adverse Events**

All AEs will be coded using the MedDRA coding system and displayed in tables and data listings by SOC and preferred term.

Analyses of AEs will be performed for those events that are considered treatment-emergent, where treatment-emergent is defined as any AE with onset after the administration of study medication through 30 days after the date of infusion, or any event that was present at baseline but worsened in intensity or was subsequently considered drug-related by the Investigator through the end of the study. Serious AEs that occur after 30 days post-infusion will be considered treatment-emergent, if judged by the Investigator to be at least possibly related to the study drug.

Adverse events are summarized by subject incidence rates; therefore, in any tabulation, a subject contributes only once to the count for a given AE (SOC or preferred term).

The numbers and percentages of subjects with any treatment-emergent AE (TEAE), any related TEAE, any Grade  $\geq 3$  AE, any related Grade  $\geq 3$  AE, any infusion related reaction, any AE of special interest (AESI), any infection adverse event, any serious AE, any related serious AE, any AE leading to study treatment discontinuation and any AE leading to death will be summarized by treatment group and overall. In these tabulations, each subject will contribute only once (i.e., the most related occurrence or the greatest severity grade) to each of the incidence rates in the descriptive analysis, regardless of the number of episodes.

No formal hypothesis-testing analysis of adverse event incidence rates will be performed.

All AEs occurring on-study will be listed in subject data listings.

By-subject listings also will be provided for the following: subject deaths, serious AEs, AEs leading to discontinuation of study drug, and Grade  $\geq 3$  adverse events. In addition, separate listings will be provided for AESIs and infection AEs.

#### 4.4.3. Laboratory Data

Clinical laboratory values will be expressed using the International System of Units (SI units).

The actual value and change from baseline to each on-study evaluation will be summarized for each clinical laboratory parameter, including hematology and clinical chemistry. In the event of repeat values, the last non-missing value per study day/time will be used. Select laboratory parameters will be graded according to Common Terminology Criteria for Adverse Events (CTCAE) Version 4.3. Shifts from baseline to the worst value and shifts to the last value will be presented. Box plots of change from baseline over time will be presented for hematology and clinical chemistry parameters.

All laboratory data will be provided in data listings. A subset listing will be presented for all abnormal laboratory values.

#### 4.4.4. Vital Signs and Physical Examination

Vital sign measurements will include systolic and diastolic blood pressure, pulse rate, respiratory rate, and temperature. The actual value and change from baseline to each on-study evaluation will be summarized for vital signs. Vital sign measurements will be presented for each subject in a data listing.

All abnormal physical examination findings will be presented in a data listing.

#### 4.4.5. Electrocardiogram

The actual value and change from baseline to each on-study evaluation will be summarized for ECG interval data (PR, QRS, QTc). Electrocardiogram overall interpretation will be summarized, including the number and percentage of subjects with normal, abnormal, and clinically significant abnormal results at baseline and each study visit.

Electrocardiogram data for each subject will be provided in a data listing.

#### 4.4.6. Concomitant Medications

Concomitant medications will be coded using the WHO Drug Dictionary. Results will be tabulated by anatomic therapeutic class (ATC) and preferred term.

Concomitant medications will be tabulated by treatment group, where any medications that did not end prior to administration of study drug will be included. If an end date is missing or the medication is ongoing, the medication will be included in the summary table. Partial end dates will be compared to the date of infusion; a medication will be considered concomitant unless the partial end date shows unequivocally that the medication ended prior to the date of infusion.

The use of concomitant medications will be provided in a by-subject data listing.

#### 4.4.7. Radiographic Lung Imaging

Lung imaging results at each time point will be summarized by presenting the numbers and percentages of subjects with findings, for each of the findings specified on the eCRF.

All lung imaging findings will be presented in a data listing.

## 5. CHANGES TO PLANNED ANALYSES

- Per protocol, the following exploratory efficacy endpoints are noted in [Section 1.2.5.2](#) but will not be included in the analysis of Part 2:
  - Change from baseline in the ratio of arterial oxygen partial pressure ( $\text{PaO}_2$ ) to fractional inspired oxygen ( $\text{FiO}_2$ ) (Day 7 and Day 14 from the day of dosing)
  - Length of time to normalization of oxygen saturation ( $\text{SpO}_2$ ) which is defined as  $\text{SpO}_2 \geq 94\%$  sustained minimum 24 hours
  - Proportion of subjects requiring mechanical ventilation (Day 7 and Day 14 from the day of dosing)
  - Changes from baseline in serum cytokines including IL-1RA, IL-1 $\beta$ , IL-2, IL-6, IL-7, IL-10, GCSF, GM-CSF, CCL2, CCL3, CXCL10, TNF- $\alpha$ , and IFN- $\gamma$  (Day 2, Day 3, Day 5, Day 7, and Day 14 from the day of dosing)
- The protocol states that for the Part 2 Phase 3 portion, multiplicity will be adjusted by a gatekeeping procedure. However, due to the small number of subjects enrolled into Phase 3, data from Phase 2 and Phase 3 will be pooled, and the primary treatment group comparison will be based on combined TJ003234 6 mg/kg and TJ003234 10 mg/kg *versus* placebo. The gatekeeping procedure will be applied to the primary and key secondary endpoints based on the pooled treatment group comparisons. Supportive analyses will compare each dose level *versus* placebo, but will not be subject to the gatekeeping procedure.



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## **7. CLINICAL STUDY REPORT APPENDICES**

### **7.1. Statistical Tables to be Generated**

A list of tables, listings, and figures to be generated, and table and listing shells are provided as a separate document.

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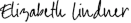


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