

APPENDIX 3. PROTOCOL SYNOPSIS

Name of Sponsor/Company: ImmunityBio, Inc.	
Nonapproved Investigational Products: 1. Recombinant Bacillus Calmette-Guérin (rMBCG) Approved Investigational Products: 1. None	
Name of Active Ingredients: Nonapproved Investigational Products 1. rMBCG Approved Investigational Products 1. None	
Title of Study: ResQ133A-NMIBC: Phase 1/2 Clinical Trial of Intravesical Recombinant Mycobacterium (rMBCG) in Participants With NMIBC Eligible to Receive Intravesical Tice BCG	
Study Number: ResQ133A-NMIBC	
IND Number: 031376	
Study Phase: Phase 1/2	
Study Objectives and Endpoints:	
Primary Objective:	Primary Endpoint:
To assess safety of intravesical rMBCG in participants eligible for intravesical TICE BCG.	- Adverse events (AEs) and serious AEs (SAEs) graded using the National Cancer Institute (NCI) Common Terminology Criteria for Adverse Events (CTCAE) v5.0. - Clinically significant changes in laboratory tests and vital signs.
Secondary Objectives:	Secondary Endpoints:
CIS (+/- Ta/T1 papillary disease) - To assess the CR rate at any time - To assess duration of CR Papillary Only - To assess DFS	CIS (+/- Ta/T1 papillary disease) - CR Rate - Duration of CR Papillary Only - DFS

Exploratory Objectives	Exploratory Endpoints
- To assess rBCG levels in urine and blood (pharmacokinetics) - To assess PPD IgG levels in blood (immunogenicity)	- To assess pharmacokinetics by measuring rBCG levels in urine and blood (serum) - To assess immunogenicity by measuring PPD IgG levels in blood (serum)
Study Design: This is a phase 1/2, open-label, multicenter study of intravesical rMBCG in participants with NMIBC who have not received BCG and have histologically confirmed presence of CIS (+/- Ta/T1 papillary disease) or have primary or recurrent stage Ta and/or T1 papillary tumors following TUR. Participants will receive rMBCG treatment via a urinary catheter in the bladder as described below. Analysis will be stratified by gender and baseline disease status (CIS, CIS/Ta or T1, or papillary only). The primary objective is to assess the safety of intravesical rMBCG as determined by incidence and severity of AEs. <u>Induction Treatment Period (Initial 6 Weeks of Treatment Followed by 6 Weeks of Rest)</u> Participants will receive an induction course of 1–19.2e8 CFU (1 vial) rMBCG via a urinary catheter in the bladder (ie, intravesical administration) weekly for the first 6 weeks of the initial treatment period. Participants who receive at least 1 dose of study drug during the initial treatment period will have a response assessment at the end of month 3 (week 12). <u>Maintenance Treatment Period (Weeks 12 to 24)</u> Following the week 12 (end of month 3) response assessment: Participants with no disease or low grade (LG) Ta disease will initiate a maintenance course of study treatment starting approximately on week 13, consisting of weekly study treatment for 3 weeks. For participants who have LG Ta disease, a TURBT procedure is required before administration of the first maintenance treatment. - Participants with no disease or low grade (LG) Ta disease will initiate a maintenance course of study treatment starting approximately on week 13, consisting of weekly study treatment for 3 weeks (Participants who are benefitting from treatment can continue on maintenance treatment (weekly for 3 weeks, every 3 months) until progression, unacceptable toxicity, withdrawal of consent, or until the Investigator determines that it is no longer in the participants best interest to continue treatment with the rMBCG). For participants who have LG Ta disease, a TURBT procedure is required before administration of the first maintenance treatment. - Participants with $\geq$ T1 disease are not eligible for additional treatment. Treatment will be discontinued if the participant becomes ineligible for additional study treatment, has unacceptable toxicity, or if the participant withdraws consent. The participant may withdraw from the study at any time for any reason or may be withdrawn if the Investigator feels it is no longer in the participant's best interest to continue treatment. Response assessments will occur every 12 weeks (3 months) through week 52 (month 12). Responses will be assessed by cystoscopy (Investigator report), confirmatory bladder biopsy (local read), and urine cytology. The primary objective is to assess the safety of intravesical rMBCG as determined by incidence and severity of AEs. Safety will be assessed for all participants and will include vital signs, clinically significant changes in safety laboratory tests, and the incidence and severity of AEs, graded	

using the NCI Common Terminology Criteria for Adverse Events (CTCAE) Version 5.0. Blood samples will be collected for safety laboratory tests

A bladder biopsy will be required for any participant with a urine cytology that is positive or a repeated cytology that is suspicious for malignancy (and there is no suspicious or abnormal finding on cystoscopy to biopsy) after starting study treatment. A repeat urine cytology must be performed within 14 days and confirm the suspicious or positive finding to avoid unnecessary biopsies for potential false-positive urine cytology. If the repeat urine cytology is normal or atypical then no biopsies are indicated. For participants who have no suspicious lesions at weeks 12, 24, or 36, random biopsies of the trigone, dome, right and left lateral wall, and posterior wall should be performed at 52 weeks to confirm CR. Participants who have CR and a biopsy prior to week 52 that is negative and confirms CR do not require random biopsies at week 52 to confirm CR. Safety will be assessed for all participants and will include vital signs, clinically significant changes in safety laboratory tests, and the incidence and severity of AEs, graded using the NCI Common Terminology Criteria for Adverse Events (CTCAE) Version 5.0. Blood samples will be collected for safety laboratory tests.

Exploratory endpoints, addressing pharmacokinetic and immunogenicity analyses, will be evaluated in 10 patients through the study.

All participants, including those who become ineligible for treatment, will be followed for disease progression, post study therapies, and survival through 12 months from first dose of study drug.

Enrollment (planned):

Up to 50 participants will be screened for up to 40 participants to be treated with rMBCG.

Eligibility Criteria:

Women and men of all races and ethnic groups are eligible for this trial.

Inclusion Criteria:

Participants must meet ALL of the following criteria for inclusion in the study:

1. Male or female participants 18 years of age or older.
2. Histologic confirmation of BCG naive non-muscle invasive urothelial carcinoma of the bladder (mixed histology tumors allowed if urothelial histology is predominant histology) AND either i) histologically confirmed presence of NMIBC CIS (with or without Ta/T1 papillary disease) OR ii) primary or recurrent stage Ta and/or T1 papillary tumors following transurethral resection (TUR).
3. Absence of resectable disease after TURBT procedures (residual CIS acceptable; participants with T1 tumors must undergo repeat resection and biopsy [inclusive of muscularis propria] of the T1 tumor site if initial biopsy did not include muscularis propria).
4. Eastern Cooperative Oncology Group (ECOG) performance status ([Appendix 1](#)) of 0, 1, or 2.
5. Voluntary written informed consent and agreement to comply with all protocol-specified procedures and follow-up evaluations.
6. The providing physician has no access to FDA approved BCG due to shortage of TICE BCG.

Exclusion Criteria:

Participants with ANY of the following criteria are excluded from participation in the study:

1. Life expectancy <2 years
2. Any of the following clinical laboratory values at the time of enrollment:
 - a. Absolute neutrophil count (ANC) <800/ μ L
 - Platelets < 50,000/ μ L

Liver function abnormalities as indicated by ongoing hepatic enzyme elevation (aspartate aminotransferase [AST] or alanine aminotransferase [ALT]) > 2 X upper limit of normal (ULN) Renal insufficiency as indicated by a creatinine level >3 X ULN - History of or evidence of muscle-invasive, locally advanced, metastatic and/or extravesical bladder cancer (inclusive of the prostatic urethra); or any other cancer within the past 5 years that is progressing or requires active treatment. Exceptions are adequately treated basal cell or squamous cell skin cancer that has undergone potentially curative therapy or in situ cervical cancer; and adequately treated stage I or II cancer or stable prostate cancer from which the participant is currently in complete remission, and is under active surveillance or hormone control. - Symptomatic congestive heart failure (CHF), New York Heart Association (NYHA) Class III or IV heart failure (Appendix 2) or other clinical signs of severe cardiac dysfunction. - Severe/unstable angina pectoris, or myocardial infarction within 6 months prior to study entry. - History or evidence of uncontrollable central nervous system disease. - Active systemic infection requiring parenteral antibiotic therapy. All prior infections must have resolved following optimal therapy. - Concurrent febrile illness, active urinary tract infection, active tuberculosis, a history of hypotension or anaphylactic reactions. - Ongoing chronic systemic steroid therapy required (>10 mg oral prednisone daily or equivalent). - Women who are pregnant or nursing. Female participants of childbearing potential must have a negative pregnancy test and must adhere to using a medically acceptable method of birth control prior to screening and agree to continue its use during the study and for 30 days after the last dose of study drug, or be surgically sterilized (eg, hysterectomy or tubal ligation). Women of childbearing potential are defined as any female who has experienced menarche and who is NOT permanently sterile or postmenopausal. Postmenopausal is defined as 12 consecutive months with no menses without an alternative medical cause. Males must agree to use barrier methods of birth control while on study and for 90 days post last dose of study drug. - Participants currently receiving investigational or commercial anticancer agents or anticancer therapies other than rMBCG and supportive care therapies for active disease. - Concurrent use of other investigational agents (not including FDA authorized drugs for the prevention and treatment of COVID-19). - Other illness or condition, including laboratory abnormalities, which in the opinion of the Investigator would exclude the participant from participating in this study. This includes, but is not limited to, serious medical conditions or psychiatric illness likely to interfere with participation in the study.		
Investigational Products, Dosage, and Mode of Administration:		
Nonapproved Products	Dosage	Mode of Administration
rMBCG	1–19.2e8 CFU (1 vial) Weekly for 6 weeks (induction); Weekly for 3 weeks (maintenance)	Intravesical