Study of bb2121 in Multiple Myeloma

CLINICALTRIALS.GOV IDENTIFIER	RECRUITMENT STATUS	FIRST POSTED	LAST UPDATE POSTED
NCT02658929	ACTIVE, NOT RECRUITING	JANUARY 20, 2016	AUGUST 21, 2019

STUDY DESCRIPTION

Brief Summary

Study CRB-401 is a 2-part, non-randomized, open label, multi-site Phase 1 study of bb2121 in adults with relapsed/refractory multiple myeloma (MM).

Condition or Disease: Multiple Myeloma

Intervention/treatment: Biological: bb2121

Phase: Phase 1

DETAILED DESCRIPTION

This is a 2-part, non-randomized, open label, multi-site Phase 1 study. the study design consists of 2 parts: Part A (Dose Escalation), in which the RP2D is determined, and Part B (Expansion Cohorts), in which subjects are treated with the determined RP2D.
Following consent, enrolled subjects will undergo a leukapheresis procedure to collect autologous mononuclear cells for manufacture of investigational drug product (bb2121). Following manufacture of the drug product, subjects will receive lymphodepleting therapy with fludarabine and cyclophosphamide prior to bb2121 infusion. All subjects who have received bb2121 infusion will be followed for up to 60 months on CRB-401.
All subjects who complete the study, as well as those who withdraw from the study after receiving bb2121 for reasons other than death or meeting the early termination criteria, will be asked to continue to undergo long-term follow-up in a companion study for up to 15 years after their last bb2121 infusion, with a focus on long-term safety and efficacy.

STUDY DESIGN

Study Type: Interventional

Estimated Enrollment : 67 participants

Intervention Model : Single Group Assignment

Masking: None (Open Label) ()

Primary Purpose: Treatment

Official Title: CRB-401 A Phase 1 Study of bb2121 in BCMA-Expressing Multiple Myeloma

Actual Study Start Date: December 2015

Estimated Primary Completion Date: November 2023

Estimated Study Completion Date: November 2023

ARMS AND INTERVENTIONS

Arm	Intervention/treatment
Experimental: bb2121 bb2121 autologous CAR T cells will be infused at a dose ranging from 150 - 450 x 10^6 CAR+ T cells after receiving lymphodepleting chemotherapy	Biological: bb2121 bb2121

OUTCOME MEASURES

Primary Outcome Measures:	1. Incidence of adverse events (AEs) and abnormal laboratory test results, including dose limiting toxicities (DLTs) [Time Frame: Day 1 through Month 60]
Secondary Outcome Measures:	1. Disease-specific response criteria including: overall response rate (ORR), complete response (CR), very good partial response (VGPR), and partial response (PR) according to the International Myeloma Working Group (IMWG) Uniform Response Criteria for MM. [Time Frame: Day 1 through Month 60] Percentage of subjects who achieved a CR, VGR, PR according to IMWG Uniform Response Criteria for Multiple Myeloma (MM).

ELIGIBILITY CRITERIA

Ages Eligible for Study: 18 Years and older (Adult, Older Adult)

Sexes Eligible for Study: All

Accepts Healthy Volunteers: No

Criteria

Inclusion Criteria:
- 18 years of age at the time of signing informed consent
- Eastern Cooperative Oncology Group (ECOG) performance status 0 or 1
- Subjects must have measurable disease including at least one of the criteria below:
Serum M-protein greater or equal to 0.5 g/dL Urine M-protein greater or equal to 200 mg/24 h Serum free light chain (FLC) assay: involved FLC level greater or equal to 10 mg/dL (100 mg/L) provided serum FLC ratio is abnormal -Women of child-bearing potential (WCBP) must have a negative serum pregnancy test prior to treatment and refrain from tissue donation including egg donation or any other tissue/blood/organ donations, for at least 1 year following bb2121 infusion. All sexually active WCBP and all sexually active male subjects must agree to use effective methods of birth control throughout the study. All sexually active males subjects must refrain from tissue donation including egg donation or any other tissue/blood/organ donations, for at least 1 year following bb2121 infusion.
Part A:
Diagnosis of MM with relapsed or refractory disease and have had at least 3 different prior lines of therapy including proteasome inhibitor (e.g., bortezomib or carfilzomib) and immunomodulatory therapy (IMiD; e.g., lenalidomide or pomalidomide), or have "double refractory" disease to a proteasome inhibitor and IMiD, defined as progression on or within 60 days of treatment with these agents
- Part B: Diagnosis of MM with relapsed or refractory disease with previous exposure to PI (e.g., bortezomib or carfilzomib), IMiDs (e.g., lenalidomide or pomalidomide), and daratumumab, and refractory (based on IMWG criteria) to their last line of therapy
Exclusion Criteria:
- Subjects with known central nervous system disease
- Inadequate hepatic function
- Inadequate renal function
- Inadequate bone marrow function
- Presence of active infection within 72 hours
- Significant co-morbid condition or disease which in the judgment of the Investigator would place the subject at undue risk or interfere with the study; examples include, but are not limited to, cirrhotic liver disease, sepsis, recent significant traumatic injury, and other conditions
- Subjects with second malignancies in addition to myeloma if the second malignancy has required therapy in the last 3 years or is not in complete remission
- Subjects with a history of class III or IV congestive heart failure or non-ischemic cardiomyopathy, unstable angina, myocardial infarction, or ventricular arrhythmia requiring medication or mechanical control within the previous 6 months
- Known human immunodeficiency virus (HIV) positivity
- Subjects who have plasma cell leukemia or clinically significant amyloidosis
- Pregnant or lactating women

CONTACTS AND LOCATIONS

Contacts

Locations

United States, California	Stanford Cancer Center	Stanford
United States, Maryland	National Cancer Institute	Bethesda
United States, Massachusetts	Massachusetts General Hospital	Boston
United States, Massachusetts	Beth Israel Deaconess Medical Center	Boston
United States, Massachusetts	Dana Farber Cancer Institute	Boston
United States, Minnesota	Mayo Clinic	Rochester
United States, New Jersey	Hackensack University Medical Center	Hackensack
United States, New York	Mt. Sinai Medical Center Division of Hematology/Oncology	New York
United States, Tennessee	Sarah Cannon Research Inst	Nashville

Sponsors and Collaborators

Celgene

bluebird bio

Investigator

Study Director : Kristen Hege, MD Celgene Corporation

MORE INFORMATION

Other Publications	Raje N, Berdeja J, Lin Y, Siegel D, Jagannath S, Madduri D, Liedtke M, Rosenblatt J, Maus MV, Turka A, Lam LP, Morgan RA, Friedman K, Massaro M, Wang J, Russotti G, Yang Z, Campbell T, Hege K, Petrocca F, Quigley MT, Munshi N, Kochenderfer JN. Anti-BCMA CAR T-Cell Therapy bb2121 in Relapsed or Refractory Multiple Myeloma. N Engl J Med. 2019 May 2;380(18):1726-1737. doi: 10.1056/NEJMoa1817226.
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Other Study ID Numbers :	CRB-401
First Posted :	January 20, 2016
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Individual Participant Data (IPD) Sharing Statement:		
Plan to Share IPD:	Undecided	
Keywords provided by Celgene:	*bb2121* *CAR T Cell* *BCMA Multiple Myeloma* *Efficacy and Safety*	
Additional relevant MeSH terms :	*Multiple Myeloma*	*Neoplasms, Plasma Cell*