



## **News Release**

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## **Janssen Reports New Data for BCMA CAR-T, Cilta-Cel, Showing Deep and Durable Responses in Patients with Relapsed or Refractory Multiple Myeloma**

*Eighteen-month follow-up from pivotal CARTITUDE-1 study, including progression-free-survival data, to be presented at ASCO and EHA Annual Meetings*

*Findings from the Phase 2 CARTITUDE-2 study will be presented for the first time*

**June 1, 2021 (RARITAN, N.J.)** – The Janssen Pharmaceutical Companies of Johnson & Johnson today announced new data for ciltacabtagene autoleucel (cilta-cel), an investigational B-cell maturation antigen (BCMA)-directed CAR-T therapy, demonstrated sustained efficacy and durable responses in heavily pretreated patients with relapsed/refractory multiple myeloma (RRMM). Updated results from the Phase 1b/2 CARTITUDE-1 study (n=97) with a longer-term follow-up at a median of 18 months showed an overall response rate (ORR) of 98 percent, with 80 percent of patients achieving a stringent complete response (sCR), highlighting a deepening response over time (increasing from 67 percent presented [at ASH 2020](#)).<sup>1</sup> These data also showed 66 percent of patients were progression free and alive at 18 months (95 percent Confidence Interval [CI], range, 54.9–75.0). The latest findings to be presented at the American Society of Clinical Oncology (ASCO) Annual Meeting, showed an overall survival (OS) of 81 percent (95 percent CI, range, 71.4–87.6)<sup>1</sup> and response rates comparable across prespecified subgroups and lines of treatment ([Abstract #8005](#)).<sup>1</sup> Data from the CARTITUDE-1 study supported the U.S. Food and Drug Administration Biologics License Application, which has recently been accepted for priority review.

“The efficacy results observed in heavily pretreated patients with multiple myeloma receiving cilta-cel are remarkable,” said Saad Z. Usmani, M.D.<sup>†</sup>, Division Chief of Plasma Cell Disorders, Levine Cancer Institute, and principal study investigator. “With the possibility of achieving the progression-free survival reported and responses deepening as observed in the longer-term follow-up, I’m hopeful that cilta-cel will be part of the armamentarium in the future for patients in need of an additional treatment option.”

The study included patients who had received a median of six prior treatment regimens (range, 3-18). All patients were triple-class [immunomodulatory agent (IMiD), a proteasome inhibitor (PI) and an anti-CD38 antibody] exposed, while 42 percent of patients were penta-drug refractory and 99 percent of patients were refractory to the last line of therapy.<sup>1</sup> Fourteen percent of patients achieved a very good partial response (VGPR) and 3 percent achieved a partial response (PR).<sup>1</sup> Median time to first response was one month (range, 0.9–10.7 months) and responses deepened over time.<sup>1</sup> Among 61 minimal residual disease (MRD) evaluable patients, 92 percent of patients achieved MRD negativity status at  $10^{-5}$  at a median of one month (range, 0.8-7.7 months) post infusion.<sup>1</sup>

The data demonstrated a consistent safety profile for cilta-cel and no new safety signals were observed with longer follow-up.<sup>1</sup> The most common hematologic adverse events (AEs) observed in the CARTITUDE-1 study were neutropenia (96 percent); anemia (81 percent); thrombocytopenia (79 percent); leukopenia (62 percent); and lymphopenia (53 percent).<sup>1</sup> Cytokine release syndrome (CRS) of any grade was observed in 95 percent of patients with a median duration of four days (range, 1-97), and 99 percent of which resolved within 14 days of onset.<sup>1</sup> Of the 92 patients with CRS, 95 percent experienced Grade 1/2 events.<sup>1</sup> Neurotoxicity of any grade was observed in 21 percent (n=20) of patients, with Grade 3 or higher neurotoxicity observed in 10 percent (n=10) of patients.<sup>1</sup>

### **First Results from the CARTITUDE-2 Study**

Findings from Cohort A (n=20) in the Phase 2 CARTITUDE-2 ([NCT04133636](https://clinicaltrials.gov/ct2/show/study/NCT04133636)) study evaluating the safety and efficacy of cilta-cel in patients with multiple myeloma whose disease progressed after one to three prior lines of therapy, and who were lenalidomide refractory, will be presented for the first time at ASCO ([Abstract #8013](#)) and as an oral presentation at the European Hematology Association (EHA) Congress ([Abstract #S190](#)). Results from this cohort showed early and deep responses at a median of 5.8 months of follow-up<sup>2</sup>, and an ORR of 95 percent with 45 percent of patients achieving a sCR, 30 percent of patients achieving a CR, 10 percent of patients achieving a

VGPR, and 10 percent of patients achieving a PR.<sup>2</sup> The overall safety profile, including incidence of CRS and most common hematologic AEs, was consistent with observations in the CARTITUDE clinical development program.<sup>2</sup>

Results in a separate poster at ASCO ([Abstract #8028](#)) will detail the incidence, mitigation and management of neurologic AEs in patients in Cohort A from the CARTITUDE-2 study.<sup>3</sup>

Neurotoxicities occurred in 20 percent (n=4) of patients; however, there were no movement and neurocognitive treatment-emergent AEs or Grade 3 neurotoxicity events observed in patients of Cohort A.<sup>3</sup>

“Our aim is to develop therapies that improve patient outcomes, and importantly in patients with heavily pretreated multiple myeloma who have no other options,” said Sen Zhuang, M.D., Ph.D., Vice President, Clinical Research and Development, Janssen Research & Development, LLC. “The results from the CARTITUDE clinical development program continue to show the promise of cilta-cel and support our efforts to bring this important treatment to patients in need in the near future.”

### **About CARTITUDE-1**

CARTITUDE-1 ([NCT03548207](#)) is an ongoing Phase 1b/2, open-label, multi-center study evaluating the safety and efficacy of cilta-cel in adults with relapsed and/or refractory multiple myeloma, including 99 percent who were refractory to the last line of treatment and 88 percent of who were triple-class refractory, meaning their cancer did not respond, or no longer responds, to an immunomodulatory agent (IMiD), a proteasome inhibitor (PI) and an anti-CD38 antibody.

The primary objective of the Phase 1b portion of the study was to characterize the safety and confirm the dose of cilta-cel, informed by the first-in-human study with LCAR-B38M CAR-T cells (LEGEND-2). Based on the safety profile observed in this portion of the CARTITUDE-1 study, the Phase 2 portion further evaluated the efficacy of cilta-cel at the recommended Phase 2 dose with overall response as the primary endpoint.<sup>1</sup>

### **About CARTITUDE-2**

CARTITUDE-2 ([NCT04133636](#)) is an ongoing, multi-cohort Phase 2 study evaluating the safety and efficacy of cilta-cel in patients with multiple myeloma. CARTITUDE-2 Cohort A evaluates patients who had progressive multiple myeloma after 1–3 prior lines of therapy, including a PI and an IMiD, were lenalidomide refractory, and had no prior exposure to BCMA-targeting agents. The primary endpoint is minimal residual disease (MRD) 10<sup>-5</sup> negative rate.<sup>2,3</sup>

### **About ciltacabtagene autoleucel (cilta-cel)**

Cilta-cel is an investigational chimeric antigen receptor T cell (CAR-T) therapy that is being studied in a comprehensive clinical development program for the treatment of patients with relapsed or refractory multiple myeloma and in earlier lines of treatment. The design consists of a structurally differentiated CAR-T with two BCMA-targeting single domain antibodies.<sup>1</sup> In December 2017, Janssen Biotech, Inc. [entered](#) into an exclusive worldwide license and collaboration agreement with Legend Biotech USA, Inc. to develop and commercialize cilta-cel.

In April 2021, Janssen [announced](#) its submission of a Marketing Authorisation Application to the European Medicines Agency seeking approval of cilta-cel for the treatment of patients with relapsed and/or refractory multiple myeloma. In December 2020, Janssen [announced](#) initiation of a rolling submission of its BLA to the U.S. FDA for cilta-cel, which was completed in Q1 2021. In addition to U.S. Breakthrough Therapy Designation [granted](#) in December 2019, cilta-cel [received](#) a PRIority MEDicines (PRIME) designation from the European Commission in April 2019, and a Breakthrough Therapy Designation in China in August 2020. Janssen also received Orphan Drug Designation for cilta-cel from the U.S. FDA in February 2019, and from the European Commission in February 2020.

### **About Multiple Myeloma**

Multiple myeloma is an incurable blood cancer that affects a type of white blood cell called plasma cells, which are found in the bone marrow.<sup>4,5</sup> When damaged, these plasma cells rapidly spread and replace normal cells in the bone marrow with tumors. In 2021, it is estimated that more than 34,000 people will be diagnosed, and more than 12,000 people will die from the disease in the U.S.<sup>6</sup> While some women and men diagnosed with multiple myeloma initially have no symptoms, most patients are diagnosed due to symptoms that can include bone fracture or pain, low red blood cell counts, tiredness, high calcium levels, kidney problems or infections.<sup>6</sup>

### **About the Janssen Pharmaceutical Companies of Johnson & Johnson**

At Janssen, we're creating a future where disease is a thing of the past. We're the Pharmaceutical Companies of Johnson & Johnson, working tirelessly to make that future a reality for patients everywhere by fighting sickness with science, improving access with ingenuity, and healing hopelessness with heart. We focus on areas of medicine where we can make the biggest difference: Cardiovascular & Metabolism, Immunology, Infectious Diseases & Vaccines, Neuroscience, Oncology, and Pulmonary Hypertension.

Learn more at [www.janssen.com](http://www.janssen.com). Follow us at [@JanssenUS](https://twitter.com/JanssenUS) and [@JanssenGlobal](https://twitter.com/JanssenGlobal). Janssen Research & Development, LLC and Janssen Biotech, Inc. are part of the Janssen Pharmaceutical Companies of Johnson & Johnson.

<sup>†</sup>Saad Z. Usmani, M.D. has been a paid consultant to Janssen; he has not been paid for any media work.

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#### *Cautions Concerning Forward-Looking Statements*

*This press release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 regarding product development and the potential benefits and treatment impact of cilta-cel. The reader is cautioned not to rely on these forward-looking statements. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate or known or unknown risks or uncertainties materialize, actual results could vary materially from the expectations and projections of Janssen Research & Development, LLC, Janssen Biotech, Inc., any of the other Janssen Pharmaceutical Companies, and/or Johnson & Johnson. Risks and uncertainties include, but are not limited to: challenges and uncertainties inherent in product research and development, including the uncertainty of clinical success and of obtaining regulatory approvals; uncertainty of commercial success; manufacturing difficulties and delays; competition, including technological advances, new products and patents attained by competitors; challenges to patents; product efficacy or safety concerns resulting in product recalls or regulatory action; changes in behavior and spending patterns of purchasers of health care products and services; changes to applicable laws and regulations, including global health care reforms; and trends toward health care cost containment. A further list and descriptions of these risks, uncertainties and other factors can be found in Johnson & Johnson's Annual Report on Form 10-K for the fiscal year ended January 3, 2021, including in the sections captioned "Cautionary Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors," and in the company's most recently filed Quarterly Report on Form 10-Q, and the company's subsequent filings with the Securities and Exchange Commission. Copies of these filings are available online at [www.sec.gov](http://www.sec.gov), [www.jnj.com](http://www.jnj.com) or on request from Johnson & Johnson. None of the Janssen Pharmaceutical Companies nor Johnson & Johnson undertakes to update any forward-looking statement as a result of new information or future events or developments.*

#### References

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