# First AML Patient Transplanted with Vor Bio's Trem-cel Demonstrated Durable Engraftment through Multiple Mylotarg™ Cycles at Initial Dose Level

February 16, 2023

- *Trem-cel exhibited robust engraftment five months post-transplant through three cycles of Mylotarg*
- *Mylotarg treatment enriched CD33-negative donor hematopoiesis*
- *Second patient successfully received trem-cel transplant and achieved neutrophil engraftment and platelet recovery*

CAMBRIDGE, Mass., Feb. 16, 2023 (GLOBE NEWSWIRE) -- Vor Bio (Nasdaq: VOR), a clinical-stage cell and genome engineering company, presented clinical data from VBP101, its Phase 1/2a multicenter, open-label, first-in-human study of trem-cel (previously VOR33) in patients with acute myeloid leukemia (AML). In the first patient, trem-cel maintained hematopoiesis through three cycles of Mylotarg (gemtuzumab ozogamicin), which was well-tolerated at the initial dose level of 0.5 mg/m$^2$. A second patient has successfully received a trem-cel transplant and engrafted normally. These data were presented today by Miguel-Angel Perales, MD, Chief, Adult Bone Marrow Transplant Service, Memorial Sloan Kettering Cancer Center in a late-breaking poster at the 2023 Tandem Meetings (Transplantation & Cellular Therapy Meetings of ASTCT ™and CIBMTR®) in Orlando, FL.

"These data continue to demonstrate the potential of trem-cel as a next-generation hematopoietic stem cell transplant, which could transform treatment for patients with blood cancers such as AML," said Dr. Eyal Attar, Vor Bio's Chief Medical Officer. "We are also encouraged that a second patient successfully received a trem-cel transplant and look forward to learning more as we treat additional patients and dose escalate Mylotarg. In addition, we plan to file an IND for VCAR33$^{ALLO}$, a novel allogeneic CAR-T treatment which we believe could be more efficacious than Mylotarg in combination with a trem-cel transplant."

**Trem-cel Safety & Durability**
Patient 1 maintained neutrophil and platelet counts approximately five months (147 days) after transplantation with trem-cel. Due to detectable measurable residual disease (MRD), Patient 1 was moved to other therapies following administration of the third dose of Mylotarg, subsequently relapsed, and remains on study for long-term follow-up.

Similar to Patient 1, Patient 2 successfully received a trem-cel transplant and showed robust cell recovery with neutrophil engraftment occurring at Day 11 and platelet recovery on Day 17. Trem-cel was well tolerated in both patients, with no related and no unexpected adverse events (AEs) reported.

**No Hematological Toxicity Observed Through Repeated Doses of Mylotarg**
In Patient 1, neutrophil and platelet cell counts were maintained following three sequential Mylotarg doses at 0.5 mg/m$^2$. This suggests potential protection from Mylotarg-related hematotoxicity. The only AE observed possibly related to Mylotarg through dose 3 was low grade nausea and vomiting, a known side-effect of Mylotarg. Mylotarg first-dose pharmacokinetics revealed 0.5 mg/m$^2$ achieved Cmax and AUC parameters equivalent to 1-2 and 4-5 mg/m$^2$ accordingly, potentially due to the decreased CD33 antigen sink.

**Evidence of Mylotarg Causing CD33-negative Donor Cell Enrichment**
In Patient 1, CD33-negative donor hematopoiesis was enriched across hematopoietic cell types following Mylotarg administration. In addition, the CD33 deletion was observed in donor cells of myeloid and lymphoid origin which were both enriched following Mylotarg, suggesting that CD33 is expressed in early hematopoietic cells and that Mylotarg treatment enriches for edited donor cells.

Interest in enrollment in VBP101 continues to be strong with a high level of investigator enthusiasm at all nine study sites. The company is moving forward with dose escalation of Mylotarg per the 3+3 dose escalation schema in the protocol. The Company is also on-track to submit an IND in the first half of 2023 for VCAR33$^{ALLO}$, a CAR-T therapy using allogeneic healthy donor-derived cells, which it intends use in combination with trem-cel as a Treatment System.

**About AML**
AML is the most common type of acute leukemia in adults and one of the deadliest and most aggressive blood cancers, affecting 20,000 newly diagnosed patients each year in the United States. Approximately half of patients with AML who receive a hematopoietic cell transplant (HCT) suffer a relapse of their leukemia, with two-year survival rates of less than 20%, and relapse rates are higher for patients with certain adverse risk features. The fragility of engrafted hematopoietic stem cells prevents treatment following transplant, giving the cancer a chance to return.

**About the VBP101 Clinical Trial**
VBP101 is a Phase 1/2a, multicenter, open-label, first-in-human study of trem-cel in participants with AML who are undergoing human leukocyte antigen (HLA)-matched allogeneic HCT. Trem-cel is an allogeneic CRISPR/Cas9 genome-edited hematopoietic stem and progenitor cell (HSPC) therapy product, lacking the CD33 protein. It is being investigated for participants with CD33$^+$ AML at high risk for relapse after HCT to allow post-HCT targeting of residual CD33$^+$ acute AML cells using Mylotarg without toxicity to engrafted cells. Participants undergo a myeloablative HCT with matched related or unrelated donor CD34-selected HSPCs engineered to remove CD33 expression (trem-cel drug product). Mylotarg is given after engraftment for up to four cycles. The primary endpoint is the incidence of successful engraftment, defined as the first day of 3 consecutive days of absolute neutrophil count (ANC) 500 cells/mm$^2$ by day 28. Part 1 of this study is evaluating the safety of escalating Mylotarg dose levels to determine the maximum tolerated dose (MTD) and recommended Phase 2 dose. Part 2 will expand the number of participants to evaluate the Mylotarg

recommended Phase 2 dose. For more information, visit: https://clinicaltrials.gov/ct2/show/NCT04849910

**About Trem-cel**
Tremtelectogene empogeditemcel (trem-cel), formerly VOR33, is a genome-edited hematopoietic stem and progenitor allogeneic donor product candidate where CD33 has been deleted using genome engineering. Transplant with trem-cel is designed to replace standard of care transplants for patients suffering from AML and potentially other blood cancers. Trem-cel has the potential to enable powerful targeted therapies in the post-transplant setting including CD33-targeted CAR-T cells.

**About Vor Bio**
Vor Bio is a clinical-stage cell and genome engineering company that aims to change the standard of care for patients with blood cancers by engineering hematopoietic stem cells to enable targeted therapies post-transplant. For more information, visit: www.vorbio.com.

**Forward-Looking Statements**
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The words “aim,” “anticipate,” “can,” “believe,” “continue,” “could,” “design,” “enable,” “expect,” “initiate,” “intend,” “may,” “on-track,” “ongoing,” “plan,” “potential,” “should,” “target,” “update,” “will,” “would,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements in this press release include Vor Bio’s statements regarding the feasibility of a trem-cel transplant to be successfully manufactured, to engraft normally, to maintain blood counts following treatment with Mylotarg following allogeneic hematopoietic cell transplant and to be well tolerated, the potential of Vor Bio’s platform, and timing expectations for additional regulatory filings. Vor Bio may not actually achieve the plans, intentions, or expectations disclosed in these forward-looking statements, and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in these forward-looking statements as a result of various factors, including: uncertainties inherent in the initiation and completion of preclinical studies and clinical trials and clinical development of Vor Bio’s product candidates; availability and timing of results from preclinical studies and clinical trials; whether interim results from a clinical trial will be predictive of the final results of the trial or the results of future trials; whether successful engraftment and platelet recovery will ultimately lead to efficacy of the product candidate; expectations for regulatory approvals to conduct trials or to market products; the success of Vor Bio’s in-house manufacturing capabilities and efforts; and availability of funding sufficient for its foreseeable and unforeseeable operating expenses and capital expenditure requirements. The interim data presented in this press release is based on two patients and future results for these patients or additional patients may not produce the same or consistent results. These and other risks are described in greater detail under the caption “Risk Factors” included in Vor Bio’s most recent annual or quarterly report and in other reports it has filed or may file with the Securities and Exchange Commission. Any forward-looking statements contained in this press release speak only as of the date hereof, and Vor Bio expressly disclaims any obligation to update any forward-looking statements, whether because of new information, future events or otherwise, except as may be required by law.

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