Pfizer Oncology

Inotuzumab ozogamicin (CMC-544) Fact Sheet

Inotuzumab ozogamicin is an investigational agent and has not been approved by regulatory agencies.

ABOUT INOTUZUMAB OZOGAMICIN	• Inotuzumab ozogamicin is an investigational antibody-drug conjugate (ADC) comprised of a monoclonal antibody (mAb) targeting CD22,[1] a cell surface antigen expressed on approximately 90 percent of B-cell malignancies,[2] linked to a cytotoxic agent. • When inotuzumab ozogamicin binds to the CD22 antigen on malignant B-cells, it is absorbed into the cell, at which point the cytotoxic agent calicheamicin is released to destroy the cell.[3] ○ Calicheamicin is a natural product of bacteria that was first discovered in caliche clay and was found to be toxic to normal and cancerous cells.[4]
WHAT IS THE SIGNIFICANCE OF AN ANTIBODY-DRUG CONJUGATE (ADC)?	• Chemotherapy is designed to eliminate fast-growing cancer cells, but it can also harm healthy proliferating cells, which causes side effects.[5] • Linking an ADC with a cytotoxic agent may allow chemotherapy to directly target the cancer cell.[6,7] ○ Focused delivery of the cytotoxic agent to tumor cells may maximize its antitumor effect while minimizing its normal tissue exposure, potentially resulting in an improved therapeutic index.[6] ○ Targeted delivery is expected to result in fewer toxicities than nontargeted systemic delivery of currently used cytotoxic combination chemotherapy.[6]
THE ROLE OF CD22	• CD22 is an important modulator of B-cell lymphocyte function and survival.[8] • CD22 is expressed only on mature B-cells, which allows for targeted delivery of the cytotoxic agent.[6] ○ Therefore, CD22 targeted chemotherapy is not expected to affect other tissue and should not impact the ability to generate new B-cells.[6] • Studies have shown that adding an ADC targeting CD22, such as inotuzumab ozogamicin, to existing treatments for B-cell non-Hodgkin lymphoma (NHL) may provide additional anti-tumor activity.[3] ○ Currently, approximately 50 percent of patients with aggressive NHL relapse following treatment with standard of care treatment.[9] • Additionally, there is preclinical evidence that an ADC targeting CD22, such as inotuzumab ozogamicin, may provide antitumor activity against CD22 positive acute lymphoblastic leukemia (ALL).[10] ○ CD22 has been shown to be expressed on the surface of more than 90 percent of leukemic blasts in a vast majority of B-Cell ALL patients.[10]
CLINICAL STUDIES	Pfizer is continuing to explore a clinical development program to determine which patients may benefit from inotuzumab ozogamicin in different B-cell malignancies: **Phase 3** • INO-VATE NHL (**IN**otuzumab **O**zogamicin trial to in**V**estig**A**te **T**olerability and **E**fficacy) Study 1008 – A multicenter, open-label, randomized, Phase 3 study of inotuzumab ozogamicin administered in combination with rituximab compared to defined investigator's choice therapy in subjects with relapsed or refractory CD22-positive aggressive NHL who are not candidates for intensive high-dose

	chemotherapy.[11] • INO-VATE ALL Study 1022 – An open-label, randomized, Phase 3 study of inotuzumab ozogamicin compared to a defined investigator's choice of chemotherapy in adult patients with relapsed or refractory CD22+ acute lymphoblastic leukemia (ALL).[12] **Phase 2** • Study 2005 – An open-label, single-arm Phase 2 study of inotuzumab ozogamicin plus rituximab in subjects with relapsed/refractory CD22-positive diffuse large B-cell lymphoma, eligible for autologous stem cell transplantation.[13] • Study 2001 – A Phase 2 study of inotuzumab ozogamicin in subjects with indolent NHL that is refractory to or has relapsed after rituximab and chemotherapy or radioimmunotherapy.[14] **Phase 1** • Study 1010 – An open-label, Phase 1 study of inotuzumab ozogamicin in subjects with relapsed or refractory CD22-positive ALL.[15]

For more information, please visit www.pfizercancertrials.com or www.clinicaltrials.gov or call toll-free 1-877-369-9753 (in the United States and Canada) or +1-646-277-4066 (outside of the United States and Canada).

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