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Janssen's Single-Agent DARZALEX® (daratumumab) Approved by European Commission for Treatment of Multiple Myeloma (MM)

First-in-class CD38-directed active immunotherapy provides new treatment option for MM patients who have exhausted other approved treatment options

BEERSE, BELGIUM, 23 May, 2016 – Janssen-Cilag International NV ("Janssen") today announced that the European Commission (EC) has granted conditional approval to DARZALEX® (daratumumab) for monotherapy of adult patients with relapsed and refractory multiple myeloma (MM), whose prior therapy included a proteasome inhibitor (PI) and an immunomodulatory agent and who have demonstrated disease progression on the last therapy. Daratumumab was approved under an accelerated assessment, a process reserved for medicinal products expected to be of major public health interest, particularly from the point of view of therapeutic innovation.¹

Daratumumab is the first CD38-directed monoclonal antibody (mAb) approved in Europe. It works by binding to CD38, a signalling molecule highly expressed on the surface of multiple myeloma cells regardless of stage of disease.²⁻⁴ In doing so, daratumumab triggers the patient's own immune system to attack the cancer cells, resulting in rapid tumour cell death through multiple immune-mediated mechanisms of action and through immunomodulatory effects, in addition to direct tumour cell death via apoptosis (programmed cell death).⁵⁻⁹

"Despite recent advances, multiple myeloma remains a complex, incurable disease, with relapse being inevitable in almost all patients. With each relapse, the disease typically

becomes more aggressive and more challenging to treat,” said Professor Jesús San Miguel, Director of Clinical & Translational Medicine, Universidad de Navarra, Spain. “Daratumumab has shown promising efficacy results and a manageable safety profile as a single agent for heavily pre-treated and refractory myeloma patients. Overall survival improved significantly in these patients, whose prognosis is typically very poor, and who therefore have the greatest need for new treatments.”

The approval of daratumumab was based on data from the Phase 2 MMY2002 (SIRIUS) study, [published](#) in *The Lancet*; the Phase 1/2 GEN501 study, [published](#) in *The New England Journal of Medicine*;^{10,11} and data from three additional supportive studies. Findings from a combined efficacy analysis of the GEN501 and MMY2002 (SIRIUS) trials demonstrated that after a mean follow-up of 14.8 months, the estimated median OS for single-agent daratumumab (16 mg/kg) in these heavily pre-treated patients was 20 months (95 percent CI, 15-not estimable). The overall response rate (ORR) for the combined analysis was 31 percent, and 83 percent of patients achieved stable disease or better.¹² Daratumumab demonstrated a tolerable and clinically manageable safety profile as a monotherapy in heavily pre-treated patients.^{10,11} The most common adverse events (AEs) in the Phase 2 MMY2002 (SIRIUS) trial, which occurred in more than 20 percent of patients, were fatigue, anaemia, nausea, thrombocytopenia, back pain, neutropenia and cough.¹⁰ The most common adverse events (AEs) in the Phase 1/2 GEN501 trial were fatigue, allergic rhinitis, and pyrexia (fever).¹¹

“Today’s decision on daratumumab is fantastic news for patients as it will help to address a major area of unmet need in people with relapsed or refractory myeloma,” said Sarper Diler, MD, PhD, President of Myeloma Patients Europe. “However, there is still a lot of work to be done to ensure that daratumumab is available for patients in health systems across Europe.”

“The approval of daratumumab within an accelerated timeframe is a result of working with patient-focused urgency, delivering against unmet needs with transformational science and through strong collaborations,” said Jane Griffiths, Company Group Chairman, Janssen Europe, Middle East and Africa. “We are delighted that daratumumab has been approved in Europe and will continue to study its potential across the treatment continuum in multiple myeloma and other tumour types.”

The marketing authorisation approval follows a positive opinion from the European Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency (EMA) issued on 01 April 2016.¹³ This approval allows for the marketing of daratumumab in all 28 member states and the three European Economic Area countries of the European Union.

Janssen has exclusive worldwide rights to the development, manufacturing and commercialisation of daratumumab. Janssen licensed daratumumab from Genmab A/S in August 2012.

#ENDS#

About Multiple Myeloma

Multiple myeloma (MM) is an incurable blood cancer that starts in the bone marrow and is characterised by an excessive proliferation of plasma cells.¹⁴ MM is the second most common form of blood cancer, with around 39,000 new cases worldwide in 2012.¹⁵ MM most commonly affects people over the age of 65 and is more common in men than in women.¹⁶ The most recent five-year survival data for 2000-2007 show that across Europe, up to half of newly diagnosed patients do not reach five-year survival.¹⁷ Almost 29 percent of patients with MM will die within one year of diagnosis.¹⁸ Although treatment may result in remission, unfortunately, patients will most likely relapse as there is currently no cure. While some patients with MM have no symptoms at all, most patients are diagnosed due to symptoms that can include bone problems, low blood counts, calcium elevation, kidney problems or infections.¹⁴ Patients who relapse after treatment with standard therapies, including PIs and immunomodulatory agents, have poor prognoses and few treatment options available.¹⁹

About Daratumumab

Daratumumab is a first-in-class biologic targeting CD38, a surface protein that is highly expressed across multiple myeloma cells, regardless of disease stage.²⁻⁴ Daratumumab induces rapid tumour cell death through apoptosis (programmed cell death)^{6,7} and multiple immune-mediated mechanisms of action, including complement-dependent cytotoxicity (CDC), antibody-dependent cellular cytotoxicity (ADCC) and antibody-dependent cellular phagocytosis (ADCP).^{5,6,8} Daratumumab has also demonstrated immunomodulatory effects that contribute to tumour cell death via a decrease in immune suppressive cells including T-regs, B-regs and myeloid-derived suppressor cells.⁹ Five Phase 3 clinical

studies with daratumumab in relapsed and frontline settings are currently ongoing. Additional studies are ongoing or planned to assess its potential in other malignant and pre-malignant diseases on which CD38 is expressed. For more information, please see www.clinicaltrials.gov.

About MMY2002 (SIRIUS) and GEN501

These studies included heavily pre-treated patients with relapsed and refractory multiple myeloma who had exhausted other approved treatment options and whose disease was progressive at enrolment. Safety data from the MMY2002 (SIRIUS) and GEN501 trials suggested that daratumumab (16 mg/kg) has a tolerable and clinically manageable safety profile as a monotherapy.^{10,11}

The most common adverse events (AEs) in the Phase 2 MMY2002 (SIRIUS) trial, which occurred in more than 20 percent of patients, were fatigue (40 percent), anaemia (33 percent), nausea (29 percent), thrombocytopenia (25 percent), back pain (22 percent), neutropenia (23 percent) and cough (21 percent).¹⁰ The most common adverse events (AEs) in part 2 of the Phase 1/2 GEN501 trial were fatigue, allergic rhinitis, and pyrexia (fever).¹¹ The most frequent haematologic AE was neutropenia (abnormally low levels of neutrophils, a type of white blood cell), which occurred in 12 percent of patients (n=5) in the 16 mg/kg cohort.¹¹

About the Janssen Pharmaceutical Companies

At the Janssen Pharmaceutical Companies of Johnson & Johnson, we are working to create a world without disease. Transforming lives by finding new and better ways to prevent, intercept, treat and cure disease inspires us. We bring together the best minds and pursue the most promising science. We are Janssen. We collaborate with the world for the health of everyone in it. Learn more at www.janssen.com. Follow us at www.twitter.com/janssenEMEA.

Janssen in Oncology

Our goal is to fundamentally alter the way cancer is understood, diagnosed and managed, reinforcing our commitment to the patients who inspire us. In looking to find innovative ways to address the cancer challenge, our primary efforts focus on several treatment and prevention solutions. These include a focus on haematologic malignancies, prostate cancer and lung cancer; cancer interception with the goal of developing products that interrupt the carcinogenic process; biomarkers that may help guide targeted, individualised use of

our therapies; as well as safe and effective identification and treatment of early changes in the tumour microenvironment.

Cautions Concerning Forward-Looking Statements

This press release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 regarding the anticipated benefits and potential of a newly approved product. 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-Cilag International NV and/or Johnson & Johnson. Risks and uncertainties include, but are not limited to: the uncertainties inherent in research and development, including further investigation of the clinical benefits of the product; uncertainty of commercial success; 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 or financial distress of purchasers of health care products and services; changes to applicable laws and regulations, including global health care reforms; manufacturing difficulties and delays; and trends toward health care cost containment. A further list and description 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, 2016, including in Exhibit 99 thereto, and the company's subsequent filings with the Securities and Exchange Commission. Copies of these filings are available online at www.sec.gov, www.jnj.com or on request from Johnson & Johnson. None of the Janssen Pharmaceutical Companies or Johnson & Johnson undertakes to update any forward-looking statement as a result of new information or future events or developments.

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