



Janssen's New Drug Submission for Daratumumab for Treatment of Multiple Myeloma Accepted for Review by Health Canada

TORONTO, ON, November 18, 2015 – Janssen Inc. announced today that Health Canada has accepted for review the New Drug Submission (NDS) for daratumumab as a treatment for patients with multiple myeloma. Health Canada will review the submission with advance consideration under the Ministry's Notice of Compliance with Conditions Policy (NOC/c) based on data from the Phase 2 MMY2002 (SIRIUS) monotherapy study.

Daratumumab is a new class of therapy – a human anti-CD38 monoclonal antibody. It received Breakthrough Therapy Designation and the Biologics License Application (BLA) was granted priority review and accelerated approval by the U.S. Food and Drug Administration (FDA) on November 16, 2015. In addition, the European Medicines Agency has granted the medication's application an Accelerated Assessment.

Multiple myeloma is an incurable blood cancer that starts in the bone marrow and is characterized by excess growth and survival of malignant plasma cells.¹ Patients who lapse after treatment often have a poor prognosis and few treatment options.²

The submission for daratumumab is primarily supported by data from the Phase 2 SIRIUS study announced in [May 2015](#), at the 51st Annual Meeting of the American Society of Clinical Oncology (ASCO). The study enrolled patients with multiple myeloma who had received at least three prior lines of therapy, including a proteasome inhibitor (PI) and an immunomodulatory agent (IMiD), or were double refractory to a PI and an IMiD.³ The data presented showed daratumumab demonstrated a 29 per cent overall response rate and a tolerable safety profile in these heavily pre-treated patients.⁴

The submission also is supported with data from other studies, including the multi-centre, two-part open-label Phase 1/2 GEN501 monotherapy study published in [The New England Journal of Medicine](#) in August 2015. This study enrolled patients with multiple myeloma who had a relapse after, or had disease that was refractory to, two or more different prior therapies, including IMiDs, PIs, chemotherapy, and autologous stem-cell transplantation. The study showed daratumumab demonstrated a tolerable safety profile and a 36 per cent overall response rate in patients treated with a 16 mg/kg dose, with responses deepening over time.⁵

The NDS was filed under Health Canada's NOC/c policy. The policy aims to provide access to promising new drugs for patients suffering from serious, life-threatening or severely debilitating diseases, or conditions for which no drug is currently marketed in Canada, or for which a significant increase in efficacy or significant decrease in risk is demonstrated in relation to existing drugs marketed in Canada.⁶



In [August 2012](#), Janssen Biotech, Inc. and Genmab A/S entered a worldwide agreement which granted Janssen Biotech, Inc. an exclusive license to develop, manufacture and commercialize daratumumab. If approved, daratumumab would be commercialized in Canada by Janssen Inc.

About Multiple Myeloma

Multiple myeloma is the most common plasma cell cancer⁷ and is characterized by an excess proliferation of plasma cells.⁸ In Canada, there will be an estimated 2,700 new cases in 2015 and an estimated 1,400 deaths associated with the disease.⁹ While some patients with multiple myeloma have no symptoms at all, most patients are diagnosed due to symptoms which can include bone fractures or pain, low blood counts, calcium elevation, and kidney problems.¹⁰

About Daratumumab

Daratumumab is a human monoclonal antibody (mAb) that binds with high affinity to the CD38 molecule, which is highly expressed on the surface of multiple myeloma cells. It is believed to induce rapid tumor cell death through multiple effects,¹¹ including direct (apoptosis¹²) and indirect (complement-dependent cytotoxicity,¹³ antibody-dependent cellular phagocytosis¹⁴ and antibody-dependent cellular cytotoxicity¹⁵) means. 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, such as smoldering myeloma and non-Hodgkin lymphoma.

About Janssen Inc.

Janssen Inc. is one of the Janssen Pharmaceutical Companies of Johnson & Johnson, which are dedicated to addressing and solving some of the most important unmet medical needs in oncology, immunology, neuroscience, infectious diseases and vaccines, and cardiovascular and metabolic diseases. Driven by our commitment to patients, we bring innovative products, services and solutions to people throughout the world. Please visit www.janssen.com for more information.

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. 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 Inc. and/or Johnson & Johnson. Risks and uncertainties include, but are not limited to: challenges and uncertainties inherent in new product development, including obtaining regulatory approvals; competition, including technological advances, new products and patents attained by competitors; changes to applicable laws and regulations, including global health care reforms; 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 December 28, 2014, 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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References:

- ¹ American Cancer Society. "Multiple Myeloma Overview" <http://www.cancer.net/cancer-types/multiple-myeloma/overview>. Accessed May 2015.
- ² Kumar, SK et al. *Leukemia*. 2012 Jan; 26(1):149-57.
- ³ Johnson & Johnson, "Data Show Daratumumab Achieved a Pronounced Overall Response Rate as a Single-Agent with Tolerable Safety Profile in Heavily Pre-Treated Multiple Myeloma Patients," Available at: <http://www.investor.jnj.com/releasedetail.cfm?ReleaseID=915772>. Accessed September 2015.
- ⁴ Johnson & Johnson, "Data Show Daratumumab Achieved a Pronounced Overall Response Rate as a Single-Agent with Tolerable Safety Profile in Heavily Pre-Treated Multiple Myeloma Patients," Available at: <http://www.investor.jnj.com/releasedetail.cfm?ReleaseID=915772>. Accessed September 2015.
- ⁵ Lokhorst, HM et al. *New England Journal of Medicine*, "Targeting CD38 with Daratumumab Monotherapy in Multiple Myeloma." August 26, 2015 DOI: 10.1056/NEJMoa1506348. Available at: <http://www.nejm.org/doi/full/10.1056/NEJMoa1506348>. Accessed September 2015.
- ⁶ Health Canada. "Guidance Document: Notice of Compliance with Conditions (NOC/c)," Available at: http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applic-demande/guide-ld/compli-conform/noccg_accd-eng.php. Accessed September 2015.
- ⁷ Canadian Cancer Society. "Types of Multiple Myeloma," Available at: <http://www.cancer.ca/en/cancer-information/cancer-type/multiple-myeloma/multiple-myeloma/types-of-multiple-myeloma/?region=on>. Accessed September 2015.
- ⁸ American Cancer Society. "Multiple Myeloma Overview" <http://www.cancer.net/cancer-types/multiple-myeloma/overview>. Accessed June 2015.
- ⁹ Canadian Cancer Society. "Canadian Cancer Statistics 2015." Available at <https://www.cancer.ca/~/media/cancer.ca/CW/cancer%20information/cancer%20101/Canadian%20cancer%20statistics/Canadian-Cancer-Statistics-2015-EN.pdf>. Accessed September 2015.
- ¹⁰ Canadian Cancer Society. "Signs and Symptoms of Multiple Myeloma," Available at: <http://www.cancer.ca/en/cancer-information/cancer-type/multiple-myeloma/signs-and-symptoms/?region=on>. Accessed September 2015.
- ¹¹ Michael de Weers et al. Daratumumab, a Novel Therapeutic Human CD38 Monoclonal Antibody, Induces Killing of Multiple Myeloma and Other Hematological Tumors. *The Journal of Immunology*. February 1, 2011 vol. 186 no. 3 1840-1848.
- ¹² Jing Yang and Qing Yi. Therapeutic monoclonal antibodies for multiple myeloma: an update and future perspectives. *Am J Blood Res*. 2011; 1(1): 22-33.
- ¹³ Michael de Weers et al. Daratumumab, a Novel Therapeutic Human CD38 Monoclonal Antibody, Induces Killing of Multiple Myeloma and Other Hematological Tumors. *The Journal of Immunology*. February 1, 2011 vol. 186 no. 3 1840-1848.

¹⁴ Yulian Khagi and Tomer M Mark. Potential role of daratumumab in the treatment of multiple myeloma. *Onco Targets Ther.* 2014; 7: 1095–1100.

¹⁵ Michael de Weers et al. Daratumumab, a Novel Therapeutic Human CD38 Monoclonal Antibody, Induces Killing of Multiple Myeloma and Other Hematological Tumors. *The Journal of Immunology.* February 1, 2011vol. 186 no. 3 1840-1848.