News Release

Media contact:
Laura Espinoza
Office: (647) 629-1687

Investor contact:
Jennifer McIntyre
Office: (732) 524-3922

Health Canada Approves IMBRUVICA®* (ibrutinib) Plus Rituximab for the Treatment of Patients with Chronic Lymphocytic Leukemia (CLL)

Patients aged 70 or younger with previously untreated CLL lived longer without disease progression compared to patients treated with FCR, a chemoimmunotherapy regimen

TORONTO, ON (January 13, 2021) - The Janssen Pharmaceutical Companies of Johnson & Johnson announced today that Health Canada has approved IMBRUVICA® (ibrutinib) in combination with rituximab for the treatment of patients with previously untreated chronic lymphocytic leukemia (CLL).[i] Today's milestone marks the tenth Health Canada approval for IMBRUVICA® across five disease areas and is the fifth approval for IMBRUVICA® in CLL.[ii]

This latest approval is based on the Phase 3 ECOG1912 study (also referred to as E1912) that demonstrated newly diagnosed patients age 70 or younger (median age of 58) treated with IMBRUVICA® plus rituximab had significantly improved progression-free survival (PFS) compared to patients treated with fludarabine, cyclophosphamide and rituximab (FCR). [iii] The risk of disease progression or death was reduced by 66 per cent in the IMBRUVICA® arm compared with FCR, with a median follow-up time of 37 months.[iv]

"For younger patients, chemoimmunotherapy is a common first-line treatment," says Dr. Matthew Kang*, Hematologist, Joseph Brant Hospital Oncology Clinic, Assistant Clinical Professor, McMaster University. "With this new indication for IMBRUVICA®, we have entered a new treatment era, one that is targeted, chemotherapy-free, and shown to help patients live longer without disease progression."

This approval was granted under a modified version of the newly established Project Orbis, an initiative of the FDA Oncology Center of Excellence,

which provides a framework for submission and review of oncology medicine applications among international regulatory agencies.[v] This initiative gives international regulators the ability to provide patients with cancer earlier access to important medicines.[vi]

"We commend the ECOG-ACRIN Cancer Research Group and the National Cancer Institute for conducting a robust study that has generated insightful and landmark results in the treatment of CLL," said Craig Tendler, M.D., Vice President, Clinical Development and Global Medical Affairs, Oncology, Janssen Research & Development, LLC. "We are committed to the continued study of IMBRUVICA-based regimens and building upon the efficacy and safety of the most comprehensively studied Bruton's tyrosine kinase (BTK) inhibitor in our efforts to improve the lives of patients facing a blood cancer diagnosis."

About the ECOG1912 Study

The randomized, multi-centre, open-label, controlled Phase 3 E1912 study was designed and conducted by the ECOG-ACRIN Cancer Research Group (ECOG-ACRIN) and sponsored by the National Cancer Institute, part of the National Institutes of Health in the United States.[vii]

The study evaluated 529 previously untreated CLL patients ages 70 years or younger (median age of 58) who were randomly assigned to receive IMBRUVICA® plus rituximab (n=354) or the chemoimmunotherapy FCR (n=175) and the primary endpoint was PFS as assessed by an independent review committee, according to the International Workshop on CLL.[viii] With a median follow-up time on study of 37 months, a PFS benefit was observed for the IMBRUVICA® plus rituximab arm as compared to the FCR treatment arm (hazard ratio [HR], 0.34; 95 per cent confidence interval [CI], 0.22-0.52; $p<0.0001$).[ix] With a median follow-up time of 49 months, median overall survival was not reached with a total of 23 deaths: 11 (3 per cent) in the IMBRUVICA® plus rituximab arm and 12 (7 per cent) in the FCR treatment arm.[x]

The most commonly occurring adverse reactions in studies of CLL patients treated with IMBRUVICA® (≥20%) were neutropenia, diarrhea, fatigue, musculoskeletal pain, rash, thrombocytopenia, anemia, bruising, nausea, hemorrhage, cough, pyrexia, arthralgia, headache, upper respiratory tract infection and hypertension.[xi]

About Chronic Lymphocytic Leukemia (CLL)

CLL is a cancer that begins in blood stem cells, starting in abnormal lymphoid stem cells. It usually develops slowly over the course of months or years.[xii] In 95 per cent of cases, the abnormal lymphoid stem cells develop into cancerous, or malignant, B lymphocytes. CLL is one of the most common types of leukemia in adults.[xiii] Over 2,200 people in Canada are diagnosed with CLL each year.[xiv]

About IMBRUVICA®

IMBRUVICA® contains the medicinal ingredient ibrutinib which is a targeted inhibitor of Bruton's tyrosine kinase (BTK), and it is the only once-daily BTK inhibitor in Canada. Ibrutinib blocks BTK activity, inhibiting cancer cell survival and spread.[xv]

IMBRUVICA® was first approved in Canada in 2014. It is indicated for the treatment of adult patients with previously untreated chronic lymphocytic leukemia (CLL),[xvi] including those with 17p deletion; or adult patients with CLL who have received at least one prior therapy, including those with 17p deletion.[xvii] It is indicated in combination with bendamustine and rituximab for the treatment of adult patients with CLL who have received at least one prior therapy, and in combination with obinutuzumab for treatment-naïve adult patients with CLL.[xviii] It is now also indicated in combination with rituximab for the treatment of adult patients with previously untreated CLL.[xix]

For adult patients with Waldenström's macroglobulinemia (WM), IMBRUVICA® is indicated as a single agent or in combination with rituximab.[xx] Other indications are for the treatment of patients with relapsed or refractory mantle cell lymphoma (MCL); patients with marginal zone lymphoma (MZL) who require systemic therapy and have received at least one prior anti-CD20-based therapy; and for patients with steroid dependent or refractory chronic graft-versus-host disease (cGVHD).[xxi]

IMBRUVICA® is co-developed by Cilag GmbH International (a member of the Janssen Pharmaceutical Companies) and Pharmacyclics LLC, an AbbVie company. Janssen Inc. commercializes IMBRUVICA® in Canada.

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/canada. Follow us at @JanssenCanada. Janssen Inc. is a member of the Janssen Pharmaceutical Companies of Johnson & Johnson.

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***Dr. Kang was not compensated for any media work. He has been compensated as a consultant.*

Cautions Concerning Forward-Looking Statements
This press release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 regarding IMBRUVICA® (ibrutinib). 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., 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 December 29, 2019, 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, 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.

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[i] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[ii] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[iii] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[iv] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[v] U.S. Food and Drug Administration. Project Orbis. Available from: https://www.fda.gov/about-fda/oncology-center-excellence/project-orbis. Accessed October 2020.
[vi] Health Canada News Release. International collaboration among Canadian, U.S., and Australian regulators leads to new options for the treatment of cancer. Available from: https://www.canada.ca/en/health-canada/news/2019/12/international-collaboration-among-canadian-us-and-australian-regulators-leads-to-new-options-for-the-treatment-of-cancer.html. Accessed October 2020.
[vii] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[viii] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[ix] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[x] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
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[xii] Canadian Cancer Society. What is Chronic Lymphocytic Leukemia? Available from https://www.cancer.ca/en/cancer-information/cancer-type/leukemia-chronic-lymphocytic-cll/chronic-lymphocytic-leukemia/?region=on. Accessed October 2020.
[xiii] Canadian Cancer Society. What is Chronic Lymphocytic Leukemia? Available from https://www.cancer.ca/en/cancer-information/cancer-type/leukemia-chronic-lymphocytic-cll/chronic-lymphocytic-leukemia/?region=on. Accessed October 2020.
[xiv] Lymphoma Canada. "About CLL & SLL." Available from http://www.lymphoma.ca/lymphoma/cll-sll/about-cll-sll. Accessed October 2020.
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[xvii] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[xviii] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[xix] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[xx] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020
[xxi] IMBRUVICA® (Ibrutinib) Product Monograph, Janssen Inc. December 15, 2020