News Release

Media Enquiries:
Jenni Mildon
Mobile: +44 7920 418552
Email: JMildon@ITS.JNJ.com

Investor Relations:
Raychel Kruper
Mobile: +1 732-524-6164
Email: rkruper@its.jnj.com

Janssen Seeks Approval of a New Indication for IMBRUVICA® (ibrutinib) for Use in Patients with Untreated Mantle Cell Lymphoma

Application based on Phase 3 SHINE study results, which investigated the safety and efficacy of all-oral ibrutinib in combination with bendamustine and rituximab in adult patients with previously untreated mantle cell lymphoma[1]

BEERSE, BELGIUM, 8 March 2022 – The Janssen Pharmaceutical Companies of Johnson & Johnson today announced the submission of a Type II variation application to the European Medicines Agency (EMA) seeking approval of a new indication for IMBRUVICA® (ibrutinib) in combination with bendamustine and rituximab (BR) for the treatment of adult patients with previously untreated mantle cell lymphoma (MCL) who are unsuitable for autologous stem cell transplantation (ASCT).

Ibrutinib is a once-daily Bruton's tyrosine kinase (BTK) inhibitor that is currently approved for patients with MCL who have received at least one prior line of therapy.[2] MCL is a rare and aggressive type of blood cancer involving the B-lymphocytes, a type of white blood cell. It is currently incurable, with many patients relapsing and requiring multiple lines of subsequent therapy.[3,4] An unmet need remains for targeted, first-line treatment approaches that can provide disease control over longer periods of time, especially for patients unsuitable for high dose therapy and ASCT.[5,6]

"Mantle cell lymphoma can be a difficult blood cancer to treat, and despite progress in this area over the last few years, an unmet need remains for new treatment approaches," said Edmond Chan MBChB M.D. (Res), EMEA Therapeutic Area Lead Haematology, Janssen-Cilag

Limited. "This submission to the EMA is a testament to our commitment to deepening the impact ibrutinib can have for patients and represents an important step towards providing patients and healthcare professionals with the addition of targeted therapy to standard therapy."

The submission to the EMA is supported by the Phase 3 SHINE study (NCT01776840), which met its primary endpoint of progression-free survival (PFS). The study investigated the efficacy and safety of first-line ibrutinib given in combination with BR in patients 65 years of age or older with previously untreated MCL.[1] Results will be presented at an upcoming medical meeting.

"As the first approved BTK inhibitor, ibrutinib has now been used to treat more than 250,000 patients globally. It is also the first BTK inhibitor to be studied as a frontline treatment option for patients with mantle cell lymphoma," said Craig Tendler, M.D., Global Head of Late Development, Diagnostics & Medical Affairs, Hematology & Oncology, Janssen Research & Development, LLC. "We are committed to the continued development of ibrutinib in B-cell malignancies where unmet needs remain in our efforts to make meaningful differences and change outcomes for patients."

#ENDS#

About Ibrutinib

Ibrutinib is a once-daily oral medication that is jointly developed and commercialised by Janssen Biotech, Inc. and Pharmacyclics LLC, an AbbVie company.[2] Ibrutinib blocks the Bruton's tyrosine kinase (BTK) protein, which is needed by normal and abnormal B-cells, including specific cancer cells, to multiply and spread.[7] By blocking BTK, ibrutinib may help move abnormal B-cells out of their nourishing environments and inhibits their proliferation.[8]

Ibrutinib is approved in more than 100 countries and has been used to treat more than 250,000 patients worldwide.[9] There are more than 50 company-sponsored clinical trials, including 18 Phase 3 studies, over 11 years evaluating the efficacy and safety of ibrutinib.[2,10] In October 2021, ibrutinib was added to WHO's Model Lists of Essential Medicines (EML), which refer to those medicines considered to be the most effective and safe to meet the most important needs in a health system.[11]

Ibrutinib was first approved by the European Commission (EC) in 2014, and approved indications to date include:[2]

- Chronic lymphocytic leukaemia (CLL): As a single agent or in combination with rituximab or obinutuzumab for the treatment of adult patients with previously untreated CLL, and as a single agent or in combination with bendamustine and rituximab (BR) for the treatment of adult patients with CLL who have received at least one prior therapy.
- Mantle cell lymphoma (MCL): As a single agent for the treatment of adult patients with relapsed or refractory MCL.
- Waldenström's macroglobulinemia (WM): As a single agent for the treatment of adult patients who have received at least one prior therapy or in first-line treatment for patients unsuitable for chemo-immunotherapy, and in combination with rituximab for the treatment of adult patients.

For a full list of side effects and information on dosage and administration, contraindications and other precautions when using ibrutinib please refer to the Summary of Product Characteristics for further information.

About Mantle Cell Lymphoma

Mantle cell lymphoma (MCL) is an aggressive and incurable blood cancer of the white blood cells.[12] It is considered a rare disease, characterised by high unmet need and a small patient population, impacting approximately 0.5 in 100,000 people in the European Union (EU).[13] MCL is more prevalent in men than women and accounts for 7 to 9 percent of all non-Hodgkin's lymphomas (NHLs) in Europe.[14] It is predominantly a disease of the elderly, with a median age of 65 years at diagnosis.[12]

While patient outcomes have improved in the last few decades,[4] the disease remains difficult to treat and is still characterised by consecutive episodes of disease progression and the need for therapy.[15] Patients are often prescribed multiple lines of therapy as they relapse or become resistant to treatments.[4,4]

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/EMEA. Follow us at www.twitter.com/janssenEMEA for our latest news. Janssen Research & Development, LLC, Janssen Pharmaceutica NV, Janssen-Cilag Limited and Janssen Biotech, Inc. are part of the Janssen Pharmaceutical Companies of Johnson & Johnson.

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. 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 Research & Development, LLC, Janssen Pharmaceutica NV, Janssen-Cilag Limited, Janssen Biotech, 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 January 2, 2022, including in the sections captioned "Cautionary Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors," and in Johnson & Johnson's subsequent Quarterly Reports on Form 10-Q and other 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.

###

References

[1] Wang M, et al. A phase III study of ibrutinib in combination with bendamustine and rituximab (BR) in elderly patients with newly diagnosed mantle cell lymphoma (MCL). 2013 American Society of Clinical Oncology Annual Meeting. 31 May-1 June, 2013.

[2] Imbruvica Summary of Product Characteristics, August 2021. Available at: https://www.ema.europa.eu/en/documents/product-information/imbruvica-epar-product-information_en.pdf. Last accessed: March 2022.

[3] McKay P, et al. Guideline for the management of mantle cell lymphoma. Br J Haematol. 2018 Jul;182(1):46-62.

[4] Silkenstedt E et al. Mantle cell lymphoma - advances in molecular biology, prognostication and treatment approaches. Br J Haematol. 2021 Oct;195(2):162-173.

CP-291533
March 2022

[5] Buege MJ, et al. Management of mantle cell lymphoma in the era of novel oral agents. Ann Pharmacother. 2020 Sep; 54(9): 879–898.
[6] Preetesh J, et al. Frontline Treatment with Ibrutinib with Rituximab (IR) Combination Is Highly Effective in Elderly (≥65 years) Patients with Mantle Cell Lymphoma (MCL) – Results from a Phase II Trial. Blood. 2019; 134(1): 3988.
[7] Turetsky A, et al. Single cell imaging of Bruton's tyrosine kinase using an irreversible inhibitor. Sci Rep. 2014 Apr 24;4:4782.
[8] de Rooij MF, et al. The clinically active BTK inhibitor PCI-32765 targets B-cell receptor- and chemokine-controlled adhesion and migration in chronic lymphocytic leukemia. Blood. 2012;119(11):2590-2594.
[9] Janssen Data on File (RF-152098). Global number of cumulative patients treated with Ibrutinib since launch. October 2021.
[10] Pharmacyclics LLC. Safety of PCI-32765 in Chronic Lymphocytic Leukemia. ClinicalTrials.gov Identifier: NCT01105247. Available at: Safety of PCI-32765 in Chronic Lymphocytic Leukemia - Full Text View - ClinicalTrials.gov. Last accessed: March 2022.
[11] World Health Organisation. WHO prioritizes access to diabetes and cancer treatments in new Essential Medicines Lists. Available at: https://www.who.int/news/item/01-10-2021-who-prioritizes-access-to-diabetes-and-cancer-treatments-in-new-essential-medicines-lists. Last accessed: March 2022.
[12] Lynch D, et al. Mantle Cell Lymphoma. Treasure Island (FL): StatPearls Publishing; 2020 Jan.
[13] Smedby KE, Hjalgrim H. Epidemiology and etiology of mantle cell lymphoma and other non-Hodgkin lymphoma subtypes. Semin Cancer Biol. 2011;21:293–8.
[14] Sandoval-Sus JD, et al. Mantle cell lymphoma: contemporary diagnostic and treatment perspectives in the age of personalized medicine. Hematology/oncology and stem cell therapy. 10.3 (2017): 99-115.
[15] National Cancer Institute. Stages of adult non-Hodgkin lymphoma. Available at: http://www.cancer.gov/cancertopics/pdq/treatment/adultnon-hodgkins/Patient/page2. Last accessed March 2022.