Novartis personalized cell therapy CTL019 receives FDA Breakthrough Therapy designation

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- - Designation supports the advancement of CTL019 to help address the unmet need of patients with relapsed/refractory acute lymphoblastic leukemia (r/r ALL)
- - The filing was submitted by the University of Pennsylvania's Perelman School of Medicine which is conducting the CTL019 Phase I/II clinical trials
- - Novartis and Penn have exclusive global collaboration to research, develop and commercialize CAR T cell therapies for the investigational treatment of cancers

EAST HANOVER, N.J., July 7, 2014 /PRNewswire/ -- Novartis announced today that the United States Food and Drug Administration (FDA) has granted Breakthrough Therapy status to CTL019, an investigational chimeric antigen receptor (CAR) therapy for the treatment of pediatric and adult patients with relapsed/refractory acute lymphoblastic leukemia (r/r ALL). The Breakthrough Therapy filing was submitted by the University of Pennsylvania's Perelman School of Medicine (Penn) which has an exclusive global agreement with Novartis to research, develop and commercialize personalized CAR T cell therapies for the treatment of cancers.

This is the fifth Breakthrough Therapy designation for Novartis, continuing the company's trajectory as a leader in developing innovative therapies to help treat diseases in which there remains significant unmet medical need[1,2,3,4]. Novartis' Zykadia(™) (ceritinib, previously known as LDK378), for the treatment of anaplastic lymphoma kinase positive (ALK+) metastatic non-small cell lung cancer (NSCLC), is one of the first medicines to receive an FDA approval following earlier receipt of Breakthrough Therapy designation by the FDA[5].

"This Breakthrough Therapy designation underscores the potential of CTL019 as a life-saving therapy for patients with relapsed/refractory ALL, who are in desperate need of new treatment options," said David Epstein, Division Head, Novartis Pharmaceuticals. "Novartis welcomes increased dialogue with the FDA and a potentially expedited review to streamline the development of CTL019 and hopefully bring this promising therapy to patients as quickly as possible."

According to the FDA, Breakthrough Therapy designation is intended to expedite the development and review of new medicines that treat serious or life-threatening conditions if the therapy has demonstrated substantial improvement over an available therapy on at least one clinically significant endpoint. The designation includes all of the fast track program features, as well as more intensive FDA guidance. It is a distinct status from both accelerated approval and priority review, which can also be granted to the same drug if relevant criteria are met[6].

"This is a major milestone as we are now one step closer in helping address the high unmet needs of this patient population," said Carl H. June, M.D., Richard W. Vague Professor in Immunotherapy in the department of Pathology and Laboratory Medicine in the Perelman School of Medicine and director of Translational Research in the Abramson Cancer Center of the University of Pennsylvania. "We are excited about the strength of the positive early data seen in pediatric and adult patients with relapsed/refractory acute lymphoblastic leukemia and look forward to building upon these findings as we continue advancing the CTL019 clinical program in Phase II trials."

Novartis recently established the Cell and Gene Therapies Unit under the leadership of Usman Azam, Global Head, to bring an intense focus on advancing innovative cell-based therapies, including the development of CARs. Novartis holds the worldwide rights to CARs developed through the collaboration with Penn for all cancer indications, including the lead program, CTL019.

About CTL019
CTL019 uses CAR technology to reprogram a patient's own T cells to "hunt" cancer cells that express specific proteins, called CD19. After they have been reprogrammed, the T cells (now called CTL019) are re-introduced into the patient's blood; they proliferate and bind to the targeted CD19+ cancer cells and destroy them.

Because CTL019 is an investigational therapy, the safety and efficacy profile has not yet been established. Access to investigational therapies is available only through carefully controlled and monitored clinical trials. These trials are designed to better understand the potential benefits and risks of the therapy. Because of uncertainty of clinical trials, there is no guarantee that CTL019 will ever be commercially available anywhere in the world.

About Acute Lymphoblastic Leukemia
Acute lymphoblastic leukemia (ALL) is the most common cancer diagnosed in children, representing approximately 25% of cancer diagnoses among children younger than 15 years[7]. It can also occur in adults. ALL is a type of cancer in which the bone marrow makes too many abnormal white blood cells (lymphocytes). ALL usually gets worse quickly if it is not treated and can be fatal within a few months; therefore it is critical for patients to start treatment soon after diagnosis. Patients with relapsed ALL experience ALL cells returning in the marrow and a decrease in normal blood cells following their remission. Patients with refractory ALL still have leukemia cells in their bone marrow following treatment[8].

About Zykadia
Zykadia (ceritinib) is indicated in the US for the treatment of patients with ALK+ metastatic NSCLC who have progressed on or are intolerant to crizotinib. This indication is approved under accelerated approval based on tumor response rate and duration of response. An improvement in survival or disease-related symptoms has not been established. Continued approval for this indication may be contingent upon verification and description of clinical benefit in confirmatory trials.

Zykadia is an FDA-approved prescription medicine that is currently available through a number of specialty pharmacies in the US. Outside of the US, Zykadia (LDK378) is an investigational agent and has not been approved by regulatory authorities.

Zykadia Important Safety Information
Zykadia may cause serious side effects, such as:

Zykadia causes stomach and intestinal problems in most people, including diarrhea, nausea, vomiting, and stomach-area pain. These problems can sometimes be severe. Patients should follow their doctor's instructions about taking medicines to help these symptoms, and should call their doctor for advice if symptoms are severe or do not go away.

Zykadia may cause liver injury. Patients should have blood tests at least every month while taking Zykadia, and should talk to their doctor right away if they experience any of the following symptoms: tiredness (fatigue), itchy skin, yellow skin and eyes, nausea or vomiting, decreased appetite, pain on the right side of the stomach, urine turns dark or brown, bleeding or bruising more easily than normal.

Zykadia may cause severe or life-threatening swelling (inflammation) of the lungs during treatment that can lead to death. Symptoms may be similar to those symptoms from lung cancer. Patients should tell their doctor right away about any new or worsening symptoms, including trouble breathing or shortness of breath, fever, cough, with or without mucous, or chest pain.

Zykadia may cause very slow, very fast, or abnormal heartbeats. Doctors should check their patient's heart during treatment with Zykadia. Patients should tell their doctor right away if they feel new chest pain or discomfort, dizziness or lightheadedness, faint, or have abnormal heartbeats, or if they start to take or have any changes in heart or blood pressure medicines.

People who have diabetes or glucose intolerance, or who take a corticosteroid medicine have an increased risk of high blood sugar with Zykadia. Patients should follow their doctor's instructions about blood sugar monitoring and call their doctor right away with any symptoms of high blood sugar, including increased thirst, increased hunger, headaches, trouble thinking or concentrating, urinating often, blurred vision, tiredness, or breath that smells like fruit.

Before patients take Zykadia, they should tell their doctor about all medical conditions, including liver problems; diabetes or high blood sugar; heart problems, including a condition called long QT syndrome; are pregnant, think they may be pregnant, or plan to become pregnant; are breastfeeding or plan to breastfeed.

Zykadia may harm unborn babies. Women who are able to become pregnant must use an effective method of birth control during treatment with Zykadia and for at least 2 weeks after stopping Zykadia. It is not known if Zykadia passes into breast milk. Patients and their doctor should decide whether to take Zykadia or breastfeed, but should not do both.

Patients should tell their doctor about medicines they take, including prescription medicines, over-the-counter medicines, vitamins and herbal supplements.

The most common side effects of Zykadia include diarrhea, nausea, vomiting, abdominal pain, tiredness (fatigue), decreased appetite and constipation.

Patients should tell their doctor of any side effect that bothers them or does not go away. These are not all of the possible side effects of Zykadia. For more information, patients should ask their doctor or pharmacist.

Patients should take Zykadia exactly as their health care provider tells them. Patients should not change their dose or stop taking Zykadia unless their health care provider advises them to. Zykadia should be taken once a day on an empty stomach. Patients should not eat for 2 hours before and 2 hours after taking Zykadia. If a dose of Zykadia is missed, they should take it as soon as they remember. If their next dose is due within the next 12 hours, they should skip the missed dose and take the next dose at their regular time. Patients should not drink grapefruit juice or eat grapefruit during treatment with Zykadia, as it may make the amount of Zykadia in their blood increase to a harmful level.

Please see full Prescribing Information for Zykadia.

Disclaimer
The foregoing release contains forward-looking statements that can be identified by words such as "Breakthrough Therapy," "investigational," "trajectory," "potential," "potentially," "hopefully," "promising," "can," "look forward," "continue," or similar terms, or by express or implied discussions regarding potential marketing approvals for CTL019, or regarding potential future revenues from CTL019 and Zykadia. You should not place undue reliance on these statements. Such forward-looking statements are based on the current beliefs and expectations of management regarding future events, and are subject to significant known and unknown risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those set forth in the forward-looking statements. There can be no guarantee that CTL019 will be submitted or approved for sale in any market, or at any particular time. Nor can there be any guarantee that CTL019 or Zykadia will be commercially successful in the future. In particular, management's expectations regarding CTL019 and Zykadia could be affected by, among other things, the uncertainties inherent in research and development, including unexpected clinical trial results and additional analysis of existing clinical data; unexpected regulatory actions or delays or government regulation generally; the company's ability to obtain or maintain proprietary intellectual property protection; general economic and industry conditions; global trends toward health care cost containment, including ongoing pricing pressures; unexpected manufacturing issues, and other risks and factors referred to in Novartis AG's current Form 20-F on file with the US Securities and Exchange Commission. Novartis is providing the information in this press release as of this date and does not undertake any obligation to update any forward-looking statements contained in this press release as a result of new information, future events or otherwise.

About Novartis
Novartis Pharmaceuticals Corporation researches, develops, manufactures and markets innovative prescription drugs used to treat a number of diseases and conditions, including cardiovascular, dermatological, central nervous system, bone disease, cancer, organ transplantation, psychiatry, infectious disease and respiratory. The company's mission is to improve people's lives by pioneering novel healthcare solutions.

Located in East Hanover, New Jersey, Novartis Pharmaceuticals Corporation is an affiliate of Novartis AG, which provides innovative healthcare solutions that address the evolving needs of patients and societies. Headquartered in Basel, Switzerland, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, eye care, cost-saving generic pharmaceuticals, preventive vaccines, over-the-counter and animal health products. Novartis is the only global company with leading positions in these areas. In 2013, the Group achieved net sales of USD 57.9 billion, while R&D throughout the Group amounted to approximately USD 9.9 billion (USD 9.6 billion excluding impairment and amortization charges). Novartis Group companies employ approximately 135,000 full-time-equivalent associates and sell products in more than 150 countries around the world. For more information, please visit http://www.novartis.com.

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References

1. Novartis Press Release. "Novartis meningitis B vaccine Bexsero receives FDA Breakthrough Therapy designation in the US." Available at: http://www.novartis.com/newsroom/media-releases/en/2014/1774805.shtml. Accessed June 2014.
2. Novartis Press Release. "Novartis compound LDK378 receives FDA Breakthrough Therapy designation for ALK+ non-small cell lung cancer." Available at: http://www.novartis.com/newsroom/media-releases/en/2013/1685517.shtml. Accessed June 2014.
3. Novartis Press Release. "FDA grants Breakthrough Therapy designation to Novartis' serelaxin (RLX030) for acute heart failure." Available at: http://www.novartis.com/newsroom/media-releases/en/2013/1711047.shtml. Accessed June 2014.
4. Novartis Press Release. "Novartis receives FDA breakthrough therapy designation for BYM338 (bimagrumab) for sporadic inclusion body myositis (sIBM)." Available at: http://www.novartis.com/newsroom/media-releases/en/2013/1723765.shtml. Accessed June 2014.
5. Novartis Press Release. "FDA Approves Zykadia (LDK378) in ALK+ Non-Small Cell Lung Cancer." Available at: http://www.nibr.com/newsroom/stories/2014Apr30_FDA-Approves-Zykadia.shtml. Accessed June 2014.
6. US Food and Drug Administration. Frequently Asked Questions: Breakthrough Therapies. Available at: http://www.fda.gov/regulatoryinformation/legislation/federalfooddrugandcosmeticactfdcact/significantamendmentstothefdcact/fdasia/ucm341027.htm Accessed June 2014.
7. Howlader, N., Noone, A. M., Krapcho, M, et al. SEER Cancer Statistics Review, 1975–2010. National Cancer Institute, April 2013; Section 28.9 (12). http://www.seer.cancer.gov/csr/1975_2010/results_merged/sect_28_childhood_cancer.pdf. Accessed June 2014.
8. Apostolidou, Effrosyni, et al. Treatment of Acute Lymphoblastic Leukaemia. Drugs 2007; 67 (15): 2153-2171.

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