European Medicines Agency recommends Zokinvy, the first and only therapy to treat ultra-rare, rapid-ageing disease progeria, for approval in Europe

- *Zokinvy® (lonafarnib) has been recommended for approval by the Committee for Medicinal Products for Human Use (CHMP) to treat Hutchinson-Gilford progeria syndrome and processing-deficient progeroid laminopathies, collectively known as progeria.*
- *Progeria causes dramatic rapid ageing, leading to premature death typically by age 14.5 years.*
- *Zokinvy was approved by the U.S. FDA as the first and only treatment for progeria in November 2020.*

PALO ALTO, CA., and PEABODY, MA., – May 20, 2022 - Eiger BioPharmaceuticals Inc. (Nasdaq: EIGR), a commercial-stage biopharmaceutical company focused on the development of innovative therapies to treat and cure hepatitis delta virus and other serious diseases, and The Progeria Research Foundation (PRF), a non-profit organization dedicated to finding treatments and the cure for progeria, announce today that Eiger has received a positive opinion from the CHMP recommending approval for Zokinvy, a breakthrough treatment for Hutchinson Gilford progeria syndrome (HGPS) and processing-deficient progeroid laminopathies (PL).

With a diagnosis of this ultra-rare fatal disease, every second matters. HGPS and PL, collectively known as progeria, are devastating childhood diseases which cause dramatically accelerated ageing and premature death. Without Zokinvy treatment, children with HGPS die of heart attack or stroke at an average age of 14.5 years. Patients experience growth failure, loss of body fat and hair, aged-looking skin, stiffness of joints, hip dislocation, heart disease and stroke. Zokinvy is the only therapeutic option that has been proven to meaningfully extend the lives of children and young adults with HGPS and, if approved by the European Commission, will address a critical unmet medical need in Europe.

The CHMP based its decision on data showing that Zokinvy, a disease-modifying agent, lowered the risk of death in children and young adults with HGPS by 72%, and extended life by an average of 4.3 years. The clinical trials, which were funded by PRF and co-conducted by PRF and Boston Children's Hospital, were initiated in 2007 and enrolled nearly 100 children from 37 different countries. The U.S. approval and positive CHMP opinion are the results of a pioneering partnership between Eiger and PRF to bring Zokinvy to market and hope to patients.

"The Eiger team is united by a shared passion to develop innovative therapies for some of the world's most vulnerable people - and accelerating their paths to approval. With today's positive opinion from the CHMP, we hope that children and young adults with progeria in Europe will soon be able to access Zokinvy through the convenience of a prescription," said David Cory, President and CEO, Eiger. "Additionally, we are focused on progressing our development pipeline of breakthrough therapies addressing serious diseases with significant unmet need such as hepatitis delta virus, congenital hyperinsulinism, and COVID-19."

"Everyone at The Progeria Research Foundation is thrilled by today's wonderful news," said Leslie Gordon, MD, PhD, PRF Medical Director, and Zokinvy Clinical Trial Investigator. "The positive opinion from CHMP for Zokinvy is another giant leap forward in our mission to treat and cure all children worldwide with progeria. We're so grateful to all of the courageous children with progeria for participating in our research programs and making this possible."

The European Commission reviews the CHMP decision and usually delivers its decision within two months. If granted, the centralized marketing authorization would be valid in all 27 EU Member States as well as the United Kingdom, Iceland, Liechtenstein, and Norway. Zokinvy is expected to be made commercially available following successful completion of reimbursement discussions country-by-country.

“The EMA recommendation to approve Zokinvy is a very important goal for the progeria community all around the world. It is not only important in terms of providing this pivotal drug to the people with progeria living within the European Union, but also a great step showing that the research on progeria is providing the answers we seek,” said Sammy Basso, progeria patient ambassador. “When the gene responsible for progeria was discovered, the search for a helpful drug was just a dream: now for us all this is a light of hope and we will continue to live this dream and work hard to find a cure.”

Zokinvy was approved in the U.S. in November 2020 to reduce the risk of death in Hutchinson-Gilford progeria syndrome, and to treat processing-deficient progeroid laminopathies. It is indicated for adults and children over 12 months of age. This month, Eiger announced a strategic partnership with AnGes, a biopharmaceutical company focused on development of gene-based medicines, to seek regulatory approval and commercialization of Zokinvy in Japan.

ENDS

ABOUT PROGERIA AND PROGEROID LAMINOPATHIES

Hutchinson-Gilford progeria syndrome and processing-deficient progeroid laminopathies are ultra-rare, fatal, genetic premature aging diseases that accelerate mortality in young patients. Collectively known as progeria, these illnesses are caused by changes in genes needed to make certain proteins. Normal versions of these proteins help to keep cells strong and stable. However, the altered genes cause a build-up of harmful forms of the proteins called progerin or progerin-like proteins. These harmful proteins lead to cell damage that resembles the effects of ageing.

It is estimated that there are 400 children and young adults worldwide with HGPS and at least 200 with PL, with approximately 20 children and young adults identified across Europe.

Without Zokinvy therapy, children with HGPS commonly die of the same heart disease that affects millions of normally aging adults (arteriosclerosis), by an average age of 14.5 years. Disease symptoms include severe failure to thrive, scleroderma–like skin, global lipodystrophy, alopecia, joint contractures, skeletal dysplasia, global accelerated atherosclerosis with cardiovascular decline, and debilitating strokes.

ABOUT ZOKINVY® (LONAFARNIB)

Zokinvy blocks the accumulation of defective, permanently farnesylated proteins which form tight associations with the nuclear envelope, leading to cellular instability and premature ageing in children and young adults with progeria and processing-deficient progeroid laminopathies.

Zokinvy is a first-in-class disease-modifying agent that has demonstrated a statistically significant survival benefit in children and young adults with HGPS. In clinical trials, Zokinvy reduced the incidence of mortality by 72% and increased average survival time by at least 4.3 years in patients with HGPS. The most commonly reported adverse reactions were gastrointestinal (vomiting, diarrhea, nausea), and most were mild or moderate (Grade 1 or 2) in severity. Many patients with progeria have received continuous Zokinvy therapy for more than 10 years.

Eiger licensed exclusive worldwide rights to lonafarnib from Merck, known as MSD outside of the United States and Canada. Merck will not receive any milestone payments for the development of lonafarnib for the treatment of progeria and has waived royalty obligations from Eiger for a specified quantity of lonafarnib.

For more information including prescribing information for Zokinvy in the U.S. please go to www.zokinvy.com. Zokinvy is not currently approved for any indication in Europe or Japan.

U.S INDICATION

In the U.S., ZOKINVY is indicated in adult and pediatric patients 12 months of age and older with a body surface area (BSA) of 0.39 m^2 and above:

- To reduce the risk of mortality in Hutchinson-Gilford progeria syndrome (HGPS)
- For the treatment of processing-deficient progeroid laminopathies with either:
    - Heterozygous LMNA mutation with progerin-like protein accumulation
    - Homozygous or compound heterozygous ZMPSTE24 mutations

LIMITATIONS OF USE

ZOKINVY is not indicated for use in patients with non-HGPS progeroid syndromes or with progeroid Laminopathies known to be processing-proficient. Based upon its mechanism of action, ZOKINVY would not be expected to be effective in these populations.

CONTRAINDICATIONS

- Strong or moderate CYP3A inhibitors or inducers
- Midazolam
- Lovastatin, simvastatin, and atorvastatin

U.S. IMPORTANT SAFETY INFORMATION

- The most common adverse reactions are vomiting (90%), diarrhea (81%), infection (78%), nausea (56%), decreased appetite (53%), fatigue (51%), upper respiratory tract infection (51%), abdominal pain (48%), musculoskeletal pain (48%), electrolyte abnormalities (43%), headache (37%), decreased weight (37%), increased aspartate aminotransferase (35%), myelosuppression (35%), cough (33%), decreased blood bicarbonate (33%), hypertension (29%), and increased alanine aminotransferase (27%).

GASTROINTESTINAL ADVERSE REACTIONS

- Gastrointestinal adverse reactions were the most frequently reported adverse reactions. Of the 57 patients (90%) that experienced vomiting, 30 (53%) patients had mild vomiting, 26 (46%) patients had moderate vomiting, and 1 (2%) patient had severe vomiting.
- Of the 35 patients (56%) that experienced nausea, 34 (97%) patients had mild nausea and 1 (3%) patient had moderate nausea.
- Of the 51 patients (81%) that experienced diarrhea, the majority of patients (92%) experienced mild or moderate diarrhea; 38 (75%) patients reported mild diarrhea and 9 (18%) patients reported moderate diarrhea. Four (8%) patients reported severe diarrhea.
- Loss of fluids and dehydration can be severe, leading to hospitalization. As a result, patients should receive therapy for diarrhea at the earliest signs in order to avoid possible severe complications.

ALANINE AMINOTRANSFERASE AND ASPARTATE AMINOTRANSFERASE ELEVATIONS

- Increased alanine aminotransferase was commonly reported (17 [27%] patients). Of the 17 patients with increased alanine aminotransferase, 14 (82%) patients had mild increases, 1 (6%) patient had moderate increases, and 2 (12%) patients had severe increases.
- Increased aspartate aminotransferase was also commonly reported (22 [35%] patients). Of the 22 patients with increased aspartate aminotransferase, 21 (95%) patients had mild increases and 1 (5%) patient had a severe increase.

HYPERTENSION

- Increases in blood pressure have been documented in patients treated with ZOKINVY. At baseline 22 (35%) patients had either a systolic blood pressure or a diastolic blood pressure or both above the 95th percentile. Over the course of the trials, 18 (29%) patients had hypertension based on systolic blood pressure or diastolic blood pressure measurements above the 95th percentile on 3 or more occasions. Five (8%) patients who were normotensive at baseline had either systolic blood pressure or diastolic blood pressure above the 95th percentile at the end of treatment.

OPHTHALMIC ADVERSE REACTIONS

- Lonafarnib caused retinal toxicity in monkeys at 3.7 times the human dose based on plasma drug exposure, but not at 2.1 times the human dose.

LABORATORY ABNORMALITIES

Some patients treated with ZOKINVY developed laboratory abnormalities. These included:

- Electrolyte abnormalities (43%), such as hyperkalemia, hypokalemia, hyponatremia, or hypercalcemia
- Myelosuppression (35%), such as reductions in absolute neutrophil count, white blood cell counts, lymphopenia, hemoglobin, or hematocrit
- Increased liver enzymes, such as aspartate aminotransferase (35%), or alanine aminotransferase (27%)

These laboratory abnormalities often improved while continuing ZOKINVY, but it is not possible to exclude ZOKINVY as a cause of the abnormalities. Periodically monitor electrolytes, complete blood counts, and liver enzymes, and manage abnormalities accordingly.

NEPHROTOXICITY

- Lonafarnib caused nephrotoxicity in rats at plasma drug exposures approximately equal to that achieved with the human dose. Monitor renal function at regular intervals during ZOKINVY therapy.

RETINAL TOXICITY

- Lonafarnib caused rod-dependent, low-light vision decline in monkeys at plasma drug exposures similar to that achieved with the human dose. Perform ophthalmological evaluation at regular intervals and at the onset of any new visual changes during ZOKINVY therapy.

IMPAIRED FERTILITY

- Lonafarnib caused impaired fertility in female rats at 1.2 times the human dose based on plasma drug exposure.
- Lonafarnib caused impaired fertility and testicular toxicity in male rats at 1.5 times the human dose based on plasma drug exposure, and toxicity in the male reproductive tract in monkeys at doses lower than the human dose based on plasma drug exposure.

ABOUT EIGER

Eiger is a commercial-stage biopharmaceutical company focused on the development of innovative therapies to treat and cure hepatitis delta virus (HDV) and other serious diseases. The Eiger HDV platform includes two first-in-class therapies in Phase 3 that target critical host processes involved in viral replication. Eiger is also developing peginterferon lambda as a therapeutic for COVID-19 and is preparing to submit an emergency use authorization application to FDA based on positive results from the investigator sponsored Phase 3 *TOGETHER* study.

All five Eiger rare disease programs have been granted FDA Breakthrough Therapy designation: lonafarnib and peginterferon lambda for HDV, Zokinvy for progeria, and avexitide for both congenital hyperinsulinism and post-bariatric hypoglycemia.

For additional information about Eiger and its clinical programs, please visit www.eigerbio.com.

ABOUT THE PROGERIA RESEARCH FOUNDATION

The Progeria Research Foundation (PRF) was established in 1999 by the family of Sam Berns, a child with progeria. Within four years of its founding, the PRF Genetics Consortium discovered the progeria gene, a collaboration led by Dr. Francis Collins, Acting Science Advisor to the President of the United States and former Director of the National Institutes of Health (NIH). PRF has funded and co-coordinated all Zokinvy-associated clinical trials for progeria and progeroid laminopathies, conducted at Boston Children's Hospital, and supports scientists who conduct progeria research worldwide.

PRF's International Patient Registry includes over 350 children with progeria in 70 countries. PRF is the only non-profit organization solely dedicated to finding treatments and the cure for progeria and its aging-related conditions, including heart disease. The organization fills a void, putting these children and progeria at the forefront of scientific efforts.

For more information and to support PRF's mission, please visit www.progeriaresearch.org.

ABOUT SAMMY BASSO

Born in 1995, Sammy Basso was diagnosed with progeria at age two, and has been the spokesperson of the Sammy Basso Italian Association for progeria since he was ten years old. In 2007, Sammy was among the first to join The PRF's clinical trials, testing the now-FDA-approved treatment Zokinvy as the first-ever treatment for Progeria. In 2014, he was featured in the National Geographic docu-film "Il Viaggio di Sammy" (Sammy's travels), which chronicled his dream trip: travelling on Route 66 in the U.S. from Chicago to Los Angeles with his parents and friend.

In 2018, Sammy graduated from Padua University with a degree in Natural Sciences and delivered a thesis on a genetic editing approach in HGPS mice. Later that year, he was awarded Knight of the Order of Merit of the Italian Republic, for his in-depth research in disabilities and his partnership with the Italian government. In 2020, Sammy became a member of the Veneto's regional and national task force for COVID-19 information disclosure (scientific and influencer features). In 2021, Sammy graduated with a second degree in Molecular Biology with a thesis on the intersection of Lamin A and Interleukin-6, an approach for treating progeria by targeting the toxic protein, known as progerin.

Eiger Note Regarding Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts, including statements regarding our future financial condition, timing for and outcomes of clinical results, prospective products, preclinical and clinical pipelines, regulatory objectives, business strategy and plans and objectives for future operations, are forward looking statements. Forward-looking statements are our current statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our anticipated significant milestones in 2022; the timing of our ongoing and planned clinical development across our pipeline; the approval of Zokinvy in jurisdictions outside of the U.S.; our ability to finance the continued advancement of our development pipeline products; and the potential for success of any of our product candidates. Various important factors could cause actual results or events to differ materially from the forward-looking statements that Eiger makes, including additional applicable risks and uncertainties described in the "Risk Factors" sections in the Annual Report on Form 10-Q for the quarter ended March 31, 2022 and Eiger's subsequent filings with the SEC. The forward-looking statements contained in this press release are based on information currently available to Eiger and speak only as of the date on which they are made. Eiger does not undertake and specifically disclaims any obligation to update any forward-looking statements, whether as a result of any new information, future events, changed circumstances or otherwise.

MEDIA CONTACTS:
For Eiger:
Sarah Mathieson
SVP, Corporate Affairs
smathieson@eigerbio.com
+1 (415) 521 6544

For The Progeria Research Foundation:
Liza Morris
lmorris@plusalkemi.com
+1 (202) 251-8287