



## **Rhythm Pharmaceuticals Announces that European Commission Authorized Variation for IMCIVREE® (setmelanotide) to Allow for Dosing in Patients with POMC or LEPR deficiency with Renal Impairment**

June 22, 2022

BOSTON, June 22, 2022 (GLOBE NEWSWIRE) -- Rhythm Pharmaceuticals, Inc. (Nasdaq: RYTM), a commercial-stage biopharmaceutical company committed to transforming the care of people living with rare genetic diseases of obesity, today announced that the European Commission (EC) this week authorized a variation for IMCIVREE® (setmelanotide) that allows for dosing in patients with POMC or LEPR deficiency who have mild, moderate or severe renal impairment.

IMCIVREE, a melanocortin-4 receptor (MC4R) agonist, last year received marketing authorization from the EC for the treatment of obesity and the control of hunger associated with genetically confirmed loss-of-function biallelic pro-opiomelanocortin (POMC), including proprotein convertase subtilisin/kexin type 1 (PCSK1), deficiency or biallelic leptin receptor (LEPR) deficiency in adults and children 6 years old and older.

"We are pleased the EC has recognized the impact IMCIVREE can have on the lives of patients living with hyperphagia and severe obesity caused by rare MC4R pathway diseases," said David Meeker, M.D., Chairman, President and Chief Executive Officer of Rhythm. "The expansion of the dosing regimen to include patients with renal impairment is an important step in ensuring more patients have access to a therapy that addresses the root cause of these rare genetic diseases."

The EC's approval of the Company's renal dosing variation allows for patients aged 6 years and older with POMC or LEPR deficiency and with mild, moderate, or severe renal impairment to be treated with IMCIVREE. There are no dose adjustments for patients with mild or moderate renal impairment and a separate dose titration schedule is provided for patients with severe renal impairment. Treatment is not recommended for patients with end stage renal disease.

Rhythm's Type II variation application to the European Medicines Agency (EMA) for setmelanotide for the treatment of obesity and control of hunger in adult and pediatric patients 6 years old and older with Bardet-Biedl syndrome also is under review. The EMA's Committee for Medicinal Products for Human Use (CHMP) is anticipated to make its recommendation on this application in the third quarter of 2022. The amendment for renal impairment dosing is being considered with the BBS application, as well.

### **About Rhythm Pharmaceuticals**

Rhythm is a commercial-stage biopharmaceutical company committed transforming the lives of patients and their families living with hyperphagia and severe obesity caused by rare melanocortin-4 receptor (MC4R) pathway diseases. Rhythm's precision medicine, IMCIVREE (setmelanotide), is approved by the U.S. Food and Drug Administration (FDA) for chronic weight management in adult and pediatric patients 6 years of age and older with monogenic or syndromic obesity due to POMC, PCSK1 or LEPR deficiency confirmed by genetic testing, or patients with a clinical diagnosis of Bardet-Biedl syndrome (BBS). The European Commission (EC) and Great Britain's Medicines & Healthcare Products Regulatory Agency (MHRA) have authorized IMCIVREE for the treatment of obesity and the control of hunger associated with genetically confirmed loss-of-function biallelic POMC, including PCSK1, deficiency or biallelic LEPR deficiency in adults and children 6 years of age and above. IMCIVREE is the first-ever FDA-approved and EC- and MHRA-authorized therapy for patients with these rare genetic diseases of obesity. The Company submitted a Type II variation application to the European Medicines Agency seeking regulatory approval and authorization for setmelanotide to treat obesity and control of hunger in adult and pediatric patients 6 years of age and older with BBS in the European Union. Additionally, Rhythm is advancing a broad clinical development program for setmelanotide in other rare genetic diseases of obesity and is leveraging the Rhythm Engine and the largest known obesity DNA database -- now with approximately 45,000 sequencing samples -- to improve the understanding, diagnosis and care of people living with severe obesity due to certain genetic deficiencies. Rhythm's headquarters is in Boston, MA.

### **About Setmelanotide**

Setmelanotide is a melanocortin-4 receptor (MC4R) agonist. The MC4R is part of the key biological pathway that regulates hunger, caloric intake and energy expenditure. Variants in genes may impair the function of the MC4R pathway, potentially leading to hyperphagia and early-onset, severe obesity. Rhythm is developing setmelanotide as a targeted therapy to potentially restore the function of an impaired MC4R pathway and, in so doing, potentially reduce hunger and weight in patients with rare genetic diseases of obesity.

In the EU and Great Britain, IMCIVREE is indicated for the treatment of obesity and the control of hunger associated with genetically confirmed loss-of-function biallelic POMC, including PCSK1, deficiency or biallelic LEPR deficiency in adults and children 6 years of age and above. IMCIVREE should be prescribed and supervised by a physician with expertise in obesity with underlying genetic etiology.

Rhythm's Type II variation application to the European Medicines Agency (EMA) for the treatment of obesity and control of hyperphagia in adult and pediatric patients 6 years of age and older with BBS is under review. The Company is also continuing to advance the most comprehensive clinical research program ever initiated in MC4R pathway diseases, including the pivotal Phase 3 EMANATE clinical trial evaluating setmelanotide in four independent sub-studies in patients with obesity due to POMC insufficiency caused by heterozygous variants in the *POMC* or *PCSK1* genes, LEPR insufficiency caused by heterozygous variants in the *LEPR* gene, SRC1 deficiency caused by a variant in the *NCOA1* gene, and SH2B1 deficiency caused by a variant in the *SH2B1* gene or 16p11.2 deletion encompassing the *SH2B1* gene. The Phase 2 DAYBREAK trial is evaluating setmelanotide in patients with severe obesity and hyperphagia caused by rare variants associated with 10 prioritized MC4R-relevant genes. Rhythm has also initiated a Phase 3 pediatric trial and a Phase 3 trial evaluating a weekly formulation of setmelanotide.

## **IMCIVREE® (setmelanotide) Indication**

In the United States, IMCIVREE is indicated for chronic weight management in adult and pediatric patients 6 years of age and older with monogenic or syndromic obesity due to:

- Pro-opiomelanocortin (POMC), proprotein convertase subtilisin/kexin type 1 (PCSK1) or leptin receptor (LEPR) deficiency as determined by an FDA-approved test demonstrating variants in *POMC*, *PCSK1* or *LEPR* genes that are interpreted as pathogenic, likely pathogenic, or of uncertain significance (VUS)
- Bardet-Biedl syndrome (BBS)

## **Limitations of Use**

IMCIVREE is not indicated for the treatment of patients with the following conditions as IMCIVREE would not be expected to be effective:

- Obesity due to suspected POMC, PCSK1 or LEPR deficiency with *POMC*, *PCSK1* or *LEPR* variants classified as benign or likely benign
- Other types of obesity not related to POMC, PCSK1 or LEPR deficiency, or BBS, including obesity associated with other genetic syndromes and general (polygenic) obesity

## **WARNINGS AND PRECAUTIONS**

**Disturbance in Sexual Arousal:** Spontaneous penile erections in males and sexual adverse reactions in females have occurred. Inform patients that these events may occur and instruct patients who have an erection lasting longer than 4 hours to seek emergency medical attention.

**Depression and Suicidal Ideation:** Depression and suicidal ideation have occurred. Monitor patients for new onset or worsening depression or suicidal thoughts or behaviors. Consider discontinuing IMCIVREE if patients experience suicidal thoughts or behaviors, or clinically significant or persistent depression symptoms occur.

**Skin Pigmentation and Darkening of Pre-existing Nevi:** Generalized increased skin pigmentation and darkening of pre-existing nevi have occurred. Perform a full body skin examination prior to initiation and periodically during treatment to monitor pre-existing and new pigmentary lesions.

**Risk of Serious Adverse Reactions Due to Benzyl Alcohol Preservative in Neonates and Low Birth Weight Infants:** IMCIVREE is not approved for use in neonates or infants. Serious and fatal adverse reactions including "gasping syndrome" can occur in neonates and low birth weight infants treated with benzyl alcohol-preserved drugs.

## **ADVERSE REACTIONS**

- The most common adverse reactions (incidence  $\geq 20\%$ ) included skin hyperpigmentation, injection site reactions, nausea, headache, diarrhea, abdominal pain, vomiting, depression, and spontaneous penile erection.

## **USE IN SPECIFIC POPULATIONS**

Treatment with IMCIVREE is not recommended when breastfeeding. Discontinue IMCIVREE when pregnancy is recognized unless the benefits of therapy outweigh the potential risks to the fetus.

To report SUSPECTED ADVERSE REACTIONS, contact Rhythm Pharmaceuticals at 833-789-6337 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).

**Please see the full Prescribing Information for additional Important Safety Information.**

## **Forward-Looking Statements**

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements regarding the potential, safety, efficacy, and regulatory and clinical progress of setmelanotide, the potential benefits of IMCIVREE for patients with renal impairment, and our expectations surrounding potential regulatory submissions with the EMA, approvals and timing thereof, our business strategy and plans, including regarding commercialization of IMCIVREE. Statements using word such as "expect", "anticipate", "believe", "may", "will" and similar terms are also forward-looking statements. Such statements are subject to numerous risks and uncertainties, including, but not limited to, our ability to enroll patients in clinical trials, the design and outcome of clinical trials, the impact of competition, the ability to achieve or obtain necessary regulatory approvals, risks associated with data analysis and reporting, our liquidity and expenses, the impact of the COVID-19 pandemic on our business and operations, including our preclinical studies, clinical trials and commercialization prospects, and general economic conditions, and the other important factors discussed under the caption "Risk Factors" in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 and our other filings with the Securities and Exchange Commission. Except as required by law, we undertake no obligations to make any revisions to the forward-looking statements contained in this release or to update them to reflect events or circumstances occurring after the date of this release, whether as a result of new information, future developments or otherwise.

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