

### **NEWS RELEASE**

# RedHill Announces FDA sNDA Approval for Talicia®

#### 9/18/2023

FDA approves supplemental new drug application (sNDA) for Talicia, changing dosing to a simplified three times daily (TID) regimen, which may support increased patient adherence and treatment outcomes

Talicia is the leading branded first-line therapy prescribed by U.S. gastroenterologists <sup>[1]</sup> for eradication of H. pylori - a bacterial infection that affects approximately 35% of the U.S. adult population <sup>[2]</sup>

RALEIGH, N.C. and TEL-AVIV, Israel, Sept. 18, 2023 /PRNewswire/ -- RedHill Biopharma Ltd. (Nasdaq: RDHL) ("RedHill" or the "Company"), a specialty biopharmaceutical company, announced the U.S. Food and Drug Administration's (FDA) approval of its supplemental new drug application (sNDA) for Talicia<sup>[3]</sup>, allowing a change to a more flexible three times daily (TID), taken at least 4 hours apart with food, dosing regimen for H. pylori eradication. This differs from the previously approved dosing regimen (Q8H), which required dosing every eight hours with food, by enabling patients to follow a convenient "breakfast, lunch and dinner" dosing routine, which may support increased patient adherence and optimize the potential for successful H. pylori eradication.

"H. pylori treatment can be challenging for patients as most regimens require different pills to be taken multiple times per day. However, it is clear that simplified regimens promote improved patient adherence and should be a key factor when considering choice of H. pylori eradication therapy," said Colin W. Howden, MD, Professor Emeritus, University of Tennessee College of Medicine. "This new dosing regimen further supports the value of Talicia as an empirically prescribed first-line therapy for H. pylori eradication. Talicia's favorable efficacy, tolerability, and resistance profile, as well as being the only all-in-one formulation available, provides potential advantages over

clarithromycin-based regimens for most patients."

"Talicia is unique in that it is the only FDA-approved rifabutin-based therapy for the eradication of H. pylori. Both its components and formulation are optimized to provide patients with the necessary medications for successful H. pylori eradication," **said Dr. June Almenoff, MD, Ph.D., RedHill's Chief Medical Officer**. "RedHill is committed to advancing GI and infectious disease management through patient-focused innovation. Through our successful collaboration with Certara, utilizing their Simcyp™ Simulator for physiologically based pharmacokinetic (PBPK) modeling, we have demonstrated therapeutic equivalence between TID and Q8H dosing, enabling us to provide what we believe is a more flexible Talicia regimen that we believe will be beneficial for the patient experience."

# About H. pylori infection

H. pylori is a bacterial infection that affects approximately 35% of the U.S. population, with an estimated two million patients treated annually<sup>[4]</sup>. Worldwide, more than 50% of the population has H. pylori infection, which is classified by the WHO as a Group 1 carcinogen. It remains the strongest known risk factor for gastric cancer<sup>[5]</sup> and a major risk factor for peptic ulcer disease<sup>[6]</sup> and gastric mucosa-associated lymphoid tissue (MALT) lymphoma<sup>[7]</sup>. More than 27,000 Americans are diagnosed with gastric cancer annually<sup>[8]</sup>. Eradication of H. pylori is becoming increasingly difficult, with current therapies failing in approximately 25-40% of patients who remain H. pylori-positive due to high resistance of H. pylori to antibiotics – especially clarithromycin – which is still commonly used in standard combination therapies2.

#### **About Talicia**

Talicia is a novel, fixed-dose, all-in-one oral capsule combination of two antibiotics (amoxicillin and rifabutin) and a proton pump inhibitor (PPI) (omeprazole), approved by the U.S. FDA for the treatment of H. pylori infection in adults.

Talicia is the only low-dose rifabutin-based therapy approved for the treatment of H. pylori infection and is designed to address H. pylori's high resistance to other antibiotics. The high rates of H. pylori resistance to clarithromycin have led to significant rates of treatment failure with clarithromycin-based therapies and are a strong public health concern, as highlighted by the ACG, FDA and the World Health Organization (WHO) in recent years.

In the pivotal Phase 3 study, Talicia demonstrated 84% eradication of H. pylori infection in the intent-to-treat (ITT) group vs. 58% in the active comparator arm (p<0.0001). Minimal to zero resistance to rifabutin, a key component of Talicia, was detected in RedHill's pivotal Phase 3 study. Further, in an analysis of data from this study, it was observed that subjects who were confirmed adherent<sup>[9]</sup> to their therapy had response rates of 90.3% in the Talicia arm vs. 64.7% in the active comparator arm<sup>[10]</sup>. To reduce the development of drug-resistant bacteria and maintain

the effectiveness of Talicia and other antibacterial drugs, Talicia should be used only to treat or prevent infections that are proven or strongly suspected to be caused by bacteria.

Talicia is eligible for a total of eight years of U.S. market exclusivity under its Qualified Infectious Disease Product (QIDP) designation and is also covered by U.S. patents which extend patent protection until 2034 with additional patents and applications pending and granted in various territories worldwide.

#### TALICIA: IMPORTANT SAFETY INFORMATION

**Tell your healthcare provider about all of the medicines you take**, including prescription or non-prescription medications or herbal supplements before starting Talicia. Talicia may affect the way other medicines work, and other medicines may affect the way Talicia works. Do not start any new medications while taking Talicia without first speaking with your healthcare provider.

- You should not take Talicia if you are known to be sensitive to any of the components of Talicia (omeprazole, amoxicillin, rifabutin), penicillins, proton pump inhibitors or rifamycins.
- You should not take Talicia if you are taking rilpivirine-containing products, delavirdine or voriconazole.

# Before you take Talicia, tell your healthcare provider about all of your medical conditions, including if you:

- Are pregnant or plan to become pregnant. Talicia may harm your unborn baby. Tell your healthcare provider if you become pregnant or think you may be pregnant during your treatment with Talicia.
- Have severe kidney disease or liver disease.

When taking Talicia, do not crush or chew capsules. Do not take Talicia with alcohol.

# Call your healthcare provider immediately if while taking Talicia you develop:

 New rash or other skin changes, muscle or joint pains, swelling of any area of the body, severe flu-like symptoms, difficulty breathing, fever, blood in your urine, increased or decreased urination, drowsiness, confusion, nausea, vomiting, ongoing stomach pain, bloody diarrhea, or if diarrhea continues after therapy is completed, weight gain or changes in your eyesight.

# What are the common side effects of Talicia?

• The most common side effects of Talicia are diarrhea, headache, nausea, stomach pain, rash, indigestion, mouth or throat pain, vomiting, and vaginal yeast infection. Call your healthcare professional for medical advice about side effects.

- Tell your healthcare provider if you experience tiredness, weakness, achiness, headaches, dizziness, depression, increased sensitivity to light, or pain when taking a deep breath.
- Talicia may reduce the effectiveness of oral or other forms of hormonal birth-control. You should use an additional non-hormonal highly effective method of birth control while taking Talicia.
- You may experience a brown-orange discoloration of your urine or tears while taking Talicia.
- The information here is not comprehensive. Talk to your healthcare provider to learn more.

#### APPROVED USE FOR TALICIA

TALICIA is indicated for the treatment of Helicobacter pylori infection in adults.

## Click here for the full Prescribing Information for TALICIA.

You are encouraged to report Adverse Reactions to RedHill Biopharma Inc. at 1-833-ADRHILL (1-833-237-4455) or the FDA at 1-800-FDA-1088 or <a href="https://www.fda.gov/medwatch.">www.fda.gov/medwatch.</a>

#### About RedHill Biopharma

RedHill Biopharma Ltd. (Nasdaq: <u>RDHL</u>) is a specialty biopharmaceutical company primarily focused on gastrointestinal and infectious diseases. RedHill promotes the gastrointestinal drugs **Talicia®**, for the treatment of Helicobacter pylori (H. pylori) infection in adults<sup>[12]</sup>, and **Aemcolo®**, for the treatment of travelers' diarrhea in adults<sup>[12]</sup>. RedHill's key clinical late-stage development programs include: (i) **opaganib** (**ABC294640**), a first-in-class oral broad-acting, host-directed SPHK2 selective inhibitor with potential for pandemic preparedness, targeting multiple indications with a U.S. Government collaboration for development for Acute Radiation Syndrome (ARS), a Phase 2/3 program for hospitalized COVID-19, and a Phase 2 program in oncology; (ii) **RHB-107** (**upamostat**), an oral broad-acting, host-directed, serine protease inhibitor with potential for pandemic preparedness is in late-stage development as a treatment for non-hospitalized symptomatic COVID-19, and is also targeting multiple other cancer and inflammatory gastrointestinal diseases; (iii) **RHB-102**, with potential UK submission for chemotherapy and radiotherapy induced nausea and vomiting, positive results from a Phase 3 study for acute gastroenteritis and gastritis and positive results from a Phase 2 study for IBS-D; (iv) **RHB-104**, with positive results from a first Phase 3 study for Crohn's disease; and (v) **RHB-204**, a Phase 3-stage program for pulmonary nontuberculous mycobacteria (NTM) disease.

More information about the Company is available at: www.redhillbio.com / twitter.com/RedHillBio.

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements may be preceded by the words "intends," "may," "will," "plans," "expects,"

"anticipates," "projects," "predicts," "estimates," "aims," "believes," "hopes," "potential" or similar words. Forwardlooking statements are based on certain assumptions and are subject to various known and unknown risks and uncertainties, many of which are beyond the Company's control and cannot be predicted or quantified, and consequently, actual results may differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties, including without limitation the risk that the Company will not succeed to expand Talicia's reach to additional ex-U.S. territories; as well as other risk and uncertainties associated with (i) the initiation, timing, progress and results of the Company's research, manufacturing, pre-clinical studies, clinical trials, and other therapeutic candidate development efforts, and the timing of the commercial launch of its commercial products and ones it may acquire or develop in the future; (ii) the Company's ability to advance its therapeutic candidates into clinical trials or to successfully complete its pre-clinical studies or clinical trials; (iii) the extent and number and type of additional studies that the Company may be required to conduct and the Company's receipt of regulatory approvals for its therapeutic candidates, and the timing of other regulatory filings, approvals and feedback; (iv) the manufacturing, clinical development, commercialization, and market acceptance of the Company's therapeutic candidates and Talicia<sup>®</sup>; (v) the Company's ability to successfully commercialize and promote Talicia<sup>®</sup> and Aemcolo<sup>®</sup>; (vi) the Company's ability to establish and maintain corporate collaborations; (vii) the Company's ability to acquire products approved for marketing in the U.S. that achieve commercial success and build its own marketing and commercialization capabilities; (viii) the interpretation of the properties and characteristics of the Company's therapeutic candidates and the results obtained with its therapeutic candidates in research, pre-clinical studies or clinical trials; (ix) the implementation of the Company's business model, strategic plans for its business and therapeutic candidates; (x) the scope of protection the Company is able to establish and maintain for intellectual property rights covering its therapeutic candidates and its ability to operate its business without infringing the intellectual property rights of others; (xi) parties from whom the Company licenses its intellectual property defaulting in their obligations to the Company; (xii) estimates of the Company's expenses, future revenues, capital requirements and needs for additional financing; (xiii) the effect of patients suffering adverse experiences using investigative drugs under the Company's Expanded Access Program; and (xiv) competition from other companies and technologies within the Company's industry. More detailed information about the Company and the risk factors that may affect the realization of forward-looking statements is set forth in the Company's filings with the Securities and Exchange Commission (SEC), including the Company's Annual Report on Form 20-F filed with the SEC on April 28, 2023. All forward-looking statements included in this press release are made only as of the date of this press release. The Company assumes no obligation to update any written or oral forward-looking statement, whether as a result of new information, future events or otherwise unless required by law.

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Category: Commercial

[1] IQVIA XPO Data on file

[2] Hooi JKY et al. Global Prevalence of Helicobacter pylori Infection: Systematic Review and Meta-Analysis.

Gastroenterology 2017; 153:420-429.

[3] Talicia® (omeprazole magnesium, amoxicillin and rifabutin) is indicated for the treatment of H. pylori infection in

adults. For full prescribing information see: www.Talicia.com.

[4] IQVIA Custom Study for RedHill Biopharma, 2019

[5] Lamb A et al. Role of the Helicobacter pylori–Induced inflammatory response in the development of gastric

cancer. | Cell Biochem 2013;114.3:491-497.

[6] NIH – Helicobacter pylori and Cancer, September 2013.

[7] Hu Q et al. Gastric mucosa-associated lymphoid tissue lymphoma and Helicobacter pylori infection: a review of

current diagnosis and management. Biomarker research 2016;4.1:15.

[8] National Cancer Institute, Surveillance, Epidemiology, and End Results Program (SEER).

[9] Defined as the PK population which included those subjects in the ITT population who had demonstrated

presence of any component of investigational drug at visit 3 (approx. day 13) or had undetected levels drawn >250

hours after the last dose.

[10] The pivotal Phase 3 study with Talicia<sup>®</sup> demonstrated 84% eradication of H. pylori infection with Talicia<sup>®</sup> vs.

58% in the active comparator arm (ITT analysis, p<0.0001).

[11] Talicia<sup>®</sup> (omeprazole magnesium, amoxicillin and rifabutin) is indicated for the treatment of H. pylori infection

in adults. For full prescribing information see: www.Talicia.com.

[12] Aemcolo® (rifamycin) is indicated for the treatment of travelers' diarrhea caused by noninvasive strains of

Escherichia coli in adults. For full prescribing information see: <u>www.aemcolo.com</u>.

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