NEWS RELEASE

RedHill Presents New Talicia® Data Analyses at Obesity Week 2022

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Talicia's efficacy, in this analysis of pooled data from two Phase 3 studies, was unaffected by presence of diabetes or elevated body mass index (BMI); additionally, pharmacokinetic modeling results indicate that intragastric rifabutin exposure was unaffected by elevated patient BMI

Published data suggest that elevated BMI and presence of diabetes may be associated with the failure of clarithromycin-based H. pylori treatments, further supporting the use of Talicia as a first-line therapy in all populations

Talicia, the leading prescribed branded H. pylori therapy by U.S. gastroenterologists, is an empiric first-line therapy for eradication of H. pylori, a bacterial infection that affects approximately 35% of the U.S. adult population

RALEIGH, N.C. and TEL AVIV, Israel, Nov. 4, 2022 /PRNewswire/ -- **RedHill Biopharma Ltd.** (Nasdaq: RDHL) ("RedHill" or the "Company"), a specialty biopharmaceutical company, announced the presentation of new Talicia® data analyses for the treatment of H. pylori, at the Obesity Week Annual Meeting, November 1-4, 2022.

Rates of obesity continue to rise in the US, with over 70% of the population being overweight or obese[1], and understanding the efficacy of antibiotics in this population is paramount. Additionally, obesity is associated with a higher risk of diabetes, which affects over 11% of the overall US population[2]. Published data have shown that both obesity and diabetes have been associated with failure of clarithromycin-based therapies for the treatment of H.

pylori infection. Obesity can negatively impact intragastric exposure to key antibiotics used to treat H. pylori and high intragastric exposure is known to be essential for successful eradication. These analyses assessed the safety and efficacy of Talicia in achieving H. pylori eradication in patients who are either obese or have diabetes. Furthermore, Physiologically-Based Pharmacokinetic (PBPK) modeling was used to compare intragastric rifabutin concentrations with Talicia (low-dose rifabutin 50 mg) across different body mass index (BMI) subgroups. Results showed that Talicia was unaffected by presence of diabetes or elevated BMI, with modeling results indicating that intragastric rifabutin exposure was unaffected by patient BMI.

"This work supports that patient diabetic status, body mass index, and race/ethnicity have negligible impact on the high eradication rates achieved with Talicia. This is clinically important given the high prevalence of obesity and of diabetes," **said Dr. Dana Portenier, Division Chief, Metabolic and Weight Loss Surgery, Duke University School of Medicine**. "Moreover, Talicia was shown to maintain high intragastric rifabutin concentrations regardless of patient obesity status, further supporting its use as a rational choice for empiric first-line therapy."

Poster title: **Low-dose Rifabutin (50 mg) Triple Therapy for H. pylori is Efficacious and Well Tolerated in Patients with Obesity or Diabetes**

Presenting Author: Dr. Dana Portenier, Division of Metabolic and Weight Loss Surgery, Duke University School of Medicine.

This work builds upon a previous post hoc analysis of phase 3 clinical studies, demonstrating that patient BMI had no statistically significant impact on eradication outcomes with Talicia. PBPK modeling supports minimal differences in intragastric rifabutin concentration time above MIC90 for H. pylori between patients with normal BMI or those who are overweight or obese (approximately 22 hours [93%] of the day across groups).

Additionally, a post hoc analysis of phase 3 clinical studies demonstrated that diabetes had no statistically significant impact on eradication outcomes with Talicia. Furthermore, the safety profile of Talicia in these patients was generally similar to the overall population, and no cases of hypoglycemia were reported. This is clinically relevant as clarithromycin has a risk of drug interactions with commonly used diabetes medications such as insulin and metformin[3], as well as potential for increased risk of hypoglycemia[4]. Furthermore, low-dose rifabutin (50mg Q8H) triple therapy for 14 days produced high eradication rates and displayed favorable safety and tolerability across all subjects.

These data support the efficacy and safety of Talicia as empiric first-line treatment for H. pylori infection in patients regardless of obesity or diabetic status.

About H. pylori infection

H. pylori is a bacterial infection that affects approximately 35%[5] of the U.S. population, with an estimated two million patients treated annually[6]. 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[7] and a major risk factor for peptic ulcer disease[8] and gastric mucosa-associated lymphoid tissue (MALT) lymphoma[9]. More than 27,000 Americans are diagnosed with gastric cancer annually[10]. 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 therapies[11].

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[12] to their therapy had response rates of 90.3% in the Talicia arm vs. 64.7% in the active comparator arm[13]. 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 a prescription medicine for the treatment of a bacteria, Helicobacter pylori (H. pylori), in the stomach of 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 **www.fda.gov/medwatch.**

About RedHill Biopharma

RedHill Biopharma Ltd. (Nasdaq: RDHL) is a specialty biopharmaceutical company primarily focused on gastrointestinal and infectious diseases. RedHill promotes the gastrointestinal drugs, **Movantik®** for opioid-induced constipation in adults[14], **Talicia®** for the treatment of Helicobacter pylori (H. pylori) infection in adults[15], and **Aemcolo®** for the treatment of travelers' diarrhea in adults[16]. RedHill's key clinical late-stage development programs include: (i) **RHB-204**, with an ongoing Phase 3 study for pulmonary nontuberculous mycobacteria (NTM) disease; (ii) **opaganib (ABC294640)**, a first-in-class oral SK2 selective inhibitor targeting multiple indications with a Phase 2/3 program for hospitalized COVID-19 and a Phase 2 program in oncology; (iii) **RHB-107** (**upamostat**), an oral serine protease inhibitor in Phase 3-stage development as treatment for non-hospitalized symptomatic COVID-19, and targeting multiple other cancer and inflammatory gastrointestinal diseases; (iv) **RHB-104**, with positive results from a first Phase 3 study for Crohn's disease; and (v) **RHB-102**, with positive results from a Phase 3 study for acute gastroenteritis and gastritis and positive results from a Phase 2 study for IBS-D. 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. Forward-looking 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®; (v) the Company's ability to successfully commercialize and promote Talicia®, Aemcolo® and Movantik®; (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 March 17, 2022. 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.

Company contact:

Adi Frish
Chief Corporate & Business Development Officer
RedHill Biopharma
+972-54-6543-112
adi@redhillbio.com

Category: R&D

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

Gastroenterology 2017; 153:420-429.

[6] IQVIA Custom Study for RedHill Biopharma, 2019

[7] Lamb A et al. Role of the Helicobacter pylori–Induced inflammatory response in the development of gastric cancer. J Cell Biochem 2013;114.3:491-497.

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

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

[11] Malfertheiner P. et al. Management of Helicobacter pylori infection - the Maastricht IV/ Florence Consensus Report, Gut 2012;61:646-664; O'Connor A. et al. Treatment of Helicobacter pylori Infection 2015, Helicobacter 20 (S1) 54-61; Venerito M. et al. Meta-analysis of bismuth quadruple therapy versus clarithromycin triple therapy for empiric primary treatment of Helicobacter pylori infection. Digestion 2013;88(1):33-45.

[12] 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.

[13] The pivotal Phase 3 study with Talicia® demonstrated 84% eradication of H. pylori infection with Talicia® vs. 58% in the active comparator arm (ITT analysis, p<0.0001).

[14] Movantik® (naloxegol) is indicated for opioid-induced constipation (OIC). Full prescribing information see: **www.movantik.com**

[15] 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**.

[16] Aemcolo® (rifamycin) is indicated for the treatment of travelers' diarrhea caused by noninvasive strains of Escherichia coli in adults. For full prescribing information see: **www.aemcolo.com**.

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