



NEWS RELEASE

RedHill Receives USPTO Notice of Allowance for a Patent Covering Phase 3-stage RHB-204 for the Treatment of NTM Disease

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Once issued, the patent is expected to extend protection of RHB-204 to 2041

RHB-204 is currently undergoing a Phase 3 study in the U.S. as the first stand-alone standard of care first-line drug candidate for Non-tuberculosis Mycobacteria (NTM) disease caused by MAC infection

RHB-204 has received U.S. FDA Fast Track, Orphan and QIDP priority designations as well as EMA Orphan Drug designation, providing eligibility for 12 years market exclusivity in the U.S. and 10 years exclusivity in the EU

The Company is advancing discussions with several prospective partners for RHB-204 across multiple territories

TEL AVIV, Israel and RALEIGH, N.C., Jan. 26, 2023 /PRNewswire/ -- **RedHill Biopharma Ltd.** (Nasdaq: RDHL) ("RedHill" or the "Company"), a specialty biopharmaceutical company, today announced that the U.S. Patent and Trademark Office (USPTO) has issued a Notice of Allowance for the granting of a patent covering RHB-204's¹ oral fixed-dose combination, methods for treating pulmonary Mycobacterium avium Complex (MAC) disease, and kits comprising a supply of fixed-dose combination products for treating pulmonary MAC disease. Once issued, the patent is expected to protect RHB-204 through 2041.

"Non-tuberculosis mycobacterial disease (NTM) is particularly threatening for vulnerable people with underlying lung disease or weakened immune systems, and the incidence is increasing worldwide, with up to 180,000 people in the U.S. thought to be living with NTM disease². It is notoriously difficult to treat, requiring multiple antibiotics to be taken over a lengthy period, and with no approved first-line stand-alone therapies in the U.S., EU, and Japan, there is an urgent need for new treatment innovation," **said Danielle T. Abramson, Ph.D., RedHill's SVP Global Head of Intellectual Property**. "This USPTO Notice of Allowance for RHB-204 recognizes the innovation behind RHB-204's specific fixed-dose combination therapy for the treatment of NTM disease and is expected to extend protection for this innovation to 2041."

A U.S. Phase 3 study is ongoing to evaluate the efficacy and safety of RHB-204 in adults with pulmonary NTM disease caused by MAC infection (NCT04616924). The study protocol provides for 6 months co-primary endpoint of sputum culture conversion (SCC) and clinical outcome (patient-reported outcomes - PRO) in a randomized placebo-controlled design, followed by open label active treatment with RHB-204 for 12 months from conversion.

The Company is advancing discussions with several prospective partners for RHB-204 across multiple territories.

About Pulmonary Nontuberculous Mycobacteria (NTM) Infections

Pulmonary nontuberculous mycobacteria (NTM) disease is a chronic, serious, and debilitating lung disease that is becoming a significant public health concern with prevalence rising approximately 8% per year worldwide². It is estimated that up to 180,000 people in the U.S. may be living with NTM disease, with women, the elderly, and those with underlying lung conditions or weakened immune systems at particular risk. It is caused by ubiquitous environmental bacteria, found in soil as well as natural and engineered water systems. The most common symptoms of NTM disease include loss of lung function, persistent cough, fever, weight loss, chest pain, and blood in sputum³, contributing to a reduction in quality of life. NTM infections can lead to recurring cases of bronchitis and pneumonia and can, in some cases, lead to respiratory failure⁴. Although rare, the incidence and prevalence of pulmonary NTM disease are increasing in many areas of the world⁵. There were an estimated 110,000 pulmonary NTM disease patients in the U.S. in 2017⁶ and an estimated 28,000 in the EU. Pulmonary manifestations account for 80-90% of all NTM-associated diseases⁷, and approximately 80% of pulmonary NTM infections are caused by *Mycobacterium avium* complex (MAC)⁸.

Treatment of NTM infection can be difficult with guidelines recommending that MAC infection be treated with a multi-drug regimen for treatment, with at least three antimicrobials, for at least 12 months⁹. There is no FDA- or EMA-approved first-line standard-of-care combination therapy. Many patients fail current therapy, and more than half will have either recurring disease or a new infection after completing treatment¹⁰. Thus, new treatment options for NTM are needed.

About RHB-204

RHB-204 is a Phase 3-stage proprietary, fixed-dose oral capsule containing a combination of clarithromycin, rifabutin and clofazimine, developed for the treatment of pulmonary NTM disease caused by MAC. RHB-204 was granted FDA Fast Track and Orphan Drug Designation, in addition to QIDP Designation under the Generating Antibiotic Incentives Now Act (GAIN Act), extending U.S. post-approval U.S. market exclusivity to a potential total of 12 years. RHB-204 has additionally been granted EU Orphan Designation, providing eligibility for 10 years EU post-approval market exclusivity. RedHill is seeking protection of RHB-204, and its use in treating pulmonary MAC disease, on a global scale, providing protection until 2041.

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 adults¹¹, **Talicia®** for the treatment of *Helicobacter pylori* (*H. pylori*) infection in adults¹², and **Aemcolo®** for the treatment of travelers' diarrhea in adults¹³. 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 broad-acting, host-directed SK2 selective inhibitor targeting multiple indications, with potential for pandemic preparedness, with a Phase 2/3 program for hospitalized COVID-19, a Phase 2 program in oncology and a radiation protection program ongoing; (iii) **RHB-107 (upamostat)**, an oral broad-acting, host-directed, serine protease inhibitor with potential for pandemic preparedness and is in a Phase 3-stage study 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 include, without limitation, the risk that the Company will not initiate the Phase 3 clinical study in all or part of the sites in the U.S. or will be delayed; the risk that the U.S. Phase 3 clinical study evaluating RHB-204 will not be successful or, if successful, will not suffice for regulatory marketing approval without the need for additional clinical and/or other studies; as well as risks 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 or the development of a commercial companion diagnostic for the detection of MAP; (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®, Movantik® and Aemcolo®; (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.

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Category: R&D

¹ RHB-204 is an investigational new drug, not available for commercial distribution.

² Strollo SE, et al. The Burden of Pulmonary Nontuberculous Mycobacterial Disease in the United States. *Ann Am Thorac Soc*. 2015 Oct;12(10):1458-64.

³ Kim RD, et al. Pulmonary Nontuberculous Mycobacterial Disease. Prospective Study of a Distinct Preexisting Syndrome *Am J Respir Crit Care Med*. 2008; 178(10):1066–74.

⁴ The American Lung Association, 2020.

⁵ Winthrop KL, et al. Incidence and Prevalence of Nontuberculous Mycobacterial Lung Disease in a Large U.S. Managed Care Health Plan, 2008-2015. *Ann Am Thorac Soc*. 2020 Feb;17(2):178-185.

⁶ Foster | Rosenblatt, 2017

⁷ Griffith DE, et al. An official ATS/IDSA statement: diagnosis, treatment, and prevention of nontuberculous mycobacterial diseases *Am J Respir Crit Care Med*. 2007;175(4):367-416.

⁸ Prevots DR et al. Nontuberculous mycobacterial lung disease prevalence at four integrated health care delivery systems. *Am J Respir Crit Care Med* 2010; 182:970-76; Winthrop KL, et al. Pulmonary nontuberculous mycobacterial disease prevalence and clinical features: an emerging public health disease. *Am J Respir Crit Care Med* 2010; 182: 977-82

⁹ Daley CL, et al. Treatment of Nontuberculous Mycobacterial Pulmonary Disease: An Official ATS/ERS/ESCMID/IDSA Clinical Practice Guideline: Executive Summary. *Clinical Infectious Diseases*. C18a241, <https://doi.org/10.1093/cid/ciaa241>.

¹⁰ Henkle E, et al. Patient-Centered Research Priorities for Pulmonary Nontuberculous Mycobacteria (NTM) Infection. An NTM Research Consortium Workshop Report *Annals of the American Thoracic Society* 2016; S379-84.

¹¹ Movantik® (naloxegol) is indicated for opioid-induced constipation (OIC). Full prescribing information see: www.movantik.com

¹² 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.

¹³ 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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