

RedHill Biopharma Ltd.

Q3 mixed, and Opaganib for COVID-19 disappointing data weighs. We still believe shares significantly undervalued as solid pipeline drives positive valuation. Lowering P/T to \$19.

Q3 results: RedHill recently (on November 30) reported Q3 (ending September) 2021 results. Revenue was \$22 million (+3% y-o-y) and net loss was \$21 million (or EPS of \$(0.46)), compared with our and consensus estimates for revenue of \$23 - 25 million and EPS of \$(0.21) - (0.44). There was no company guidance.

Operating expense: Operating expenses were \$30 million, up \$5 million (y-o-y) as the company scales up its commercial operations and increases R&D.

No guidance: The company declined to provide forward guidance, but reiterated expectation to be breakeven on its commercial operations by Q4 2021.

Lowering estimates: We are lowering our 2021 estimates for revenue to \$87 million, from \$95 million, and for EPS to \$(2.00) from \$(1.95).

Commercialization ramping: RedHill was a clinical stage drug development company that generated no revenue, but this changed quickly since Q2 2020 as it now has 3 GI drugs for commercialization in the U.S., (Aemcolo, Talicia, Movantik). Movantik had Q3 sales of \$19 million (vs. Q2's \$19 million), with Talicia at \$2 million (vs. Q2's \$2 million). Aemcolo continues to be weighed by low international travels.

COVID-19 data disappointing: In September, RedHill reported Topline data for its global Phase 2/3 study of opaganib in patients with severe COVID-19 pneumonia that did not meet its primary endpoint. A post-hoc analysis of data provides a strong rationale for opaganib's potential efficacy in the underserved hospitalized moderately severe patient group. The company has submitted data packages to the regulatory agencies in the U.S., EU, UK and other territories, for regulatory advice.

Movantik Q3 growth: In April 2020, RedHill acquired the global rights to Movantik, excluding Europe, Canada and Israel, from AstraZeneca for \$64 million. Movantik is a peripherally acting mu-opioid receptor antagonist (PAMORA) indicated for the treatment of opioid-induced constipation (OIC) in adults with chronic non-cancer pain. In Q3, Movantik's quarterly new prescriptions were up 1% from Q2.

TALICIA Q3 growth: In March 2020, TALICIA launched in the U.S. Talicia is the first and only FDA approved rifabutin-based H. pylori therapy and is designed to address the high and growing bacterial resistance and diminished efficacy of clarithromycin-based standard-of-care therapy. H. pylori affects ~35% of U.S. adult and is classified as a Group I carcinogen and is the strongest risk factor for the development of peptic ulcer, gastritis and non-cardia gastric cancer. In Q3, Talicia's quarterly total prescriptions were up 15% from Q2.

Solid pipeline of late-clinical stage drugs: RedHill is still focused on the development of late clinical-stage drugs for inflammatory and gastrointestinal (GI) diseases. The company is pursuing a multiple goal strategy with exclusive rights to 6 late-stage drugs, including 5 in Phase III studies.

RHB-107: In November 2020, the FDA cleared the IND application for Phase 2/3 study for RedHill's second COVID-19 drug, RHB-107 (upamostat), an orally administered novel serine protease inhibitor, with antiviral and potential tissue-protective effects. The U.S. Phase 2/3 study is ongoing (last patient was enrolled in November 2021), with Topline data expected in Q1 2022.

RHB-204 NTM Phase 3: The company has an ongoing (started in November 2020) pivotal Phase 3 clinical study in Nontuberculous Mycobacteria (NTM). RHB-204 is a first-line, stand-alone treatment for pulmonary NTM infections caused by Mycobacterium avium complex (MAC).

Steady balance sheet: Redhill has \$51 million in cash and \$84 million in debt. In its current Q4, Redhill just raised ~\$16 million from stock sales (4.7 million shares at ~\$3.30/share). In November, Redhill entered into a strategic agreement with Kukbo Co. Ltd. to invest \$10 million in Redhill for certain drug rights. We believe it has enough cash through late-2022.

Current valuation very attractive: Maintaining our BUY rating, but lowering our 12-month price target to \$19 from \$26. Our P/T is based on a NPV analysis, representing significant upside from current share price. We believe this valuation fairly balances out the high risks with its high growth prospects.

Company Description

Based in Tel Aviv, Israel, RedHill is a biopharmaceutical company focused on the development of late clinical-stage drugs for inflammatory and gastrointestinal (GI) diseases.

COMPANY UPDATE

Rating: **BUY**

Ticker: RDHL

Price: \$2.64

Target: \$19.00
(from \$26)

Stock Data

Exchange:	NasdaqGS
52-week Range:	\$2.46 – 11.52
Shares Outstanding (million):	53
Market cap (\$million):	\$140
EV (\$million):	\$173
Debt (\$million):	\$84
Cash (\$million):	\$51
Avg. Daily Trading Vol. (\$million):	\$3
Float (million shares):	36
Short Interest (million shares):	2
Dividend, annual (yield):	\$0 (NA%)

Revenues (US\$ million)

	<u>2021E</u> <u>(Cur.)</u>	<u>2021E</u> <u>(Old)</u>	<u>2022E</u> <u>(Cur.)</u>	<u>2022E</u> <u>(Old)</u>
Q1 Mar	21A		25E	33E
Q2 Jun	22A		27E	36E
Q3 Sep	22A	23E	29E	38E
Q4 Dec	<u>23E</u>	<u>30E</u>	<u>34E</u>	<u>43E</u>
Total	87E	95E	115E	150E
EV/Revs	2.0x		1.5x	

Earnings per Share (pro forma)

	<u>2021E</u> <u>(Cur.)</u>	<u>2021E</u> <u>(Old)</u>	<u>2022E</u> <u>(Cur.)</u>	<u>2022E</u> <u>(Old)</u>
Q1 Mar	(0.53)A		(0.36)E	(0.24)E
Q2 Jun	(0.62)A		(0.31)E	(0.19)E
Q3 Sep	(0.46)A	(0.44)E	(0.27)E	(0.12)E
Q4 Dec	<u>(0.40)E</u>	<u>(0.36)E</u>	<u>(0.17)E</u>	<u>(0.02)E</u>
Total	(2.00)E	(1.95)E	(1.10)E	(0.57)E
P/E	N/A		N/A	

Important Disclosures

Ascendant Capital Markets LLC seeks to do business with companies covered by its research team. Consequently, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making an investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report, beginning on page 18.

Exhibit 1: RedHill Biopharma Drug Pipeline Stages (as of December 2021)



Emerging U.S. Specialty Pharma: Select Programsⁱ

Commercial Productsⁱⁱ



Taliaia[®] (omeprazole magnesium, amoxicillin and rifabutin) - *H. pylori* infection in adults



Movantik[®] (naloxegol) - Opioid induced constipation (OIC) in adults with chronic non-cancer painⁱⁱⁱ



Aemcolo[®] (rifamycin) - Travelers' diarrhea caused by noninvasive strains of *E. coli* in adults

Development Pipeline ^{iv}		Pre-Clinical	Phase 1/2	Phase 3	NDA
RHB-204	NTM disease	Phase 3 U.S. study ongoing			
RHB-104	Crohn's disease	Positive results from Phase 3 MAP US study			
RHB-102	Gastroenteritis	Positive results from Phase 3 U.S. study			
	IBS-D	Positive results from Phase 2 U.S. study			
RHB-106	Bowel cleanser	Phase 2/3 studies planned			
Opaganib	Oncology Indications + COVID-19	Phase 2/3 COVID-19 & Phase 2 oncology program			
RHB-107 (upamostat)	Oncology/GI + COVID-19	Ongoing Phase 2/3 COVID-19, GI & oncology indications			

Source: Company reports.

Exhibit 2: RedHill Corporate Highlights



Corporate Highlights

An emerging U.S. specialty biopharmaceutical company (Nasdaq: RDHL), primarily focused on U.S. commercialization and development of drugs for gastrointestinal (GI) diseases and infectious diseases

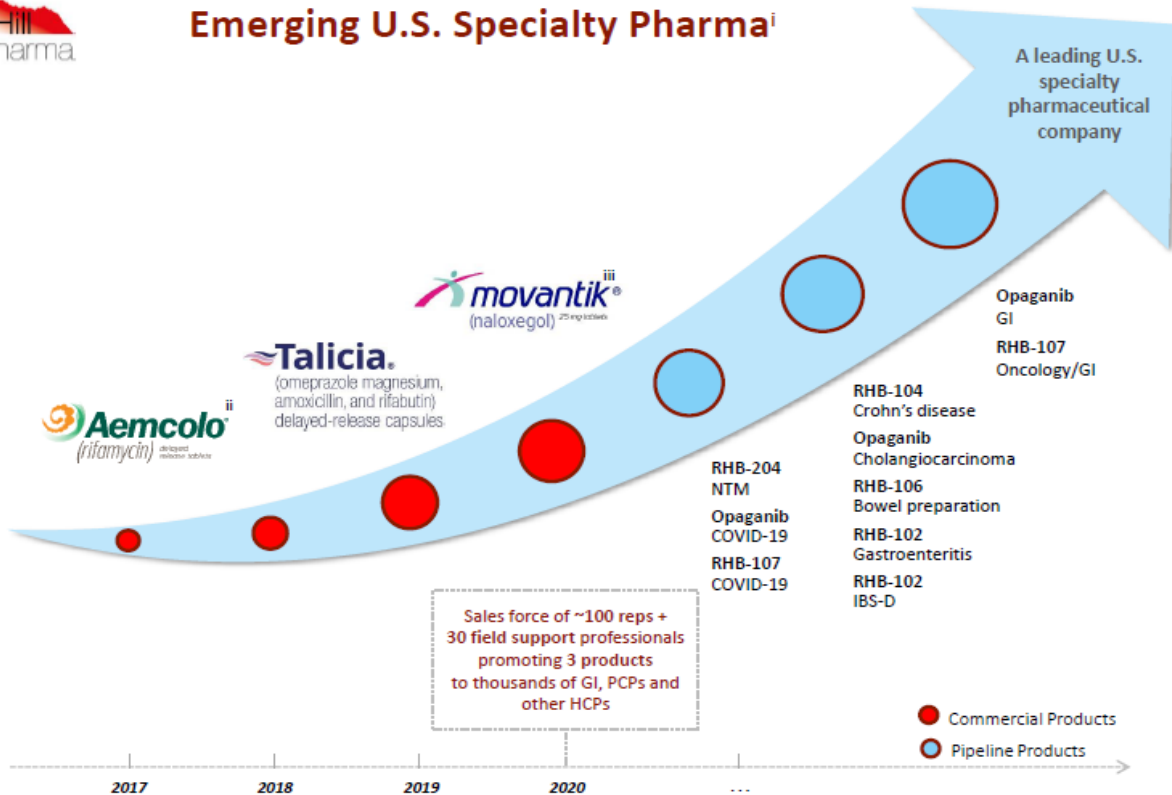
Strong U.S. Commercial Footprint and Robust Development Pipeline with Multiple Near-Term Milestones

Promoting Three FDA-Approved Drugs

Multiple Phase 3 and Phase 2 Programs



Emerging U.S. Specialty Pharma



Source: Company reports.

Exhibit 3: Q3 2021 Key Highlights



Q3/2021 Highlights

Financials

- **Strong quarterly revenues of \$21.6 million**
 - Talicia: 15% Q/Q growth in new prescription volume with continued achievement of launch milestones; improving coverage has set stage for potentially strong Q4/2021
 - Movantik: Maintained market leadership position with strong and improved category outlook
- **Cash position: \$51.5 million as of September 30, 2021**

COVID-19 UPDATE IN LIGHT OF OMICRON VARIANT

- ✓ **Opaganib Global Phase 2/3 COVID-19 data submitted to several regulatory agencies**
 - Novel oral pill addressing moderately severe in-patient/hospitalized population
 - Given its mechanism of action (targeting the host cell), strong potential inhibition of emerging variants of concern, including Omicron variant
 - Opaganib demonstrated a 62% reduction in mortality in a large subpopulation of moderately severe hospitalized COVID-19 patients
- ✓ **RHB-107 (upamostat) – top-line results from Part A of Phase 2/3 in the U.S. and South Africa expected in Q1/22**
 - Novel oral pill addressing non-hospitalized symptomatic patients at early stage of disease
 - Recruitment completed for Part A of study



Q3/2021 Financial Highlights (1/3)

Record revenues and plan to be near commercial operational breakeven on a quarterly basis by end of 2021*

- Cash position** of approximately \$51.5 million as of September 30, 2021
- Post Q3/21 key financings:
 - Strategic investment in RedHill by South Korea's Kukbo Co. of up to \$10 million
 - \$15.5 million underwritten public offering
- **Net revenues of \$21.6 million in Q3/2021**, second consecutive quarter of record net revenues, representing Q/Q growth of 0.5%, attributable to an increase in sales from Talicia® and Movantik®
- **Gross profit of \$12.4 million in Q3/2021**, representing an improved gross margin of approximately 57%, attributable mainly to reversal of inventory write-off recognized in the third quarter following the FDA approval of Talicia® expiration date extension

Source: Company reports.

Exhibit 4: Opananib Global Phase 2/3 COVID-19 Study



Preliminary Top-Line Data from Opananib Phase 2/3 Study in Severe COVID-19 Pneumonia

Global Phase 2/3 study in patients hospitalized with severe COVID-19 pneumonia

- Randomized, double-blind, parallel-arm, placebo-controlled global Phase 2/3 study
- 475 Patients randomized 1:1 to receive opananib or placebo on top of standard-of-care
- Primary endpoint: the proportion of patients breathing room air without oxygen support by Day 14

Preliminary top-line data demonstrated positive trends:

- Despite not meeting primary endpoint, analysis of the study efficacy endpoints showed trends in favor of the opananib arm vs. placebo across multiple endpoints, including the primary endpoint, despite not achieving statistical significance

Post-hoc analysis demonstrated statistically significant benefit to moderately severe patients, supporting potential use in earlier stages of disease:

- Analysis of group of 251 hospitalized, moderately severe COVID-19 patients requiring a Fraction of inspired Oxygen (FiO₂) up to 60% (54% of study participants):
 - ✓ 62% statistically significant reduction in mortality (7/117 in opananib arm vs. 21/134 for placebo; nominal p-value=0.019, Relative Risk 2.6)
 - ✓ 21% statistically significant efficacy benefit in reaching room air by day 14 (77% of opananib patients vs. 63.5% for placebo; nominal p-value=0.033)
 - ✓ 4 days earlier hospital discharge (10 days for opananib vs. 14 for placebo) resulting in a total saving of 524 cumulative hospitalization days across the group by Day 42 (nominal p-value=0.0195)
 - ✓ Overall adverse events balanced between the groups, suggesting good safety



Opananib - COVID-19 Studies

Global Phase 2/3 Study - Potential meaningful benefit to moderately severe patients

Randomized, double-blind, parallel-arm, placebo-controlled global Phase 2/3 study

- 475 subjects enrolled with severe COVID-19 pneumonia; study approved in 10 countries
- While primary endpoint was not achieved, top-line data of study efficacy endpoints showed consistent trends in favor of the opananib despite not achieving statistical significance
- Post-hoc analysis of 54% of study patients hospitalized with moderately severe disease demonstrated statistically significant reduction in mortality, time to room air and time to hospital discharge
- Data packages submitted to U.S., EU, UK and other regulators ahead of planned regulatory advice

U.S. Phase 2 Study - Positive data announced

U.S. randomized, double-blind, placebo-controlled Phase 2 study

- Positive top-line safety and efficacy data
- Small sample size of 40 hospitalized patients with COVID-19 pneumonia
- Focused on safety and initial efficacy signals; not powered for statistical significance

Source: Company reports.

Exhibit 5: COVID-19 Opportunities



COVID-19: Two Novel Oral Pills in Phase 2/3 Studies



Opaganib (ABC294640)

New pandemic waves challenge the sufficiency of vaccines

Oral antiviral therapies are the current holy grail



RHB-107 (upamostat)

Dr. Anthony Fauci on the ideal COVID therapeutic drug profile (Interview*, August 3, 2021):

"While vaccines, including boosters, remain vitally important, we increasingly recognize that therapies – safe, effective, scalable, affordable – are no less essential to any lasting solutions to the pandemic"

"Orally administered, single pill, given for seven to 10 days, little drug-drug interaction, and low toxicity; give me that and I'll be really happy"

Opaganib and RHB-107 are leading candidates within this high-priority category

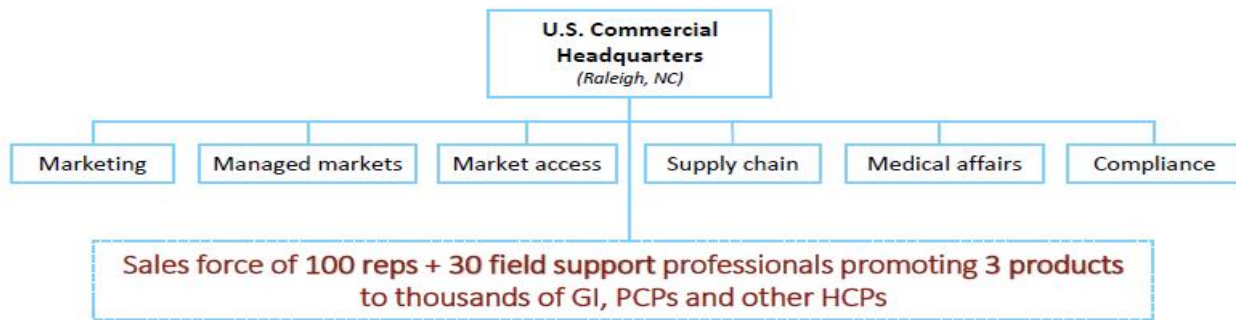
Source: Company reports.

Exhibit 6: RedHill Commercial Strategy



Commercial Operations - Strong U.S. Presence

Launched Aemcolo® in Q4/2019, Talicia® in Q1/20 and promoting Movantik® since April 2020



Source: Company report.

Exhibit 7: Movantik (naloxegol) Acquisition



Movantik Acquisition - A Transformative Event for RedHill



RedHill acquired the global rights to Movantik* (excluding Europe and Canada) from AstraZeneca in April 2020

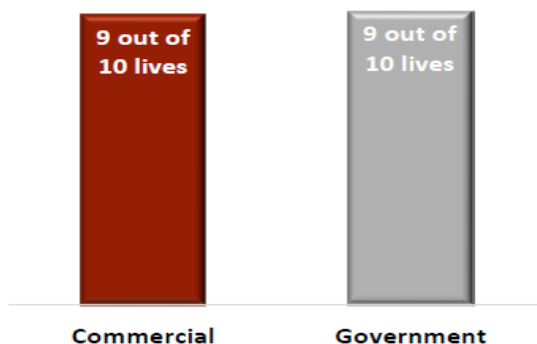
- RedHill benefits from the large investment made by AstraZeneca to make Movantik a brand leader
 - First oral PAMORA approved in the U.S. for the treatment of OIC
- **RedHill is enhancing focus to grow this product**
 - Three consecutive quarters of Movantik prescription (TRx) growth led by RedHill promotion, reversing the trend of prescription decline prior to RedHill acquisition
 - RedHill’s sales force is enlarging promotional footprint
 - Targeting gastroenterologists, primary care physicians and additional specialists



Continued Best Coverage in PAMORA Class



Movantik Lives Covered



- ✓ Best coverage without restrictions in the PAMORA class for both Commercial and Government segments
- ✓ 9 out of 10 commercially insured patients can access Movantik
- ✓ Improved both Commercial and Medicare Part D coverage YoY since acquiring Movantik
- ✓ Continue to identify opportunities to increase or enhance coverage

Source: Company report.

Exhibit 8: TALICIA's H. pylori Infection Market Opportunity



**Talicia® - Approved by U.S. FDA
for Treatment of H. pylori Infection in Adults**



Approved Indication	Treatment of <i>H. pylori</i> infection in adults
Drug	Omeprazole magnesium, amoxicillin and rifabutin 10 mg/ 250 mg/ 12.5 mg delayed-release capsules ¹
Approved	NDA approved by U.S. FDA in November 2019 - launched in March 2020
Key Attributes	<ul style="list-style-type: none"> ✓ Addresses concerns of resistance to clarithromycin and metronidazole ✓ Favorable tolerability and safety profile ✓ Aims to become the new first-line standard-of-care with broader indication ✓ All-in-one capsule: supports ease of adherence and compliance, with a single co-pay
Market Exclusivity	<ul style="list-style-type: none"> - Eligible for extended market exclusivity for total of 8 years under QIDP designation - Patent protection extending until at least 2034
Market Size	<ul style="list-style-type: none"> - Affects over 50% of the world population, with ~2 million U.S. patients treated annually - 2018 U.S. and global markets estimated at up to \$1.4 billion and \$4.8 billion respectivelyⁱⁱ - Approximately 300% quarter-over-quarter prescription growth and rapid expansion of the prescriber base - National coverage for 167 million lives, with additional coverage expected



Talicia® - Clear Clinical Differentiation Provides Large Potential for Market Opportunity in the U.S. and WW



<p>High Prevalence of <i>H. pylori</i></p> <p>Over 27M treatments annually WW: U.S.: 2M SEU: up to 3.2M Japan: up to 1.4M China: up to 4.1M</p>	<p>Diminished Efficacy of Standard-of-Care - Approx. 60%</p> <p>Growing <i>H. pylori</i> resistance has led to diminished efficacy of current standard-of-care</p>	<p>Current Brand Medications Lack Clinical Differentiation</p> <p>Current brands provide only modest convenience improvement vs. generics</p>	<p>\$4.8B Global Market</p> <p>Annual U.S. market for <i>H. pylori</i> therapies estimated at \$1.4Bⁱ</p>
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Talicia® - Potential First-Line Therapy Targeting up to \$1.4B U.S. Market

- **Efficacy** - demonstrated clinical activity with high statistical significance in eradicating *H. pylori* in U.S. pivotal Phase 3 study
- **Addresses concerns of resistance** to clarithromycin and metronidazole
- **Attractive tolerability profile**
- **Potential to become preferred first-line treatment**
- **First all-in-one fixed-dose** - simple regimen potentially improves compliance and efficacy; Additional protection against generic substitution; Single co-pay

Source: Company report.

Exhibit 9: Aemcolo Market Opportunity



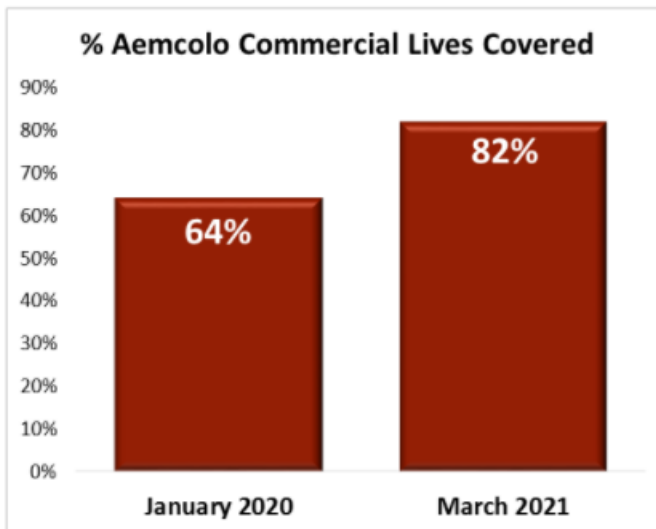
Launched by RedHill in the U.S. - December 2019

- A rifamycin antibacterial approved by U.S. FDA in Nov. 2018 for the treatment of travelers’ diarrhea caused by noninvasive strains of *E. coli* in adults
- In-licensed U.S. rights from Cosmo Pharmaceuticals N.V. in Oct. 2019
- Robust U.S. patent portfolio and FDA QIDP designation, with U.S. marketing exclusivity through 2028

- ✓ Minimally absorbed
- ✓ Targeted delivery system
- ✓ Proven efficacy against *E. coli*
- ✓ Reliable safety and tolerability
- ✓ Simple BID dosing



Aemcolo: Prepared for International Travel to Return



- Almost 50 million people traveled from the U.S. to Mexico and the Caribbean in 2019
- Travel decreased by more than half in 2020 due to pandemic travel restrictions and safety precautions
- Business and leisure travel to higher TD risk countries decreased by almost 60% in 2020

- Aemcolo Commercial coverage remains greater than 80%

Source: Company report.

Exhibit 10: RedHill Q3 2021 Commercial Highlights



Summary

RedHill achieved record Q3/21 prescription volume

117% Talicia® growth over Q3/20

15% Q/Q growth for Talicia® and **1.1%** for Movantik® in Q3/21

73% market share for Movantik® – maintaining market leadership in the PAMORA class

RedHill anticipating a strong Q4/21 for both brands



Q4/21 - Commercial Outlook

Continuous Improvement in Execution Established the Foundation for a Strong Q4/21



Movantik®: Focus on volume growth, market growth and additional payor wins



Talicia®: >15% Q/Q growth in Q3/21; Anticipating accelerated new prescription and prescriber volume growth in Q4/21



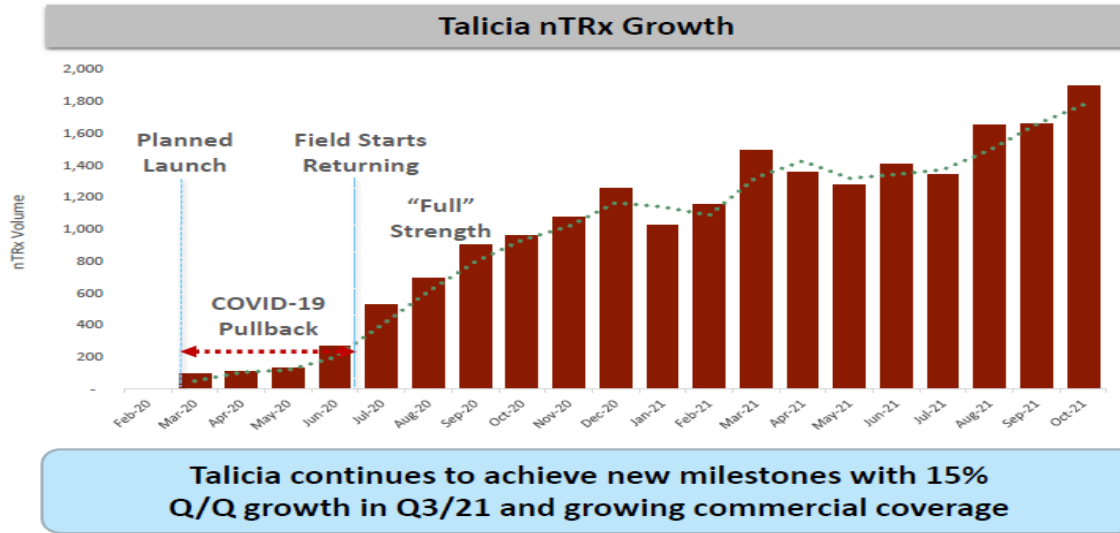
Aemcolo®: Non-essential international travel hampered by the COVID-19 pandemic

Source: Company report

Exhibit 11: RedHill Prescription Growth



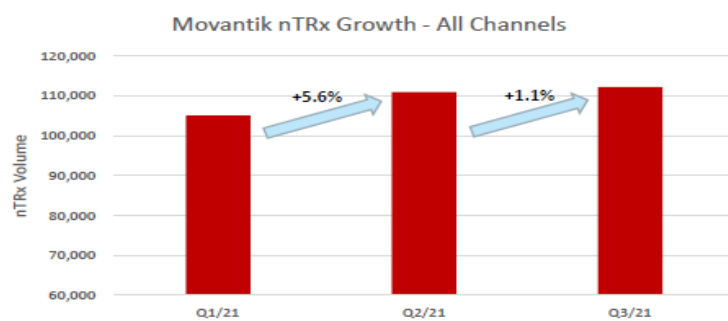
Talicia Delivered 15% Prescription Growth in Q3/21



RedHill Delivered Consecutive Quarterly Growth in Q2/21 and Q3/21

Movantik Growth Factors:

- ✓ Market access successes with major payors
- ✓ Focused RedHill execution in Pain segment
- ✓ Favorable opioid prescribing volume trends
- ✓ Digital marketing investments to grow the PAMORA market



Source: Company report

Exhibit 12: RHB-204 for Pulmonary NTM



RHB-204 - Targeting First-Line Pulmonary NTM Disease

Planned Indication	- Pulmonary Mycobacterium avium Complex (MAC) disease in adults with nodular bronchiectasis
The Product	- Patent-protected, oral all-in-one combination of three antibiotic drugs (clarithromycin, clofazimine and rifabutin) each known to be active against NTM disease caused by MAC ⁱ
Key Attributes	- Targeting first-line treatment - potential new standard-of-care for a disease with no FDA-approved first-line therapy - Convenient stand-alone oral therapy for a chronic disease requiring extended treatment
Market Size	- Unique dosing combination - optimizing exposure for safety and efficacy - U.S. market potential estimated at approx. \$530M in 2021 ⁱⁱ
Development Status	- Phase 3 study ongoing - QIDP and Fast-Track Designation granted, providing eligibility for rolling NDA review, Priority Review and accelerated approval - Orphan Drug designation extends potential U.S. market exclusivity to a total of 12 years post-approval

Source: Company report.

Exhibit 13: RHB-204 for Pulmonary NTM Pivotal Phase 3 Study



RHB-204 - CleaR-MAC Phase 3 Study Ongoing

A Phase 3 study to assess RHB-204 as a first-line treatment for the Treatment of pulmonary Mycobacterium avium Complex (MAC) disease in adults with nodular bronchiectasis

Study Initiated	- November 2020
Study Design	- Multi-center, randomized, double-blind, two-part, placebo-controlled, parallel-group Phase 3 study; 3:2 randomization - Up to 40 U.S. clinical sites; potential expansion to UK, Japan and additional territories - Two-part study: <ul style="list-style-type: none"> • Part one: placebo-controlled, subjects evaluated for primary endpoints at Month 6 • Part two: Open-label treatment with RHB-204 for 10 months, with follow-up 3 months post-treatment
Patient Population	- 125 subjects with symptomatic pulmonary MAC disease with nodular bronchiectasis - An interim sample size re-estimate is planned at approx. 50% enrolment
Endpoints	- Co-primary efficacy endpoints for Part one: <ul style="list-style-type: none"> - Sputum culture conversion (SCC) after 6 months of treatment (consecutive negative sputum cultures at Months 4,5,6) - Quality of Life questionnaire – Bronchiectasis (QoL-B) respiratory symptoms domain score from Baseline to Month 6 vs. placebo

Source: Company report.

Exhibit 14: Opaganib (Yeliva) For COVID 19 and Oncology, Gastrointestinal and Inflammatory Diseases



Opaganib - SK2 Inhibitor for COVID-19 and Oncology, Gastrointestinal and Inflammatory Diseases

The Product	<ul style="list-style-type: none"> - Potential first-in-class, orally-administered sphingosine kinase-2 (SK2) inhibitor - with anti-cancer, anti-inflammatory activities, targeting multiple oncology, inflammatory and GI indications - Potent anti-viral activity, targeting a critical host factor - minimizing potential development of resistance due to viral mutations
Market	<ul style="list-style-type: none"> - Significant market potential - multiple indications with an unmet need
Development Status	<ul style="list-style-type: none"> - Completed numerous successful pre-clinical studies in oncology, GI-Inflammation and radioprotection models, as well as food effect and toxicology studies - Phase 1 study in cancer patients with advanced solid tumors successfully met primary and secondary endpoints - Phase 2a study for treatment of cholangiocarcinoma ongoing <ul style="list-style-type: none"> - Orphan Drug Designation for the treatment of cholangiocarcinoma - Compassionate use for cholangiocarcinoma under Expanded Access Program - Investigator-sponsored Phase 2 study in prostate cancer - Enrollment ongoing in study arm evaluating combination with abiraterone; arm evaluating opaganib in combination with enzalutamide did not meet primary endpoint - While Global Phase 2/3 endpoints were not met, a post-hoc analysis showed statistically significant reduction in mortality and reaching room air by Day 14 (primary endpoint) in moderately severe patients - Positive top-line safety and efficacy data from U.S. Phase 2 study in patients hospitalized with COVID-19 pneumonia

Source: Company report.

Exhibit 15: RHB-107 For COVID 19 Clinical Trials



RHB-107 - S1 Serine Protease Inhibitor with Ongoing Phase 2/3 COVID-19 Study in Non-Hospitalized Patients

The Drug	<p>First-in-class, orally-administered inhibitor of S1 family of trypsin-like serine proteases with potential for use in the treatment of cancer, inflammatory lung diseases, irritable bowel syndrome, inflammatory bowel disease and pancreatitis</p> <p>RHB-107 is a specific and potent inhibitor of human trypsin-3 (Ki ~ 20nM), trypsin-2 (Ki ~ 75nM), trypsin-6 (~100nM), trypsin-1 (Ki ~ 190nM) and matriptase-1 (~200nM)</p> <p>RHB-107 also inhibits a specific inhibitor of a number of members of the type II transmembrane serine proteases (TTSPs), some of which are important factors in the spread of infectious disease, including, matriptase, TMPRSS11, HAT-like 5 (HATL5), HAT, TMPRSS2 and hepsin</p> <p>Licensed worldwide rights from Heidelberg Pharma (formerly Wilex), excluding China, Taiwan, Macao and Hong Kong</p>
Development Status	<ul style="list-style-type: none"> - Phase 2/3 study in non-hospitalized patients with symptomatic COVID-19 ongoing in U.S. and South Africa; Recruitment completed for part A of the study – top-line data expected Q1/22 with Part B to follow - Demonstrated clinical safety profile from approx. 200 patients across 10 clinical studies, including Phase 2 studies in locally advanced pancreatic cancer and metastatic breast cancer - FDA Orphan Drug Designation awarded for treatment of pancreatic cancer - RHB-107 planned to be evaluated in combination with opaganib in an ongoing Phase 2a study in cholangiocarcinoma

Source: Company report.

Exhibit 16: RedHill Biopharma Ltd. Stock Price (5-year)



Source: <https://bigcharts.marketwatch.com/>

Exhibit 17: Consensus Expectations (as of 11/30/21)

	Revenue (mil)			EPS	
	2021E	2022E		2021E	2022E
Q1 Mar	\$21A		Q1 Mar	\$(0.53)A	
Q2 Jun	\$22A		Q2 Jun	\$(0.62)A	
Q3 Sep	\$25E		Q3 Sep	\$(0.21)E	
Q4 Dec	\$29E		Q4 Dec	\$(0.20)E	
Total	\$96E	\$144E	Total	\$(1.02)E	\$(0.39)E

*Quarterly estimates may not add to annual estimates due to variations in contributing estimates and rounding.

Source: Company report, Refinitiv, and Ascendant Capital Markets estimates

FINANCIAL MODEL

RedHill Biopharma Ltd.

Income Statement (\$ mils)	Mar-19	Jun-19	Sep-19	Dec-19	2019	Mar-20	Jun-20	Sep-20	Dec-20	2020	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E	
License revenue					0.0					0.0					0.0						0.0
Product revenue and other	1.7	1.6	1.4	1.6	6.3	1.1	20.9	20.9	21.5	64.4	20.6	21.5	21.6	23.3	87.0	25.0	27.0	29.0	34.0	115.0	
Total Revenue	1.7	1.6	1.4	1.6	6.3	1.1	20.9	20.9	21.5	64.4	20.6	21.5	21.6	23.3	87.0	25.0	27.0	29.0	34.0	115.0	
Cost of Revenues	0.4	0.4	0.6	0.8	2.3	1.7	14.2	10.3	10.7	36.9	10.3	10.6	9.2	10.3	40.3	10.0	9.5	8.7	8.5	36.7	
Gross Profit	1.3	1.1	0.8	0.8	4.0	(0.7)	6.7	10.6	10.8	27.5	10.3	10.9	12.4	13.0	46.7	15.0	17.6	20.3	25.5	78.4	
Research and development	5.4	7.0	2.8	2.3	17.4	2.8	3.2	4.3	6.2	16.5	7.5	10.3	5.8	6.0	29.6	6.5	6.5	6.5	6.5	26.0	
Sales and marketing	3.1	4.1	4.9	6.2	18.3	9.0	10.0	13.4	16.9	49.3	13.9	15.2	15.5	15.0	59.7	15.5	15.5	16.0	16.0	63.0	
General and administrative	2.0	2.4	2.9	4.1	11.5	4.6	6.0	7.3	7.4	25.4	7.1	10.2	8.4	8.0	33.8	8.0	8.0	8.0	8.0	32.0	
Restructuring, litigation and other					0.0					0.0					0.0					0.0	
Total operating expenses	10.5	13.5	10.6	12.6	47.2	16.4	19.2	25.1	30.5	91.2	28.5	35.8	29.8	29.0	123.1	30.0	30.0	30.5	30.5	121.0	
Operating income (loss)	(9.2)	(12.4)	(9.8)	(11.8)	(43.2)	(17.0)	(12.5)	(14.5)	(19.7)	(63.7)	(18.2)	(24.9)	(17.4)	(16.0)	(76.4)	(15.0)	(12.5)	(10.2)	(5.0)	(42.7)	
Interest income (expense)	(0.7)	1.5	0.0	(0.0)	0.9	(0.1)	(3.5)	(4.2)	(4.6)	(12.5)	(4.7)	(4.2)	(4.0)	(4.0)	(16.9)	(4.0)	(4.0)	(4.0)	(4.0)	(16.0)	
Other income (expense)		(0.1)		0.1	0.0					0.0					0.0					0.0	
Income before income taxes	(9.9)	(10.9)	(9.8)	(11.7)	(42.3)	(17.2)	(16.0)	(18.6)	(24.3)	(76.2)	(22.9)	(29.1)	(21.4)	(19.9)	(93.3)	(19.0)	(16.4)	(14.2)	(9.0)	(58.6)	
Income taxes					0.0					0.0					0.0					0.0	
Net income (loss)	(9.9)	(10.9)	(9.8)	(11.7)	(42.3)	(17.2)	(16.0)	(18.6)	(24.3)	(76.2)	(22.9)	(29.1)	(21.4)	(19.9)	(93.3)	(19.0)	(16.4)	(14.2)	(9.0)	(58.6)	
Nonrecurring/noncash adjustments					0.0					0.0					0.0					0.0	
Net income (pro forma)	(9.9)	(10.9)	(9.8)	(11.7)	(42.3)	(17.2)	(16.0)	(18.6)	(24.3)	(76.2)	(22.9)	(29.1)	(21.4)	(19.9)	(93.3)	(19.0)	(16.4)	(14.2)	(9.0)	(58.6)	
EBITDA	(8.4)	(11.2)	(8.8)	(10.8)	(39.2)	(15.9)	(11.5)	(12.3)	(18.2)	(57.8)	(16.8)	(19.1)	(14.7)	(15.4)	(66.0)	(14.4)	(11.9)	(9.6)	(4.4)	(40.3)	
Shares, Basic	28.4	28.4	28.4	32.6	29.7	35.3	35.8	37.3	37.3	36.4	43.0	46.7	46.8	50.0	46.6	53.0	53.1	53.2	53.3	53.2	
Shares, Diluted	28.4	28.4	28.4	32.6	29.7	35.3	35.8	37.3	37.3	36.4	43.0	46.7	46.8	50.0	46.6	53.0	53.1	53.2	53.3	53.2	
EPS Basic (Pro forma)	(\$0.35)	(\$0.38)	(\$0.35)	(\$0.36)	(\$1.42)	(\$0.49)	(\$0.45)	(\$0.50)	(\$0.65)	(\$2.09)	(\$0.53)	(\$0.62)	(\$0.46)	(\$0.40)	(\$2.00)	(\$0.36)	(\$0.31)	(\$0.27)	(\$0.17)	(\$1.10)	
EPS Diluted (Pro forma)	(\$0.35)	(\$0.38)	(\$0.35)	(\$0.36)	(\$1.42)	(\$0.49)	(\$0.45)	(\$0.50)	(\$0.65)	(\$2.09)	(\$0.53)	(\$0.62)	(\$0.46)	(\$0.40)	(\$2.00)	(\$0.36)	(\$0.31)	(\$0.27)	(\$0.17)	(\$1.10)	
Margins																					
Gross margin	76%	73%	55%	50%	64%	-62%	32%	51%	50%	43%	50%	51%	57%	56%	54%	60%	65%	70%	75%	68%	
Research and development	309%	446%	200%	143%	277%	262%	15%	21%	29%	26%	36%	48%	27%	26%	34%	26%	24%	22%	19%	23%	
Sales and marketing	181%	265%	349%	387%	291%	853%	48%	64%	79%	77%	68%	71%	72%	64%	69%	62%	57%	55%	47%	55%	
General and administrative	117%	153%	209%	260%	182%	434%	29%	35%	35%	39%	34%	48%	39%	34%	39%	32%	30%	28%	24%	28%	
Operating margin	-530%	-792%	-703%	-740%	-687%	-1611%	-60%	-69%	-92%	-99%	-88%	-116%	-81%	-68%	-88%	-60%	-46%	-35%	-15%	-37%	
Tax rate, GAAP	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Net margin	-568%	-698%	-702%	-735%	-672%	-1625%	-77%	-89%	-113%	-118%	-111%	-135%	-99%	-86%	-107%	-76%	-61%	-49%	-26%	-51%	
YY % change																					
Total Revenue	-29%	-33%	-36%	17%	-25%	-39%	1237%	1395%	1250%	923%	1848%	3%	3%	9%	35%	22%	26%	34%	46%	32%	
Gross margin	-13%	-30%	-52%	3%	-27%	-150%	490%	1274%	1248%	581%	-1666%	63%	17%	21%	70%	45%	61%	64%	95%	68%	
Research and development	-16%	15%	-58%	-61%	-30%	-49%	-54%	54%	172%	-5%	171%	221%	35%	-3%	80%	-13%	-37%	12%	8%	-12%	
Sales and marketing	-1%	33%	61%	95%	47%	187%	140%	174%	174%	169%	54%	53%	16%	-11%	21%	12%	2%	3%	7%	6%	
General and administrative	5%	19%	74%	119%	53%	126%	151%	151%	80%	121%	55%	70%	15%	8%	33%	13%	-22%	-5%	0%	-5%	
Operating income (loss)	-8%	30%	1%	17%	10%	85%	1%	47%	68%	47%	7%	99%	20%	-19%	20%	-17%	-50%	-41%	-69%	-44%	
Net income (loss)	-1%	-2%	-2%	52%	9%	74%	47%	90%	108%	80%	33%	81%	15%	-18%	23%	-17%	-44%	-34%	-55%	-37%	
EPS Diluted (Pro forma)	-25%	-26%	-19%	22%	-15%	40%	17%	44%	82%	47%	9%	39%	-9%	-39%	-4%	-33%	-50%	-42%	-58%	-45%	

Source: Company reports and Ascendant Capital Markets estimates.

RedHill Biopharma Ltd.

Balance Sheet (\$ mils)	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4E	Q1E	Q2E	Q3E	Q4E
Assets																
Cash and cash equivalents	23.0	9.0	11.6	29.0	81.6	22.3	26.2	29.3	76.0	51.8	23.3	23.2	16.2	(0.4)	(14.7)	(23.8)
Short term investments	6.1	9.4	3.3	10.3	7.1	6.2	6.2	0.0	0.0	3.5	12.0	12.0	0.0	0.0	0.0	0.0
Financial assets	16.4	16.5	10.7	8.5	6.2	4.5	2.4	0.5				0.0	0.0	0.0	0.0	0.0
Account receivables	1.4	1.0	0.9	1.2	1.7	18.6	12.4	28.7	23.3	30.1	30.0	30.0	30.0	30.0	30.0	30.0
Inventory	1.3	1.8	2.0	1.9	2.8	4.8	5.1	6.5	9.3	8.8	13.1	13.1	13.1	13.1	13.1	13.1
Prepaid expenses and other	1.2	2.3	2.3	2.2	1.6	4.9	4.6	5.5	4.1	4.3	4.7	4.7	4.7	4.7	4.7	4.7
Total current assets	49.5	40.0	30.8	53.2	101.0	61.1	57.0	70.5	112.7	98.5	83.1	83.1	64.0	47.4	33.2	24.1
Property and equipment, net	0.1	0.3	0.2	0.2	0.4	0.3	0.5	0.5	0.6	0.5	0.5	0.6	0.7	0.8	0.9	1.0
Restricted cash	0.1	0.1	0.2	0.2	20.1	20.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
Other	3.0	4.0	3.7	3.6	6.1	5.2	5.4	5.2	4.7	4.3	4.2	4.2	4.2	4.2	4.2	4.2
Goodwill and intangibles	5.3	5.3	5.3	16.9	15.9	79.5	90.0	87.9	86.1	84.2	82.4	82.4	82.4	82.4	82.4	82.4
Total assets	58.1	49.7	40.2	74.1	143.5	166.4	169.0	180.2	220.1	203.7	186.3	186.4	167.4	151.0	136.8	127.8
Liabilities and stockholders' equity																
Accounts payable and accrued exper	12.1	14.1	13.9	9.3	17.3	35.9	31.7	37.3	33.6	38.2	37.6	37.6	37.6	37.6	37.6	37.6
Allowance for deductions from revenue				1.3				18.3	22.7	26.1	28.4	28.4	28.4	28.4	28.4	28.4
Intangible payable								17.5	10.3	14.9	15.7	15.7	15.7	15.7	15.7	15.7
Short term debt												0.0	0.0	0.0	0.0	0.0
Total current liabilities	12.1	14.1	13.9	10.6	17.3	35.9	31.7	73.2	66.6	79.2	81.7	81.7	81.7	81.7	81.7	81.7
Other long term liabilities	4.2	3.7	3.5	3.5	4.3	16.7	28.3	11.8	17.9	11.8	9.6	9.6	9.6	9.6	9.6	9.6
Long term debt					78.2	79.2	80.3	81.4	82.5	83.2	83.5	83.5	83.5	83.5	83.5	83.5
Total other liabilities	4.2	3.7	3.5	3.5	82.5	95.9	108.6	93.1	100.5	94.9	93.1	93.1	93.1	93.1	93.1	93.1
Common stock	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Additional paid-in capital	219.5	219.5	219.5	267.4	267.4	273.7	284.8	293.1	354.1	354.4	355.6	355.6	355.6	355.6	355.6	355.6
Retained earnings	(178.4)	(188.4)	(197.4)	(208.4)	(224.7)	(240.1)	(257.1)	(280.3)	(302.3)	(326.2)	(345.4)	(365.3)	(384.3)	(400.7)	(414.9)	(423.9)
Warrants												0.0	0.0	0.0	0.0	0.0
Accumulated other comprehensive income												0.0	0.0	0.0	0.0	0.0
Other												20.0	20.0	20.0	20.0	20.0
Total stockholders' equity	41.9	31.9	22.9	60.0	43.6	34.6	28.7	13.9	53.0	29.6	11.5	11.6	(7.4)	(23.8)	(38.0)	(47.0)
Total stockholders' equity and liabili	58.1	49.7	40.2	74.1	143.5	166.4	169.0	180.2	220.1	203.7	186.3	186.4	167.4	151.0	136.8	127.8

Balance Sheet Drivers

	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22
	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4E	Q1E	Q2E	Q3E	Q4E
Book & Cash Value (per share)																
Book Value per Share (diluted)	\$1.48	\$1.12	\$0.81	\$1.84	\$1.24	\$0.97	\$0.77	\$0.37	\$1.23	\$0.63	\$0.25	\$0.23	-\$0.14	-\$0.45	-\$0.71	-\$0.88
Cash per Share (diluted)	\$1.03	\$0.65	\$0.53	\$1.21	\$2.52	\$0.79	\$0.87	\$0.79	\$1.77	\$1.19	\$0.75	\$0.70	\$0.30	-\$0.01	-\$0.28	-\$0.45
Net cash per Share (diluted)	\$1.03	\$0.65	\$0.53	\$1.21	\$0.30	-\$1.42	-\$1.28	-\$1.40	-\$0.15	-\$0.60	-\$1.03	-\$0.97	-\$1.27	-\$1.58	-\$1.85	-\$2.01

Source: Company reports and Ascendant Capital Markets estimates

RedHill Biopharma Ltd.

Cash Flow Statement (\$ mils)	Mar-19	Jun-19	Sep-19	Dec-19	2019	Mar-20	Jun-20	Sep-20	Dec-20	2020	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E	
Cash flow from operating activities																					
Net income	(9.9)	(10.9)	(9.8)	(11.7)	(42.3)	(17.2)	(16.0)	(18.6)	(24.3)	(76.2)	(22.9)	(29.1)	(21.4)	(19.9)	(93.3)	(19.0)	(16.4)	(14.2)	(9.0)	(58.6)	
Stock comp	0.6	0.9	0.8	0.7	3.0	0.8	0.6	1.7	1.1	4.2	0.9	5.3	2.2	0.5	8.8	0.5	0.5	0.5	0.5	2.0	
Depreciation and amortization	0.2	0.2	0.3	0.3	1.0	0.4	0.4	0.5	0.5	1.7	0.5	0.5	0.5	0.1	1.6	0.1	0.1	0.1	0.1	0.4	
Amortization				0.2	0.2	1.1	1.8	2.1	2.1	7.0	1.8	1.8	1.8		5.5					0.0	
Financial assets gains/losses	0.9	(1.3)	(0.0)	0.0	(0.3)	0.1			(0.1)	0.0				0.0	0.0					0.0	
Bank deposit revaluation	(0.0)	(0.1)	0.1	(0.0)	(0.0)					0.0				0.0	0.0					0.0	
F/X gains/losses		(0.0)	0.1	(0.1)	(0.0)	(0.2)	(0.0)	0.0	0.4	0.2	0.0	0.0	0.0	0.1	0.1					0.0	
Debt amortization					0.0	0.1			(0.1)	0.0			0.9		0.9					0.0	
Unpaid interest							1.5	2.0	(3.6)	0.0				0.0	0.0					0.0	
Other gains/losses		0.0	(0.0)	0.1	0.1					0.0	0.0			0.0	0.0					0.0	
Other	(0.0)			(0.1)	(0.1)				6.0	6.0	2.6	1.2		(0.5)	3.4	(0.5)	(0.5)	(0.5)	(0.5)	(2.0)	
Changes in operating assets and liabilities:																					
Account receivables	(0.5)	0.5	0.1	(0.4)	(0.3)	(0.5)	(16.9)	6.1	(16.2)	(27.4)	5.3	(6.8)	0.1		(1.4)					0.0	
Inventory	(0.5)	(0.5)	(0.2)	0.1	(1.1)	(0.9)	(2.0)	(0.4)	(1.4)	(4.6)	(2.7)	0.5	(4.4)		(6.6)					0.0	
Prepaid expenses	0.6	(1.1)		0.1	(0.4)	0.6	(3.3)	0.2	(0.9)	(3.3)	1.4	(0.2)	(0.4)	0.0	0.8	0.0	0.0	0.0	0.0	0.0	
Accounts payable and accrued exp	1.1	0.3	0.1	(0.6)	0.9	(1.0)	2.1	1.3	24.3	26.7	(3.7)	4.5	(0.6)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	
Other liabilities	(0.1)	1.5	(0.3)	(2.5)	(1.5)	6.0	16.7	(4.2)	(1.5)	17.1	4.3	3.4	2.3		10.0					0.0	
Net cash (used in) provided by oper	(7.5)	(10.5)	(8.9)	(13.9)	(40.7)	(10.6)	(15.0)	(9.2)	(13.8)	(48.6)	(12.3)	(18.9)	(19.0)	(19.8)	(70.0)	(18.9)	(16.3)	(14.1)	(8.9)	(58.2)	
Cash flow from investing activities																					
Purchases of property and equipment	(0.0)	(0.1)	(0.0)	(0.0)	(0.2)	(0.2)	(0.0)	(0.2)	0.0	(0.4)	(0.1)	(0.0)	(0.0)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.8)	
Purchases of short-term investments	1.7	(3.2)	6.0	0.9	5.4	3.2	1.0	2.1	3.9	10.2		(3.5)	(8.5)	0.0	(12.0)	12.0	0.0	0.0	0.0	12.0	
Acquisitions					0.0	(1.2)	(52.5)	(0.7)	1.1	(53.4)					0.0					0.0	
Other		(0.1)	5.7	(5.7)	(0.0)	2.2	1.7		4.0	7.9	0.5			0.5						0.0	
Net cash used in investing activities	1.7	(3.4)	11.7	(4.9)	5.2	4.0	(49.8)	1.2	9.0	(35.6)	0.4	(3.5)	(8.5)	(0.2)	(11.8)	11.8	(0.2)	(0.2)	(0.2)	11.2	
Cash flow from financing activities																					
Issuance of debt	(0.2)	(0.2)	(0.2)	(0.2)	(0.8)	79.3	(0.5)	(0.8)	(1.6)	76.5	(0.4)		0.1	0.0	(0.3)	0.0	0.0	0.0	0.0	0.0	
Issuance of stock					36.3	36.3	6.4	9.1	8.4	23.9	57.9	0.3			58.2					0.0	
Proceeds from stock option exercises					0.0	0.0		0.1	(0.0)	0.1	3.2	0.1	0.7		4.0					0.0	
Dividends					0.0	0.0				0.0					0.0					0.0	
Other					0.0	(20.3)	(0.4)	3.6	1.1	(16.0)	(2.1)	(2.2)	(1.7)	20.0	14.0					0.0	
Cash provided by (used in) financin	(0.2)	(0.2)	(0.2)	36.1	35.5	59.1	5.5	12.0	7.9	84.4	58.7	(1.8)	(1.0)	20.0	75.9	0.0	0.0	0.0	0.0	0.0	
Effect of exchange rate on cash	0.0	0.0		0.1	0.1	0.1	0.0	(0.0)	0.0	0.1	(0.1)	0.0	(0.0)		(0.1)					0.0	
Net increase (decrease) in cash and	(6.0)	(14.0)	2.6	17.4	0.0	52.6	(59.3)	3.9	3.1	0.3	46.7	(24.2)	(28.6)	(0.0)	(6.1)	(7.1)	(16.5)	(14.3)	(9.1)	(47.0)	
Beginning cash and equivalents	29.0	23.0	9.0	11.6	29.0	29.0	81.6	22.3	26.2	29.0	29.3	76.0	51.8	23.3	29.3	23.2	16.2	(0.4)	(14.7)	23.2	
Ending cash and equivalents	23.0	9.0	11.6	29.0	29.0	81.6	22.3	26.2	29.3	29.3	76.0	51.8	23.3	23.2	23.2	16.2	(0.4)	(14.7)	(23.8)	(23.8)	

Source: Company reports and Ascendant Capital Markets estimates

ANALYST CERTIFICATION

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RedHill Biopharma Ltd.



Source: <https://bigcharts.marketwatch.com/>

Report	Report Date	Rating	Price Target
12	2/22/2018	B	20.00
13	5/9/2018	B	17.00
14	7/30/2018	B	19.00
15	9/4/2018	B	19.00
16	11/15/2018	B	20.00
17	12/4/2018	B	22.00
18	1/21/2019	B	22.00
19	2/26/2019	B	21.00
20	5/8/2019	B	22.00
21	7/8/2019	B	23.00
22	7/24/2019	B	21.00
23	11/4/2019	B	22.00
24	11/25/2019	B	20.00
25	1/30/2020	B	21.00
26	3/9/2020	B	18.00
27	5/28/2020	B	20.00
28	8/23/2020	B	22.00
29	11/29/2020	B	23.00
30	4/10/2021	B	24.00
31	6/6/2021	B	25.00
32	9/10/2021	B	26.00

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Ascendant Capital Markets, LLC Rating System

BUY: We expect the stock to provide a total return of 15% or more within a 12-month period.

HOLD: We expect the stock to provide a total return of negative 15% to positive 15% within a 12-month period.

SELL: We expect the stock to have a negative total return of more than 15% within a 12-month period.

Total return is defined as price appreciation plus dividend yield.

Ascendant Capital Markets, LLC Rating System

Prior to January 31, 2014, ASCM used the following rating system:

Strong Buy: We expect the stock to provide a total return of 30% or more within a 12-month period.

Buy: We expect the stock to provide a total return of between 10% and 30% within a 12-month period.

Neutral: We expect the stock to provide a total return of between minus 10% and plus 10% within a 12-month period.

Sell: We expect the stock to provide a total return of minus 10% or worse within a 12-month period.

Speculative Buy: This rating is reserved for companies we believe have tremendous potential, but whose stocks are illiquid or whose equity market capitalizations are very small, often in the definition of a nano cap (below \$50 million in market cap). In general, for stocks ranked in this category, we expect the stock to provide a total return of 50% or more within a 12-month period. However, because of the illiquid nature of the stock's trading and/or the nano cap nature of the investment, we caution that these investments may not be suitable for all parties.

Total return is defined as price appreciation plus dividend yield.

Ascendant Capital Markets, LLC Distribution of Investment Ratings (as of October 15, 2021)

Rating	Count	Percent	Investment Banking Services Past 12 months	
			Count	Percent
Buy	41	98%	14	34%
Hold	0	0%	0	0%
Sell	1	2%	0	0%
Total	42	100%	14	33%

Other Important Disclosures

Our analysts use various valuation methodologies including discounted cash flow, price/earnings (P/E), enterprise value/EBITDAS, and P/E to growth rate, among others. Risks to our price targets include failure to achieve financial results, product risk, regulatory risk, general market conditions, and the risk of a change in economic conditions.

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