

RedHill Biopharma

TALICIA launch for H. pylori in sight

In May 2019, RedHill submitted an NDA for TALICIA for the treatment of *H. pylori* infection. If all goes according to plan, the drug could be launched by end-2019. This follows positive top-line results from the TALICIA confirmatory Phase III study in first-line treatment of *H. pylori* infection regardless of ulcer status announced late last year. RedHill plans to use its existing commercial platform to market TALICIA to healthcare practitioners. Other projects in the R&D pipeline are also progressing and the promotion of the company's GI product portfolio in the US continues. Our valuation is \$518m or \$18.3 per ADS (\$17.3 per ADS previously).

Year end	Revenue (\$m)	PBT* (\$m)	EPS* (\$)	DPS (\$)	P/E (x)	Yield (%)
12/17	4.0	(45.5)	(0.26)	0.0	N/A	N/A
12/18	8.4	(38.8)	(0.17)	0.0	N/A	N/A
12/19e	10.0	(36.5)	(0.13)	0.0	N/A	N/A
12/20e	13.0	(35.8)	(0.13)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles and exceptional items.

TALICIA's NDA was submitted

On 7 May 2019, RedHill announced that it had submitted a new drug application (NDA) to the FDA under the 505(b)(2) regulatory pathway for TALICIA for the treatment of *H. pylori* infection. The review process should be fast due to the TALICIA's Qualified Infectious Disease Product designation, which grants priority review with a response expected within six months. This means RedHill is on track to receive a response from the FDA, and perhaps even launch the drug, by end-2019. Our model includes revenues in 2020, but some initial sales could be booked in 2019. If approved, RedHill plans to use its existing commercial platform to market TALICIA to healthcare practitioners and expects a minimal incremental cost of launch (several senior new hires were announced in May). Commercial manufacturing is already in scale-up mode and RedHill is ready to start discussions with payors.

Update on other R&D projects

Following the positive first Phase III with RHB-104 for Crohn's disease reported in August 2018, RedHill plans to meet with the FDA in mid-2019 to discuss further development. A pivotal Phase III trial with RHB-204 for pulmonary nontuberculous mycobacteria (NTM) infections is expected to start in H219. RedHill is also working on the design of the confirmatory Phase III studies with BEKINDA for gastroenteritis and diarrhoea-predominant irritable bowel syndrome (IBS-D), but no specific timelines have been provided.

Valuation: \$518m or \$18.3 per ADS

Our revised valuation of RedHill is slightly higher than previously at \$518m or \$18.3 per ADS vs \$491m or \$17.3 per ADS. The increase is mainly due to rolling our model forward. At end-Q119, cash and cash equivalents were \$45.5m, which should cover RedHill's operating activities into 2020, according to our model. The potential FDA approval in H219 of TALICIA for *H. pylori* is the main catalyst in the near term.

Q119 company results

Pharma & biotech

28 May 2019

Price US\$7.8 Market cap US\$222m

NIS3.60/US\$

RDHL

Net cash (\$m) at end-Q119 45.5

Shares in issue 283.7m
Free float 90%

Primary exchange

Secondary exchange (ADS 1:10) NASDAQ

Share price performance



US\$11.4

US\$5.2

Business description

52-week high/low

RedHill is a speciality company with an R&D pipeline focusing on gastrointestinal (GI) and inflammatory diseases; earlier-stage assets also target various cancers. The most advanced products are TALICIA for *H. pylori* infection, RHB-104 for Crohn's disease, RHB-204 for nontuberculous mycobacteria (NTM) infections and BEKINDA for gastroenteritis and IBS-D. RedHill also promotes four GI products in the US.

Next events

Expected FDA response on TALICIA's Q419 NDA

Initiation of pivotal Phase III trial with RHB-204 for NTM infections

H219

Analysts

Jonas Peciulis +44 (0)20 3077 5728 Alice Nettleton +44 (0)20 3077 5700

healthcare@edisongroup.com

Edison profile page

RedHill Biopharma is a research client of Edison Investment Research Limited



Positive results from two Phase III trials with TALICIA

Top-line results from the TALICIA (rifabutin, amoxicillin and omeprazole) confirmatory Phase III study (ERADICATE Hp2) in first-line treatment of *H. pylori* infection regardless of ulcer status were announced on 3 December 2018. They demonstrate that the primary endpoint was met, which was the *H. pylori* eradication rate with TALICIA vs active comparator of amoxicillin + omeprazole. The TALICIA treatment group achieved an 84% eradication rate (n=228) vs 58% with the active comparator (n=227), with a high level of significance (p<0.0001). In addition, TALICIA was found to be safe and well tolerated, which is key because the main safety issues seen with rifabutin were not observed in the study. This is likely due to the lower doses used in the study, as concerns about rifabutin toxicity (myelotoxicity) mainly come from treating other infections and using higher doses. The results of this second Phase III study were comparable with the first Phase III ERADICATE Hp study (n=118), which in March 2016 showed that TALICIA eradicated *H. pylori* in 89.4% of patients (p<0.001). We provided a detailed discussion about the market opportunity for TALICIA in our last update and outlook reports.

R&D pipeline progress

RedHill also provided an update on the remaining projects in its R&D pipeline.

- Positive results from the first Phase III with RHB-104 (clarithromycin, rifabutin and clofazimine) for Crohn's disease were reported in August 2018, which we <u>described in detail</u> in our previous notes. RedHill is assessing additional data and, once finalised, will meet with the FDA, potentially in mid-2019, to discuss further development.
- A pivotal Phase III trial with **RHB-204** (clarithromycin, clofazimine and rifabutin) for first-line pulmonary nontuberculous mycobacteria (NTM) infections is expected to start in H219. This is still subject to completion of the 'ongoing supportive non-clinical program' and additional input from the FDA. The upcoming Phase III study could be sufficient for the approval of RHB-204 as a standalone, first-line treatment for pulmonary NTM infections caused by *Mycobacterium avium complex* (MAC). From a historical perspective, the NTM infections indication is the latest addition to RedHill's R&D pipeline and we reviewed the potential of RHB-204 for these difficult-to-diagnose and difficult-to-treat NTM infections in our outlook report.
- RedHill is also working on two indications for BEKINDA (bimodal extended release, once-daily, ondansetron) acute gastroenteritis and diarrhoea-predominant irritable bowel syndrome (IBS-D). The company met with the FDA after the positive results from the first Phase III trial with BEKINDA for gastroenteritis and is now designing a confirmatory Phase III study in this indication. Similarly, RedHill is finalising the design of two pivotal Phase III studies with BEKINDA for IBS-D after a positive Phase II trial. No specific timelines have been provided.
- YELIVA (SK2 Inhibitor) is undergoing a Phase IIa study in cholangiocarcinoma, with the study expected to be fully enrolled (n=39) by the end of 2019. In addition, YELIVA is being explored in two other investigator-led clinical trials in refractory/relapsed multiple myeloma and advanced hepatocellular carcinoma. Please refer to our outlook report for more detail on these projects.



Commercial F	Products"								
Several GI Products on the Market		Donnatal®, Mytesi®, EnteraGam®							
Pipeline		Pre-Clinical	Phase 1/2	Phase 3	Marketed				
Talicia [®] (RHB-105)	H. pylori infection	Two positive US Phase 3 stu	idies; NDA submitted						
RHB-104	Crohn's disease	Positive top-line results from	n Phase 3 MAP US study						
RHB-204	NTM infections	Pivotal Phase 3 study planne	ed						
BEKINDA*	Gastroenteritis	Positive results from Phase	3 U.S. study						
(RHB-102)	IBS-D	Positive results from Phase :	2 U.S. study						
RHB-106	Bowel cleanser	Worldwide rights licensed to	o Salix Pharmaceuticals		Salix				
YELIVA® (ABC294640)	Multiple indications	Cholangiocarcinoma and oth	ner indications						

Financials

RedHill commercialises and promotes a portfolio of GI products in the US. In Q119 revenues were \$1.7m vs \$1.4m in Q418 and \$2.5m in Q118. 2018 was the first full year that RedHill promoted its GI products, and there is therefore still a limited number of data points for forecasts. The GI products were launched in mid-2017, with the latest addition of Mytesi in June 2018. Total 2018 sales were \$8.4m. Q119 sales were lower y-o-y, but higher q-o-q. During a commercial product launch, fluctuations in sales on a quarterly basis are expected. We therefore maintain our growth expectations for 2019 and 2020, but revise our top-line estimates slightly downwards to \$10.0m and \$13.0m, respectively.

The Q119 gross margin increased to 76% from 66% in FY18. RedHill explained that this was due to a variation in product mix, but provided no specific guidance on a sustainable level going forward. We therefore keep 65% in our model as previously.

The Q119 operating loss was \$9.2m, slightly down from \$10.0m in Q118, mainly due to lower R&D costs as several large clinical trials ended in 2018, as well as growing sales. We have lowered our 2019 R&D cost estimate as some of the trials are still in the design phase. Our 2019 and 2020 operating loss estimates are now \$36.5m and \$35.8m, respectively.

The end-Q119 cash and cash equivalents were \$45.5m which, as before, should cover RedHill's operating activities into 2020 according to our model. This includes the potential launch of TALICIA, if the approval process proceeds according to plan.

Valuation

Our RedHill valuation has increased slightly to \$518m or \$18.3 per ADS from \$491m or \$17.3 per ADS, mainly due to rolling our model forward. We maintain most of our long-term valuation assumptions, although we have increased the phasing of R&D in our RHB-204 for NTM infections



project by one year based on the latest update on when the study could start (described above). Our detailed assumptions for each of the indications are discussed in our last outlook report. Potential FDA approval of TALICIA for *H. pylori* in H219 is the main catalyst in the near term.

Exhibit 2: Sum-of-the-parts RedHill valuation								
Product	Launch	Peak sales (\$m)	NPV (\$m)	NPV/share (\$)	Probability	rNPV (\$m)	rNPV/share (\$)	
TALICIA, - H. pylori infection	2020	86	144.9	5.1	90%	130.1	4.6	
RHB-104, - Crohn's disease	2023	145	80.6	2.8	50%	36.4	1.3	
RHB -204, - NTM infections	2024	50	53.0	1.9	30%	14.2	0.5	
BEKINDA , - Gastroenteritis	2022	21	32.9	1.2	85%	27.6	1.0	
- IBS-D	2023	201	154.9	5.5	60%	113.3	4.0	
YELIVA, - Cholangiocarcinoma	2024	115	181.4	6.4	10%	13.9	0.5	
- r/r MM	2025	565	277.1	9.8	10%	70.8	2.5	
- Advanced HCC	2025	649	167.0	5.9	10%	52.7	1.9	
GI specialty products	Market	48	13.2	0.5	100%	13.2	0.5	
Net cash (last reported)			45.5		100%	45.5	1.6	
Valuation			1,150.4	38.9		517.8	18.3	

Source: Edison Investment Research. Note: WACC = 12.5% for product valuations. IBS-D = irritable bowel syndrome; r/r MM = refractory/relapsed multiple myeloma; HCC = hepatocellular carcinoma; NTM = nontuberculous mycobacteria.



	\$'000s	2016	2017	2018	2019e	2020
December		IFRS	IFRS	IFRS	IFRS	IFR
PROFIT & LOSS						
Revenue		101	4,007	8,360	10,000	13,00
Cost of Sales		0	(2,126)	(2,837)	(3,500)	(4,550
Gross Profit		101	1,881	5,523	6,500	8,45
Research and development		(25,241)	(32,969)	(24,862)	(22,684)	(22,976
EBITDA		(30,499)	(51,891)	(39,241)	(36,451)	(35,682
Operating Profit (before amort. and except.)		(30,543)	(51,972)	(30,543)	(51,972)	(39,331
Intangible Amortisation		0	0	0	0	
Exceptionals		0	0	0	0	
Other		0	0	0	0	
Operating Profit		(30,543)	(51,972)	(39,331)	(36,545)	(35,78
Net Interest		1,173	6,428	511	0	
Profit Before Tax (norm)		(29,370)	(45,544)	(38,820)	(36,545)	(35,78
Profit Before Tax (reported)		(29,370)	(45,544)	(38,820)	(36,545)	(35,781
Tax		0	0	0	0	
Profit After Tax (norm)		(29,370)	(45,544)	(38,820)	(36,545)	(35,781
Profit After Tax (reported)		(29,370)	(45,544)	(38,820)	(36,545)	(35,781
Average Number of Shares Outstanding (m)		128.5	128.5	176.6	231.2	283.
EPS - normalised (\$)		(0.23)	(0.26)	(0.17)	(0.13)	(0.13
EPS - normalised (\$)		(0.24)	(0.26)	(0.17)	(0.13)	(0.13
EPS - (reported) (\$)		(0.23)	(0.26)	(0.17)	(0.13)	(0.13
Dividend per share (\$)		0.0	0.0	0.0	0.0	0.10
• • • • • • • • • • • • • • • • • • • •						
Gross Margin (%)		100.0	46.9	66.1	65.0	65.
EBITDA Margin (%)		N/A	N/A	N/A	N/A	N/
Operating Margin (before GW and except.) (%)		N/A	N/A	N/A	N/A	N/.
BALANCE SHEET						
Fixed Assets		6,397	5,667	5,623	5,587	5,54
Intangible Assets		6,095	5,285	5,320	5,355	5,39
Tangible Assets		165	230	163	92	1
Investments		137	152	140	140	14
Current Assets		67,815	51,676	56,788	23,832	5,13
Stocks		0	653	769	1,300	1,30
Debtors		1,661	4,818	2,834	2,834	2,83
Cash		53,786	16,455	29,005	19,698	1,00
Other*		12,368	29,750	24,180	0	
Current Liabilities		(5,356)	(11,830)	(10,381)	(11,457)	(11,457
Creditors		(5,356)	(11,830)	(10,381)	(11,457)	(11,457
Short term borrowings		0	0	0	0	
Long Term Liabilities		(6,155)	(448)	(844)	(1,300)	(15,664
Long term borrowings		0	0	0	0	(14,364
Other long term liabilities		(6,155)	(448)	(844)	(1,300)	(1,300
Net Assets		62,701	45,065	51,186	16,662	(16,440
CASH FLOW						
Operating Cash Flow		(28,258)	(44,769)	(34,462)	(32,929)	(33,004
Net Interest		0	0	0	0	(00,00
Tax		0	0	0	0	
Capex		(85)	(146)	(23)	(23)	(23
Acquisitions/disposals		0	0	0	0	(20
Financing		36,017	25,653	42,263	0	
Other**		24,596	(18,069)	4,772	23,645	(35
Dividends		24,530	(10,003)	0	25,045	(00
Net Cash Flow		32,270	(37,331)	12,550	(9,307)	(33,062
Opening net debt/(cash)		(21,516)	(53,786)	(16,455)	(29,005)	(19,698
HP finance leases initiated		(21,510)	(55,760)	(10,455)	(29,005)	(19,090
Other		0	0	0	0	
Closing net debt/(cash)		(53,786)	(16,455)	(29,005)	(19,698)	13,36

Source: RedHill's accounts, Edison Investment Research. Note: *Bank deposits and financial assets at fair value. **Includes bank deposits converted to cash and cash equivalents.



General disclaimer and copyright

This report has been commissioned by RedHill Biopharma and prepared and issued by Edison, in consideration of a fee payable by RedHill Biopharma. Edison Investment Research standard fees are £49,500 pa for the production and broad dissemination of a detailed note (Outlook) following by regular (typically quarterly) update notes. Fees are paid upfront in cash without recourse. Edison may seek additional fees for the provision of roadshows and related IR services for the client but does not get remunerated for any investment banking services. We never take payment in stock, options or warrants for any of our services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the Edison analyst at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates on amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of Liability: To the fullest extent allowed by law, Edison shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out or in connection with the access to, use of or reliance on any information contained on this note.

No personalised advice: The information that we provide should not be construed in any manner whatsoever as, personalised advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Edison has a restrictive policy relating to personal dealing and conflicts of interest. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report, subject to Edison's policies on personal dealing and conflicts of interest.

Copyright: Copyright 2019 Edison Investment Research Limited (Edison). All rights reserved FTSE International Limited ("FTSE") © FTSE 2019. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under license. All rights in the FTSE indices and/or FTSE ratings vest in FTSE and/or its licensors. Neither FTSE nor its licensors accept any liability for any errors or omissions in the FTSE indices and/or FTSE ratings or underlying data. No further distribution of FTSE Data is permitted without FTSE's express written consent.

Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Myonlineadvisers Pty Ltd who holds an Australian Financial Services Licence (Number: 427484). This research is issued in Australia by Edison AU and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by Edison AU is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Product Disclosure Statement or like instrument.

New Zealand

The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (i.e. without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision.

United Kingdom

Neither this document and associated email (together, the "Communication") constitutes or form part of any offer for sale or subscription of, or solicitation of any offer to buy or subscribe for, any securities, nor shall it or any part of it form the basis of, or be relied on in connection with, any contract or commitment whatsoever. Any decision to purchase shares in the Company in the proposed placing should be made solely on the basis of the information to be contained in the admission document to be published in connection therewith.

This Communication is being distributed in the United Kingdom and is directed only at (i) persons having professional experience in matters relating to investments, i.e. investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "FPO") (ii) high net-worth companies, unincorporated associations or other bodies within the meaning of Article 49 of the FPO and (iii) persons to whom it is otherwise lawful to distribute it. The investment or investment activity to which this document relates is available only to such persons. It is not intended that this document be distributed or passed on, directly or indirectly, to any other class of persons and in any event and under no circumstances should persons of any other description rely on or act upon the contents of this document (nor will such persons be able to purchase shares in the placing).

This Communication is being supplied to you solely for your information and may not be reproduced by, further distributed to or published in whole or in part by, any other person.

United States

The Investment Research is a publication distributed in the United States by Edison Investment Research, Inc. Edison Investment Research, Inc. is registered as an investment adviser with the Securities and Exchange Commission. Edison relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a) (11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Edison does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell or hold that or any security, or that any particular security, portfolio of securities, transaction or investment strategy is suitable for any specific person.