UPPDRAGSANALYS

Important study in final stage

All patients included in phase 2a study

With the announcement on October 8 that all 200 plus male patients with androgenetic alopecia are on treatment, the readout of Follicum's phase 2a study is getting closer. Treatment spans over a four months period, which imply that Last Patient Out will be in first half of February next year.

Our impression is that the recruitment pace to the study has been swift after the break in March-May, when a third treatment center was added. As recently as August 18, the company stated that "more than half" of the patients were undergoing treatment. According to the Q3 report no drop-outs have occurred so far, which is a good sign.

Topline results expected "in springtime"

Management states that it expects to release a readout of the study "in springtime", which seems to be a guidance towards Q2 rather than late Q1. Most of the raw data from the trial should be in the hands of the company by early March, but analyzing this sizable amount of information may drag out for a while, possible into Q2.

It remains to be seen whether daily topical treatment with FOL-005 for a period of four months, a relatively short period to generate hair growth, is sufficient to show a good effect. In Follicum's previous study, the treatment period lasted for three months with intradermal injection three times a week and the results in the highest dose managed almost to show a statistically significant increase in hair growth over baseline.

Cash refill secures readout

In a directed issue of 14 million new shares in early November Follicum received 33.6 million SEK after deduction of issue-related costs. This allows the company to bridge the study readout and, assuming a positive readout, operate in potential discussions with a partner. It will also allow the company to advance its preclinical program in diabetes.

A positive outcome in the phase 2a study will put the company in an interesting position. Either it can look to partner before phase 2b or approach shareholders for a new share issue. Ahead of the results we stick to a SOTP valuation of 5.1 kronor per share, assuming a 65 percent probability of successful phase 2a and a subsequent initiation of a major phase 2b study.

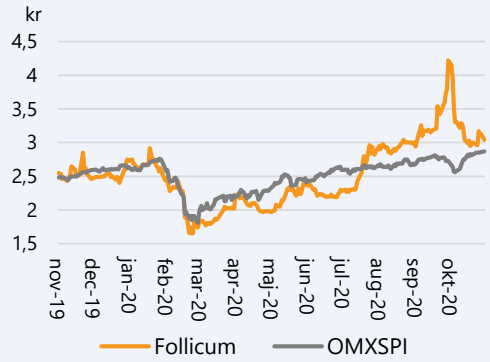
Follicum

Date	25 november 2020
Analyst	Sten Westerberg

Basic facts

Industry	Drug development
Chairman of the Board	Gun-Britt Fransson
CEO	Jan Alenfall
Year of listing	2014
List	Spotlight
Ticker	FOLLI
Share price	2,95 kr
No of shares, milj.	81,7
Market cap, SEKm	241
Net cash, SEKm	43
Enterprise value, SEKm	198
Web site	www.follicum.se

Share price development, -1y



Källa: Refinitiv

Prognoser & Nyckeltal, mkr

	2018	2019	2020p	2021p
Omsättning	0	0	0	34
Resultat f. skatt	-30	-29	-36	10
Nettoresultat	-30	-29	-36	10
Vinst per aktie	-0,4 kr	-0,4 kr	-0,4 kr	0,1 kr
Utd. per aktie	0 kr	0 kr	0 kr	0 kr
Omsättningstillväxt				
Rörelsemarginal	neg	neg	neg	29%
Likvida medel	7	46	43	52
Nyemission	13	67	37	0
P/e-tal	neg	neg	neg	27
Direktavkastning	0%	0%	0%	0%

Source: Bolaget, Analysguidens prognoser

Investment case

Important news on its way

The company's Phase 2a study (FCS-003) is a randomized, double-blind, placebo-controlled study that should provide crucial information about the clinical effect of the topical formulation of FOL-005, the company's lead project for treatment of androgenetic alopecia, a hereditary form of hair loss. In addition, the study will provide additional knowledge about product safety.

FCS-003, the third controlled clinical trial of FOL-005, was launched in February and is being conducted at three different dermatology clinics in Germany. Recruitment of patients to FCS-003 has been swift since the study resumed in June, not least in light of continued covid-19 restrictions in Germany. Last patient to enter the study should have his treatment completed by February 8 next year. Management anticipates a release of the study readout "in springtime", which may mean early second quarter.

Primary endpoint counts number of new hairs

The primary endpoint in the 2a study looks at the difference in hair growth per cm^2 at the end of the treatment period compared to the start of treatment (baseline) for the three dosage groups of FOL-005 and placebo. An important secondary endpoint is the proportion of hair follicles in the growth phase (anagen) and dormant phase (telogen).

Considering the relatively short treatment time, secondary endpoints and a dose-response signal will be of importance in the evaluation of FCS-003. We speculate that a hair growth of 8-11 strands per cm^2 should be seen as positive in FCS-003. In the Q3 report management states that a dose response signal (better effect at higher dose) and/or a "numerical difference" in hair count over placebo would "strengthen the attractiveness of the project."

Major share price reaction expected

A positive readout, depending on a few parameters, will put the company in an interesting position when choosing how to finance a phase 2b program. A significant rather than numerical superiority over placebo will definitely be interpreted as positive and we believe it may be possible to make a case for a positive readout also with numerical superiority over placebo.

Our SOTP-valuation of SEK 5.1 per share corresponds to a 65 percent likelihood of a positive outcome in phase 2a and a subsequent initiation of a phase 2b study program. In our base case scenario, with financing of a phase 2b program provided by a partner deal in 2021, there is potential for another SEK 2 gain up to SEK 7 per share.

Different readouts of phase 2a

Numerical or statistical superiority

We speculate that a hair growth of 8-11 hair strands per cm^2 should be seen as positive in FCS-003 and provide statistical superiority over baseline ($p<0.05$), which corresponds to the primary endpoint in the FCS-003 study. As for the comparison to placebo, it remains to be seen if 8-11 strands will be enough for either numerical or statistical superiority. We speculate that the placebo group will see an increase in hair count by 5-7 hair strands per cm^2.

Follicum's previous study FCS-002 had a readout after three months with intradermal injections of FOL-005 into the scalp three times a week in 60 male subjects with alopecia. The result showed hair growth of 6.7 hairs / cm^2 at the highest dose, which was not a clear improvement (statistically significant) compared to baseline. In this study, the placebo group showed 5.6 new hairs / cm^2 after the three-month treatment, which was more than the hair growth at the lower doses of FOL-005. The secondary parameter regarding the proportion of hair follicles in active growth phase showed a clearly better effect both compared to before treatment and placebo.

A high portion of follicles in the growth phase (anagen) should imply a positive long-term clinical effect beyond the four month period.

This result tells us in part that a short treatment span of alopecia makes it difficult for FOL-005 to develop its full therapeutic effect. It is fair to assume that the treatment period of three months in FCS-002 with three doses a week was possibly both too short and too weak for the therapeutic effect on hair density to be assessed. The four month time span which is tested in FCS-003 is a consequence of both toxicology data being limited to three month and the new topical formulation.

The count of the number of hairs is based on a validated digital photographic software. Using the software, other important parameters than hair count can be evaluated to understand how FOL-005 affects hair growth. Already approved treatments of alopecia, primarily Rogaine and Propecia, have shown similar or slightly stronger effects on hair growth (7-12 hairs) during a longer treatment periods of 6-12 months.

Higher dose exposure in FCS-003 than in FCS-002

Compared with the two previous clinical studies, FCS-001 and FCS-002, major changes have been made to FOL-005. A new patent-pending cream-like formulation has been developed by the company to make it easier to self-treat at home. The patient applies the cream to the scalp by himself every night during a four-month period, compared to an injection at a clinic three times a week over a three-month period in the FCS-002.

The patients in FCS-003 are treated one month longer and more intensively with FOL-005 than in FCS-002 (every day vs 3 times / week). Three

different doses of FOL-005 are tested (1.5%, 0.5% and 0.1%) as well as a placebo group. The 1.5 percent concentration of the topical cream adds up to about 15 mg / g cream, which should be compared with 0.1 micrograms per syringe, which contained 50 microliters. This corresponds to a sharp increase in dose strength in FCS-003, which is partly explained pharmacologically by the fact that a topical cream must have a higher concentration than intradermal injections in order for active substance to reach an equivalent concentration in the hair follicles where the hair root grows.

Given that the outcome in FCS-002 was stumbling close to a statistical significant p-value compared to baseline, we believe that the higher doses of FOL-005 in FCS-003 justifies a 65 percent chance of showing a significant improvement in hair growth compared to baseline and possibly also to placebo, at least numerically. A 65 percent probability may be considered high in a phase 2a study and should be seen in light of that there are no other active agents to measure up to, only placebo.

Readout in FCS-002 after three month treatment

	0.0062 µg FOL-005	0.025 µg FOL-005	0.050 µg FOL-005	0.100 µg FOL-005	Placebo
No of patients	23	24	21	23	17
Increase in hair density per cm2	1,5	2,6	-4,1	6,7	5,6
P value over baseline	0,484	0,452	0,578	0,078	0,262

Source: EU Clinical trials register

Competitor in FDA discussion over phase 3 design

One of the few competitors to Follicum is the Swiss dermatology company Cassiopea, which, among other things, is developing an alopecia treatment. The substance is called clascoterone, brand name Breezula. The company plans to start phase 3 this year pending on discussions over endpoints with the FDA.

Cassiopea says that in view of the limited experience of clinical development of treatments for alopecia over the past twenty years, more contacts with the FDA are needed before patients can begin to be recruited. In a November update Cassiopea said that the FDA discussion regards a new validated Patient Report Outcome, which will be developed in parallel with the start of a phase 3 study on male patients with alopecia. A phase II study on female patients with alopecia will report in Q2 next year.

We note that the low activity in development of newer alopecia agents in part is a consequence of alopecia not being acknowledged as a disease meriting coverage of medical costs. For this reason, the OTC market is a

substantial part, around half, of the total market value with mostly out of pocket payments.

Financial discussion and triggers

In the Q3 report on November 19 management guided that the readout of the phase 2a study will be released "in springtime". We translate this as early Q2, suggesting an extensive analysis of the data collected, depending on the number of endpoints and ad hoc analyses to be performed in the first readout. The four months treatment period, with last patient recruitment announced on October 8, should end by around February 8, allowing for the code-break procedure to end sometime in February or early March.

In the event of solid clinical data the company is faced with the two strategic option: either sell its rights to FOL-005 to a partner or turn to shareholders for a larger sum of money. Management has previously guided for a phase 2b program made up of two trials of 200 patients each, one for a male population, the other female. We estimate that this program would cost the company SEK 100 million, suggesting a low-cost profile of some 25 000 USD/patient, well below the average cost of conducting a clinical trial in most other areas, ranging from 35 000-180 000 per patient.

After a phase 2b trial and assuming a favourable outcome, preferably superiority to minoxidil, a confirmatory phase III program of some 1 000 patients would be necessary and at that point in time the value of a partnering deal substantially higher than in this phase 2a stage. In our conservative estimates we have forecasted peak sales in 2030 of 400 million EUR.

In our SOTP valuation of the company at SEK 5.1 per share, we have assumed a 65 percent chance that a phase 2b program will begin on the back of positive phase 2a data. We have assumed that a partner will provide financing of a phase 2b program, which in that case would add another SEK 2.0 per share to the valuation ending up at SEK 7.0 per share. On the other hand, a new share issue of some SEK 100 million on the back of positive phase 2a could be another perfectly possible move.

Sum-of-The-Part valuation of Follicum

	Project value, SEKm	SEK/ share	Peak sales, EURm	Likelihood of reaching the market	Royalty, after 2021 deal	WACC
FOL-005, USA/EU	312	3,8	404	14%	10%	13%
FOL-005, Asien	62	0,8	121	14%	8%	13%
Diabetes project	53	0,6		< 5%		
Administration	-11	-0,1				
Sum	427	5,1				
No of shares, mln	*81,7*					

In our main scenario, Follicum will sell rights to FOL-005, either globally or regionally, next year. We expect a down-payment of EUR 5 million, of which we have included 65 percent in our 2021E forecast. In the event of a negative outcome in FCS-003, management may decide to terminated FOL-005 and shift focus to the project in diabetes care. In this worst case scenario we expect the share price initially to fall below SEK 1.

Assumptions Net Present Value calculation of FOL-005

		2020p	2021p	2022p	2023p	2026p	2027p	2028p	2029p	2030p	2031p
						Launch					
R&D costs	Fas 2a	-35	-2								
	Fas 2b, estimated			-44	-44						
Administration		-2	-2								
Market estimate, cream-based treatment androgenic alopecia											
Minoxidil USA (EURm)		550	556	561	567	584	590	596	602	608	614
Minoxidil EU (EURm)		150	152	153	155	159	161	162	164	166	167
FOL-005, USA (EURm)						58	118	179	271	334	337
Share of minoxidil market						*10%*	*20%*	*30%*	*45%*	*55%*	*55%*
Share of patient base						*0,2%*	*0,4%*	*0,6%*	*0,9%*	*1,1%*	*1,1%*
Price per Rx, EUR	*duration of six months*					*520*	*526*	*531*			
FOL-005, EU (EURm)						16	32	41	49	58	67
Share of minoxidil market						*10%*	*20%*	*25%*	*30%*	*35%*	*40%*
Price per Rx, EUR						*0*	*0*	*0*			
Total sales FOL-005, EURm						**74**	**150**	**219**	**320**	**392**	**404**
Growth, %							*102%*	*46%*	*46%*	*23%*	*3%*
Milestones USA/EU, EURm			5	10	25	0	50	0	100	0	50
Total milestones, EURm	USA/EU		340								
Follicum royalty rate			10%								
Total income FOL-005m, SEKm			53	106	265	79	689	232	1399	416	959
Risk adjusting factor			0,65	0,29	0,29	0,14	0,14	0,14	0,14	0,14	0,14
Risk-adjusted earnings, SEKm			27	24	60	8	74	25	149	44	102

NPV, US/EU	**3,8 SEK/share (non-diluted)**
NPV, Asien	**0,8 SEK/share (diluted)**
No of shares, current	81,7 mln
WACC	13%
Tax rate	22%
SEK/USD	8,8
SEK/EUR	10,6

Likelihood of market approval	
Likelihood of success phase 2a	65%
Likelihood of success phase 2b	45%
Likelihood of success phase 3*	55%
Likelihood of regulatory approval	85%
Accumulated LOA	14%
Likelihood of licencing deal 2021	100%
Estimated year of launch	2 026
Peak sales, EURm	404
**) FOL-005 superior effect over minoxidil*	

Facts regarding the FCS-003 study

The primary objective of the phase 2a study FCS-003 is to evaluate the effect of FOL-005 (0.1%, 0.5% and 1.5%) on hair density after treatment compared to baseline before treatment in more than 200 healthy male subjects with androgenetic alopecia when applied to the scalp once daily for 16 weeks. Healthy male subjects with androgenic alopecia classified according to Hamilton Norwood (grade 3V, 4, 5, 5A, 5V) are included in the study.

Among the secondary endpoints is an evaluation of the effect of FOL-005 on additional hair growth parameters, such as the number and proportion of hair in the growth phase and dormant phase, respectively, and the proportion of so-called vellus hair. These parameters are important for understanding how FOL-005 affects hair growth and also for predicting results after a longer period of treatment. In addition, safety and tolerance are evaluated after 16 weeks of treatment.

FCS-003 uses a randomized double-blind trial design, which is standard for this type of study. In addition to three different strengths of FOL-005, a placebo group is also included, which is a control group where the goal is to investigate the effect and tolerability of the topic formulation without the active pharmaceutical ingredient.

The study includes only male subjects because hormone sensitivity, progression and hair loss patterns differ between the sexes, although the histological characteristics of androgenic alopecia are the same regardless of gender. In this phase II study, the population is therefore homogeneous (men only) to ensure a correct evaluation of the treatment effects.

The study is exploratory in its design, which means that additional post-hoc parameters, in addition to those predefined in the protocol, can be analyzed. To obtain statistically significant results, the group size in this study is larger compared with the two previous clinical studies FCS-001 and FCS-002, a total of just over 200 patients distributed equally in the four groups.

Disclaimer

Aktiespararna, www.aktiespararna.se, publishes reports of companies compiled with the help of sources that have been deemed reliable. However, nor Aktiespararna or the responsible analyst can guarantee the accuracy of the information. Nothing written in the analysis should be considered a recommendation or encouragement to invest in any financial instrument. Opinions and conclusions expressed in the report are intended for the recipient only. The report is a so-called Assignment Analysis where the analysed Company has signed an agreement with Aktiespararna.

The reports are published regularly during the agreement period and for the usual fixed remuneration. Otherwise Aktiespararna has no financial interest in what is the subject of this report. Aktiespararna has routines for handling conflicts of interest, which ensures objectivity and independence.

The content may be copied, reproduced and distributed. However, Aktiespararna cannot be held liable for either direct or indirect damages caused by decisions made on the basis of information in this report.

Investments in financial instruments offer opportunities for value increases and profits. All such investments are also associated with risks. The risks vary between different types of financial instruments and combinations of these. Historical returns should not be considered as an indication of future returns.

The analyst Sten Westerberg does not own and may not own shares in the analysed company.

Responsible analyst:

Sten Westerberg