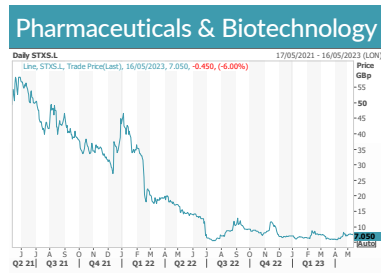




17 May 2023



Source: Refinitiv

Market data

EPIC/TKR	STX/SHIEF
Price (p)	7.1/0.09
12m high (p)	15.8/0.21
12m low (p)	5.4/0.07
Shares (m)	713.0
Mkt cap (£m)	50.5
EV (£m)	39.8
Free float*	50%
Reporting currency	GBP
Country of listing	UK
Market	AIM

*As defined by AIM Rule 26

Description

Shield is a specialty pharma company with an iron replacement product, Feracru/Accrufer, approved in Europe and the US for the treatment of iron deficiency in adults, with or without anaemia. In Europe, Feracru is marketed by Norgine, with Shield receiving royalties. In the US, Accrufer is co-marketed by Shield and Viatris, with the aim of rapidly expanding its market share.

Company information

CEO	Greg Madison
CFO	Hans-Peter Rudolf
Chair	Hans Peter Hasler
	+44 (0)191 511 8500
	www.shieldtherapeutics.com

Key shareholders

Directors	2.4%
AOP Orphan AG	40.0%
Inventages	7.9%
Hargreaves Lansdown	5.7%
Jupiter AM	5.2%
Premier Miton	4.2%

Diary

Jul'23	AGM
Nov'23	Interim results

Analyst +44 (0) 20 3693 7075

Dr Martin Hall

mh@hardmanandco.com

SHIELD THERAPEUTICS

Reassuring 1Q'23 Accrufer prescriptions

Shield is a commercial-stage pharma company delivering specialty products that address patients' unmet medical needs, with an initial focus on iron deficiency (ID). Since its US launch in July 2021, Shield has been increasing physician awareness of the differentiating characteristics of Accrufer® as an oral ID drug, with the aim of generating prescription (Rx) growth and sales traction. Positive Rx momentum in 2022 started to accelerate at the end of 1Q'23, following recruitment and training of the expanded Shield-Viatris commercial team. In the event that the US goals are achieved, there would be considerable upside potential to the valuation.

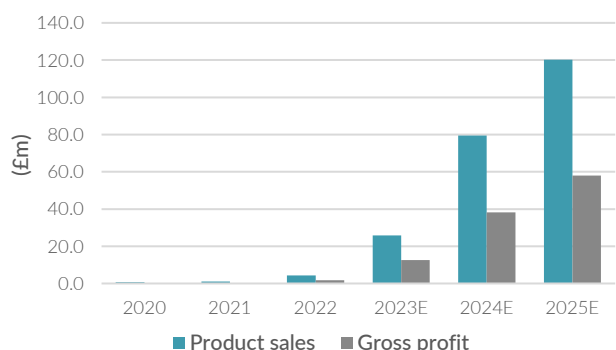
- **Strategy:** In the US, Shield is commercialising Accrufer alongside its co-marketing partner, Viatris. Outside the US, Shield's strategy is to out-license commercial rights to partners with appropriate expertise in target markets, which has been achieved so far in Europe, China, Republic of Korea and Canada.
- **Accrufer:** Shield continued to build awareness QoQ throughout 2022 with a small sales team (average 22). The positive momentum is expected to accelerate, with a combined Shield-Viatris sales team of 100. Shield has recently updated its three-year targets for Accrufer, which suggest US sales of >\$150m in 2025.
- **Valuation:** Despite the positive Rx signals and strengthened balance sheet, the share price has been volatile in 2023. AOP has just signalled its confidence by converting two-thirds of its loans into shares. While not affecting the overall valuation, the enlarged capital has reduced the per share DCF from 64p to 50p.
- **Risks:** As before, the main risk is execution. However, the QoQ momentum in Rx growth, with a small sales team, together with boosted confidence from the well-established network provided within the Viatris partnership, to generate a 100-strong sales team effective in 4Q'23, has greatly reduced this risk.
- **Investment summary:** Despite the positive Accrufer momentum generated in 2022 and the strengthened balance sheet, the market has continued to fret about whether the acceleration in Rx needed to hit targets in 2023 will be achieved. 1Q'23 data were good, with early benefits of the enlarged sales team visible in March. AOP has signalled its confidence, with the recent large debt to equity conversion. The next update is likely to come with the AGM statement.

Financial summary and valuation

Year-end Dec (£m)	2020	2021	2022	2023E	2024E	2025E
Product sales	0.73	1.02	4.27	25.79	79.42	120.23
R&D	-2.58	-0.58	-1.07	-1.00	-1.25	-1.50
Other income	9.66	0.61	0.90	3.50	0.00	10.33
EBITDA	0.55	-17.75	-23.34	-17.03	3.71	32.44
Underlying EBIT	-2.15	-19.95	-25.71	-17.71	3.03	31.76
Underlying PBT	-2.15	-19.95	-25.37	-18.01	2.99	31.79
Underlying basic EPS (p)	-1.64	-9.64	-11.63	-2.69	0.20	3.77
Statutory basic EPS (p)	-2.24	-9.48	-18.27	-2.69	0.20	3.77
Net cash/(debt)	2.91	11.96	-3.28	2.94	4.08	31.33
Equity issues	0.01	29.23	2.15	27.10	0.00	0.00
P/E (x)	-	-	-	-2.6	35.2	1.9
EV/sales (x)	-	-	-	1.5	0.5	0.3

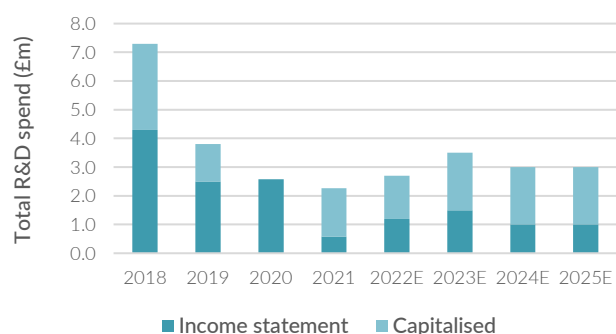
Source: Hardman & Co Life Sciences Research

Product sales and gross profit



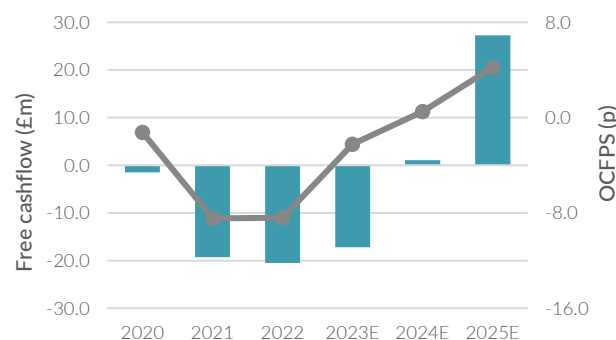
- ▶ The US is the only market in which Shield records product sales. In other countries, it partners with distributors.
- ▶ Shield will record 100% of net sales of Accrufer in the US, with Viatrix’s 45% proportion being charged to COGS, reducing the gross margin from 85% to ca.50% from 2023.
- ▶ Sales milestones and royalties from commercial partners are treated as “other income”, and are not included in these figures.

R&D investment



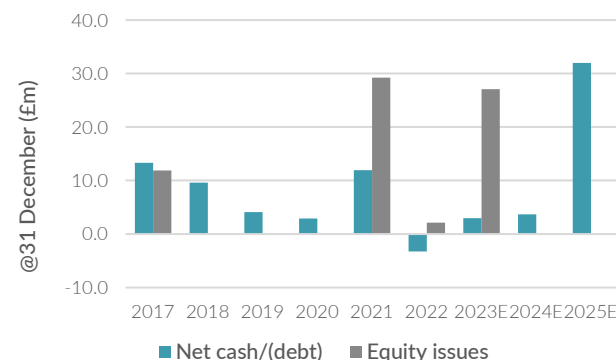
- ▶ Total R&D spend has settled at £2.5m-£3.0m. However, only 25% is recorded through the income statement; the other 75% is capitalised.
- ▶ A paediatric study with Feraccru/Accrufer was initiated at the end of 2021; this is forecast to cost \$6.5m/£4.5m over a two-year period. Timing changes have moved some costs from 2022 into 2023.

Free cashflow and OFCPS (rhs)



- ▶ Shield has been cashflow-negative during the investment period for regulatory approval of Feraccru/Accrufer.
- ▶ 2023 cashflows will continue to be dominated by ramp-up in Accrufer marketing spend for the co-promotional programme agreed with Viatrix.
- ▶ Rapid acceleration of Accrufer Rx and sales in 2023 are forecast to transform the cashflows of the company.

Net cash/(debt) and equity issues



- ▶ Gross cash at 31 December 2022 was £3.3m, offsetting \$7.3m/£6.0m debt remaining on the existing AOP convertible loan.
- ▶ Shield raised £17.7m (gross) in January 2023 for the Accrufer co-promotional programme with Viatrix, and drew down the \$10m extended AOP loan facility. Gross cash at the end of March 2023 was £19.2m.
- ▶ Two recent debt-to-equity conversions do not alter the gross cash position, but have reduced the debt to just £4.5m, and lowered future interest payments.

Source: Company data, Hardman & Co Life Sciences Research

2022 results summary

While the results for 2022 are important, given the commercial expansion achieved through the licensing deal announced with Viartis in December, they simply represent the benchmark against which future growth will be judged. Consequently, most of this report focuses on the commercial expectation for Accrufer in the US.

Key features

Operational and commercial

- ▶ **Accrufer:** In 2022, the number of Accrufer Rx-filled in the US exceeded 25,200, a more than 10-fold increase over 2021, generating sales of \$3.6m (£2.9m). This was achieved with an average “effective” contract sales force of ca.22, each generating an average of 97 Rx per month.
- ▶ **Non-US achievements:** In Canada, Shield’s partner, KYE Pharmaceuticals (KYE), filed for approval with Health Canada, with a decision expected in 2H’ 23. In China, enrolment in the pivotal trial continues, albeit progress was affected by local COVID-19 issues. In Republic of Korea, Korea Pharma obtained clarity and feedback from the authorities on the regulatory and clinical pathway to gain approval for ferric maltol.
- ▶ **Viartis deal:** In December, Shield agreed a co-promotion deal with Viartis, ranked #22 in the US, with a portfolio of legacy of branded drugs, generics and biosimilars, and a strong position in women’s health. Together, Shield-Viartis will promote Accrufer with a 100-strong marketing team.

Financials

- ▶ **Sales:** Although the number of Accrufer Rx-filled was modestly above expectations, many of these were to Pharmacy Benefit Managers (PBMs) or state-funded payors, which demand greater discounts. The average discount to list price in 2022 was 72%, down from 93% in 2021.
- ▶ **COGS:** In readiness for the co-promotion of Accrufer with Viartis, Shield manufactured co-branded free samples, the cost of which was charged to COGS. Excluding this one-off cost, the underlying COGS improved compared with 2021, and was in line with expectations.
- ▶ **Other income:** Following the Viartis deal, our forecasts assumed that the \$5m upfront receipt would be included in its entirety. However, under applicable accounting and reporting guidance, only \$0.87m/£0.7m was taken through the income statement in fiscal 2022, with the remaining element included in creditors.

Results summary – actual vs. expectations					
Year-end Dec (£m)	2021 actual	2022 actual	Growth CER	2022 *forecast	Delta Δ
Accrufer sales	0.06	2.90	nm	2.80	-0.10
Group product sales	1.02	4.27	+319%	4.90	+0.40
Other income	0.61	0.90	+47%	4.40	-3.50
COGS	-0.98	-2.47	+152%	-0.72	-0.09
SG&A	-19.03	-26.59	+40%	-25.54	-0.07
Share-based costs	-0.99	-0.74	-	-1.00	-0.05
Underlying EBIT	-19.95	-25.71	+29%	-19.52	-0.03
Gross cash	12.12	2.82	-	2.60	+0.22
Net cash/(debt)	11.96	-3.28	-	-3.42	+0.14

*As previously published in our report dated 13 January 2023

Note: numbers may not add up exactly, due to change in reporting currency and rounding

Source: Hardman & Co Life Sciences Research

Accrufer commercialisation

Market should have been reassured by 1Q'23 Rx data

As expected, Shield waited until it had collated all the Rx data for 1Q'23 before releasing 2022 results, so that it could provide the market with the most up-to-date information. Despite all the significant changes and disruption that took place in January, following the signing of the Viatris co-promotion deal, we have been reassured by the continued development of Accrufer Rx in 1Q'23.

Development of enlarged Accrufer sales team

Since launch in July 2021, Shield has used a contract sales team of up to 30 people to commercialise Accrufer in the US. Although this is not ideal, it carries a lower overall cost, and enables the company to identify the top-performers in the team and eliminate underperforming personnel. Consequently, after allowing for training, Shield operated with an average sales team of ca.22 for 2022.

Four distinct phases...

Under the terms of the co-promotion deal with Viatris, both parties will provide 50 FTE personnel to generate a 100-strong sales team, more than four-fold the average size of the 2022 team and nearly double Shield's original target team of 60 for 2023. To achieve this, the hiring and training has been dissected into four distinct phases:

...now completed...

- ▶ **Phase 1:** Of the 22 sales reps in the contract sales team in 4Q'22, Shield identified 16 top-performers who became direct sales representatives of the company in January 2023 and continued to promote Accrufer.
- ▶ **Phase 2:** 14 existing sales representatives within Viatris underwent the training programme during January, bringing the total sales team to 30 from 1 February.
- ▶ **Phase 3:** Between Shield and Viatris, 36 new hires were made and trained by the end of March, bringing the new total to 66 from 1 April.
- ▶ **Phase 4:** Further new hires have been made and are currently being trained, such that Shield will have 49 FTE reps and six regional sales managers (RSM) by the end of April.

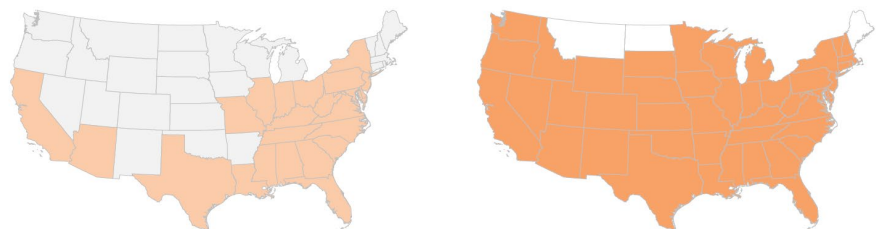
...and preparing for national sales meeting...

Following this, a "national sales meeting" has been scheduled for the entire commercial organisation of Shield-Viatris in May, where successful approaches, case studies, stories and experiences of the more established reps will be shared, so that the new hires will be ready to attack their respective territories with vigour during June.

Enlarged sales team – significantly increased reach

Collectively calling on 12,000+ high prescribing HCP's

...with much broader national coverage



Previous Shield only contract sales team territories*

New 100-person sales team territories

Source: Shield presentation

Although initial training of the target number of reps is due to be completed at least in line with expectations, readers should be aware that it then takes a further three to six months, on average, for new recruits to become fully effective. Therefore, the full benefits of this expansion phase are not expected until the latter part of 2H'23.

Early benefits from enlarged sales team apparent in March data

Having said that, one potential concern within the investment community surrounded the Rx performance during 1Q'23, when the commercial team was in the transition outlined above. Consequently, we were very reassured by the 1Q'23 data. The smaller, 16-person team managed to continue the growth in Rx-filled in both January and February, with substantial growth achieved in March, when the team was significantly expanded. This augurs well for the next two quarters, as the enlarged team becomes more established.

Accrufer Rx performance in 1Q'23

	Month-on-month growth			1Q'23 vs. 4Q'22
	Jan'23	Feb'23	Mar'23	
Total Rx volume	+3%	+1%	+21%	+12%
New Rx volume	+7%	+3%	+18%	+11%
First-time prescribers	-9%	+41%	+71%	+24%

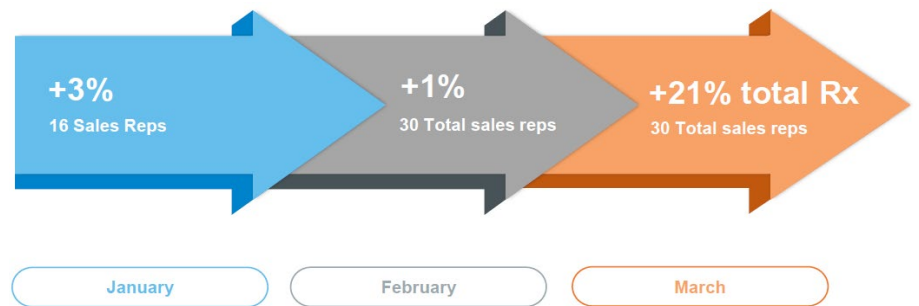
Source: Shield report, Hardman & Co Life Sciences Research

Fears of impact of reorganisation on 1Q'23 Rxs have been allayed

1Q'23 Accrufer performance

The number of Accrufer Rx-filled in 1Q'23 increased 12% over 4Q'22, despite the lower number of reps, which was slightly below our difficult-to-predict forecast (11,000). However, the strong performance in March, when the first wave of new hires entered the field, has shifted upwards subsequent quarterly performance for 2023, such that there is no change to our full-year expectation.

Sales team expansion during 1Q'23

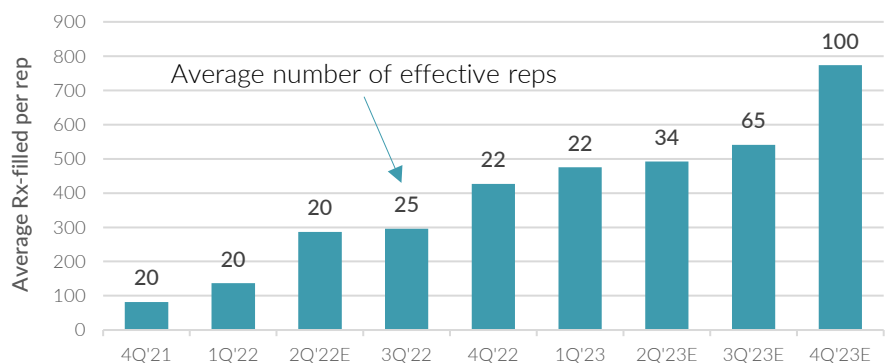


Source: Shield presentation

Steady improvement in sales rep performance QoQ

Since launch, we have been monitoring Accrufer's Rx growth through the performance of the sales team. Despite the changes during 2022, there was a steady progression in the average number of Rx-filled during each sequential quarter generated by each effective sales rep.

Quarterly performance of sales reps



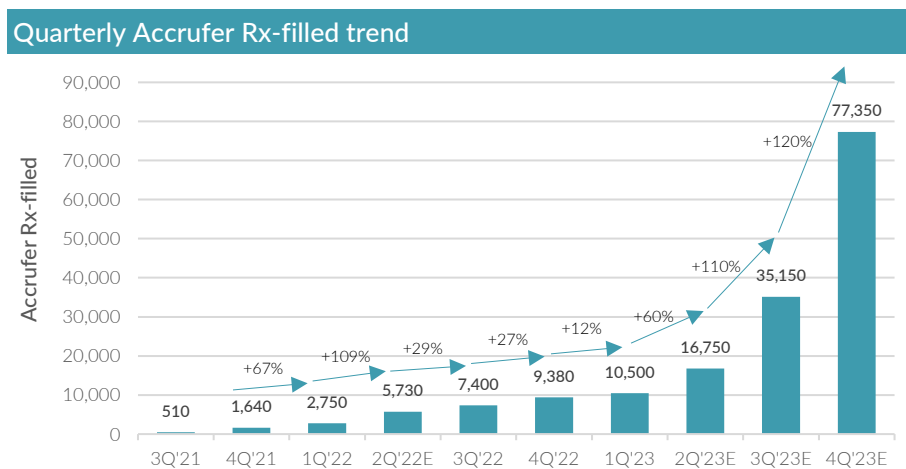
Source: Hardman & Co Life Sciences Research

Full benefit of enlarged team unlikely to be visible until 4Q'23

Another small word of caution: although the Rx performance in March was strong, benefiting from the early impact of the enlarged sales team, there is a high probability that many of these will be through the PBMs and/or state payors, with which Viatris has good relationships, and are likely to involve some free samples or be heavily discounted – so the increase may not be properly reflected in ex-factory sales when next reported (1H'23) by Shield.

Forecasts dependent on strong final quarter in 2023

For consistency, and to help with forecasting, Shield is providing “rounded” figures for Accrufer Rx-filled on a quarterly basis. Growth in the effectiveness of each rep translates into an increase in the number of Rx-filled, which, in turn, generates the sales forecast. Key for 2023 will be the effectiveness of the complete 100-person sales team in the final quarter.



Source: Shield reports, Hardman & Co Life Sciences estimates

Our model is driven by sales team performance...

...which generates conservative forecasts compared with Shield's expectations

Accrufer full-year expectations

With its 2022 results, Shield expanded its expectations provided in the “Circular to Shareholders” (December 2022) for the average number of Accrufer Rx-filled over the next three years to include both upper and lower limits. When viewed on a full-year basis, our forecasts for 2023 sit comfortably in the middle of Shield's expectations. However, in subsequent years, we are near the bottom of Shield's range for 2024 and below its lower limit for 2025. This implies that our forecasts are conservatively based. In the event that Accrufer Rx-filled hit Shield's targets in 2024 and 2025, our forecasts will be moving in an upward direction.

Fiscal year	2021	2022	2023E	2024E	2025E
Shield upper level	-	-	160,000	420,000	600,000
Actual/Hardman & Co forecast	2,398	25,256	139,700	371,150	506,000
Growth	-	+953%	+453%	+166%	+36%
Shield lower level	-	-	125,000	370,000	550,000

Source: Shield reports, Hardman & Co Life Sciences Research

New strap line

Updated promotional activity

When Accrufer was first launched, the main thrust of Shield's tactics was to promote awareness of the drug with the strapline “Discover the legend of tolerable oral iron” through advertising literature for clinicians and healthcare professionals. This has been reasonably successful, and, while there is still much work to be done with respect to increasing awareness further, the co-promotion deal with Viatris has acted as a catalyst to update marketing materials and introduce a new strapline, “Life is full of irony”, a subtle play on words between iron and irony.

New disruptive marketing tactics



Source: Shield presentation

This is going to be supported by a booth at the upcoming American College of Obstetricians and Gynecologists (ACOG) congress being held in Baltimore on 19-21 May 2023, a key target HCP audience, which will adopt the same approach – the irony being a booth that you cannot actually visit!

International Feraccru developments

Europe

European performance remains disappointing

On the face of it, royalties (including supply agreements) from European partner, Norgine, grew 51%, to €1.6m/£1.4m, in 2022. However, a better guide to performance is the number of packs sold, which was up only 6.5%. After being on the market for five years, this outcome remains particularly disappointing. While COVID-19 did have an impact on the ability to market the product well for a period of time, its general uptake has been well below expectations. Feraccru sales are predominantly from Germany and the UK, with some also in Scandinavia. Expansion into other European countries is dependent on reimbursement agreements.

Management is working with Norgine to improve this situation. Experiences from the US marketing campaign are being shared, with the focus turning more towards GPs and specialists in women’s health.

Canada

Regulatory approval in next three months

Shield signed a licence agreement for Feraccru in the Canadian market with KYE in January 2022. Rapid collation of the relevant documentation enabled KYE to submit an application with the Canadian regulator in March 2022. All being well, approval is expected mid-2023, which would trigger a \$0.5m milestone. Shield will receive tiered royalties on net sales.

Republic of Korea

Single PK study under way

Progress was made in 2022 with the regulatory pathway in Korea by Shield’s partner, Korea Pharma. Agreement was reached with the regulator that a single pharmacokinetic (PK) study was needed, and this is under way. A \$2.0m milestone is payable to Shield on first commercial sales, together with mid-teen royalties.

China

Situation in China behind expectations, due to COVID-19

For China, and also including Hong Kong, Macau and Taiwan, Shield concluded a deal with Beijing Aosaikang Pharmaceutical Co (ASK) in 2020. ASK is responsible for the late-stage development, manufacturing and commercialisation in the potentially large Chinese market. However, since signature, progress with the work needed to make a regulatory filing in China has been hampered by the stringent pandemic restrictions, recently lifted. Currently, ASK is continuing to enrol patients into the pivotal Phase III trial. First launch is not likely until 2025.

Summary of non-US international partnerships			
			
EU+¹	Canada	Republic of Korea	China +²
Sales volume (packs sold) increased by 6.5% (2022)	Licence agreement signed in Jan. 2022	Agreement for single PK (pharmacokinetic) study	Continuing enrolment for Phase 3 study
Call points re-focused to women’s health/GPs	Approval expected mid-2023	Final regulatory study underway	Significant impact due to pandemic restrictions
Double-digit royalties on net sales	Tiered royalties on net sales	Mid-teens royalties on net sales	Double-digit royalties on net sales

Source: Shield presentation, Hardman & Co Life Sciences estimates

Financing update

AOP loan facility

AOP clearly very supportive

In June 2022, in order to provide Shield with some short-term working capital and financial flexibility, the board agreed a \$10.0m convertible loan facility with its largest shareholder, AOP. The terms were considered to be fairly standard. Following shareholder approval at a General Meeting, the loan was drawn down on 1 August 2022. However, immediately on drawdown, AOP converted \$2.76m of this loan into shares at 5.52p, giving it 27.0% of the enlarged share capital.

AOP loan facility – calendar of events		
Date		Balance (\$m)
30 Jun'22	Announcement of \$10.0m convertible loan facility	-
01 Aug'22	Drawdown of loan	10.00
01 Aug'22	Conversion of \$2.76m into shares at 5.52p	7.24
13 Dec'22	Announcement of additional \$10.0m convertible facility	-
09 Jan'23	Conversion of \$2.24m into shares at 6.0p	5.01
31 Jan'23	Drawdown of new \$10.0m convertible loan facility	15.01
09 May'23	Conversion of \$9.54m into shares at 6.01p	5.47
2024	Commencement of interest payments on loans	
	Outstanding (in GBP)	£4.35

Source: Shield documentation, Hardman & Co Life Sciences Research

As part of the refinancing package announced in December 2022, AOP agreed to provide a further \$10.0m convertible loan facility, secured against Shield's US IP rights associated with Accrufer. The extension loan is interest-free, whereas the original loan balance continues to accrue interest. However, no interest is payable on either loan until January 2024.

In January 2023, AOP converted a further \$2.24m of the original loan into shares, such that the outstanding balance was reduced to just over \$5.0m. Drawdown on the loan extension at the end of January brought this back up to ca.\$15.0m.

On 9 May 2023, Shield announced that AOP had taken advantage of the recent fall in the share price to convert a further \$9.54m of the outstanding balance into 127.4m ordinary shares at 6.01p per share. This has increased AOP's holding from 27.0% to 40.0% of the enlarged share capital, taking it above the 30% level at which it must make a mandatory offer to all shareholders at the highest price (6.2p) paid in the past 12 months. We believe that the board will be recommending to shareholders that this price does not reflect good value and should be declined. Details about this are expected to be released imminently.

We view AOP's debt to equity conversion very positively

In our opinion, all the loan conversions have been opportunistic, taking advantage of short-term volatility in the share price. Also, it shows considerable confidence that the Shield-Viatrix commercial team will deliver on the commercial strategy, and make Accrufer a successful product in the US. Although it has not changed the gross cash position, this latest conversion has greatly improved the balance sheet, reducing the outstanding debt to just \$5.47m/£4.35m, giving greater financial flexibility and extending the cash runway well past the timelines to reach profitability.

Net cash/(debt)

No change in gross cash...

...but stronger balance sheet

Within its 2022 results announcement, Shield stated that it had gross cash of £19.2m at 31 March 2023 and debt of £12.5m. The latest loan conversion has reduced the debt to ca.£4.5m (including accrued interest). Based on our forecasts of monthly cash burn, Shield's net cash position at the end of May 2023 is expected to be ca.£10.5m – i.e. gross cash of £15.0m less debt of £4.5m.

Financials and investment case

Income statement

- ▶ **Sales:** Product sales are driven by the performance of Accrufer in the US. This is sensitive to the number of Rx-filled and the proportion of those that are state-funded, which commands larger discounts to the list price. Our forecasts are towards the low-end of Shield's expectations, but still represent strong growth.
- ▶ **COGS:** The 2022 gross margin was affected by inventory build-up to provide free samples for the Viatrix field force. Viatrix's 45% proportion of net Accrufer sales is being taken through COGS from 1 January 2023, which will result in the gross margin stabilising just below 50%.
- ▶ **SG&A:** Additions to the sales team and additional US marketing costs are expected to increase by 20% in 2023, and then remain fairly stable through 2024 and 2025. This, coupled with the expected sales leverage, will bring Shield into profitability from 2024.
- ▶ **Other income:** Milestones and royalties from the US and China are treated as other income. The figure for 2023 is the residual amount from the \$5m Viatrix upfront payment. Nothing is expected in 2024, and then milestones from both Viatrix and China are potentially achievable in 2025.

Income statement						
Year-end Dec (£m)	2020	2021	2022	2023E	2024E	2025E
GBP:USD	1.284	1.376	1.236	1.236	1.236	1.236
GBP:EUR	1.125	1.163	1.173	1.173	1.173	1.173
Product sales	0.73	1.02	4.27	25.79	79.42	120.23
COGS	-1.35	-0.98	-2.47	-13.29	-41.23	-62.18
Gross profit	-0.63	0.04	1.80	12.50	38.18	58.05
Gross margin	33.6%	81.4%	42.1%	48.5%	48.1%	48.3%
SG&A (underlying)	-7.84	-19.03	-26.59	-31.97	-33.16	-34.38
Share-based costs	-0.77	-0.99	-0.74	-0.74	-0.74	-0.74
R&D	-2.58	-0.58	-1.07	-1.00	-1.25	-1.50
Other income	9.66	0.61	0.90	3.50	0.00	10.33
EBITDA	0.55	-17.75	-23.34	-17.03	3.71	32.44
Depreciation	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01
Amortisation	-2.68	-2.19	-2.34	-0.67	-0.67	-0.67
Underlying EBIT	-2.15	-19.95	-25.71	-17.71	3.03	31.76
Exceptional items	0.00	0.00	-14.71	0.00	0.00	0.00
Statutory EBIT	-2.15	-19.95	-40.41	-17.71	3.03	31.76
Net interest	0.00	0.01	0.33	-0.30	-0.04	0.03
Forex gain/loss	0.27	0.38	0.00	0.00	0.00	0.00
Underlying PBT	-2.15	-19.95	-25.37	-18.01	2.99	31.79
Extraordinary items	0.00	0.00	0.00	0.00	0.00	0.00
Statutory PBT	-1.89	-19.57	-40.08	-18.01	2.99	31.79
Tax payable/credit	-0.74	0.23	-0.36	0.30	-1.56	-4.93
Underlying net income	-1.93	-19.66	-25.74	-17.71	1.43	26.86
Statutory net income	-2.63	-19.34	-40.44	-17.71	1.43	26.86
Ordinary 1.5p shares:						
Period-end (m)	117.62	204.02	221.32	658.64	713.04	713.04
Weighted average shares (m)	117.40	204.02	221.32	658.64	713.04	713.04
Fully diluted (m)	121.35	211.49	273.92	711.44	766.04	766.24
Underlying basic EPS (p)	-1.64	-9.64	-11.63	-2.69	0.20	3.77
Statutory basic EPS (p)	-2.24	-9.48	-18.27	-2.69	0.20	3.77
Underlying fully dil. EPS (p)	-1.59	-9.30	-9.40	-2.49	0.19	3.51
Statutory fully dil. EPS (p)	-2.17	-9.14	-14.76	-2.49	0.19	3.51
DPS (p)	0.0	0.0	0.0	0.0	0.0	0.0

Source: Hardman & Co Life Sciences Research

Balance sheet

- ▶ **Net cash/(debt):** On 31 December 2022, Shield had gross cash of £2.8m and net debt of -£3.3m, following receipt of the \$5m Viatrix upfront payment. Following the re-financing in January 2023, gross cash at 31 March was £19.2m, and net cash was £6.7m. This position has been greatly enhanced by the conversion of \$9.54m/£7.5m of AOP debt into ordinary shares on 9 May 2023.
- ▶ **AOP loan facilities:** As part of the re-financing package, AOP converted \$2.24m of its existing loan facility into 31.44m shares on 9 January 2023, in order to maintain its shareholding at ca.27.0%. The additional \$10m AOP loan was drawn down around the end of January 2023, leaving the total amount outstanding on 31 March 2023 at \$15.0m. However, on 9 May 2023, AOP converted \$9.54m of this into 127.37m shares, greatly boosting the balance sheet. This is expected to result in Shield having a net cash position of ca.£3.0m at the end of 2023.
- ▶ **Capital increase:** In January 2023, Shield concluded a £17.7m (gross) equity issue, which has been earmarked largely for the planned programme with Viatrix to expand the US sales team four-fold, and to increase and update the marketing activities.

Balance sheet						
@31 Dec (£m)	2020	2021	2022	2023E	2024E	2025E
Shareholders' funds	30.28	41.03	5.43	14.82	16.25	43.11
Cumulated goodwill	0.00	0.00	0.00	0.00	0.00	0.00
Total equity	30.28	41.03	5.43	14.82	16.25	43.11
Share capital	1.76	3.24	3.89	10.70	10.70	10.70
Reserves	28.51	37.80	1.54	4.13	5.56	32.41
Provisions/liabilities	0.00	0.00	0.00	0.00	0.00	0.00
Deferred tax	0.00	0.00	0.00	0.00	0.00	0.00
Long-term leases	0.00	0.00	0.00	0.00	0.00	0.00
Short-term leases	0.03	0.16	0.09	0.09	0.00	0.00
Long-term loans	0.00	0.00	0.00	0.00	0.00	0.00
Short-term debt	0.00	0.00	6.01	4.54	4.54	4.54
less: Cash	2.94	12.12	2.82	7.57	8.62	35.87
less: Deposits	0.00	0.00	0.00	0.00	0.00	0.00
less: Non-core investments	0.00	0.00	0.00	0.00	0.00	0.00
Invested capital	27.36	29.07	8.70	11.88	12.17	11.78
Fixed assets	0.03	0.30	0.20	0.69	1.30	2.07
Intangible assets	27.27	26.85	11.78	11.61	11.57	11.68
Inventories	1.38	1.64	1.46	2.99	4.18	5.02
Trade debtors	0.22	0.82	2.00	5.09	7.84	5.93
Other debtors	0.40	2.11	3.38	3.38	3.38	3.38
Tax liability/credit	0.29	0.58	0.44	0.30	-1.56	-4.93
Trade creditors	-0.40	-1.31	-1.31	-7.05	-10.94	-8.25
Other creditors	-1.83	-1.91	-9.24	-5.13	-3.60	-3.12
Debtors less creditors	-1.31	0.28	-4.73	-3.41	-4.89	-6.99
Invested capital	27.36	29.07	8.70	11.88	12.17	11.78
Net cash/(debt)	2.91	11.96	-3.28	2.94	4.08	31.33

Source: Hardman & Co Life Sciences Research

Cashflow

- ▶ **Net cash/(debt):** Shield ended 2022 with an existing shareholder loan facility of \$7.2m/£6.0m from AOP and gross cash of £2.8m, giving net debt of -£3.3m. By 31 March 2023, Shield had gross cash of £19.2m and net cash of £6.7m. However, this position has been greatly improved following the conversion of \$9.54m/£7.5m of AOP debt into shares on 9 May 2023.
- ▶ **Capital increase:** Net proceeds from the equity raise, estimated at £16.8m, will be used primarily to expand the co-promotion programme for Accrufer that has been agreed with Viatrix.
- ▶ **AOP loan facilities:** Following drawdown of the new \$10m loan and part conversion of the existing AOP loan, the total amount outstanding at 31 March 2023 was \$15.0m/£12.5m, subsequently reduced to \$5.5m/£4.5m. No interest payments are due until fiscal 2024; however, these have been greatly reduced following the recent debt-to-equity conversions.
- ▶ **Working capital:** Timing differences between supply of drugs to US wholesalers and payments have resulted in an increase in working capital, which has been offset by the remaining tranche of the Viatrix upfront payment. As Rx and sales of Accrufer expand rapidly in the US, there will be further demands on working capital.

Cashflow						
Year-end Dec (£m)	2020	2021	2022	2023E	2024E	2025E
Underlying EBIT	-2.15	-19.95	-25.71	-17.71	3.03	31.76
Depreciation	0.02	0.02	0.02	0.01	0.01	0.01
Amortisation	2.68	2.19	2.34	0.67	0.67	0.67
Share-based costs	0.77	0.99	0.72	0.74	0.74	0.74
Inventories	-0.43	-0.26	0.18	-1.53	-1.19	-0.84
Receivables	-0.26	-2.88	-2.45	-3.09	-2.75	1.90
Payables	-2.08	1.64	6.98	5.74	3.89	-2.69
Change in working capital	-2.77	-1.49	4.71	1.12	-0.05	-1.62
Exceptionals/provisions	0.00	0.00	0.00	0.00	0.00	0.00
Disposals	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.13	0.52	0.00	0.00	0.00	0.00
Company op. cashflow	-1.32	-17.73	-17.92	-15.16	4.40	31.56
Net interest	0.00	-0.03	-0.13	0.00	-1.02	0.03
Finance leases	-0.05	-0.08	-0.19	0.00	0.00	0.00
Tax paid/received	-0.09	0.59	-0.35	0.44	0.30	-1.56
Operational cashflow	-1.46	-17.25	-18.60	-14.73	3.68	30.03
Capital expenditure	0.00	-0.37	-0.05	-0.50	-0.63	-0.78
Capitalised R&D	0.00	-1.68	-1.84	-2.00	-2.00	-2.00
Sale of fixed assets	0.00	0.00	0.00	0.00	0.00	0.00
Free cashflow	-1.46	-19.30	-20.49	-17.23	1.05	27.25
Dividends	0.00	0.00	0.00	0.00	0.00	0.00
Acquisitions	-0.02	-0.01	0.00	0.00	0.00	0.00
Disposals	0.00	0.00	0.00	0.00	0.00	0.00
Other investments	0.00	0.00	0.00	0.00	0.00	0.00
Cashflow after invests.	-1.48	-19.31	-20.49	-17.23	1.05	27.25
Share repurchases	0.00	0.00	0.00	0.00	0.00	0.00
Equity issues	0.01	29.23	2.15	27.10	0.00	0.00
Cost of fundraise	0.00	-1.52	-0.15	-1.36	0.00	0.00
Currency effect	0.27	0.38	-2.83	0.00	0.00	0.00
Loans/cash acquired	0.00	0.27	6.08	-2.30	0.00	0.00
Change in net debt	-1.21	9.05	-15.24	6.22	1.05	27.25
OCFPS (p)	-1.24	-8.45	-8.40	-2.24	0.52	4.21
Opening net cash/(debt)	4.12	2.91	11.96	-3.28	2.94	4.08
Closing net cash/(debt)	2.91	11.96	-3.28	2.94	3.99	31.33

Source: Hardman & Co Life Sciences Research

Valuation

Taking all recent events into account, valuation drops from 64p to 50p per share

Sum-of-the-parts

Our analysis, which pulls together the DCF models for each of the key commercial markets for Feraccru/Accrufer, has been updated following all the recent events. This has generated a revised sum-of-the-parts EV of \$512m/£380m. This is broadly the same as previously forecast, the impact of a delay to the timing of milestones from China being offset by the debt-to-equity conversion of a large part of the AOP loan. However, there is a dilutive effect of this conversion on the per share valuation, reducing it by 17%, from 64p to 50p per share.

Sum-of-the-parts valuation			
	NPV (l.c.)	NPV (GBP)	NPV per share
NPV of Accrufer in US	\$336m	£272m	38p
NPV of Feraccru royalty stream in Europe	€53m	£44m	6p
Risk-adjusted NPV of China royalty stream	\$45m	£33m	5p
Enterprise value	\$471m	£349m	49p
Net cash/(debt)	\$14m	£11m	1p
Group valuation	\$485m	£360m	50p

Source: Hardman & Co Life Sciences Research

Market should take confidence from Viatri's involvement

Given that the shares are currently trading at 7.1p per share, the market still believes that there is considerable commercial risk, despite the initial signs in 1Q'23 Rxs that the enlarged sales team is having a positive effect. As further benefits of the recently recruited and trained sales team, and the involvement of Viatri's, become apparent, we believe the market should have the confidence to re-rate the shares.

Covis acquired AMAG for \$647m in November 2020, and CSL bid CHF11.1bn for Vifor in December 2021

Comparator valuations

Unfortunately, there are no directly comparable UK peers – so some global competitors have been used for completeness. However, we have been highlighting the need of the pharma majors for M&A activity to bolster R&D pipelines and commercial portfolios. Iron replacement therapy is no exception. Covis (private company) paid an EV of \$647m in November 2020 for AMAG (EV/sales: 2.4x), and CSL bought Vifor for CHF11.1bn in December 2021 (EV/sales: 9.3x). In the event that Accrufer targets are met in the next three years, the stance of Viatri's would become very interesting, in our opinion, especially if the Shield valuation is slow to recover.

Comparative valuation				
Company	*Vifor Pharma	*AMAG (now Covis)	Akebia Therapeutics	Shield Therapeutics
Ticker	VIFN	AMAG	AKBA	STX
Local currency	CHF	\$	\$	£
Share price	173.0	13.8	1.00	0.071
Shares in issue (m)	65.0	36.7	185.9	713.0
Market cap (l.c., m)	11,245.0	505.0	185.9	50.3
Mkt cap (£m)	8,875.3	414.1	152.5	50.3
Cash	994.5	168.9	144.7	15.0
Debt	-603.6	-311.2	-137.1	-4.5
EV (l.c., m)	10,854.1	647.3	178.4	39.8
EV (£m)	8,566.8	530.8	146.3	39.8
EV relative to Shield	215.2	13.3	3.7	-

Share prices and currencies taken at close of business on 16 May 2023

*Based on shares in issue at date of completion of acquisition

Source: Hardman & Co Life Sciences Research

Company matters

Registration

Incorporated in the UK with company registration number 09761509.

Registered office:

Northern Design Centre
 Baltic Business Quarter
 Gateshead Quays
 Newcastle
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www.shieldtherapeutics.com

Board of Directors

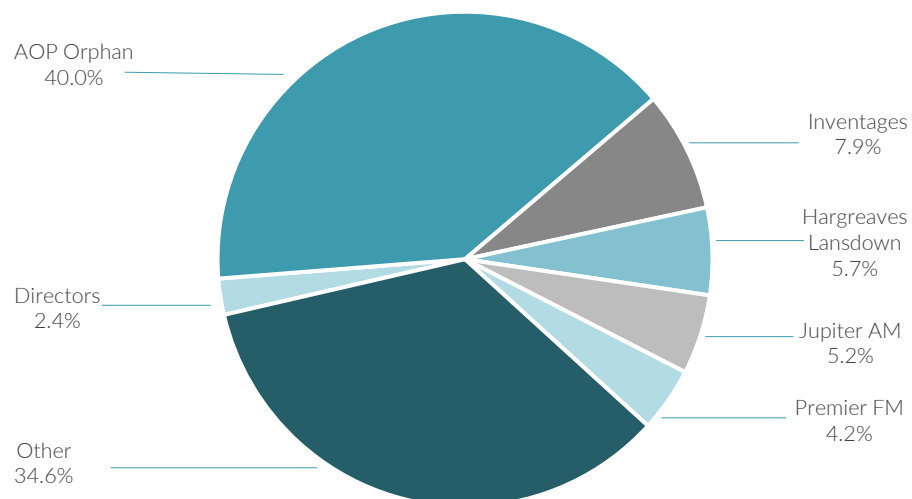
Board of Directors				
Position	Name	Nominations	Remuneration	Audit
Chair	Hans Peter Hasler	C	M	M
Chief Executive Officer	Greg Madison			
Non-Executive Director	Fabiana Lacerca-Allen			M
Non-Executive Director	Peter Llewellyn-Davies	M		C
Non-Executive Director	Anders Lundstrom		C	
Non-Executive Director	Christian Schweiger	M		
Chief Financial Officer*	Hans-Peter Rudolf			

M = member, C = chair
 *Non-board PDMR appointment
 Source: Company reports

Share capital

On 16 May 2023, there were 713,036,342 Ordinary shares in issue. In addition, there are 52.67m options and 5.15m warrants outstanding.

Share register



Source: Hardman & Co Life Sciences Research

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The full detail is on page 26 of the full directive, which can be accessed here: <http://ec.europa.eu/finance/docs/level-2-measures/mifid-delegated-regulation-2016-2031.pdf>

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