21 September 2020

Pharmaceuticals & Biotechnology

Source: Refinitiv

Market data

EPIC/TKR	**ARIX**
Price (p)	**106**
12m High (p)	121
12m Low (p)	59
Shares (m)	135.6
Mkt Cap (£m)	143.7
NAV/share (p)*	185.0
Premium/discount to NAV	-38%
Free float	71%
Market	LSE

**at 30 June 2020*

Description

ARIX is a publicly listed biotechnology venture capital company. It provides an opportunity for all investors to participate in a balanced portfolio of diverse biotech innovation via a single stock. With a global portfolio of 17 companies and four IPOs achieved since launch in 2016, Arix is a dynamic and modern approach to life sciences venture capital investing.

Company information

Exec. Chairman	Naseem Amin
MD	Jonathan Tobin
MD	Christian Schetter
COO	Robert Lyne
Finance Director	Marcus Karia

+44 20 7290 1050
www.arixbioscience.com

Key shareholders

Directors	<1%
Link Fund Solutions	19.8%
Fosun	8.2%
Ruffer	6.1%
Takeda Ventures	5.5%

Diary

Analysts

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mh@hardmanandco.com

ARIX BIOSCIENCE

Realising the valuation disconnect

Arix Bioscience (ARIX) is a listed global venture capital (VC) company that presents an opportunity for institutional and retail investors to participate in the high risk-return profile of early-stage biotech investing. ARIX minimises risk through its expert investment team and with portfolio diversification. Strong interim results, which saw the NAV rise 24% to £251.0m, highlighted the enormous disconnect between this and its share price. ARIX has prioritised 11 companies in the portfolio on which to focus its resources and expertise. These have a number of important value inflection points – mostly clinical events – over the next 12-18 months.

- **Strategy:** ARIX sources opportunities from an established network and a strong scientific reputation. The portfolio is diversified by therapeutic area, treatment modality, stage of discovery/development and geography to balance the risk-reward profile. Value is realised when ARIX successfully exits its investments.

- **Interims:** Results for 1H'20 exceeded market expectations with a 24% rise in NAV to £251.0m (£202.1m at 31 December 2019) driven by a valuation uplift in portfolio companies. At 30 June 2020, ARIX had £44m of cash to support existing portfolio companies, early-stage companies, and operations.

- **Performance:** During the period, portfolio companies raised $392m of working capital, with ARIX playing a supportive role in many cases. Since inception, ARIX has deployed £149m into its portfolio, realised £13m through opportunistic divestments, and generated an IRR of 20% (realised and unrealised). With a number of upcoming clinical events, ARIX has set an aspirational target to make an annual IRR of 15%-25%, and produce an NAV of £500m by the end of 2023.

- **Risks:** Development of new medicines always carries risk. In the short term, there may be added risk from COVID-19 affecting the recruitment and running of clinical trials. Value is realised through clinical progression, regulatory approvals, partnering and financial milestones, allowing it successful exits. Therefore, much depends on the skill of the investment team.

- **Investment summary:** Even though ARIX is still a relatively young company, the market is beginning to appreciate that the company has a maturing portfolio, with investee companies running 19 clinical trials that could lead to a number of value inflection points. Since inception, ARIX's investments have generated an IRR of 20% and it has set itself an ambitious set of targets for the coming three years which, if achieved, could see the NAV double to ca.£500m.

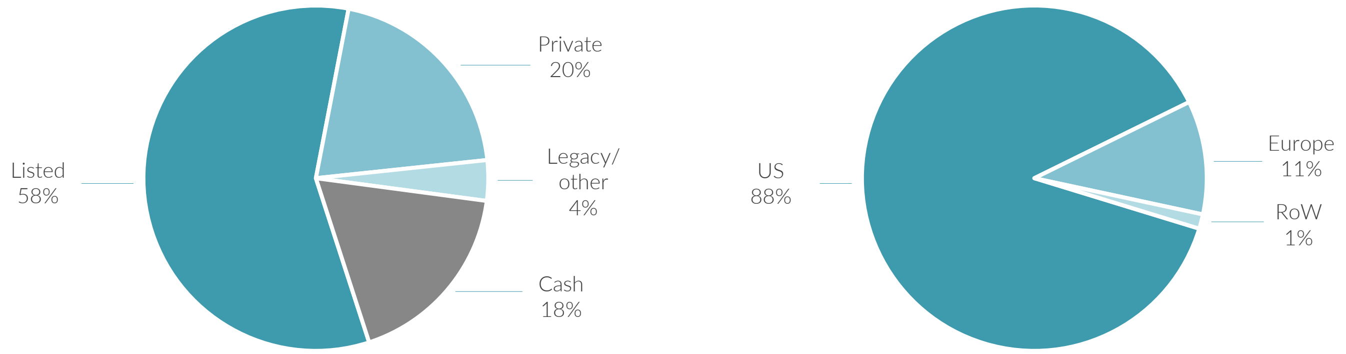
Financial summary and valuation

Year-end Dec (£m)	2017	2018	2019	2020E	2021E	2022E
Change in FV of investments	5.5	51.2	-58.6	*35.7	-	-
Operating income	1.9	1.3	0.5	0.2	0.2	0.0
Administrative expenses	-11.0	-11.7	-9.7	-7.0	-5.5	-5.6
Operating profit/(loss)	-7.2	37.5	-70.6	29.5	-2.0	-5.0
Profit/(loss) before tax	-7.7	38.2	-75.6	29.7	-1.7	-4.8
Underlying EPS (p)	-9.5	27.2	-53.6	20.2	-1.2	-3.2
Net cash/(debt)	74.9	91.2	53.7	34.4	26.8	18.9
Capital increase	105.1	83.5	0.0	0.0	0.0	0.0
NAV/share (p)	152.3	200.4	149.1	*170.6	-	-

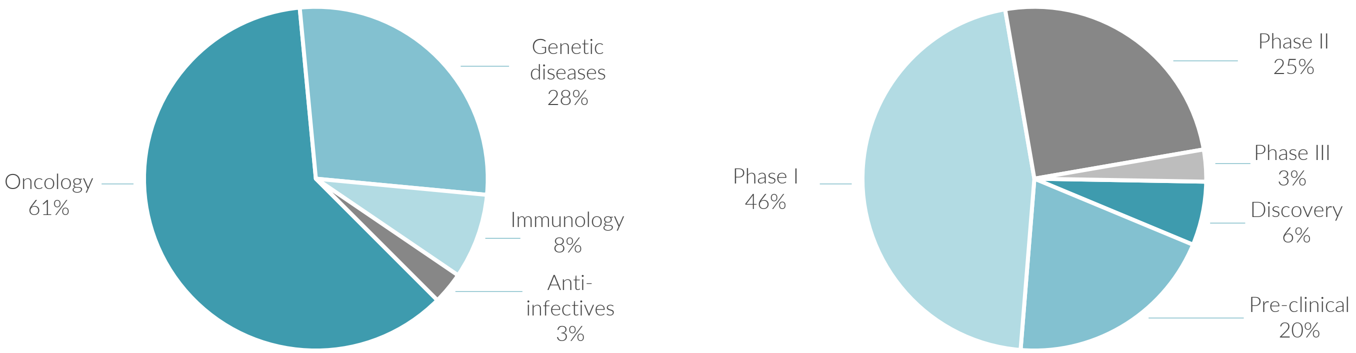
**Based on share prices and forex at close of business on 18 September 2020*
Source: Hardman & Co Life Sciences Research

Table of contents

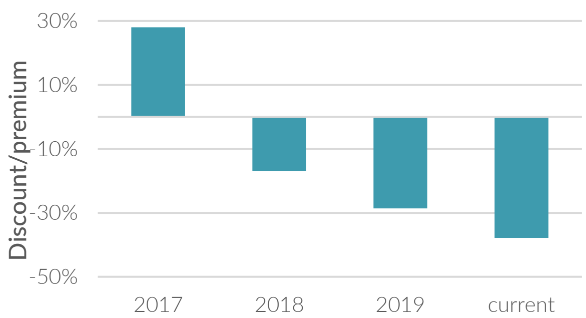
Composition of NAV by asset and geography – at 30 June 2020



Portfolio diversification by therapeutic area and stage – at 30 June 2020

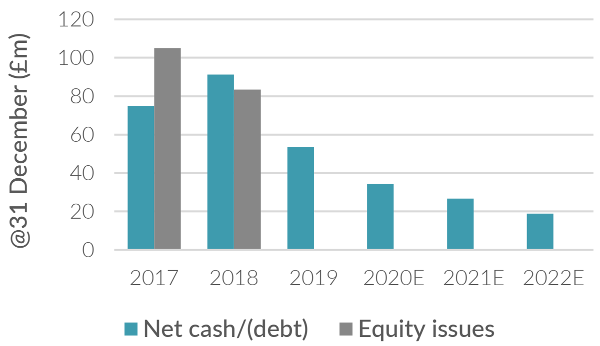


Trading premium/discount to NAV



- ARIX floated on 17 February 2017.
- Its stock has been trading at a discount to NAV since 2018, in part due to general market sentiment towards global biotech.
- ARIX's latest reported NAV/share was 185p at 1H'20, an increase of 24% during the period.
- The current discount to NAV presents a significant opportunity to investors.

Net cash/(debt)



- ARIX recycles cash to its balance sheet on divestment of holdings in its portfolio companies.
- Taking account of committed investments and reduced overheads, ARIX is forecast to be cash-positive through 2022.

Source: Company data, Hardman & Co Life Sciences Research

Interim 2020 results

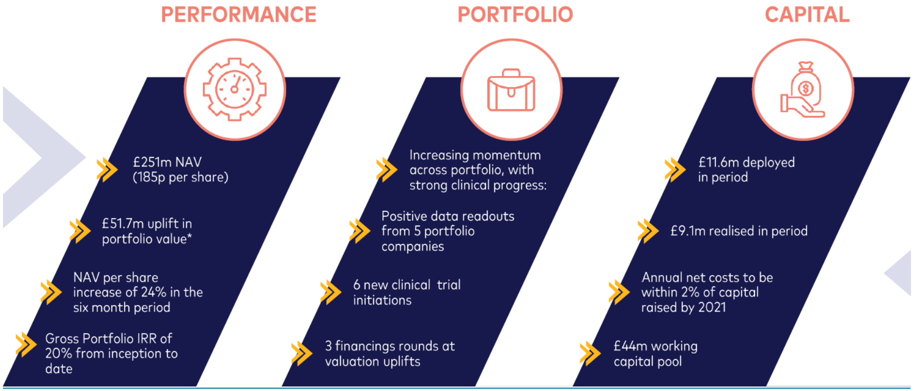
ARIX has reported its first set of results under the new operating/investment team, which has highlighted that the company is now operating with a lean and focused structure. Results were ahead of market expectations, with the NAV rising 24% from £202.1m at 31 December 2019 to £251.0m at 30 June, equivalent to 185p (149p) per share, highlighting the large disconnect between portfolio valuation and ARIX's share price. This was quickly picked up by the market, but a substantial discount remains.

First-half 2020 – a period of considerable progress
Undertook and completed a portfolio and strategy review
Prioritised the portfolio to focus on 10-15 (currently 11) highest-potential, value-creating companies
Appointed new independent SAB to further strengthen expertise
Made investments of £15.9m in portfolio companies and opportunistic divestments of £9.1m
Net operating costs reduced by 28% and targeted to be ca.2% of NAV in 2021 (compared with 4% in 2019)
Reorganised Board of Directors and operating/investment team

Source: Company reports, Hardman & Co Life Sciences Research

Although ARIX's structural changes, both at board and operational level, did not take place until midway through the reporting period, there were early signs of the significant reduction in underlying operating costs in 1H'20 (-28% to £3.8m) that will become even more apparent over the next 18 months. ARIX expects net operating costs to be ca.2% of the NAV in fiscal 2021, compared with 4% in fiscal 2019.

Strong progress across the portfolio



Source: Arix Bioscience results presentation

The gross portfolio valuation increased 36% to £203.4m during 1H'20, or £51.7m. This was the consequence of portfolio company performance and new investments. Although £9.0m of this increase was the result of forex gains, this was offset by £9.1m of divestments.

Financial summary in 1H'20

Half-year analysis (£m)	31 Dec 2019 actual	30 Jun 20 actual	Change	30 Jun 20 forecast
Gross portfolio value	149.2	203.4	+36%	187.7
Other investments	2.7	2.7	0%	1.3
Investments	*34.9*	*11.6*	-	*12.9*
Divestments	*8.8*	*9.1*	-	*9.1*
Cash	54.7	44.0	-20%	49.3
Net asset value	**202.1**	**251.0**	**+24%**	**223.1**
NAV/share (p)	**149**	**185**	**+24%**	**171**

Source: Company reports, Hardman & Co Life Sciences Research

Actual vs. forecast

As stated earlier, the actual outcome for net asset value at 30 June 2020 was markedly better than forecast. The difference was mostly attributable to two investments, Artios and VelosBio. Forecasts for the quoted part of the portfolio were, on the whole, very accurate. Any changes in the unquoted part of the portfolio tend to be more difficult to monitor given the lower level of public information.

Following the period-end, VelosBio completed an over-subscribed Series B funding round of $137m. Because this was being negotiated around the time of the period-end, ARIX recorded the valuation uplift (£7.9m) as part of the 1H'20 performance, whereas our forecasts had assumed that this would be a 2H'20 event. The recorded investment of £3.5m in 1H'20 was part of its Series A investment, and a further £3.2m investment as part of the Series B round will be recorded at the full year.

In the case of Artios, as a consequence of progress with its ATR kinase (ataxia telangiectasia and rad3-related kinase) inhibitor, a DNA damage response kinase, in-licensed from MD Anderson, ARIX has decided to record an uplift in valuation of £3.9m (+25%) during the period. Given that Artios is a private company, coupled with the fact that it has not raised any new funds during the period, such a change is difficult to predict.

ARIX has also been opportunistic during the period. Harpoon (HARP.OQ) has been a successful investment to date. During the period, Harpoon reported positive Phase I data from its HPN424 programme and initiated a Phase I/II trial with HPN217 in relapsed, refractory multiple myeloma, which triggered a $50m milestone payment from AbbVie (ABV.N). ARIX used the positive response of the Harpoon share price to sell some shares, realising £6.6m. Despite this, the valuation of ARIX's reduced shareholding remained broadly the same at 30 June compared with its starting valuation at 31 December 2019.

Investment summary – actual vs. forecast

Investment (£m)	Valuation 31 Dec'19	Investments 1H'20	Realisations 1H'20	Effect of fx 30 Jun'20	Actual valuation 30 Jun'20	Forecast valuation 30 Jun'20	Actual vs. forecast Δ
Amplyx	4.9	-	-	0.3	5.2	4.9	+0.3
Artios	15.2	-	-	-	19.1	15.2	+3.9
Atox Bio	5.0	1.2	-	0.4	6.6	5.2	+1.4
Aura	8.3	-	-	0.7	9.0	8.3	+0.7
Autolus	33.8	-	-	1.7	43.5	43.6	-0.1
Harpoon	28.9	-	-6.6	1.9	29.5	29.3	+0.2
Imara	10.7	4.5	-	1.0	34.8	34.5	+0.3
LogicBio	16.3	-	-	1.4	20.5	20.9	-0.4
Quench Bio	6.5	0.9	-	0.6	8.9	10.4	-1.5
STipe	1.9	-	-	0.2	2.1	4.9	-2.8
VelosBio	5.5	3.5	-	0.5	17.4	5.5	+11.9
Legacy assets	12.2	1.5	-2.5	0.3	6.8	5.0	+1.8
Gross portfolio	**149.2**	**11.6**	**-9.1**	**9.0**	**203.4**	**187.7**	**+15.7**
Other	2.7	-	-	0.1	2.7	1.3	+1.4
Total investments	**151.9**	**11.6**	**-9.1**	**9.1**	**206.2**	**189.0**	**+17.2**

Source: Hardman & Co Life Sciences Research

Operational changes

In April, we appraised the market about the board and operational changes at the company.[1] Since then, Entrepreneur in Residence, Christian Schetter has moved into a Managing Director role and Noor Lalani has been appointed as Public Investments Director, with responsibility to oversee the quoted part of the portfolio.

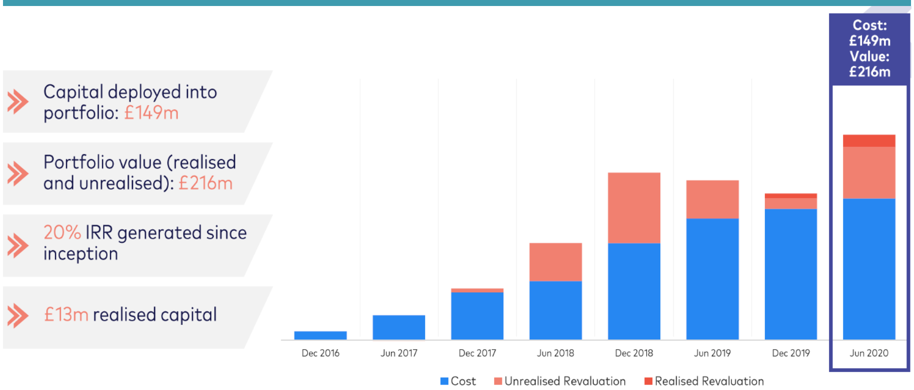
[1] https://www.hardmanandco.com/research/corporate-research/resetting-the-stage/

Valuation

A number of ARIX's portfolio companies, particularly those in the listed segment, have made significant clinical and operational progress in 1H'20, which has been reflected in share price appreciation and provided a boost to ARIX's NAV. This highlights that the portfolio is maturing and reaching important clinical milestones. Given that portfolio companies are currently running 16 clinical trials, with more due to start in the next 12 months, the prospect of further NAV appreciation is considerable. However, as with all clinical trials, it is unlikely that all of these will be successful, but ARIX clearly has multiple "shots on goal" with its portfolio.

The following chart shows the portfolio valuation progression. This has been achieved from the deployment of £149m of capital since inception and generated an IRR of 20%. With this set of results, management stated that it is targeting an IRR of 15%-20% p.a., which would generate an NAV of £500m by 2023. Given the record to date and pending clinical events, this looks to be a challenging, but achievable, target.

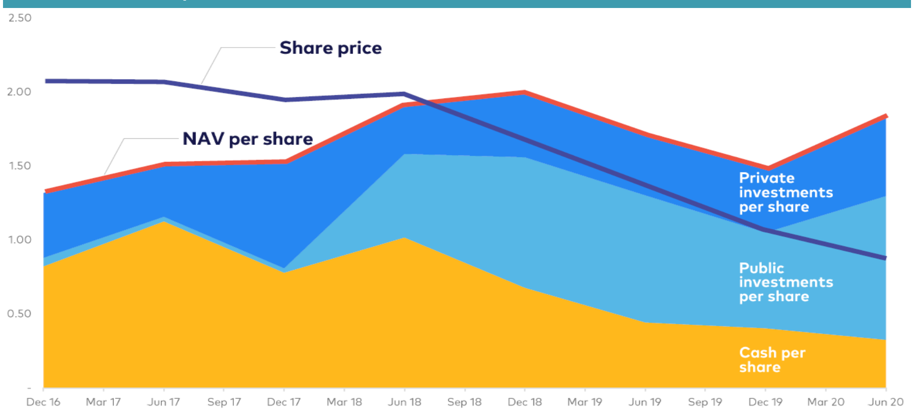
Portfolio valuation progression



Source: Arix Bioscience results presentation

The progress made by portfolio companies and the valuation progression has not, however, been reflected in ARIX's own share price, which has been trading consistently at around a 40%-50% discount to NAV. When ARIX floated in 2017, the concept, experience and specialist team was rewarded with a premium to NAV. However, as more capital has been deployed, so the share price has eroded. Even increased transparency of portfolio valuation through the IPO of six companies has not been reflected in a significant change in this trend. Nevertheless, as highlighted with this set of results, as more clinical milestones are reached and there is further maturing of the portfolio, we expect this trend to reverse.

NAV vs. share price

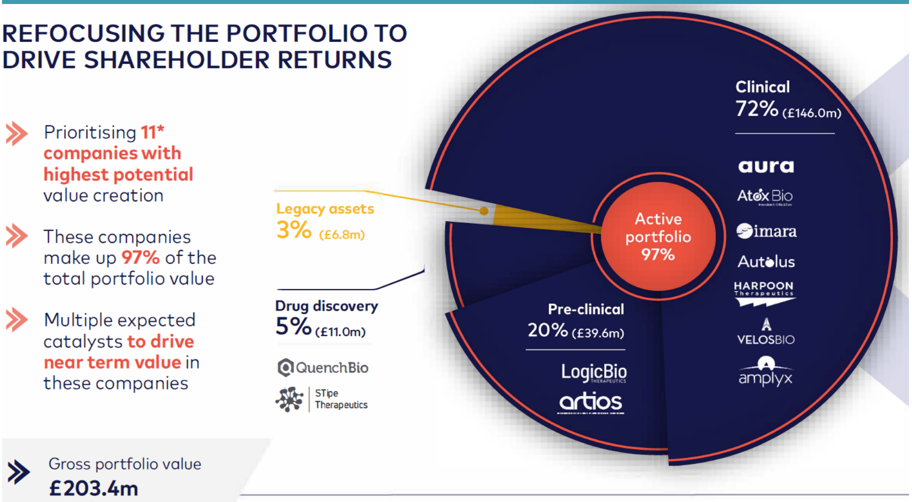


Source: Arix Bioscience results presentation

Portfolio highlights

ARIX currently has 16 companies in its portfolio. While all of these are important, the company has taken the strategic decision to prioritise the 11 companies (expected future range 10-15) that have the highest potential to create value. These have been selected largely on the basis of technology and the likely time to reach a significant value inflection point, usually based around a clinical event.

Prioritising the portfolio



Source: Arix Bioscience results presentation

Strong support from shareholders

During the reporting period, ARIX's portfolio companies raised $391.5m of new capital from investors. Since the period-end, a further $137m has been raised.

- **Imara** raised $86.5m when it IPO'd on NASDAQ. ARIX invested a further $3.0m giving it a 9% equity interest – making a total investment of £4.5m in 1H'20.
- **Autolus** completed an $80m follow-on financing from institutional investors. ARIX did not participate in this stage of the funding round.
- **Amplyx** closed a $53m Series C extension, which brought the Series C round to over $90m. Pfizer Inc. (NYSE: PFE) and Adage Capital Management completed the financing round, which was led by Sofinnova.
- **Quench Bio** completed a $35.0m Series A financing round. ARIX committed a further $6.0m to the company, of which £0.9m has been invested during the reporting period.
- In July 2020, post the period-end, **VelosBio** announced a $137m Series B financing round from a top-tier syndicate of investors. This was done at a significant (£7.9m) valuation uplift compared with its original £8.6m Series A investment, which was recorded by ARIX in this set of results. ARIX invested a further $4.0m/£3.2m in the Series B round post period-end.

Listed portfolio companies – current cash runways

Company	Ticker	Gross cash at 30 June	Estimated cash runway
Autolus Therapeutics	AUTL.OQ	$212.0m	Early 2022
Harpoon Therapeutics	HARP.OQ	$171.6m	2022
Imara	IMRA.OQ	$106.3m	Mid-2021
LogicBio Therapeutics	LOGC.OQ	$36.7m	2Q'21

Source: Hardman & Co Life Sciences Research

Portfolio company key events in 1H'20

Clinical events

- Apart from its successful IPO, **Imara** completed the enrolment and reported positive interim safety and efficacy data from of its Phase IIa clinical trial with lead drug candidate, IMR-687, in patients with sickle cell disease (SCD). IMR-687 was well tolerated both alone and in combination with hydroxurea, the current standard-of-care. Additionally, the FDA granted IMR-687 Orphan Drug status and Rare Paediatric Disease designations in patients with β-thalassemia, having already received these designations for patients with SCD.
- **Harpoon**, a company developing immunotherapy for solid and blood cancers with a novel class of T-cell engagers, announced encouraging interim Phase I data from its lead drug candidate, HPN424, in patients with metastatic, castration-resistant, prostate cancer that remained in the study for more than 24 weeks. In April, the company announced that the first patient had been dosed with HPN217 in a Phase I/II clinical trial focused on relapsed/refractory multiple myeloma. This event triggered a $50m payment from AbbVie (ABBV.N) under its global development and option agreement, which was paid during 2Q'20.
- **Autolus**, a clinical-stage company developing a suite of proprietary T-cell programming technologies, which are being used to engineer precisely targeted, controlled and highly active T-cell therapies designed to improve the recognition of cancer cells. Both the clinical trial application (CTA) and the investigational new drug (IND) submissions for AUTO1-AL1 were accepted by the MHRA and FDA, respectively, allowing pivotal trials to commence. Early Phase I were presented at a virtual scientific conference, showing encouraging safety and signs of efficacy. In addition, emerging data for AUTO3 suggest this drug has a differentiated efficacy and safety profile, supporting the development work ongoing in patients with diffuse large B-cell lymphoma (DLBCL). AUTO3 has been designed to be highly active with a profile suitable for all settings of care, including outpatient therapy and oncology clinics.
- Proceeds from its successful Series B round will be used by **VelosBio** to advance the development of VLS-101 against a range of haematologic and solid tumours. VLS-101 is currently in a Phase I trial in patients with refractory haematological tumours, which is expected to report data by the end of the year.
- **Amplyx** is developing novel small molecule and biological therapies for infectious diseases in patients with compromised immune systems, such as those undergoing treatment for cancer or transplant. During the period, the company announced positive headline data from its Phase II trial with fosmanogepix (APX001) as a first line treatment for patients with invasive fungal infections caused by Candida. Fosmanogepix was well tolerated with no serious treatment-related adverse events. Moreover, patients could be readily transitioned between intravenous and oral therapy.
- **Aura** is developing novel, targeted therapies for the treatment of choroidal melanoma, a rare and aggressive type of eye cancer. Current treatment involves radiotherapy, often associated with severe loss of sight and severe damage to healthy surrounding tissue. Data from its ongoing open-label Phase Ib/II trial evaluating the safety and efficacy of lead compound AU-011 were presented during the period. They showed a favourable safety profile and that AU-011 appears to control tumour growth and preserve vision. Further data and studies are expected over the course of the next 12 months.
- **Atox Bio**, a late-stage, critical care immunotherapy company that is focusing on acute, life-threatening, conditions, had results from its Phase III trial in patients with Necrotising Soft Tissue infection (NSTI, "flesh eating disease") published in the Annals of Surgery. Reltecimod had a positive effect on resolution of organ function in patients with NSTI.

- Highlighting some of the inherent risks in drug development, **Iterum** stated that its Phase III trial with sulopenem in complicated urinary tract infections (UTIs) failed to reach its primary endpoint. This was a surprise, given the strong Phase II results. The company will now evaluate its corporate, strategic and financial options. Iterum is no longer considered to be one of ARIX's focus investments.

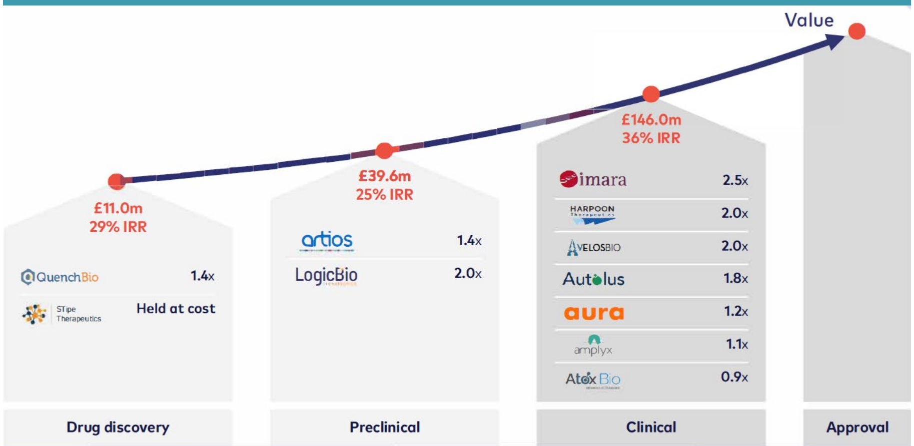
Pre-clinical events

- Post the period-end, **LogicBio**, a gene editing company announced that the FDa had cleared the company's IND application for LB-001. This permits the company to start its SUNRISE study, an open-label, multi-centre, Phase I/II trial designed to assess the safety and tolerability of a single intravenous infusion of LB-001 in paediatric patients.
- **Artios** has continued to make progress with its ATR-kinase (ataxia telangiectasia and rad3-related kinase) inhibitor, licensed from MD Anderson and its Pol Theta programme. The aim is to secure IND on each of these programmes by 4Q'20 and 4Q'21, respectively. Artios is funded through to 2022.

Maturing portfolio

Management highlighted during the investor presentation that although the IPO of a portfolio company was an important milestone, the real driver of value was the announcement of clinical events. Since its inception in 2016, ARIX has invested and supported a number of companies in early drug discovery and pre-clinical development and watched them mature into clinical-stage companies. This has driven the NAV growth and solid IRR performance.

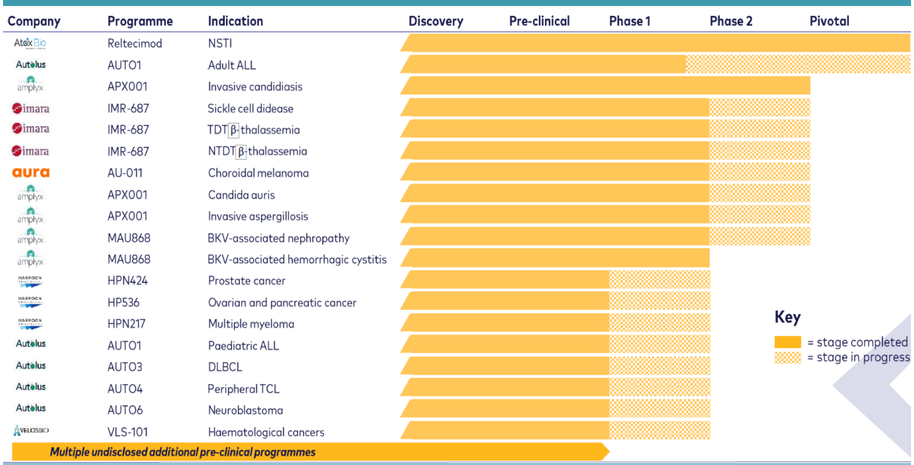
Developing value



Source: Arix Bioscience interim results presentation

Given all the trials that are currently ongoing and in preparation, ARIX has multiple value catalysts upcoming from its maturing portfolio. These are highlighted in the following two graphics.

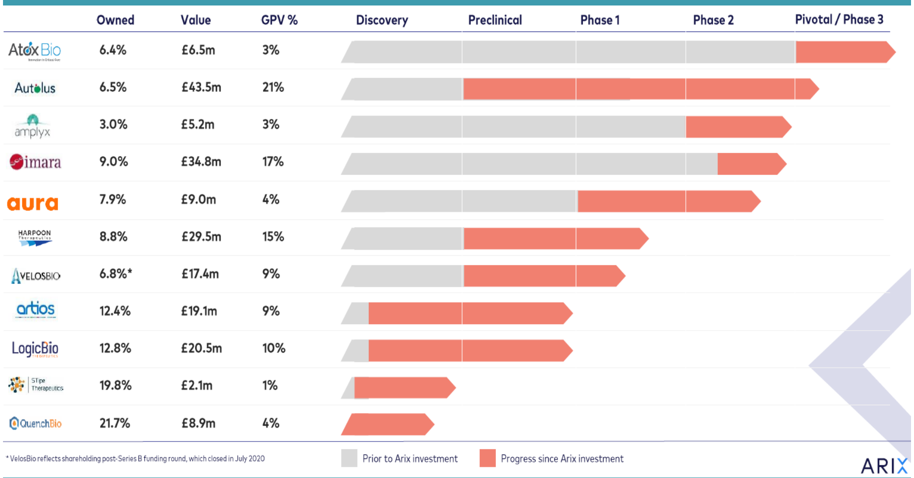
Rich pipeline generating multiple "shots on goal"



Source: Arix Bioscience interim results presentation

Positive outcomes from even some of these trials will generate further value within ARIX.

Maturing portfolio



Source: Arix Bioscience interim results presentation

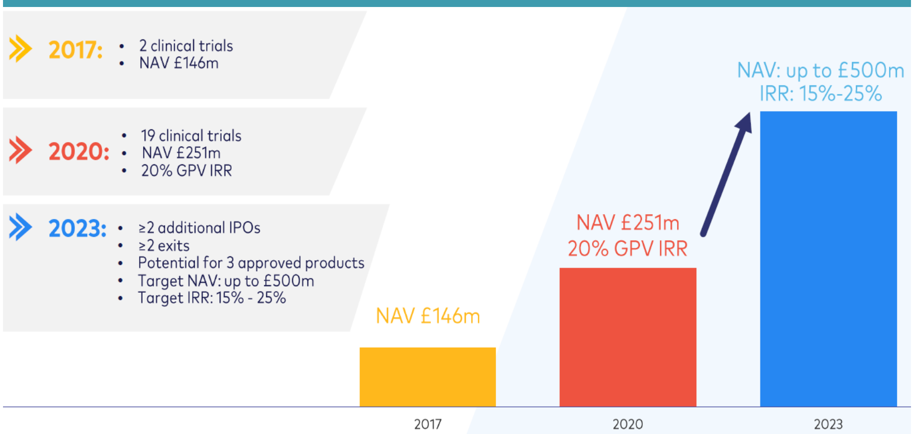
Such is the confidence with its portfolio of focused companies and the supporting role played by the ARIX team through the clinical process, management has set some ambitious, but achievable targets for 2023, based on the precedent set over the past three years.

In 2017, companies in ARIX's portfolio were mostly at the discovery and pre-clinical stage, with only two clinical trials initiated. At this point in time, the NAV was £146m. By the interims in 2020, as highlighted above, many more portfolio companies had reached clinical development with some generating data readouts. The consequence of this has been an increase in NAV to £251m. With this background, coupled with the knowledge of the expected timetable of readouts from the 19 clinical trials, management has set the following targets to reach by the end of 2023:

- At least two further IPOs of portfolio companies.
- At least two exits from portfolio companies, which could be in the form of M&A activity, strategic partnerships and/or opportunistic divestments.
- Support the potential to obtain three regulatory approved drugs.

These ambitious targets demonstrate the confidence within the restructured ARIX team under the guidance of the Executive Chairman. In the event of these benchmarks being achieved, ARIX believes that it would generate an IRR of at least 15%, giving an NAV nearer £500m.

Cutting operating costs



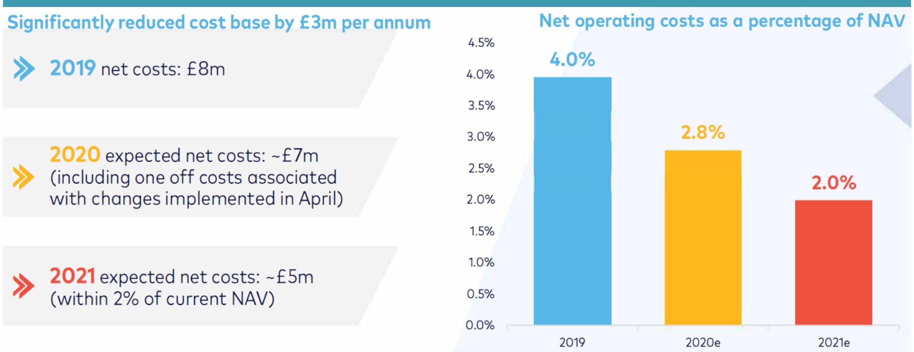
Source: Arix Bioscience interim results presentation

Financial update

In April, under the leadership of the newly appointed Executive Chairman, ARIX announced a restructuring of the Board of Directors and the operational team with the aim of a significant and sustainable reduction in the corporate overhead.

Given the timing of these changes, the overall impact of this stage reset was always going to be modest in 1H'20. However, there was clear evidence at the interim stage of a continuation of the reduction in administrative overhead that started in fiscal 2019. The aim of the new team is to reduce operating costs from £9.7m in 2019 to £7.0m in fiscal 2020, with the full benefit being seen in fiscal 2021. This will result in costs being halved relative to the NAV over the two-year period. Thereafter, the aim will be to maintain costs at around 2% of NAV; however, given the anticipated increase in value, costs may rise in absolute terms.

Cutting operating costs



Source: Arix Bioscience interim results presentation

Forecast summary

The largest component of the income statement for each reporting period is the revaluation of ARIX's investments under IFRS9. Its investments are considered to be long-term financial assets, and ARIX classifies them using a fair-value hierarchy that reflects the significance of the inputs used in generating the related fair value. ARIX adopts the most conservative approach, ascribing the lowest-level input with the fair-value hierarchy framework to each of its investments.

Income statement

Year-end Dec (£m)	2017	2018	2019	2020E	2021E	2022E
Profit & Loss						
Change in FV of investments	5.5	51.2	-58.6	*-35.7	-	-
Other income	1.9	1.3	0.5	0.2	0.2	0.0
Operating income	7.4	52.5	-58.1	35.9	2.9	0.0
Administrative expenses	-11.0	-11.7	-9.7	-7.0	-5.5	-5.6
Share-based payments	-3.7	-3.3	-2.8	0.6	0.6	0.6
Operating profit/(loss)	**-7.2**	**37.5**	**-70.6**	**29.5**	**-2.0**	**-5.0**
Net interest	0.0	0.7	0.8	0.2	0.3	0.2
Profit before tax	-7.7	38.2	-75.6	29.7	-1.7	-4.8
Tax payable/credit	0.2	-5.9	5.9	-2.3	0.1	0.4
Net income	-7.5	32.3	-69.7	27.4	-1.6	-4.4
Weighted av. shares (m)	78.7	118.8	129.9	135.6	135.6	135.6
Underlying EPS (p)	**-9.5**	**27.2**	**-53.6**	**20.2**	**-1.2**	**-3.2**
Fully diluted EPS (p)	-9.5	25.1	-48.7	18.4	-1.1	-3.0

**Based on share prices and forex at close of business on 18 September 2020*
Source: Hardman & Co Life Sciences Research

Balance sheet and cashflow						
Year-end Dec (£m)	2017	2018	2019	2020E	2021E	2022E
Balance sheet (@31 Dec)						
Investments at fair value	71.3	184.0	151.9	197.4	199.2	211.1
Intangible assets	2.1	1.8	0.7	0.4	0.1	0.0
Non-current assets	73.9	186.1	153.4	197.9	199.4	211.2
Cash & deposits	74.9	91.2	54.6	35.4	27.7	19.9
Receivables	1.3	2.2	1.1	1.1	1.1	1.1
Current assets	**76.2**	**93.4**	**55.8**	**37.0**	**29.3**	**21.5**
Total liabilities	-3.7	-9.3	-7.1	-3.6	1.0	-7.4
Net assets	146.4	270.2	202.1	231.2	229.7	225.2
NAV/share (p)	**152**	**200**	**149**	**171**	**-**	**-**
Cashflow						
Underlying EBIT	-7.2	37.5	-70.6	29.5	-2.0	-5.0
Change in FV of investments	-5.5	-51.2	58.6	-35.7	-2.6	0.0
Other non-cash items	4.2	3.8	3.2	-0.2	-0.3	-0.3
Tax & interest	-50.2	-55.2	-26.1	-11.4	-1.7	-1.7
Operational cashflow	**-8.8**	**-11.1**	**-9.4**	**-7.9**	**-5.9**	**-6.1**
Equity investments	-50.2	-55.2	-34.9	-20.5	-1.7	-1.7
Disposals	0.0	0.0	8.8	9.1	0.0	0.0
Cashflow after investments	**-59.0**	**-66.3**	**-35.5**	**-19.3**	**-7.7**	**-7.8**
Equity issues	105.1	83.5	0.0	0.0	0.0	0.0
Change in net cash/(debt)	46.0	16.3	-37.5	-19.3	-7.7	-7.8
Opening net cash/(debt)	28.9	74.9	91.2	53.7	34.4	26.8
Closing net cash/(debt)	**74.9**	**91.2**	**53.7**	**34.4**	**26.8**	**18.9**

** Based on share prices and forex at close of business on 18 September 2020*

Source: Hardman & Co Life Sciences Research

Peer comparison

ARIX's peers have been operating over different times spans, have different investment approaches, a range in the number of companies in their portfolios, and are focused on different therapeutic areas

Given the high US$ investment and the >10-year timescales involved in drug development, life sciences companies need to have strong backers and an efficient secondary market in place to support the sector's funding requirements. The traditional model was for drug discovery and pre-clinical development to be funded by angel and VC investors, with follow-on funding for proof-of-concept trials from VC or through a listing on an international stock market. Thereafter, Phase III trials were funded by institutional investors. Around the millennium, there were a number of specialist life sciences VCs and institutional healthcare funds that invested in this process. However, while these still exist, ARIX's listed approach is allowing public market investors access to the types of investment that are typically reserved for these funds. Such listed vehicles, which are dedicated to specialist investment in early-stage life sciences companies and managed by experienced investment teams, aim to reduce the risk. Today, these vehicles come in three forms:

- **IP commercialisation companies (IPCC):** Focused on early funding for commercialising new technologies that come out of academia.
- **Venture capital trusts (VCT):** Fixed-term investment or closed-ended funds, with a secondary aim of generating tax relief on the investment made by investors.
- **Listed VC companies (LVC):** Provide long-term capital to take opportunities from seed-funding through to proof-of-concept clinical trials and exiting via a trade sale. Any gains generated can then be reinvested into new opportunities.

A group of listed European investment vehicles has been constructed to allow comparisons between their valuations and that of ARIX. The pitfall is that they have been operating over different times spans, have different investment approaches, a range in the number of companies in their portfolios, and are focused on different therapeutic areas.

Peer comparison

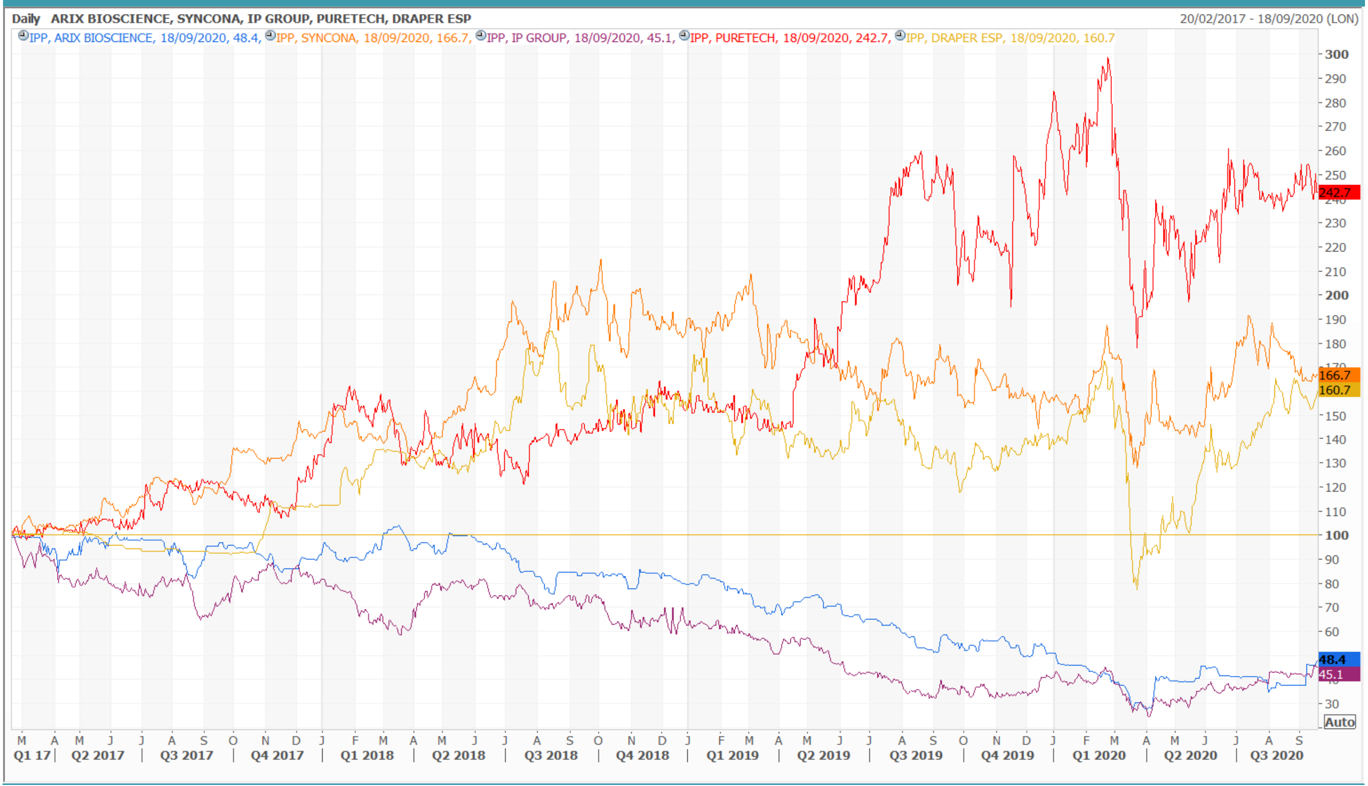
Company	Type	Price	Mkt. cap.	Cash	Debt	NAV	Premium/ (discount) to NAV	Comment
Arix Bioscience	LVC	106p	£144m	£40m	-£1m	£231m	-38%	Oncology, immunology, anti-infectives, genetic diseases 16 assets, 6 listed, global portfolio
IP Group	IPCC	80p	£850m	£161m	-£90m	£1,127m	-25%	LS 58%, Technology 36%, Multi-sector 6% 55 LS assets valued at £627m (56% NAV)
Malin Corp.	IPCC	€ 4.40	£202m	£31m	-£55m	£385m	-47%	Oncology, immunology, genetics 71% focus (4)/29% growth (6)
PureTech	Hybrid	280p	£799m	£114m	-	-	-	R&D model to develop new medicines focused on the Brain-Immune-Gut
Syncona	LVC	230	£1,529m	£872m	-£16m	£1,340m	14%	UK-focused portfolio: Gene & cell therapy, Biologicals Top 4 assets = 90% of LS investments
Allied Minds	IPCC	$0.45	$109m	$57m	-$53m	$105m	+4%	Mostly technology investments (4) Adjusted for disposal of HawkEye 360
Draper Esprit	LVC	567p	£649m	£44m	-£20m	£683m	-5%	Focus is on technology 57 companies in portfolio

IPCC = IP commercialisation company, LVC = listed VC, LS = Life Sciences
Prices and currencies taken at close of business on 18 September 2020
Source: Hardman & Co Life Sciences Research

Syncona is ARIX's closest peer

The closest direct peer to ARIX is Syncona. Whereas ARIX is trading at a discount to its NAV, Syncona currently commands a 14% premium. However, Syncona has the advantage of being a more mature company, and has been in receipt of some exits, the most recent of which was Blue Earth Diagnostics to Bracco Imaging for $476m, giving Syncona a 10x return on its original investment of £35.3m. Currently, Syncona has only four investments, and cash represents 65% of its NAV. Interestingly, both Syncona and ARIX are co-investors in Autolus.

Peer group performance – relative to NASDAQ Biotech Index (.NBI)



Blue: ARIX, Orange: Syncona, Purple: IP Group, Red: Puretech, Yellow: Draper Esprit
Source: Refinitiv, Hardman & Co Life Sciences Research

Potential value inflection points

There are multiple value inflection points approaching in 2H'20, and with around 20 clinical programmes ongoing, ARIX looks set for a period of rich news flow.

In alphabetical order:

- **Amplyx:** Initial Phase II data with APX001 in invasive aspergillosis and candidemia.
- **AtoxBio:** NDA submission of reltecimod in 2H'20 raising the prospect that it is the first approved product for NSTI.
- **Autolus:** Additional Phase I with AUTO3 in DLBCL and long-term follow-up Phase I data with AUTO1 in adult ALL.
- **Harpoon:** Phase I data expected from lead candidate HPN536 in ovarian and pancreatic cancers. Initiation of a Phase I/II trial with HPN328 in small cell lung cancer.
- **VelosBio:** Initial proof-of-principle data with VLS-101 in haematological cancers.

Company matters

Registration

Incorporated in the UK with company registration number 09777975.

Registered Office:

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London
W1J 6EQ

+44 20 7290 1050
www.arixbioscience.com

Board of Directors

Board of Directors

Position	Name	Nominations	Remuneration	Audit
Executive Chairman	Dr Naseem Amin			
Non-executive director	Mark Breuer	✓		✓
Non-executive director	Prof. Trevor Jones	✓	✓	
Non-executive director	Giles Kerr			✓

Source: Company reports

Operating structure

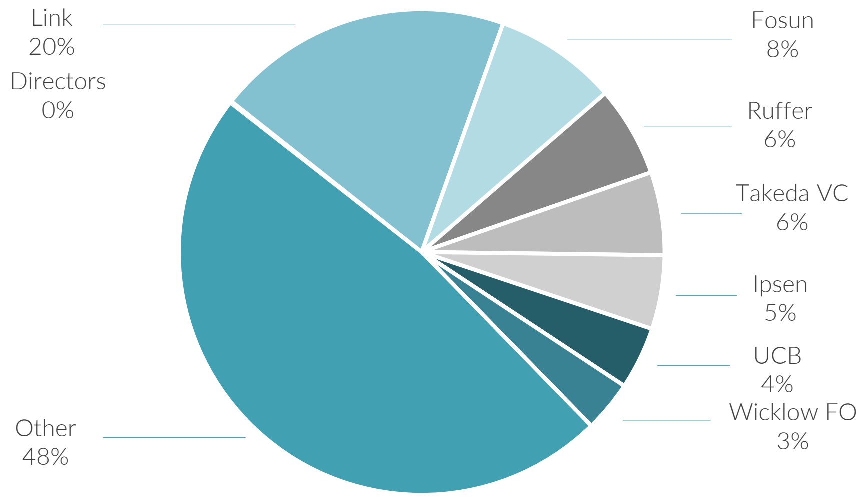
Key team members

Source: Arix Bioscience interim results presentation

Share capital

At 18 September 2020, there were 135,551,850 Ordinary shares in issue. In addition, there were 9,733,990 share options outstanding.

Shareholders



Source: Hardman & Co Life Sciences Research

Glossary

Early-stage	A young company, usually still unprofitable, requiring funds for initial commercial manufacture and sales.
Exit	Realisation of capital gains (or losses) from investments. Usually via trade sale (sale of shares to another company), secondary purchase (by another investment vehicle), or sale of shares after flotation (usually followed by a lock-in period). Involuntary exits occur when companies go into liquidation.
FV	Fair Value (FV) is the price that would be received to sell an asset in an Orderly Transaction between Market Participants at the Measurement Date. When derived using the IPEV guidelines, FV measurements should be compliant with IFRS and US GAAP. See http://www.privateequityvaluation.com/
IPEV guidelines	The International Private Equity and Venture Capital Valuation (IPEV) Guidelines set out recommendations, intended to represent current best practice, on the valuation of Private Capital Investments.
Seed investment	Financing to allow the development of a business concept, with development encompassing expenditure on further research.
Start-up	A very young company, not yet making commercial sales, carrying out further research and/or development.
VIPE	Venture Investment in Public Equity.

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(Disclaimer Version 8 – Effective from August 2018)

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In particular, Article 12(3) of the Directive states: 'The following benefits shall qualify as acceptable minor non-monetary benefits only if they are: (b) 'written material from a third party that is commissioned and paid for by a corporate issuer or potential issuer to promote a new issuance by the company, or where the third party firm is contractually engaged and paid by the issuer to produce such material on an ongoing basis, provided that the relationship is clearly disclosed in the material and that the material is made available at the same time to any investment firms wishing to receive it or to the general public…'

The fact that Hardman & Co is commissioned to write the research is disclosed in the disclaimer, and the research is widely available.

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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