Albion News

Shareholder magazine

Autumn 2022

In this issue

Albion Capital

Help save the planet, win a prize

Albion's ESG Giveaway

One winner will have the opportunity to receive an Apple Macbook Air or opt to donate the cash equivalent amount to a charity of choice

Terms: By entering you are opting in to receive electronic communications on your VCT investments going forward. Only current shareholders may enter. Current shareholders who have already opted in for electronic communication can also enter.

To enter simply email us at **Info@albion.capital** with the below:

To: info@albion.capital × Bcc

Cc:

ESG giveaway

Dear Albion,

I would like to enter the ESG giveaway and confirm that I would like to receive all shareholder communications in electronic form. My details:

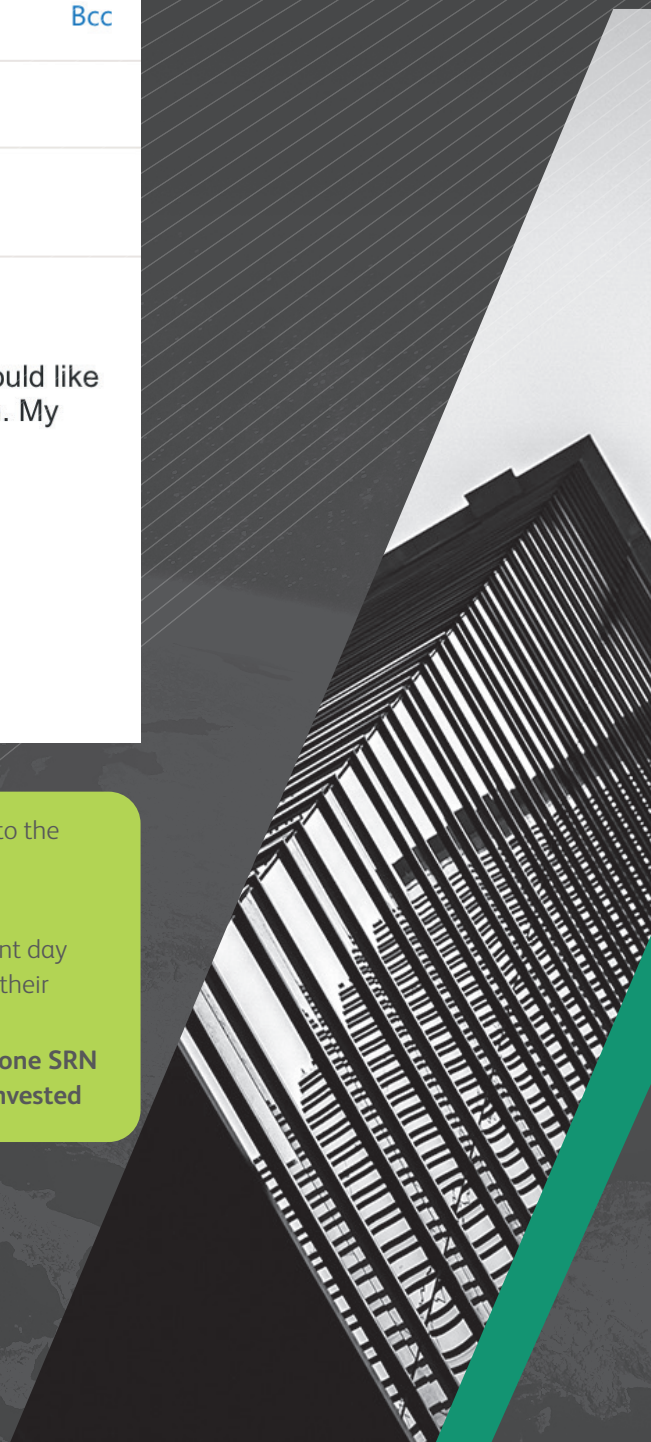
- Name:
- Shareholder reference number *:
- Email Address:

Prize: The prize is an Apple MacBook Air or to donate the cash equivalent to the winner's chosen charities.

Deadline: entries close on Friday 11th November 12pm.

Announcement: A name will be chosen at random at our shareholder event day on 23rd November. The winner will then be contacted by email to confirm their prize selection.

*** If you are invested in more than one VCT you only need to provide one SRN but will be opted into e-comms for all Albion VCTs in which you are invested**



Welcome to our autumn edition of Albion News

I hope everyone had an enjoyable summer. So much has happened since our last edition. We have seen a worsening global economic and geopolitical backdrop, and here in the UK, we have witnessed a change of Prime Minister, and the deeply sad news of the passing of Her Majesty The Queen.

We, at Albion, want to pay our respects to the longest reigning monarch whose reign brought unity and stability throughout times of unprecedented change. She was a remarkable leader whose dedication to public service is an inspiration to us all.

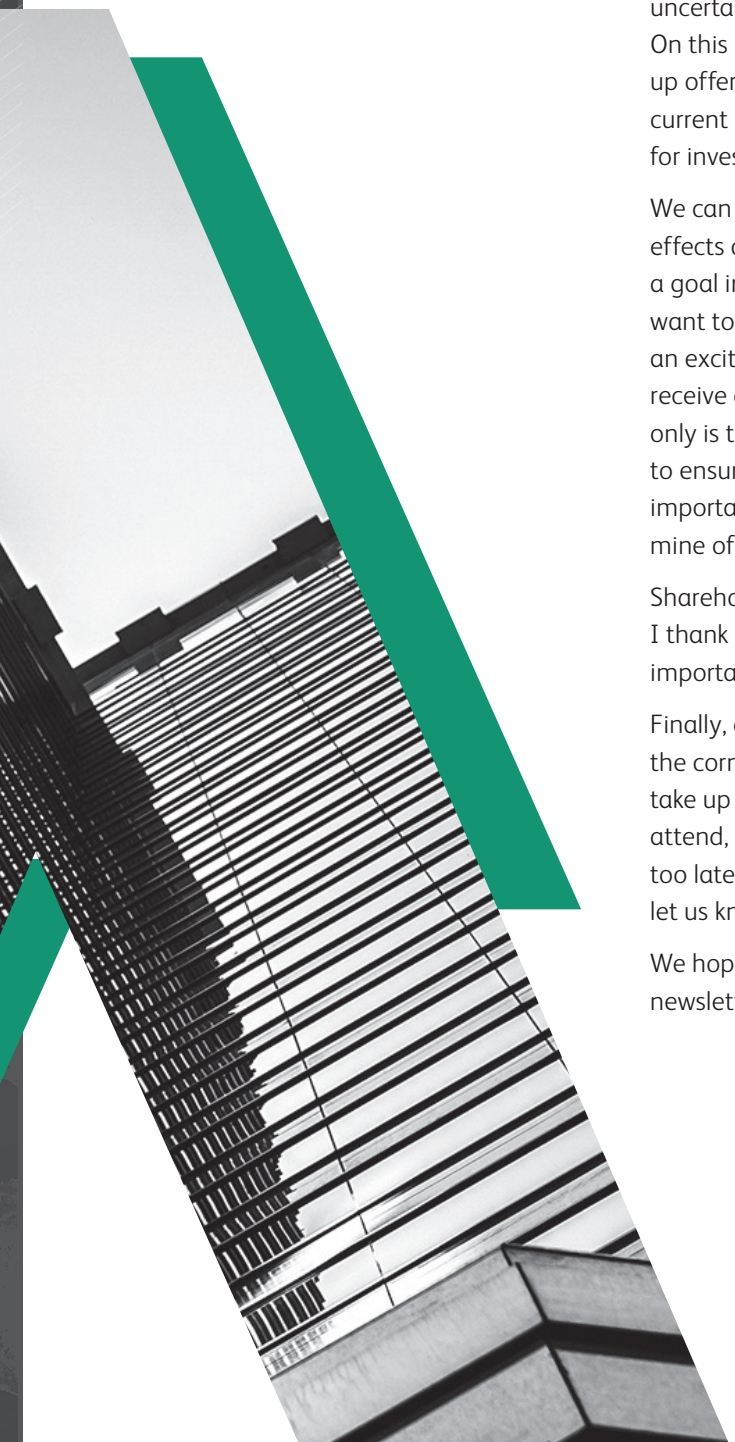
Whilst we can't control the macro and political climate, we can continue to play our part in helping to support innovative businesses during these uncertain times, particularly as funding for these firms will become scarcer. On this note, I am pleased to announce that we will launch our VCTs top up offer for in the 2022/2023 and 2023/2024 tax years in October. In the current climate, we believe that VCTs make a compelling investment case for investors whilst simultaneously offering vital support for companies.

We can also play our part in the drive for sustainability, with the global effects of climate change having been so evident this summer. Albion set a goal in 2021 of becoming a net zero firm by 2030 and, as part of this, we want to involve shareholders by reducing printing waste. We are launching an exciting ESG giveaway whereby, to enter, shareholders simply sign up to receive all communications relating to their investments electronically. Not only is this the most sustainable way to communicate, it is also the fastest to ensure that shareholders do not miss out on fundraising and other important announcements. Our recently revamped website is also a rich mine of information about our VCTs and portfolio news.

Shareholders already signed up to e-comms are also eligible to enter and I thank you for making a difference. I do encourage everyone to join this important initiative.

Finally, our annual shareholder seminar on 23rd November is just around the corner. We have an exciting, knowledge-packed agenda lined up. The take up has been incredible already and capacity is filling up. If you wish to attend, please see details in this newsletter and reserve your place before too late. Should you sign up and subsequently are unable to attend, please let us know so that we can offer your place to another shareholder.

We hope to welcome you at our shareholder event and, until the next newsletter, take care.



New investments

Since our last issue of the newsletter, we have invested in a number of new opportunities:

Ophelos - a disruptive debt recovery firm that shows social responsibility can be profitable
£3.2m out of £5m series A

Launched in 2021, Ophelos's debt resolution platform marries machine learning, advanced analytics and digital customer experiences with a human approach. The business is significantly outperforming traditional debt collection agencies on recovery rates and, with double digit inflation driving up living costs, their solutions couldn't be coming to market at a better time.

> **"Ophelos is ensuring the way unpaid debts are handled is effective without losing a focus on the wellbeing of the consumer. We have been hugely impressed by their mission-driven approach and are excited to be a small part of the big journey ahead."**

Cat MacDonald,
Investment Director

RegGenome - transforming the way the world consumes regulatory information
£750k out of £4.6m series A

Regulatory Genome Development Ltd (RegGenome), a University of Cambridge spinout, provides structured machine-readable regulatory content. It enables regulatory authorities to increase accessibility and dissemination of regulatory information and empowers organisations to deepen their regulatory intelligence and digitise their processes.

Jay Wilson,
Investment Director

> **"Rapid technological, political and regulatory change continue to drive a lack of standardisation and data fragmentation within financial services. We are delighted to support Professor Robert Wardrop, Chairman of RegGenome, and his team which seek to accelerate the development of a transformative regulatory data service."**

PeakData – the AI customer targeting platform streamlining the drug-to-patient journey
£5m out of £10m series A

Launched in 2018, PeakData enables pharmaceutical companies for the first time to uncover the whole therapeutic area by mapping the healthcare professionals (HCPs) most relevant to their target market. This essential mapping means patients benefit from innovative new medicines more quickly and receive better treatment. The funding follows rapid 6x growth for the company over 2021, with the platform is now being used by over half of Europe's largest pharmaceutical companies.

> **"When we first met the team, we were impressed by their dedication, drive and determination to develop the best data AI platform in a healthcare setting. Finding the right therapeutic experts and healthcare professionals for their drugs is massively important for pharmaceutical companies and with PeakData they can now reach global, national and local medical professionals who shape clinical decision-making."**

Molly Gilmartin,
Investment Manager

Toqio - a full orchestration platform that enables any business to launch financial solutions
£7.6m out of £17m series A

Launched in 2019, Toqio offers a SaaS-based global financial orchestration platform that enables any business to launch financial solutions, without building and managing complex software. It enhances the capabilities and value of embedded fintech players and closes the cost, time and expertise gap for innovator customers.

> **"This funding recognises Toqio's impressive progress since inception, but also signifies the beginning of a global growth ambition that will see it enter new geographic markets, while scaling its existing presence. We very much look forward to working with the co-founders to realise the company's bold ambition."**

Jay Wilson,
Investment Director

The long read

Is the time ripe for AI drug discovery?

Christoph Ruedig,
Partner

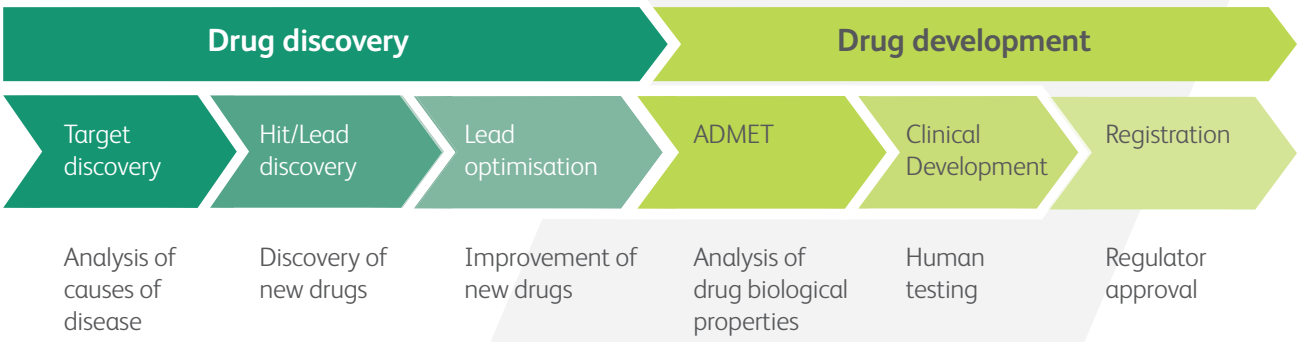
Gita Kler,
Analyst

The current pressures on healthcare expenditure are unprecedented. Covid has led to a significant backlog of outpatient care. Within the UK, for instance, six million people are currently on NHS waiting lists – one in every nine people. Tackling this backlog will require additional resources. Longer-term trends such as demographic changes will continue to impact healthcare costs long after the pandemic has passed.

At the same time, the cost of medical advances has shot up. The UK's spending on drugs has grown rapidly from £17.4bn in 2016-17 to £20.9bn in 2019-20. One reason for this is that innovative medicines are expensive to develop. The cost to bring new drugs to market has been doubling every decade to more than $2bn lately. Coupled with drug pricing pressures, patent cliffs and decreasing R&D productivity, pharma is experiencing a perfect storm.

AI and modern computing are helping other industries realise significant efficiency gains but have so far had a limited impact on pharma R&D productivity, despite record amounts of funding in the AI drug discovery sector, which has grown from $1bn globally in 2015 to over $10bn in 2020. As one of the most active investors in European digital health and biotech, we believe that AI and modern computing, whilst not a panacea, holds the key to solving some of pharma's biggest problems.

Pharmaceutical R&D Process

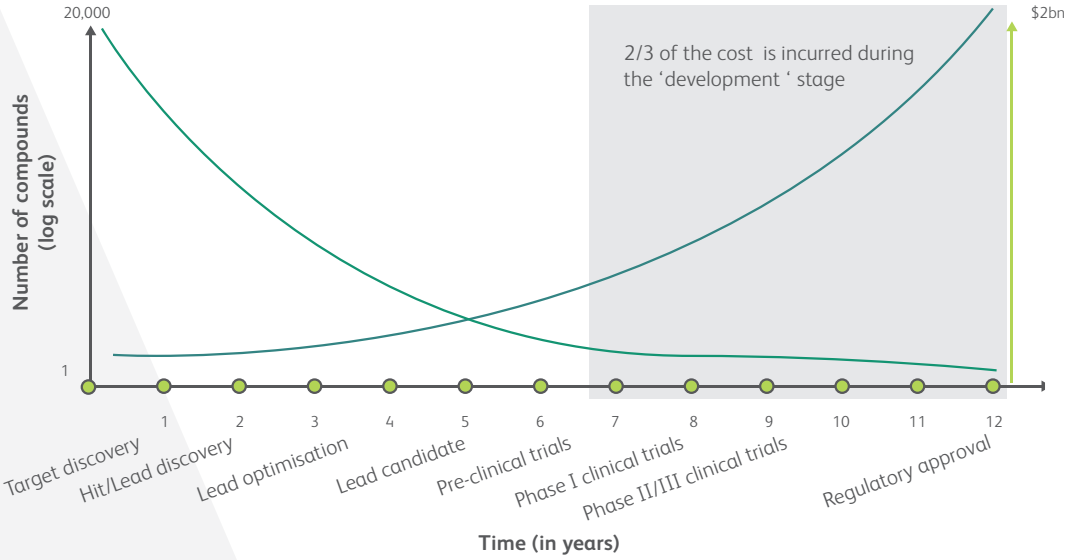


The pharmaceutical and biotechnology industry is one of the most research-intensive industries. An enormous amount of effort goes into the discovery and development of new medicines. In the 'discovery' stage, researchers spend time laboriously analysing the causes of disease to discover potential drug targets. These are often proteins representing central components in a pathway that isn't working properly and which could be targeted via a drug. Once a target is identified, scientists try to find molecules that are highly specific to the target. Today, most of this is done "in vitro", meaning in wet labs.

In the discovery of small molecules (typically chemical compounds) these in vitro experiments are undertaken in high-throughput processes screening libraries of tens of thousands of compounds. For more complex biomolecules (peptides, antibodies, RNA) or advanced therapeutics (cell and gene therapies), the process is different partly because they are targeted and therefore don't need to be optimised for specificity.

In vitro discovery is followed by "in vivo" studies, initially in animals where one or a small number of compounds with the best profile are tested for efficacy and toxicity. If a drug candidate is found to be safe and effective in animal trials, it progresses to clinical trials, initially in small populations of patients or volunteers to test for toxicity (phase I), followed by larger trials in patients to determine dosage and demonstrate efficacy and longer-term safety (phase II and III) before gaining approval.

Despite the effort to choose the right drug candidate in the pre-clinical stages, failure rates in clinical trials are estimated to be roughly 90% on average, either due to safety issues or lack of efficacy. It is in the clinical stages, that costs compound rapidly. A Phase II clinical trial can cost millions, while Phase III costs tens of millions. Dividing these costs by the chances of success and it becomes clear why drug development is so expensive.



The (potential) role of AI and modern computing in drug development

The idea of using computers to help in drug discovery and development isn't new. The term computer-aided drug design (CADD) was coined in the 1980s. At the turn of the millennium, biotech venture capital firms began investing in a small number of "in silico" drug discovery companies. However, those initial efforts were largely unsuccessful. Computer power was simply too low, and AI was still in its infancy.

Today, foundational components have changed in favour of computational drug discovery, including breakthroughs in the ability of computers to learn from large datasets in what is loosely termed artificial intelligence; the explosion in the amount of data, including genotypic, phenotypic and health record data; and the continued performance improvements in compute power and computing infrastructure.

These technologies are extremely helpful in drug discovery but will not eliminate the need for the most expensive parts of drug development: the in vivo testing. How, then, can AI have a meaningful impact on R&D productivity? The answer is in both finding new and better targets and drugs.

New targets

One of the biggest challenges is that many potential molecules in a diseased pathway are not "druggable" due to being hard to reach or because they have multiple functions leading to unwanted side effects if targeted ("on-target side effects").

Computer models can support researchers by enabling faster druggability analyses that help determine whether a molecule warrants further resources or not. In all these cases, researchers are trying to find the needle in a haystack and computer models help to narrow down millions of options to a few promising ones that can be explored in the wet lab, leading to better choices and shortening timelines.

New Drugs

Once a suitable target has been found, the biggest challenge is finding drug candidates that will be highly specific for the target without affecting other parts of the body. Here, computational models can help find new chemical structures outside of the commonly used libraries, expanding the option space significantly in the hope of finding better drugs.

Surfacing new targets and drugs enlarges the top of the funnel and could ultimately lead to more drugs reaching the market. Equally, it is anticipated that models will have a meaningful impact on R&D productivity by enabling pharma companies to get better at choosing targets and drugs before they enter the clinical stages of the drug development cycle.

Proving that AI and modern computing can do all these things, however, will be challenging given the lead times and capital intensity of getting a drug through its many stages through to approval.

Technologies and commercial models used in AI Drug Discovery

Most start-ups we have come across are using some form of machine learning on large datasets to train their models in understanding biology. Datasets are either public or private and can span the gamut of DNA, RNA, proteins, cells, scientific publications, etc., all the way to medical records and patient-reported outcomes. Some companies have platforms that constantly generate new data, improving the models in a feedback loop. Some use "in vitro" experiments to create such data to ensure their models are always based on biology. Some go very deep into specific areas whilst others are broader, scanning the universe of known drug compounds and disease states for drug repurposing.

A proportion of companies in the sector have adopted a pure software or fee-for-service model, often trying to build large proprietary datasets and algorithms. There is a risk that, as data is commoditising, differentiation disappears. The other challenge is the size of the market for pure software or services today – Schrödinger, a well-established company in the USA, for example, has grown to about $100m of annual revenues in around 30 years, which highlights how small this market is.

Most companies, however, are adopting a partnership model, investing in proprietary compounds with ownership of the intellectual property (IP). These are then often licensed to pharmaceutical companies and the advantage here is that it mostly avoids the expensive clinical development. The trade-off is that ownership and control of the assets are given away. Also, lead times to generating significant revenues are long. However, the capital efficiency of this model is attractive, certainly in the early stages of a company, when there's limited evidence of the value of the discovery engine.

Finally, a few companies are embracing a more asset-centric model by focusing resources on developing their own drug pipelines into later clinical stages. These tend to look like classic biotech companies with broad capabilities across the R&D value chain.

Conclusion

AI drug discovery and development has been a long time coming. It is fantastic to see how much effort, money, technology, and talent have come into the sector over the last few years. We believe this is at the heart of the recent successes, as validated by start-ups striking lucrative partnerships with incumbent pharma companies.

Selected recent exits

CREDIT KUDOS

Software provider that uses consumers' banking data to make more informed credit checks on loan applications

Acquired by:
FAANG Company

5.2x Return on cost

2yrs Investment period

MyMeds&Me

Provides an end-to-end pharmacovigilance solution to simplify adverse event and product quality data capture and accellerate saftety insights

Acquired by:
Stanley Capital partners

4x Return on cost

9yrs Investment period

phrasee

AI-powered SaaS platform that revolutionises customer experiences through AI-powered content

Acquired by:
Capital D

3.5x Return on cost

3.5yrs Investment period

Team spotlight

In this edition of Team Spotlight, we get close and personal with Jane, who joined as Talent Director in 2020 and was recently made a partner.

In her 25-year career, she has transacted over 500 senior hires, built international teams, and helped over 70 start-up companies build high performing teams. Jane graduated from Durham University with a BA in French and German.

Jane Reddin

Partner

Tell us about yourself

Hi, I'm Jane, a partner at Albion and head of the platform team. Prior to joining Albion in 2021, I spent six years as Talent Adviser at Balderton Capital and EQT Ventures, then co-founded The Talent Stack, a talent management consulting company for high growth start-ups.

My role is to help the Albion VCTs invest in the best company founders and support the scaling of the companies they lead. We become trusted strategic advisors to founders and support senior-level hiring, founder leadership development, organisational effectiveness and we ensure that the company boards are best constructed to optimise growth.

Explain what role the platform team plays at Albion

In this current investment climate, venture capital companies that bring value-adding expertise and support beyond just financial investment are increasingly recognised as critical contributors to the next generation of company founders.
My team helps Albion's underlying VCT portfolio companies by identifying and strengthening their management teams. We also ensure growth strategy alignment and help to refine their go-to-market strategy. As a result, early-stage businesses can accelerate their revenue growth to scale into category defining businesses, which ultimately benefits VCT investors.

As the first Talent and Platform Partner at Albion, my focus has been to align growth strategy with leadership team hiring, leadership development and organisational scaling. With the recent launch of the platform team earlier this year, the goal is to harness the power of our community and our network, to curate the right experts who add value to our portfolio companies at the right time. In this way, we achieve both scale and impact across the portfolio. Ultimately, we make sure that our teams have the capabilities and support to deliver on an aligned growth strategy:

- Coaching and mentoring
- Vetted third party services, such as recruiters, HR and OKR specialists
- Delivering shared learning using a blend of events, knowledge share, content and tools
- Connecting to a curated network of mentors, advisors, experts, third party suppliers and partners, NEDs and chairs.

Being a supporter of more female founders in the industry, why do you think it is so important to have this diversity?

More and more funds are realising just how critical it is to nurture female talent, both in their investment teams and within their portfolios. I believe that company founders in the tech sector need both IQ and EQ (emotional intelligence) to lead their teams effectively. These qualities are also required by investors if they are to give start-ups support and effective advice. This can give female leaders an advantage, as they often have higher emotional understanding and empathy, which makes them better investors and advisers to entrepreneurs.

Sticking with the female theme, what is your ultimate superpower as a woman and how it has helped you in your personal and professional life?

For me, it's my sheer grit, determination and drive. To me, good luck looks a lot like hard work.

Best piece of advice you have given or received?

Pay attention to your mindset. There is so much depth to this pithy statement. For me, mindset influences your perspective, your behaviours and your decision making more than anything else.

Shareholder seminar 2022

AGENDA

Places are on a first come basis and are nearly filled so please reserve your place as soon as possible.

DATE: 23rd November 2022 **TIME:** Registration from 10am

Time	Event
10m	REGISTRATION
10:30-10:35	Welcome address
10:35-10:55	Macroeconomics presentation
10:55-11:15	Speechmatics – portfolio company presentation
11:15-11:35	Ophelos – portfolio company presentation
11:35-11:50	BREAK
11:50-12:20	Albion company update
12:20-12:50	Shareholder Q&A forum
12:55-1:25	Two panels:
	1. How tech is transforming financial services
	2. How tech is changing healthcare
1:30pm	LUNCH

VENUE

The View @ The Royal College of Surgeons
38-43 Lincoln's Inn Fields,
London WC2A 3PE

TO RESERVE YOUR PLACE

To reserve your place email info@albion.capital with subject heading 'Shareholders Seminar 2022' and include your full name. You will receive an email confirmation of your place.

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