

Spring/Summer 2025

With a Review of **Genesis**
2024

ONE NUCLEUS HIGHLIGHTS

Highlights from our support for institutions, companies, and individuals in the life sciences sector via local, UK-wide and international connectivity.
Cambridge, UK



2024 Highlights

2024 was an exciting year for One Nucleus with the launch of some brand new initiatives, the evolution of existing support programmes and changes at Board level. The regular support One Nucleus delivers in the form of the Group Purchasing Scheme, Training, Events, Conferences and Member Profiling were delivered throughout the year as one would expect. In this section, some of the main highlights are summarised to illustrate the successful year just passed.

The year kicked off with an excellent presence supporting our members at BIO-Europe Spring in Barcelona, where the collaboration with Partners EBD Group sees our members receive discounted access and One Nucleus receiving exhibition space from which to showcase our members and provide them with a home base throughout the event in the absence of a coordinated UK hall presence. Hot on the heels of BIO-Europe Spring, March was closed out by the inaugural One Nucleus Annual Awards Dinner at No. 11 Cavendish Square, London.

Through the four seasons of 2024, the highlights included a decidedly US flavour. April saw delivery of the first One Nucleus Boston Bootcamp; June the One Nucleus satellite activities around the BIO International Convention; July saw ON Helix held on Independence Day with a Bootcamp Feedback panel, as well as later that month hosting the North Carolina Secretary of Commerce Lunch; in September One Nucleus participated in Boston Biotech Week, hosting a UK Pitching Day and exhibiting at RESI-Boston; and finally December, where we were joined at Genesis by the Indiana Secretary of Commerce whilst exploring how to build world-leading life science ecosystems.

During the year, we saw further development of support mechanisms such as the One Nucleus Training Sat Nav, the delivery of the Regional Life Sciences Dinners, a new collaboration with Life Science Nation resulting in the first RESI-London conference alongside Genesis, and further leveraging of our collaboration with EBD around BIO-Europe to support our members and greater focus on helping our members prepare for JP Morgan Week at the start of 2025.

Below you will find four key sections to this publication, as follows:

1. **2024 Highlights** - more details of some of the great achievements mentioned above.
2. **About One Nucleus** – details of One Nucleus membership, services, and benefits (on page 12).
3. **Anticipated Highlights** – a look into the year ahead and what you can expect (on page 22).
4. **Genesis 2024 Review** – a comprehensive summary of the key insights shared by keynote speakers and those supporting and exhibiting at the conference (page 29).



One Nucleus Annual Awards 2024

On the evening of 21 March 2024 at No. 11 Cavendish Square in London, for the first time in its history, One Nucleus delivered an Annual Awards Dinner to recognise and celebrate the breadth and depth of excellence within the One Nucleus network.



One Nucleus sees itself as a very inclusive not-for-profit membership organisation for life science companies, seeking to support all connected organisations on their journey to success irrespective of size, business model, stage of development, or geography. It is One Nucleus's firm belief that a successful life science ecosystem that translates great science and research into improved patient outcomes requires all parts of the sector to play their part. The award categories, across which the Best Performance of the Year was sought, reflected this opinion that there is a role for everyone and that everyone has their role to play.

The 2024 winners ...

Facilities Provider:
Stevenage Bioscience Catalyst



Investor:
Cambridge Innovation Capital



Non-Profit Life Science Innovation
Enabler: Medicines Discovery Catapult



Non-Profit Research Organisation:
Parkinson's UK



Primary R&D Company:
AstronauTx



R&D Service Provider:
Abzena



Professional Service Company:
Protagoras Group



Tech Transfer Office:
The Francis Crick Institute



Outstanding Contribution to
Life Sciences: Anji Miller, LifeArc



The recipient of this sponsor's choice award is selected in recognition of the positive impacts they bring to the Life Sciences sector through their efforts. In their day job as a Senior Business Manager at LifeArc, Anji spearheads their support for academic-led gene therapy innovation, with responsibility as the overall LifeArc lead for the Innovation Hubs for Gene Therapies, the LifeArc Gene Therapy Innovation Fund, and advancing the hubs' gene therapy skills agenda. Anji also has management responsibility for specific projects within LifeArc's Philanthropic Fund

With a PhD in cancer genetics from Imperial College followed by an MSc and Certificate in Intellectual Property Law from Queen Mary, University of London, Anji has become a seasoned technology transfer professional, leading the LifeArc-AUTM Technology Transfer Training Fellowship programme which plays a pivotal role in attracting and developing talented scientists into the technology transfer profession. Anji is a Board Director of AUTM, ASTP, and a member of the BioIndustry Association Cell & Gene Therapy Advisory Committee. An EDI in STEM advocacy, she directs all technology transfer skills activity and translational STEM outreach programmes and is an active participant in LifeArc's policy engagement.

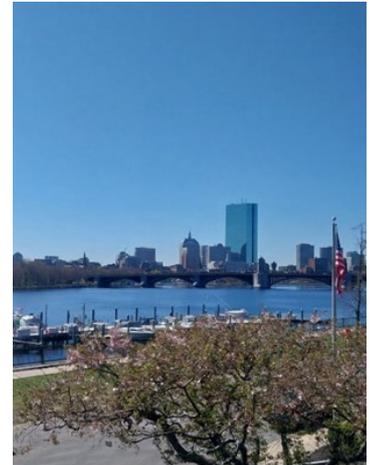
A Word of Thanks

Such evenings of celebration are only possible with the support of the sponsors, entrants, judges, and attendees.

One Nucleus Boston Bootcamp

A highlight of 2024 was the inaugural One Nucleus Boston Bootcamp, which happened on the 22-25 April; a competition designed to support innovative early-stage therapeutic and platform companies to grow and partner in the US. It was a wonderful week of getting to know everyone and building more connectivity!

Our 2024 Winners!



Testimonials from 2024 Bootcamp

“The knowledge and insights gained from my time in Boston will add immense value for Enhanc3D and all the participating companies. But perhaps the biggest ongoing value will come from the connections we all made – not just with potential partners and investors, but with other CEOs. We learned together and built confidence and comradery over our shared challenges.” Enhanc3D Genomics (Bootcamp Winner)

“Thank you so much for organising the bootcamp and we were very happy to provide our support. It was a great learning experience for all involved and a fantastic initiative. All the feedback indicates it was a huge success! Hopefully you achieved everything you set out to do (and more!) Thank you for your amazing organisation. We’d be keen to be involved with similar events in the future.” Mewburn Ellis (Bootcamp Sponsor)

“Terrific program...and looking forward to being a part of it in the future!” RSM US (Host in Boston)

The Key Learnings...

The key learnings were shared in a stimulating and informative panel at ON Helix 2024 ‘Translational Research in a Global Village’, which is summarised in our ON Helix 2024 Review. [Delve in](#) to discover the key points that participants took away!



ON Helix Review
2024



Image Credit:
Simon Callaghan Photography

A Big Thank You to our Sponsors and Supporters!

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Mass Life Sciences Centre
MassBio
RSM US
Travel Counsellors



ON Helix 2024

New Horizons for Bio Innovation

 Babraham Research Campus, Cambridge

 4 July 2024



ON Helix 2024: New Horizons for Bio Innovation

- 250+ delegates from 130+ companies
- 28 expert speakers
- 20 sponsors and exhibitors

Key Themes

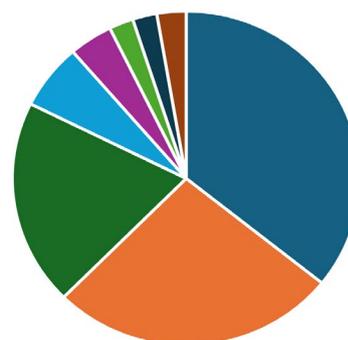
- Novel Modalities – cutting edge therapeutic advancements
- Biomarker Technologies – driving advances in therapeutics and diagnostics
- Techbio – the impact of data driven innovation
- Boston Bootcamp Learnings – insights from the Greater Boston ecosystem
- Global innovation – connecting opportunities globally.



Attendees encompassed the breadth and depth of expertise, connectivity, and roles within the life science ecosystem.

Distribution of Attendees by Sub-Sector

Read the key takeaways in our [ON Helix Review 2024](#)



■ CRO/CMO/CDMO/Res. Serv. ■ Professional Services ■ Primary R&D
■ R&D Facilities ■ Drug Dev Regulatory Advisors ■ Investment
■ Trade Support ■ Press

Here is what our headline sponsor had to say...

“It was an honour for us to support the conference as the Headline Sponsor. Kia Pedersen was delighted to be part of the opening and to contribute to the ‘New Horizons in Therapeutic Modalities’ panel”

“...a splendid and stimulating dinner, and interesting and constructive conference!”



2024 Highlights: Events That Shaped the Year

Events are a pivotal part of the One Nucleus offer and in addition to our conferences (Genesis and ON Helix) and Annual Awards Dinner, we deliver a range of other events structured around enabling key conversations, debate and networking between members and non-members.

Throughout 2024, we are delighted to have hosted 1500+ delegates across 35+ non-conference events. The various event categories can be illustrated as follows:

Our seminars include a wide range of thought-provoking subjects covering technical as well as business insights. Some highlights from 2024 include:

- How to Partner with Lilly: In Association with Cooley
- How Can the UK Become the Best Place to Scale a Life Science Company? (In collaboration with Riverlabs)
- BioWednesday London: Deal-making for Cell and Gene Therapy Companies (Hosted by Bristows)
- Challenges and Opportunities in Therapeutic Antibody Development (In collaboration with Sino Biological)
- BioWednesday Breakfast Cambridge: Being More Than an Ideas Factory (Hosted by Bidwells)
- Global Risk Management Survey for Life Sciences (In collaboration with Aon)

19 Seminars

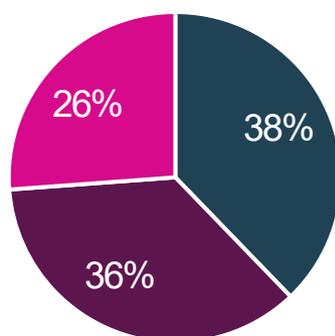
9 Peer to Peer Connectivity

7 Special Interest Groups

3 Horizon Scanning

The driver behind One Nucleus events is to assemble the most effective attendee list where possible around the topic under discussion. This is the reason that the majority of our events allow non-members to attend, for a fee, where perhaps annual membership is not right for their business. Open to members and non-members, it has been encouraging to see the engagement from all sub-sets of our ecosystems as represented here.

Membership Status

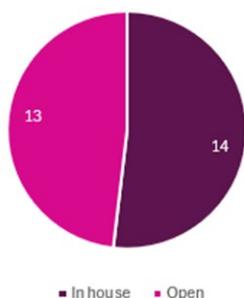


■ Non-member ■ Silver ■ Gold

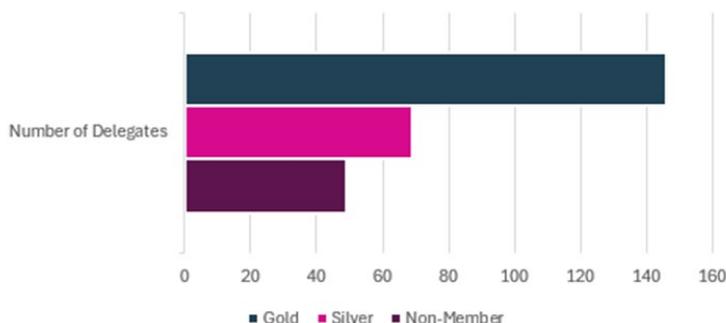
Training Highlights

Our training courses have been flowing with activity over the past year. We're thrilled to share that we have hosted an impressive 250+ delegates across 20+ courses. This remarkable turnout highlights the value and relevance our courses offer in meeting the diverse needs of individuals seeking to enhance their skills and knowledge in various life science fields.

Number of Courses Delivered



Number of Delegates by Membership Level



Key Courses

The one day 'Introduction to Drug Discovery: From Idea to Clinical Candidate' course provides a comprehensive overview of the drug discovery process, guiding participants through key stages such as target selection, lead identification, and candidate nomination.



Another popular offering is the 'Biological Safety: Management and Practice' course. Approved by IOSH, this two-day course focuses on enhancing biosafety knowledge and competencies, particularly for those new to the role of Biological Safety Officer. Both courses are well regarded within the industry, attracting a diverse group of attendees, including biologists, chemists, project managers, and safety officers, all seeking to deepen their expertise and advance their careers.

Delegate Feedback:

"Came to the course not very motivated but have to admit I really enjoyed it. Content and sessions were really well organised. Learnt new things and came up with a list of things to implement at work!"

"The course was taught exceptionally well, making complex topics easy to understand and relate to."

"A fantastic learning experience! The course delivery was excellent, and the trainer's expertise made a real impact."

"The final pipeline schematic was excellent. Peter's passion was truly inspiring—I would have loved to work alongside him in the lab!"

"This course provided a clear, step-by-step view of the entire drug discovery process, which was incredibly helpful for someone in a supporting role. The distinction between drug discovery and drug development was well explained, along with industry jargon that isn't always obvious in client discussions. The handouts were beautifully designed, detailed, and structured for long-term use, and the data was impressively up-to-date. Peter's engaging analogies made key concepts easy to remember. Overall, a truly valuable experience!"

Please contact Monalisa Breazu on 01223 896 450 or training@onucleus.com if you have any questions about the One Nucleus Training portfolio.

Member Savings - Highlights

Purchasing Scheme

One Nucleus members spent £8,253,718 with our Purchasing Scheme Agreement companies in 2024, which was a saving of £5,420,041 on the list price from these suppliers.



Member to Member Marketplace

We were pleased to welcome two new Marketplace vendors in 2024 providing savings to One Nucleus members, with a total of 10 companies offering member savings.



- Ellab
- Tina Durward



Events

Members continue to enjoy preferential rates for One Nucleus events and conferences, including ON Helix in Cambridge and Genesis in London, as well as discounts on a selection of key industry events in the UK and internationally, including BioTrinity, BIO-Europe and BIO-Europe Spring and BIO International.



Facilities Work Performed

Our Chief Technical Specialist, Richard Dickinson, has over 25 years' experience as a Lab & Facilities Manager and has worked for more than 35 years in the life science sector. Richard provides project management for office and laboratory fit-outs, facility consultancy and in 2024 worked with 12 Companies, with a combined footprint of over 100,000 sq. ft.:

Advent Bioservices, Broken String Biosciences, Bidwells, Crescendo Biologicals, GCR Camprop, Insmmed Innovation UK, Mission Asset Management, Mosaic Therapeutics, PACT Earth, Quotient Therapeutics, T-Therapeutics, ViaNautis Bio.

PACT Earth

Generated plans, room data sheets and project managed the fit-out of a warehouse to R&D labs and offices at Evolution Business Park.



“ Richard Dickinson supported us with our laboratory refit, helping us understand the requirements needed to ensure it was fit for purpose. He brings a wealth of knowledge and industry contacts, making him an invaluable resource for startups looking to optimise their space. Richard was a great support throughout the process. ”

Kirsty Mason, Business Operations Manager, PACT

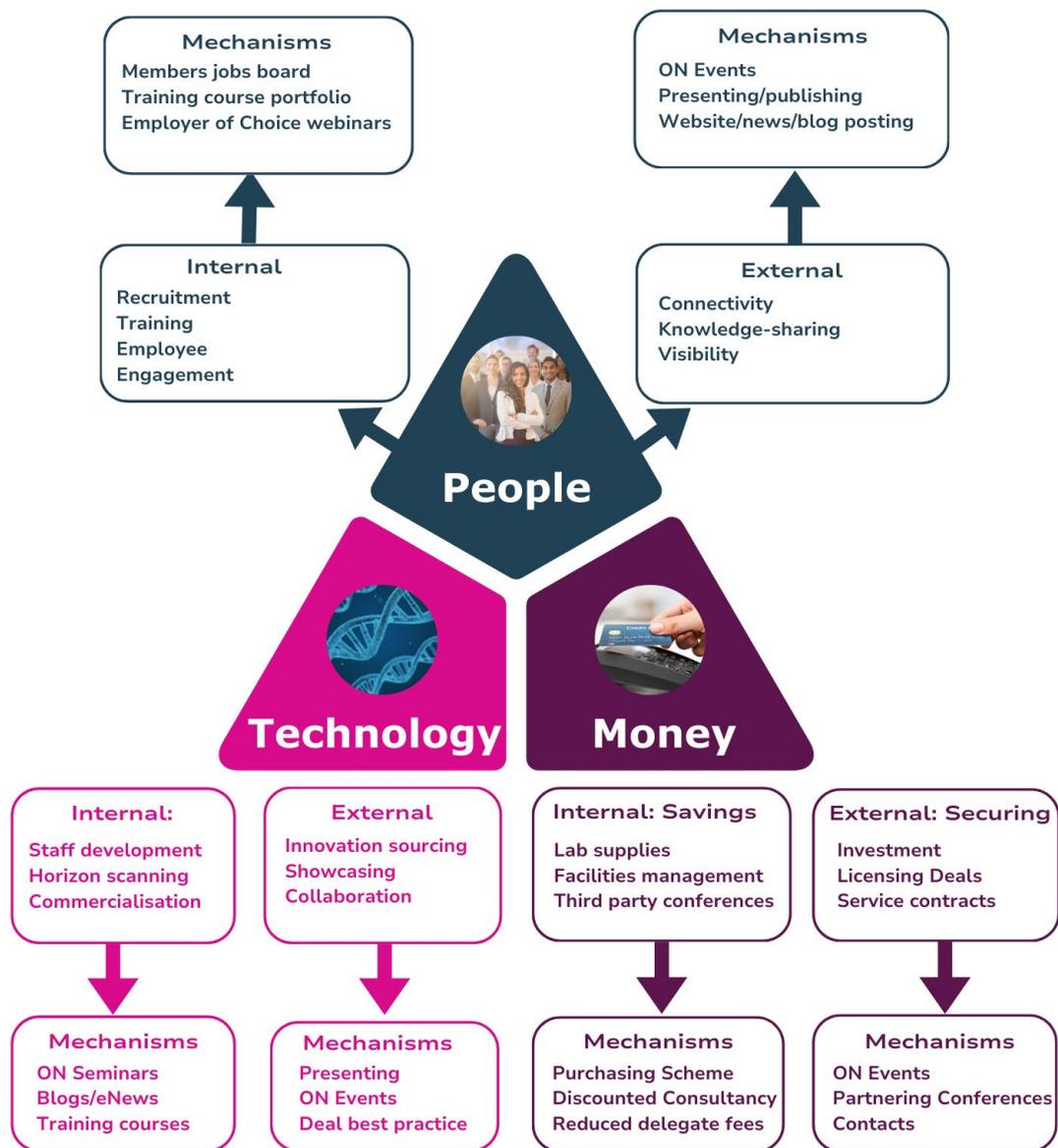
ViaNautis Bio

Generated 3 plans for different locations in South Cambs, once decided which property, generated room data sheets and handed onto the Landlords design team for a 10,000 sq. ft. office and lab fit-out at [Unity Campus](#).



About One Nucleus

The Technology-Money-People Trinity for Success



One Nucleus Ambition

One Nucleus is a not-for-profit Life Sciences & Healthcare membership organisation headquartered in Cambridge, UK. We support institutions, companies, and individuals in the Life Sciences sector providing local, UK-wide, and international connectivity. One Nucleus ambitions are:

- To play a valued role within an ecosystem, bringing innovative new medicines and health technologies to patients
- To be the most effective not-for-profit life science membership organisation at supporting the success and growth of its members
- To deliver effective support mechanisms to members professionally, efficiently, and sustainably

Given the people factor in innovation, dealmaking, and success is a critical component, One Nucleus' desire is to bring the right people together to exchange knowledge and collaborate to enable the translation of great innovation into great products that markedly improve patient outcomes.

Board changes during 2024

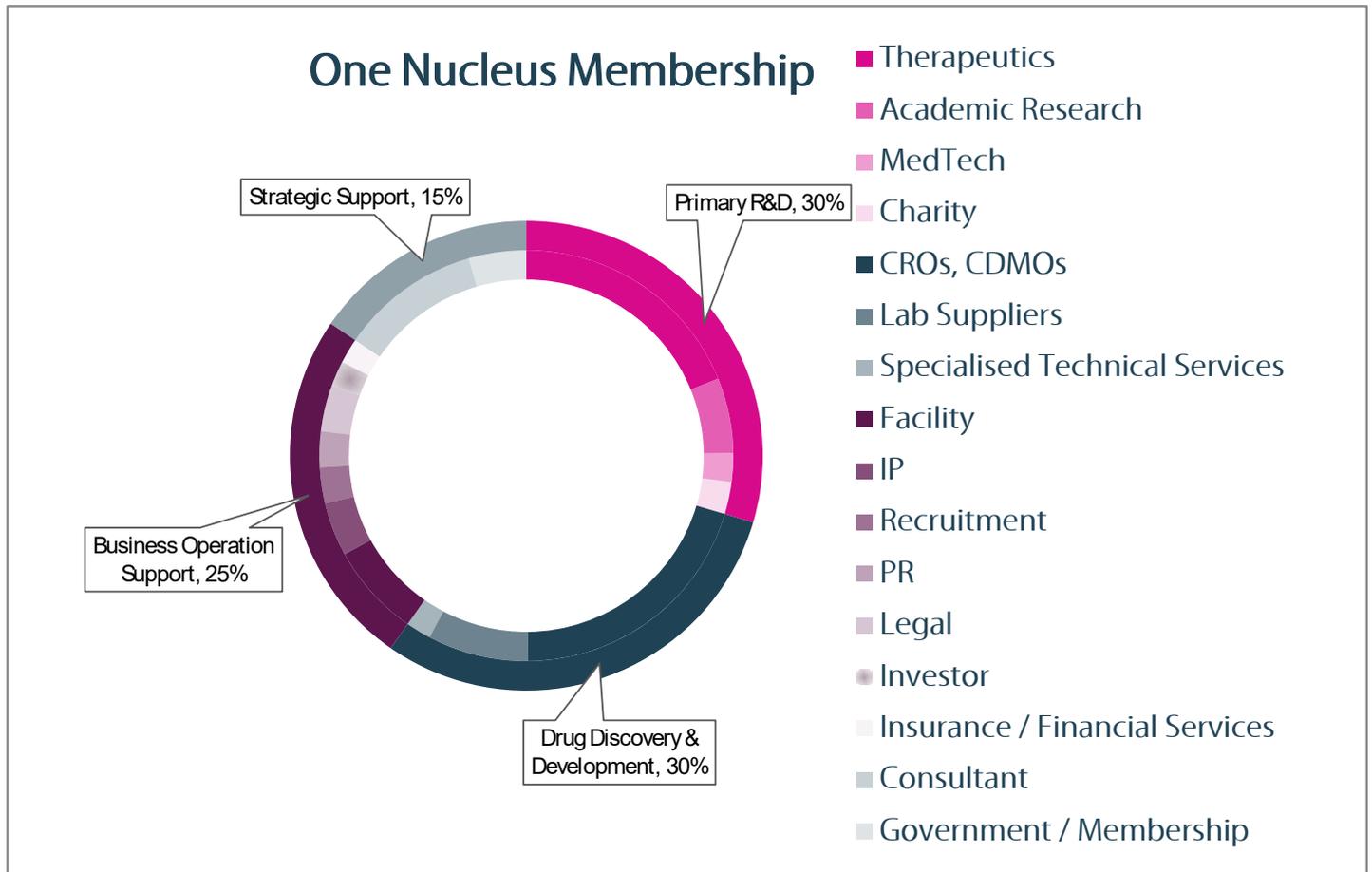


After over 20 years on the board of One Nucleus, the last 15 as chair, Jon Green stepped down from the One Nucleus board. The position as chair was taken up by Prashant Shah, with Ro Gardner being appointed Vice-Chair.



One Nucleus Membership – A Breakdown of Member Types

One Nucleus members are concentrated (~65%) in the Greater Cambridge (East of England) and Greater London clusters. The One Nucleus membership base is diverse and represents the full breadth of the life science sector, each playing vital roles in the creation, protection, investment, infrastructure, and accommodation of an ecosystem responsible for translating world-class invention and innovation into patient benefit, economic development, and returns on investment.



One Nucleus Membership Benefits

Website & Social	Non-Member	Silver Member	Gold Member
Listed in Online Membership Directory			
Post News to Website & Social Media	£75+VAT		
Advertise Jobs on Website	£75+VAT		
Advertise Events on Website	£75+VAT		
e-Newsletter Sponsorship - banner advert	£800+VAT	£500+VAT	£500+VAT
Advertise in One Nucleus Highlights	£750+VAT	£500+VAT	£500+VAT
Events			
ON Helix Delegate	£545+VAT	£435+VAT	£325+VAT
Genesis Delegate	£545+VAT	£435+VAT	£325+VAT
BioWednesdays	£50+VAT		
Innovation Seminars	Invitation Only		
Services			
Training		15% Discount	30% Discount
Facilities Management Consultancy Day Rate*	£1,155+VAT	£980+VAT	£810+VAT
Preferred Supplier Discounts		 **	
Access M2M Marketplace Discounts			
Access to Special Interest Groups	£50+VAT	£30+VAT	
Employer of Choice Sessions	Invitation Only		
Access to On-Demand Library	Restricted		
<p>*All prices are exclusive of expenses. **Access to some but not all. Prices correct at time of print.</p>			



Let Innovation Thrive at One Granta

**Explore Cambridge's newest laboratory building
at world renowned Granta Park**

As home to some of the world's leading life science groups, Granta Park offers extensive amenity and stunning lifestyle spaces to support a variety of growing and established organisations. One Granta offers 12,236 sq ft (1,137 sq m) to 79,670 sq ft (7,402 sq m) of lab and office space.

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20
BioMed Realty
YEARS

GRANTAPARK.CO.UK

One Nucleus Services – The Innovation Support for Your Growth

One Nucleus Events



The One Nucleus events portfolio is a pivotal form of our innovation support designed to bring together people, knowledge, and ideas. This connectivity accelerates the deal-making activity, whether that be investment, R&D collaborations, service provision, or other that ultimately lead to more effective patient treatments. Membership is the most efficient and cost-effective option to engage with our network via our events.

The graphic above shows the key categories, including:

- **Annual Conferences:** The focal points of the One Nucleus calendar are our Genesis and ON Helix conferences. With discounted rates for members to attend, these bigger events are an ideal opportunity to build relationships and to get people talking about you at scale with the diverse One Nucleus network.
- **Seminars:** These may be built in partnership with third parties or One Nucleus-led. Insightful sessions on technical or business topics, fostering relationships based on shared insights, discussion, and problem-solving. These sessions are free to attend but may be invite-only, apart from our BioWednesday Seminars, which are free to members and chargeable to non-members.
- **Peer-to-peer Connectivity:** From our Regional Life Science dinners to informal BioWednesday socials in the bar, these events nurture relationships, often leading to valuable partnerships and new ideas.
- **Special Interest Groups (SIGs):** Smaller, focussed sessions that provide peers in similar roles with updates on sector trends and practical advice to help members stay informed and prepared. Discounted to members.
- **Horizon Scanning:** Events that bring together experts from complementary technology fields and different geographies to encourage forward thinking, shared perspectives, and collaborative relationships.

Savings Overview

Members can take advantage of discounts on a wide range of products and services to maximise their return on the member subscription, often recovering multiples of the fees paid. One Nucleus negotiates savings and discounts for members by leveraging the critical mass of our membership, providing members with the purchasing power of a large entity. Receive discounted rates on laboratory supplies, services, key industry events and more.

**BIO-EUROPE
SPRING®**

Bio International
Convention



Purchasing Scheme

All One Nucleus Gold Members have access to the full Purchasing Scheme which gives them discounts on goods and services purchased from our preferred suppliers, listed below.

001* – providing utility savings and green energy contracts

Air Liquide – providing laboratory gases

Air Products – providing liquid nitrogen services

BOC – providing dry ice services

Complete* – providing stationery, office goods, IT consumables and office furniture

Deliver Plus* – providing courier services

Fisher Scientific – providing laboratory consumables, laboratory chemicals, low value apparatus and Life Science Products

Grundon - integrated waste management and environmental services

Jewels Airport Transfers* - providing discount on airport transfers

Quy Mill Hotel & Spa* - providing accommodation for business and leisure

STARLAB – providing pipette maintenance and calibration services

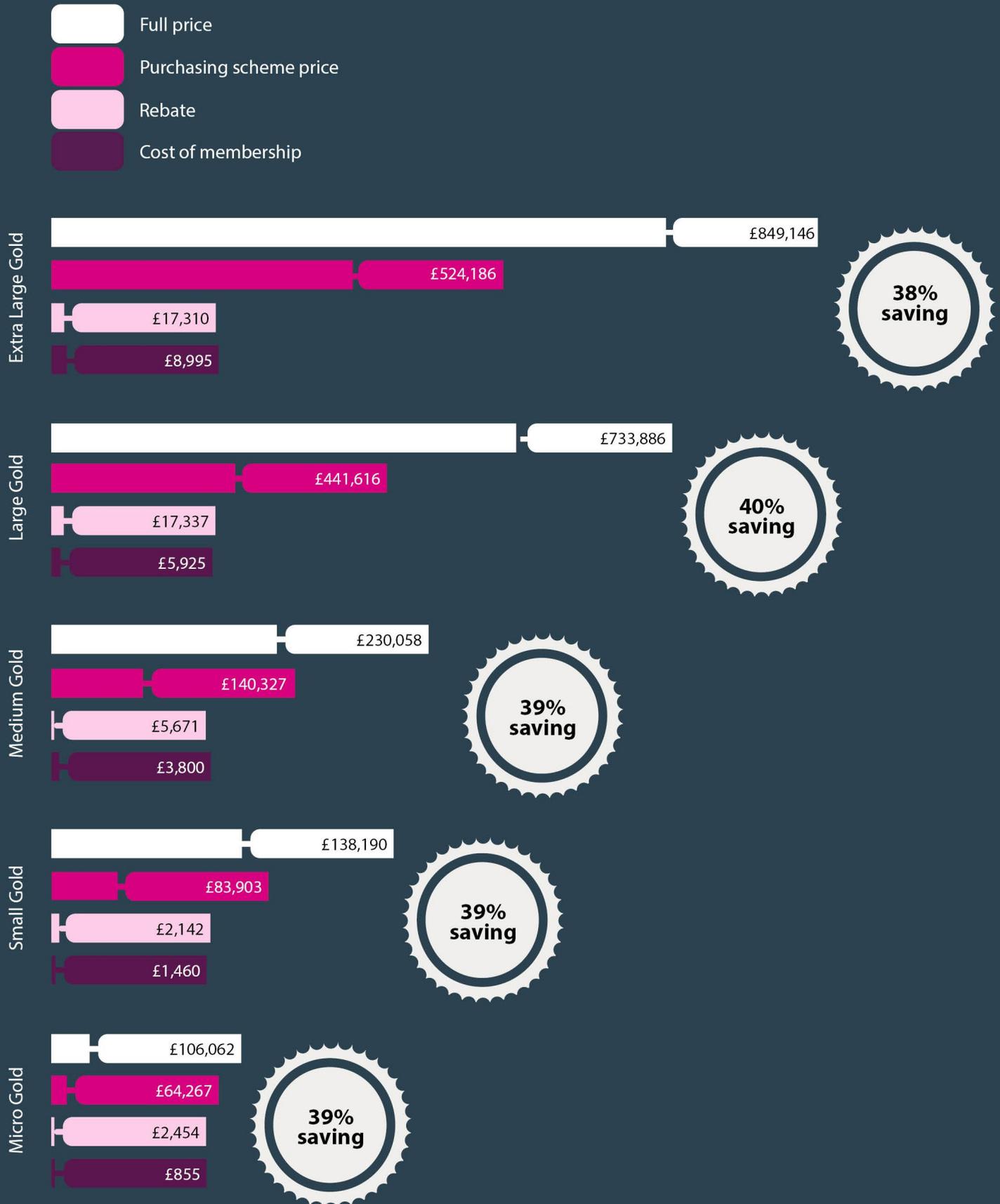
*discounts available to Silver members

Those Gold Members using Fisher Scientific also receive a growth rebate on their annual spending at the end of the year. The overall savings made often cover the cost of a Gold Membership. See examples of the savings made by a selection of member companies by size in 2024 overleaf.



One Nucleus Purchasing Scheme - Examples of Members' Savings (year ended 31 December 2024)

The chart below provides actual examples of the savings made by a selection of member companies by size, ranging from extra large to micro, using our Purchasing Scheme. For some, the rebate alone **covered the cost** of membership.



Facilities Management Overview – Finding and Running a Lab

Our Chief Technical Specialist, Richard Dickinson, has over 25 years' experience as a Facilities Manager and has worked for more than 35 years in the life science sector. Richard provides project management for office and laboratory fit-outs and can help with laboratory service contracts, maintenance contracts, cleaning contracts, utility bills, insurance, purchasing and budgeting.

Find out more about how One Nucleus can support you in finding and running a lab:

Purchasing Scheme

- Great opportunities to save significant sums on lab supplies, equipment and services as detailed above.

Training

- As detailed below, a suite of training courses delivered by specialist trainers can be delivered in-house for one client, open for multiple companies to access or online. The portfolio is added to by collaboration with third-party providers with savings available through One Nucleus.

Facilities Management

- Advice and support, discounted for members on project management of the design, fit-out and operation of lab space.

Lab Space

- Support in identifying suitable lab space as well as promotion of available space on behalf of landlords.

Contact Richard Dickinson at richard@onenucleus.com for further information
Case Studies can be viewed [here](#).



FM Case studies

Training

One Nucleus recognises that a company's employees are its most valuable asset. Many rapidly growing companies overlook the need for ongoing training of their staff.

Based on the requirements of our member organisations and their employees, we provide a variety of training courses that can be offered both in-person and online. View our [course calendar](#) for future dates and our course portfolio [here](#).

Let us bring the training to you. We can tailor the training to suit your company's needs and bring the course to you. This way, we can train your staff on your own premises or online, saving you time and travel expenses.

Discounted rates available

- Silver members receive a discount on list prices.
- Gold members receive enhanced discounts.
- Members of the BIA, Bionow, SLAS and CCRA receive a 10% discount off the non-member rate.

Contact training@onenucleus.com for more information (discounts cannot be applied retrospectively).



Training Course calendar



Training Course Portfolio

Soft Skill Providers – discounts are available to One Nucleus members from the following providers:

- [Health & Safety Works](#)
- [Wellcome Sanger Institute](#)
- [My Green Lab](#)
- [MyData-Trust](#)

Training Sat Nav - Find the Right Course for You and Your Team

One Nucleus continues to strive to help support life science companies and members to build the best teams and, in doing so, is researching and continuing to develop a new tool, a Training Sat Nav, to assist. Whilst One Nucleus offers a portfolio of first-class formal courses, there is an array of technical and softer/essential skills that staff may need to develop outside of that portfolio. reflecting the needs that we are made aware of by our member companies and the onwads research to identify credible providers of such courses.



Training Sat Nav - One Nucleus Courses

FIND THE RIGHT COURSE FOR YOU AND YOUR TEAM WITH OUR

ONE NUCLEUS TRAINING SAT NAV

Are you...



If you do not find the course you are looking for, check out our external courses Training Sat Nav.



Training Sat Nav - External Courses

ONE NUCLEUS TRAINING SAT NAV

External Courses



Accelerator™ Drug Development

Accelerating your unique drug development journey with innovative 360° CDMO, CRO, and Bioprocessing solutions, supporting your aspiration to get treatments to patients faster.

Explore Accelerator™ Drug Development solutions



Anticipated Highlights in 2025

Operating in the life sciences field and based out of Cambridge, One Nucleus is fortunate to thus engage with some of the brightest and most innovative minds in R&D, investment, regulation, and business that the world has to offer. Working in such innovative company means One Nucleus itself must remain diligent in responding to the ever-changing needs of our members as the external environment evolves. The launching of new initiatives such as the Boston Bootcamp, Annual Awards, and Training Sat Nav in 2024 are examples of the response, recognising our members are suffering a harsh investment and dealmaking landscape, an increasingly competitive sector where profile is important, and rising knowledge and career development expectations from their teams.

Supported at the board and staff team level and informed by some focus group roundtables with members, whilst continuing the regular support activities and services described above, in the coming year One Nucleus anticipates consolidation of the new activities and going further.

Key developments we will be looking out for in the year ahead include:

- To grow the collaboration with Life Science Nation around their RESI series of investment events to enable our members to access a wider investor pool
- Playing a key role as part of the Regional Host Committee bringing BioCentury Grand Rounds Europe 2025 to Cambridge
- Evaluation of a European Bootcamp
- Greater collaboration with other UK regional groups such as OBN and MedCity, particularly in light of the recent UK Government announcements regarding the Ox-Cam Arc development
- A change to the One Nucleus membership structure to introduce Bronze and Network Member options to the current portfolio.

Overleaf you will find details of some of the anticipated events and activities you can expect:.



One Nucleus Annual Awards



Join us in London for our Annual Awards Dinner!

Following the success of this year's Awards, with feedback indicating it brought something new and inclusive to the ecosystem, One Nucleus is delighted to announce our Annual Awards 2025.

The continued success of the Life Sciences sector is built on the excellence of all its stakeholders; hence One Nucleus feels it should celebrate by recognising all parts of our community.

Recognition of everyone's valuable contribution to improving patient outcomes is reflected in the breadth of the eight open categories.

2025 Shortlisted Companies

Best Therapeutic Discovery Company

AviadoBio
Resolution Therapeutics
Healx Ltd

Best R&D Platform Development Company

Constructive Bio
Outsee
Nuclera

Best New Company Creator

Babraham Research Campus
Deep Science Ventures
UCL Business

Best R&D Services Provider

O2h discovery
Qkine
RxCelerate

Best Professional Services Company

Ip21 Ltd
RSSL
SRG

R&D Facility Development

Babraham Research Campus
Canary Wharf Group
Stevenage Bioscience Catalyst

Non-Profit Research Organisation

Medicines Discovery Catapult
The Institute of Cancer Research
Wellcome Sanger Institute

Most Creative Investor

Albion VC
Deep Science Ventures
O2h ventures

Boston Bootcamp 2025



Sponsored by



TaylorWessing



Set to return after its inaugural year in 2024, One Nucleus is delighted to be supporting One Nucleus members once again who want to understand and engage with the Massachusetts Life Science ecosystem.

Programme Themes

Introduction to MA Ecosystem	Operational Strategies	Raising Investment	Non-dilutive Funding	Tech transfer/R&D Collaborations
<ul style="list-style-type: none"> An overview of the MA life sciences sector Support available to UK companies seeking to do business in MA 	<ul style="list-style-type: none"> Facilities leasing Recruitment Reporting compliance 	<ul style="list-style-type: none"> Financing landscape Business model and value proposition Term sheets Due diligence 	<ul style="list-style-type: none"> Exploring alternative funding options 	<ul style="list-style-type: none"> Developing an IP portfolio Freedom-to-operate IP diligence considerations Engaging with tech transfer and R&D collaborations

Key Dates

- Entries open 5 December 2024
- Networking Drinks 4 February 2025
- Entries close 14 February 2025
- Qualifying applicants will be invited to take part in a Presentations Day on 26 February 2025 (online)
- Winners announced by 4 March 2025
- Pre Bootcamp-Activity Dates in March 2025
- Winners attend One Nucleus Awards Dinner 27 March 2025
- Bootcamp dates in Boston, MA 28 April to 1 May 2025
- Winners feedback on key messages at ON Helix on 3 July 2025.

Entry Criteria

- Companies advancing novel therapeutics or platform technologies with therapeutic applications.
- Incorporated companies with a clear ambition to engage with the greater Boston cluster.

ON Helix 2025



Our annual translational research conference brings together life science industry innovators, industry leaders and experts to explore key bio innovation trends, from developments in life science and technology research to their translation into new diagnostics, prevention tools or treatments.

2025 Programme Themes

Harnessing the Body's Defences – Advancing immunotherapies

Regulation and Innovation of AI in Drug Discovery – Maximising AI's impact

Getting Ready for Clinic: Transformative Technologies – improving efficiency and accelerating translation

Invention, Innovation, Industrial: How to Accelerate the Journey? – Navigating the path from innovation to adoption

ON Helix Key Benefits

- High content mix of plenary talks and panels from key opinion leaders
- Networking with 250+ delegates on the day
- Option to arrange 1-2-1 virtual meetings via the conference app
- The ON Helix Fringe events for further technical and business insights and additional in-person networking opportunities
- Exhibition area, to showcase innovation supporters from the network.

Secure Your Spot Now! <https://www.onhelix.com/register>

Choose from a Variety of Profiling Opportunities <https://www.onhelix.com/sponsor-exhibit>



Genesis 2025 - Now in its 25th Year!



The annual Genesis conference turns 25 years old this December. That's a quarter of a century of bringing key opinion leaders, innovators, investors and enablers in life sciences together to debate key trends, instigate deals and generate a vision of the future.

The speed of progress means the hot topics at Genesis nowadays are not what they were in 2001, but the underlying passion of all stakeholders attending hasn't changed. The format evolves year on year, delivering a programme packed with keynote presentations, panel debates, and fireside chats. Around this more formal knowledge-sharing and debate is 1-2-1 partnering, exhibition, and networking.

Developing over recent years is the Genesis Fringe. A series of satellite events on the days around Genesis, often in prestigious central London venues. Each Fringe event has a dedicated topic and is open to delegates and non-delegates of Genesis.

These sessions enhance the ability to connect with the life science ecosystem even further on issues that matter to you. Stepping up the need to bring new investors, particularly those focussing on early-stage led to the collaboration with the RESI-London event. Piloted at Genesis 2024, this year will see Genesis and RESI-London run back-to-back on 3 December and 4 December, respectively.

Whilst it is some way off at the time of writing this update, key themes likely to be discussed at Genesis 2025 have already begun to emerge and include:

- Winners & Losers 2025
- Being Patient-Centric - Lessons from the Rare Disease Space
- When and Where is the Right Time to Exit?
- Planning for a Cheap Divorce
- Emerging Clinical Development Technologies
- The Changing Approach of Regulators
- Have the Past 25 Years of Life Sciences Delivered on Expectations?

Keep up to date on your opportunity to shape the discussion, be a visible influence in our sector, and get on the radar of your potential investors, partners, and customers via the website at www.genesisconference.com or email genesis@onenucleus.com

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Genesis
2024

GENESIS 2024 REVIEW

Welcome to the review of Genesis 2024, held at 1 Wimpole Street, London and delivered by One Nucleus. The gathering in December continued the success of the past 20+ years in bringing the ecosystem together to discuss and debate current trends and best practice across the following topics:

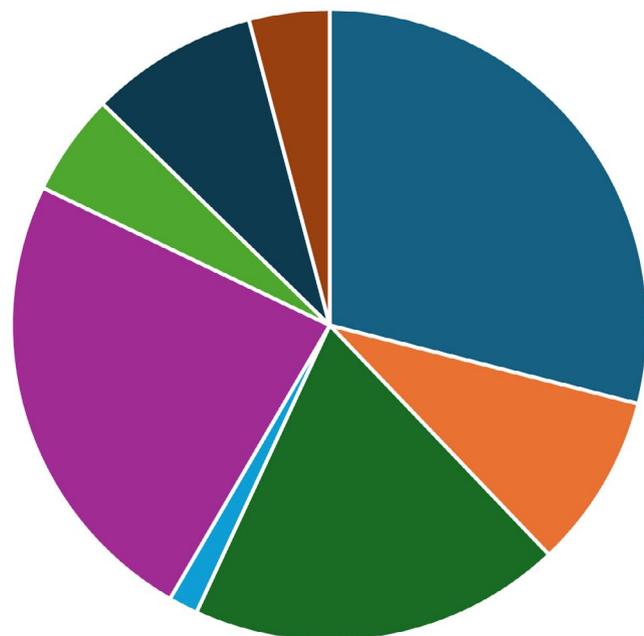
- Financial Markets and What to Expect Next
- Mansion vs Maisonette – What Does Aspiration Look Like for the UK Life Sciences Sector?
- Winners & Losers 2024
- What Happens After the Deal is Signed?
- Being a Patient Champion
- Why My Technology Would Appear Cheap at Twice the Price
- Introducing a Disruptive Technology to the Market – Reflections From a Passionate Entrepreneur
- Watch This Space!
- The Indiana Case Study of Growing a Life Science Ecosystem
- Biology & Technology – Where Do I Fit and Who Does It Matter to?
- How Does the UK Plc CV Look to a Leading Bioentrepreneur?
- Inside the Mind of an Investor

The following review will describe the data, thought-provoking messages, guidance on best practice, emerging technologies, and collaboration shared by the speakers and panellists throughout the keynote programme. The summary has been structured around three key areas representing the key pillars for success in life sciences as follows:

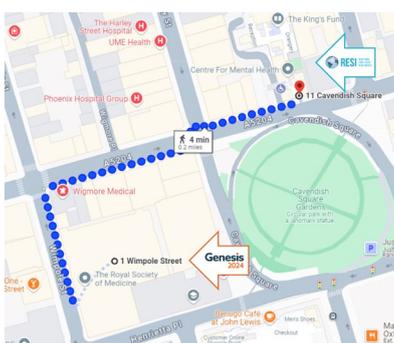
1. Money, Money, Money - the current activity and trends at the macroeconomic and life science sector-specific level on capital markets, venture funding, M&A, and research and development deals.
2. Getting the Deal Done and What's Next? – looking at how companies can position their proposition, negotiate valuation, drive adoption and maximise the returns on any deal post-signature.
3. Creating the right environment for the right people to drive success in life sciences – exploring what the public and private sectors can proactively do to develop the optimal environment in which to translate innovation into value for all stakeholders.

- 300+ Attendees
- 190 Companies
- 42 Speakers
- 18 Exhibitors

Breakdown of Registered Companies for Genesis and Genesis Fringe 2024



- Primary R&D (Academia & Industry)
- Investor
- CRO/CMO/CDMO/Res. Services
- Press
- Professional Services
- Drug Dev & Regulator Advisors
- Trade Support (Public and Non-Profit Groups)
- R&D Facilities Providers



Adding to the buzz of Genesis was the additional collaboration with RESI London, a focused investment pitching and partnering conference delivered by Life Science Nation. Whilst RESI London ran in a separate venue across the street, there was ample opportunity for the two cohorts of attendees to network throughout the week at the Genesis Fringe and drinks receptions.

The Genesis 2024 Thought Leaders:



Tony Jones
One Nucleus

Keynote Address: Financial Markets and What to Expect Next



Will Walker-Arnott
Charles Stanley



David Stubbs
Raymond James

Panel: Mansion or Maisonette?



Timothy H.
Ehrlich
Gunderson
Dettmer



Eric Mayes
Endomag



Sarah Haywood
Advanced
Oxford



David Stubbs
Raymond
James



Tony Hickson
Cancer Research
Horizons



George
Freeman MP

How Can Collaborators Extract Maximal Value From Data?



Antima Gupta
Collaborative Drug Discovery

Keynote Address: Winners & Losers 2024



Mike Ward
Clarivate

Panel: What Happens After the Deal is Signed?



Rienk Pypstra
tranScrip



Amanda Lehmann
Astex
Pharmaceuticals



Anji Miller
LifeArc



Louise Jopling
Babraham
Research Campus



Jane Winter
Seuss +



Rachel Bradley
Penningtons
Manches Cooper



Jenny Laird
Eli Lilly

Fireside Chat: Being a Patient Champion



Elin Haf Davies
Aparito



Elaine Warburton OBE
Javelo

Panel: Why My Technology Would Appear Cheap at Twice the Price?



Ayokunmi
Ajetunmobi
Pioneer Group



Michael O'Kane
CoolReach
Logistics



Michael Murray
Murray
International
Partners



Claire Thompson
Agility
Life Sciences



Barbara
Domayne-Hayman
The Francis Crick
Institute



Claire Brown
Oxford
Science
Enterprises

Keynote Address: Introducing Disruptive Technologies to the Market: Lessons from a Passionate Entrepreneur



Elin Haf Davies, Aparito

Panel: Watch This Space?



Femida
Gwadry-Sridhar
Pulse Infotrame



Megan Thomas
Drug Discovery
World



Victoria English
MedNous



Lisa Melton
Nature
Biotechnology



Lisa Urquhart
Healthcare
Journalist



Mike Ward
Clarivate

Fireside Chat: Will the New Political Landscape Be Good for Life Sciences?



Mike Ward
Clarivate



David Rosenberg
Indiana Secretary of Commerce

Panel: Biology and Technology - Where Do You Fit and Who Does It Matter to?



Aline Charpentier
Bruntwood SciTech



Belinda Clarke
AgriTech-E



Catherine Stace
Kuano



Alicia Showering
Bug Biome



Abigail Martin
ImmuONE

Fireside Chat: How Does the UK Plc CV Look to a Leading Bioentrepreneur?



Renos Savva
Discovery Park



Nara Daubeney
Phaim

Panel: Inside the Mind of a Life Science Investor



Phil Masterson
Cancer Research
Horizons



Anne Horgan
Cambridge
Innovation Capital



Kerstin
Papenfuss
Deep Science
Ventures



Markus Dietrich
Hadean Ventures



Jonathan Tobin
Brandon
Capital



Laura Lane
Eli Lilly

Money, Money, Money



Whilst many elements are essential for the discovery, development, and deployment of innovative medicines and health technologies, on the back of a prolonged challenging financing environment for life science companies, perhaps a phrase that grew in prominence after the 1987 stock market crash is more relevant than ever. The then CEO of Volvo, one Pehr G Gyllenhammar, proclaimed, no matter what else is happening in business, cash is king!

Genesis 2024 provided something of an optimistic sentiment when it came to the investment outlook towards 2025. Will Walker-Arnott set out the current macroeconomic drivers for this optimism, the USA's growth being disproportionately responsible as the country continued to create jobs and maintain high productivity underpinned by the behemoth tech companies and their high R&D investment levels. So not all growth was equal across the globe, but at least there was growth. In the short term, a prediction of interest rates continuing to fall, resilience of the US equity market valuations, the somewhat isolation of the US economy to world affairs, and a backlog of capital to be put to work bodes well for the life science sector. The mid-term could see some turbulence, however, with the entry of 'Trumpomics version 2'. The potential for tariffs to drive inflation rates up, the impact of other Trump policies on trade, and uncertainty geopolitically in the Middle East, Ukraine, and Taiwan could all cause challenges. Cautious optimism seemed to be the order of the day as the conference agenda progressed.

Looking more at the healthcare and life sciences sector in particular, David Stubbs reflected on the optimism felt at the annual J. P. Morgan Conference each year since the pandemic. Each year, the crowd being convinced that the sector had turned a corner. From 2022, 2023, and 2024, that turned out to be pretty much false hope, as we now know. This could be a symptom of life science investors being insanely optimistic by nature or simply that experienced hands know the sector has always been cyclical, so it was worth remembering the advice of Winston Churchill: 'When you're going through hell, keep going.'



David set out the hard facts of just how challenging the recent years have been for public market investors in the space. Comparing the biotech and diagnostics sectors' performance, all indices showed a huge downward performance post-IPO prices in the sector and a large lagging of performance compared to all sector indices. This was touched upon again by Mike Ward, who set out the problem of an overheated 2020, where large volumes of companies raised 2-3 years of cash, which was now leaving a large hangover of those companies needing refinancing.

There were positive signs emerging in 2024, however. With market valuations stabilising and the macroeconomic factors above building confidence, IPOs started returning with 18 completed transactions in the year to date, raising \$3.8Bn. Mike Ward highlighted how 2024 was the third-best year ever for biotech IPOs, confirming David's assertion that the levels were not out of line with 2019 levels.

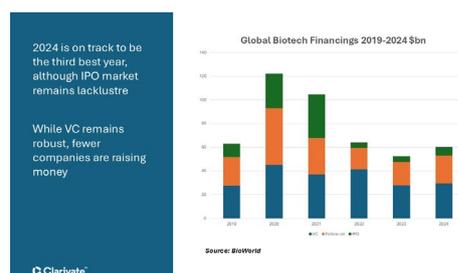
Absolutely, M&A has always played a huge role in the dynamics of the sector. Since 2013, 554 M&A deals amounted to a collective \$1.5 trillion of value. 2024 was a record year at twice the previous year's levels, with no fewer than ten deals breaking the £750M threshold. Private equity also returned in the year with a number of large-value deals. The median Series A hitting \$70M and median Series B £100M, illustrating that whilst there may have been fewer deals, there were large amounts of capital being invested.



Mike Ward filled in some of the details during his Winners & Losers' presentation, setting the scene with a comparison of life science investors and life science journalists, the latter tending to be less positive. In one of the quotes of the day, Mike explained that 'whilst life science investors may be insanely optimistic, life science journalists are not pessimists as they are often depicted; they are more like disappointed optimists.'

There was a little returning to the matter of the divergence of US and EU investment when it comes to the mindset of venture capitalists. Mike Ward suggested some of the difference in dynamics and growth may be that whilst US investors generally back teams, funding them well enough to change tack if the first thing isn't working, European investors generally look to back assets. A similar pattern of larger but fewer venture rounds mentioned by David Stubbs was highlighted by Mike also, and this could be an emerging factor from a harsh financing period.

Whilst there is money out there to be invested, there is also a hangover of volume of companies seeking more investment having last raised during the peaks of 2020 and 2021, now joined by new companies seeking the same investment. Mitigating risk for investors could thus be driving deals to later-stage opportunities with experienced teams, so a form of race to quality and backing that heavily. This could explain the increase in US share of venture funding originating from the US, where the backing of teams over assets does, to some extent, prevail.



Mike Ward set out how the share of global venture investment had shifted even further to that originating from the US, with it representing 75% in the past year. Noticeable was the fact that Chinese venture funding approximately halved to just 7%. Europe had also dropped back to 13%, although on a locally bright note, the UK led Europe with 31% of that global share.

The optimism generated by seeing public and private investment deals who are looking like the winners and losers from this deployment of capital into R&D and drug sales that result from the funding. In their traditional Winners & Losers Keynote, Mike Ward highlighted some top picks. That Keytruda remains the biggest selling drug at \$25Bn was not a surprise, but the story underneath the data of top sellers, much like the sector generally, was one about GLP-1s, particularly the rate of growth in Ozempic (Novo Nordisk) and Mounjaro (Eli Lilly). Ozempic is already in 4th position, selling \$13.9Bn, and Mounjaro is earlier in the sales curve, but a steep trajectory suggests both will be at least top 10 sellers in the coming year. On the company level, it was striking how Eli Lilly and Novo Nordisk now top the pharmaceutical sales

league table with annual sales of \$748Bn and \$465Bn, respectively. Notable also was the position of the once leader Pfizer, now in 10th position.

As mentioned earlier, M&A activity has reached record levels. Mike Ward presented the top ten table, led by the BMS acquisition of Karuna Therapeutics at \$14.0Bn as they strengthen their neuroscience position. Likewise, it was an active year in biopartnering deals. The most active partner seemed to be Novartis, with no less than four deals in the top ten. Leading the way in terms of headline value and perhaps interest was the Flagship Pioneering–GSK deal valued at \$7.2Bn. The innovative alliance links GSK’s disease area knowledge and development capability with Flagship’s >40 company portfolio.

There can be little surprise at the activity in the M&A and biopartnering space when one considers the trend in FDA approvals over recent years. Biotech-originated innovative medicines now dominate (75%) discovery and early development of drugs approved since 2022. Moreover, there has been a growth in the appetite of those originating biotechs to be active in the commercialisation of those new medicines. Highlighted areas attracting the attention of pharma include radiopharmaceuticals, precision oncology, protein degraders & molecular glues, bi-specific T-cell engagers, and antibody-drug conjugates.

Excitement Over GLP-1s Won't Wane

In addition to desirable weight loss, GLP-1s are showing promise in other areas:

- Improved heart function and a reduction in cardiac disorders, strokes and heart attacks
- Reduction in the incidence of obesity-related cancers such as colorectal cancer
- 94% reduction in the risk of developing Type 2 diabetes
- Resolution of sleep apnea in 48% of patients
- >70% resolution of some liver diseases; real reduction in adverse kidney events
- Potential to have impact on inflammatory diseases and Alzheimer’s disease progression

True winners will be developers of next-generation products that can be taken orally, less frequently, target multiple receptors for increased efficacy, minimize gastrointestinal side effects

Whilst the life science sector is about more than just GLP-1s, obviously, this field is having a dramatic impact. Driving innovation, growth, and revenues. GLP-1s will be an ongoing story, not just in obesity but also with early data of positive effects in other large therapy areas such as cardiometabolic disorders, diabetes, heart failure, stroke, sleep apnoea, oncology, inflammatory diseases, Alzheimer’s disease, and

liver disease. As one would expect, however, the excitement about the potential opportunity with GLP-1s has to be tempered by hurdles to overcome to make better subsequent generation molecules that avoid some of the noted side effects, such as gastrointestinal problems, muscle loss, and more convenient formulations. Much work to do, but a great deal of excitement that is attracting new entrants and will be a very competitive battleground for the industry going forward.

It would be wrong to omit mention of two potentially key policy changes in the world’s largest market that are likely to influence investment decisions and returns. The Inflation Reduction Act implementation has seen CMS (Centers for Medicare and Medicaid Services) publish its list of the first ten drugs for which it has negotiated prices and rebates from 1 January 2026. Many on the list are nearing the end of exclusivity, and hence the impact on their owners is limited, but the inclusion of Eliquis and Jardiance may have larger negative effects for BMS and Boehringer Ingelheim, respectively, due to the length of exclusivity remaining and the fact that both products represented significant proportions of the company’s sales. Interesting that BMS was the acquirer on three of the top ten most valuable M&D deals in the previous year.

The US Biosecure Act, prohibits executive agencies from contracting with or extending loans or grants to any company with current or future commercial arrangements with a biotechnology company of concern as concerns over trading with China emerge. Not working with Chinese companies represents a challenge when they represent such a significant part of the global supply chain in innovative medicine research, development, and manufacture. The naming of the four Chinese companies of concern, Wuxi AppTec, Wuxi Biologics, BGI, and Complete Genomics has seen their share value decrease, and the list may become longer. Whether this will create an opportunity for other winners remains to be seen. The potential for South Korean, Indian, or maybe European supply chain companies to grow their penetration of the US market exists, as does the potential for Chinese companies to look elsewhere for growth, including growth domestically of their innovation pipeline and global presence of the resulting products.

In terms of what to watch out for going forward, later in this publication we will return to Mike Ward's thoughts on China, hot areas, and more, as we report on what some of the speakers chose to highlight when future-scoping what they are watching for in the space. Likewise, remembering that succeeding where cash is king is reliant on life science companies being able to create a value proposition to investors and partners at the right valuation is another theme we will return to later in this review.

There are certainly reasons to be optimistic about the details above in terms of the macroeconomic landscape, the return of IPOs, increasing levels of M&A and biopartnering activity, GLP-1 driven growth and innovation, as well as other hot scientific and policy areas creating opportunity.

When it comes to what will be the hot areas of excitement and be the stimulants of the investment and making going forward, we were blessed to have some of the sector's leading commentators to discuss what they were excited about. We had heard during an earlier presentation from Mike Ward how it was unlikely that the appetite around GLP-1s would wane given the flow of data indicating a breadth and depth of application. Hot areas already attracting Pharma attention, such as radiopharmaceuticals, precision oncology, antibody-drug conjugates, bi-specific T-cell engagers, molecular glues, and protein degraders with the strength of innovation pipelines in these areas, it seemed likely investment in, acquisition of, and collaborations around these fields will increase further and at higher values per deal.



The illustrious journalist panel, with a century of commentating experience and moderated by Femida Gwadry-Sridhar, explored the opportunity from great science to investment. From the deep science space, the emergence of blinded research deploying strategies akin to ChatGPT to mine unlabelled 'omics data at a granular level to seek patterns and convergence to open new avenues of drug discovery research. Further excitement around the application of

AI in research arising from the belief that the technologies are now catching up with the promise. Expanding on that element, Lisa Urquhart described the 'Lab-in-a-Loop' concept now being adopted as increasing wet lab automation and data generation was enabling iterative cycles of experimental design.



Debating the financing side of the coin, Victoria English was enthusiastic about the leaders in the European Commission and European Central Bank already discussing how a pan-European trading platform with single regulation along the lines of the US Securities Exchange Commission, could start to be created to unlock the reported €8 trillion locked up in savings accounts across Europe. Such realisation of that capital pool creating an alternative to Nasdaq for companies and retail investors to

fund growth. Not a solution seen by all on the panel as required or feasible, but an exciting prospect proposed. At the time of Genesis, being just weeks away from the inauguration of President Trump with a degree of unpredictability of impact on the life sciences sector, coupled with the rising interest from Asia in doing deals in the UK and Europe, Mike Ward asked whether indeed there would be some form of continental shift among European companies to look East to locations such as China and South Korea for deals.

Megan Thomas, whilst agreeing with the possible impact of AI and new technologies, reminded all that whilst future-scoping is fun, it has been the unexpected breakthroughs that have been disruptive. After years of R&D, did anyone see GLP-1s taking off in the previous year or new drug approvals in Alzheimer's disease? Anticipation to be writing about more global approvals in these areas through 2025 was clear. That excitement was tempered for the panel by the caution of us not yet knowing the full spectrum of side effects whilst on the drugs or indeed after discontinuation.

Perhaps it's the optimistic view that better second-generation molecules will arrive, dealing with the targeted weight loss rather than all weight loss, so protecting muscle loss. Further challenges identified that give rise to caution included supply chain restrictions, complexity of regulation, and as yet sub-optimal integration of the new technologies. Overall there was a consensus of optimism for the UK life science sector based upon the science base providing a treasure trove of new knowledge to mine, the potential of AI-driven advances, what will happen in the US, the strong cross-party political support in parliament, and that there will be one day a pan-European market to rival Nasdaq.

Reflecting on the investment landscape, a quote used by David Stubbs from the film 'John Wick' seems appropriate as follows: 'People keep asking me if I'm back, and I haven't really had an answer, but yeah, I'm thinking I'm back.'



Getting the Deal Done and What's Next?



The rate of change in technology is unprecedented, impacting every element of how we live, communicate, and go about our daily lives. In the context of Genesis and the life science sector, technological advances are changing the way we undertake research and development and what that innovation leads to in terms of patient engagement, outcomes, and societal benefit.

The ever-increasing speed of technological innovation also comes with challenges around how founders define their business, how investors value an opportunity and how disruptive technologies can be taken to market. It is evident that success is a journey with stops on the way, including getting the deal done, working with partners, and various other attributes. Genesis speakers addressed these themes by discussing some key elements such as dealing with valuation, attracting investors, building your company, and what to do after the deal is signed.



In the previous section the financing trends and landscape outlook were discussed for those companies building a value proposition that attracts investors. The programme flowed on to look at getting to that stage. One of the key elements discussed was that of the definition of your positioning when approaching investors as deep tech sectors converge in fields such as biotech, techbio, agri-tech and health tech. Definitions, nomenclature, and focus influence how the company is perceived, but who that matters to was an insightful passage. A key takeaway was that the label you give the company could matter to a series of different audiences, including investors, collaborators, government, and employees. The key was working out which audience needed which label.

In terms of it mattering to government, this was in the context of agri-tech being a relatively new thing, created as a result of policy reviews wishing to support innovation in the agriculture and food arena. Not having an innovation tag to encompass the field, agri-tech was created to enable policymakers to visualise a discrete sector they wished to nurture and for which they could develop metrics of impact. In reality, the sectors (or are they markets?) are horticulture, agriculture, and food production with a set of enabling technologies underneath that can be applied in those sectors. In fairness, the same could be true for all the other sectors mentioned; the terminology created to allow interested parties to place them into a box and create their narrative to the audience they wanted to engage. However, being too narrow can be in itself limiting, discouraging new entrants, investors, talent, and large corporates from engaging if it feels like the wrong box.

This distinction between enabling technology fields and sectors in which they are applied is increasingly blurred as convergence and innovation continue at pace. The choice of positioning can have a significant impact on the desired business models one might present to a potential investor. Doing research on their interests and establishing if they limit their investments to a defined sector. Some investors may do this, whilst others may be more open or able to see how the technology could be applied in their space. The routes to revenue, product development timescales, and regulatory environment can vary massively between sectors, so whilst it may be possible at the outset to tailor the positioning to the audience, this first step may well define your business model and route ahead, so caution should be exercised. The time taken to get to know your potential investor is also valuable in terms of knowing how and what to pitch to them. Working out why they are interested and what motivates them can really help when it comes to pitching the relevant aspect of your technology and vision. They may like some but not all of what your platform could achieve.



Panellists: Belind Catherine
Alicia Showe
Abigail Mai

Other stakeholders with whom you must engage are customers and employees. Any customer base may take a view on who they align with as suppliers or partners in helping achieve their goals. This element of brand recognition and value can often be underestimated, but knowing what provides confidence in your customer's mind can be critical to the transaction happening. The same can be true when recruiting staff and building the right team. If your target is only looking in the box that they see themselves in, then that can be key, e.g. do farmers want to buy from an agri-tech company, or does an employee trained in data science want to work just for a tech company, are similar considerations in many ways.

Of course, in large corporate entities that research, innovate and provide solutions to several industries, this convergence happens naturally in-house. Why else would a company such as Microsoft have a Head of Agriculture or Head of Healthcare type role other than if they wish to deploy their solutions in multiple markets? The internal communication can also be key to attracting the right skills and developing the best possible culture within the company. There will be more on this later when we consider the people factor of the sector, but there are many parallels with internal and external communication needs in terms of needing clarity of purpose and focus alongside a narrative of the value proposition the company brings in order to have a sense of its own identity and self. Such internal understanding can thus mean conversations and pitches are entered into with confidence with other sectors rather than apologetically for not being an expert in the other's field.

Within a deep tech ecosystem comprised of multiple disciplines, the ever-increasing number of boxes created is not necessarily a bad thing. This is not least the case since attracting investment, customers, government support, or talent is also influenced by what is deemed to be in vogue at the time. Emerging tags, such as some of the above, are continually added to by terms such as CleanTech and ClimateTech, both of which could be applied to



elements of any of the sectors mentioned above. Furthermore, the increasing number of boxes with cross-overs in skills, investment appetite, and consumer demand does lend itself to decreasing the barriers of box-to-box movement for all stakeholders as businesses, value, and careers are built. Differentiating between the use of nomenclature to be descriptive about what the business does, why, and on what model can be much more empowering than the use of a box to define the business, given the latter by implication suggests boundaries and limits. The growing crossover potential, driven by curiosity, flexibility, and passion to make a difference for this and future generations of talent, investment, and policymakers, hopefully will result in a challenge or need driven endeavours being taken forward, and the labels will become secondary. What new labels may emerge as we create more boxes was a final question posed to the 'Where do you fit...' panel, and it was interesting to hear a consensus that the next foci will be around 'AppliedBio' and 'BIG Bioprocess', both of which lean towards not just the convergence of technologies but the need to be faced that will require the application of those technologies to fighting key battles such as sustainability, food security, and unmet need.

Scaling up these technologies to a huge scale will be required as we see cells and plants as modern day factories. This is already happening in some areas absolutely, and such industrialisation represents a value creation opportunity as well as having enormous societal impact. Perhaps in the future the industrial scale bio-economy will be the dominant, catch-all sector.

Focussing on investors and what attracts them, two of the keynote panels addressed important aspects. One discussing the sometimes thorny issue of valuation and another discussing how investors think. These topics go hand in hand since valuation is always going to be a part of any negotiation towards securing the deal, and many of the key messages were applicable to both.

Ayokunmi Ajetunmobi, Pioneer Group



Starting from a premise that technology does have a value, but not in isolation, the first panel discussed how that inherent value can be invested in and realised. There are many myths in this space, but it is important the company seeking investment does their homework and enters the room with an idea, with some justification of their own value. This needs to be credible, but they must be prepared to be challenged, not least since it is extremely likely the investors will be

more knowledgeable about not just the gap in the market identified but the size and tractability of the market in that gap. That said, especially in early-stage companies, agreeing on valuation is often considered an art rather than a science for a variety of factors. Not least among those factors is that investors tend to have a range of valuations in mind for a company at a particular stage. It will take a lot to move their minds above that range.

Given at the start, with unproven technology and no sales, then what is being sold to the investor is a dream or hope, and it is a long, potentially expensive journey to the

destination. All the more important that there is a strong and compelling narrative of the vision and the anticipated value inflection points on the way. Keeping the destination in mind is key, and being able to work back from there in terms of what investment it is going to take to reach that destination and where are there exit points along the way. Moreover, at those exit points, what size is the projected size of the pie by then, and what proportion of that would you need as a founder, are important calculations to communicate.

Important not to forget is that people transact with people, so understanding what motivates the investor is vital to building the correct rapport and getting them excited about the opportunity you are bringing to them. Thereafter valuation is a function of risk, so the investor will be considering what the technical risk is in reality, whether there are users willing to pay for the product when it gets there, and whether the team being presented or proposed is able to execute on the plan. Addressing these based upon what money is required to derisk any or all of those factors is a good starting point for discussion.

Building a relationship is important, so engage with your investors early. At the very least, you might get feedback as you are preparing your plans and decision-making trees. The quote often attributed to successful venture capitalist Steve Jurvetson made multiple appearances throughout the day: 'If you want money, ask for advice. If you want advice, ask for money.' Engaging early and setting out what you plan to do, the investor may offer you advice on your strategy. Going away and doing that, it helps build credibility that you are able to execute when you may later return to seek investment.



A key point that was raised was to be careful what you wish for in terms of the size of investment or the associated valuation. Which investors are selected at the outset can have a profound impact in subsequent rounds. Should relatively naïve or non-expert investors be secured who appear fantastic because they have offered the founder all they wanted at the high valuation can be a major challenge if the growth of the company in the longer term is going to require subsequent

investment rounds. At one level, the incoming bigger investors you require may not see the credibility in your existing team and almost certainly will not agree that the valuation should have been that high, leading to tough revaluation discussions that could demotivate the early shareholders and thus make it challenging to get the next round over the line.

Equally, if you are able to bring at least one investor into your first round that has the ability to follow on, that can be a huge benefit in terms of retaining momentum and in attracting other larger investors for the growth phase. On a similar note, securing the investment you need rather than the investment on offer, if there is more on the table, may be the more sensible option. Accepting larger investment will bring with it larger expectations of what can be delivered when you still have risks to address,

so there is then a danger of spending significant capital on the wrong things, and credibility can be lost when seeking refinancing. That said, if you are aware that you are going to need that larger investment at some stage if the plan works, then maintaining a healthy relationship with those offering more initially can be a very positive step.

Such large investment rounds being offered may also have additional expectations attached, such as where you locate or operate the company. Moving a company, for example, to the US is often not a simple choice depending on many factors in the founder's life at the time. There is also a perception that UK companies should maybe not by default always look west towards the US, so founders were encouraged to look at locations such as the Middle East and Asia for sources of investment and support depending on their technology and its route to market. For the early-stage companies seeking investment, the first panel provided some top tips that included: Build your network and seek warm introductions; be clear on what the return on the investment could be, rehearse the pitch thoroughly, and create a feeling of FOMO in the investors if possible; try and engage in dialogue with a corporate venture fund since you will get the value of their colleagues' experience, and it will increase the odds of attracting other investors.

Markus Dietrich, Hadean Ventures
Tobin, Brandon Capital Partners, Research Horizons
Laura Lane, Lilly



As the panel considered what is inside the mind of an investor when a pitching company enters the room and what influences their decision, there was some discussion building on from points above about what incentivises investors to invest. Much like the fund longevity, this will differ by type of fund.

A more traditional venture fund, such as Brandon Capital Partners, an Australian-US-UK fund, employs a traditional '2 and 20' model whereby there is a 2% management fee and a 20% carried interest by the fund managers.

This approach is deemed to align well with the interests of the Limited Partners (LPs) and General Partners (GPs) in the fund where everyone has skin in the game. A corporate VC such as Lilly Ventures has a different approach than one might expect, given it submits a projection of what it plans to invest in the coming budget year of the parent company and draws down accordingly rather than managing a fund akin to a GP. Interesting as an aside, the Australian Pension Funds are a significant investor in Brandon Capital Partners, a situation the Mansion House reforms hope to achieve in the UK going forward. The length of the fund influences the decision-making also. Most venture funds are 10-year funds, so investment in early-stage tends to be in the earlier years to allow time to exit. It was mentioned that there is often a hangover of maybe 3-4 years before complete exits are achieved for these funds, however. Thus, a risk for the GPs is their own need to raise investment for themselves from LPs, which is often harder to pitch since they are asking for investment and not at that stage able to say what exactly it will be invested in.



Understanding the motivations of the investor occurs for later stage pitches also. Taking the time to get to know what interests them, what is already in their portfolio, and what stage they are at on the fund cycle are all important points. Whilst investors can often be painted as dragons, remember they are humans too, and like things that excite them, such as new opportunity or technology, and they like to be taken on a journey, so storytelling is a valuable skill to possess. Further discussion of the teams they look for detailed how important the people chemistry is, especially for funds like Deep Science Ventures, where they create new ventures, but it is equally applicable along the value chain. The team needs to communicate well in order to sell their vision and inspire others, demonstrate they are willing to listen and learn, and moreover, exude credibility that they are on top of their game and can execute the plan.



The investors will sometimes wish to test the team's resilience, tenacity, and belief in the proposition they are making. Pitching teams do need to remember to read the room dynamic and realise when a no is a no. There may be feedback provided on the reasoning, for example, to be helpful, but it isn't provided to be challenged since the decision is made. For early-stage founders, the importance of securing the support of

key advisers and mentors should not be underestimated as you prepare to engage investors. Trusted allies will tell you when the slide deck is too technical, when the team is not correct, or when your world-leading research expertise that has led to your academic success is not sufficient, or when the investor did actually mean no. It is also a great opportunity to test your storytelling skills, narrative, and answers to anticipated questions with friendly faces before it is a critical pitch.

Some key tips on how to prepare for engaging investors were shared above, but what about things NOT to do? Here there were some clear tips, which included: Don't give an impression of being too secretive; ensure the pitching team has their story aligned and agreed upon before entering the room; don't dive straight into the details and pitch before getting to know the investor; don't become an annoyance who won't take no for an answer; don't approach multiple contacts in the same fund; don't assume that VCs don't speak to each other; they do!



Building on the preceding paragraphs discussing some of the key issues involved in getting the deal done in terms of the positioning, valuation, and engaging positively with investors, a further factor is to ensure the preparation for a deal is geared to maximising the benefit post-signature. There can be no more vital influence of the people factor than on how the teams behind the dealmakers work together, so identifying good practice in enabling

that is important. Inevitably, given these deals are often early-stage and in the research phase, things will go wrong, how parties plan to address such bumps in the road is equally important to planning for success.

Having the correct framework to deal with ups and downs was described by moderator Rienk Pypstra of tranScrip, who described collaborations in the context of personal relationships. There is the courtship phase, which, if successful, leads to the marriage, which may require a prenuptial agreement, the honeymoon period when everyone is excited, and later dealing with matters when the relationship is not going so well. In the courtship and prenuptial phase, key elements that should be addressed to create the best framework included agreeing on the scope, decision-making processes, and communication strategy.

Exploring the scoping of the collaboration well will lead to a clear understanding of the goals and expectations of each party as well as their respective needs. Thinking too narrowly about the scope could be an error. The collaborators could instead think about the potential of what their working together could create. Maximising the size of the potential collective reward can make it easier to focus on getting the best R&D outcome rather than the share of the returns to each party. A smaller share of a larger pie is still a larger share in real terms amount, for example.

Having clearly identified the goals of the programme, taking the time to evaluate each party's capacity and competence to deliver them is beneficial. Which party is best placed to deliver the required activity to the best standard, fastest, and efficiently is a more positive mindset than being cautious over control, perhaps. That said, it also needs to be clearly identified what the needs are for each party from the collaboration, ensuring, as far as possible, the mutual benefits are realised and thereby mapping out what success looks like for the programme and each party. Once this is clear to all, accommodating similarities and differences between the parties and translating that into a clear and concise Heads of Terms document to enable the legal teams to create an effective and helpful prenuptial agreement is a valuable exercise.



The deal being done. Everyone involved is eager to get going. Ideally in person, the kick-off meeting is a critical moment to get right. It represents potentially the bringing together of different team cultures, previous experiences, and motivations. Handled well, this pivotal point can build significant bridges that may be needed later in the programme. The communication strategy around the launch of the collaboration to a wider audience is something to consider in partnership and reflect those identified

needs of each party in the preparatory discussions above.

This is where perhaps size also matters. Not necessarily in terms of the headline bio-dollar figure, although that may be a consideration, but in terms of what the publicity may do for each party. For a large pharma, a relatively small collaboration may indeed not seem significant to some, but it may be signalling a new area of interest or strategy that was as yet not disclosed. For the smaller company, it may be highly important to be able to disclose the deal for its current and future investors, for example. This does not only apply to R&D collaborations. The value to a relatively early-stage, innovative CRO or CMO of being able to announce they are working with the other party should not be underestimated.

Remember also, not all communication is external. Employees are an important audience. Communicating accurately to both sets of employees what the collaboration scope is, how it will run, and what success will look like can be a very positive experience for getting full internal support. The support may not be just in terms of strategic support or in building brand and loyalty with employees. More probable in the larger company than in a small one considering the size of a large pharma's R&D workforce, there may be colleagues who are completely unaware of the programme until it's a done deal and announced. That could trigger a large amount of offered advice from an expert group of colleagues who now all want the programme to succeed as much as the project owners do. They will be keen to share their ideas, and the project leaders must be ready for that.

Almost inevitably there will be unwanted events along the way; this is research. The key is to know how such events will be handled. The starting point of addressing such challenges is in the governing contract. Clear definition of roles within each party, obligations, and decision-making authority is beneficial, as is a clear mechanism whereby issues can be escalated to more senior executives if that is required.

The adverse events may not always be technical or scientific, although that is the most likely given the nature of research. Some changes are thrust upon the collaboration due to changes in corporate strategy, external events, or financing gaps, but mechanisms to deal with such situations are key. A positive role in such situations is to have a gatekeeper contact on each side of the table. This is the go-to person for the external party when discussions are required and allows that gatekeeper to manage the internal communications and who to involve on their own team.

As alluded to, changes may be required due to the nature of research and the results obtained along the way. Building a means to remain adaptable and flexible into the research programme can be helpful; using key project milestones that are objective, measurable, and achievable at the outset provides the opportunity for clarity on go/no-go decisions as required. Less defined and unexpected results in the research can require excellent communication between the two parties where the answer is not a clear and simple stop or continue. The bridge building referred to earlier as the project kicked off can be very useful here since the relationship may be tested. Sound advice is to build those bridges before they are required.

This section, detailing the art and processes of identifying the right partners and investors, the courtship to gain mutual traction, and what to do after the deal is signed, brings to mind the famous quote from Henry Ford: "Coming together is a beginning. Keeping together is progress. Working together is success".

Creating the Right Environment for the Right People to Drive Success in Life Sciences

The goal of most governments, economic development executives, and policymakers, as well as the life science industry as a whole, is to create an environment that delivers success and creates value for all stakeholders. The definition of either success or value will vary depending on perspective. Some will judge success by financial returns, others by the improved outcomes for patients, and others by the societal benefits such as job creation. These goals are mutually exclusive, and often they are so interrelated at the individual, organisational, and governmental levels that one should not see them as being in conflict.



By most metrics, most experts would agree that Massachusetts, particularly the Greater Boston Cluster, is the number one life science destination in the world. The levels of innovation, venture investment, large corporate R&D presence, real estate investment, aligned industry and government agendas, and entrepreneurial culture have created an environment where great science and technology have, and continue to deliver value creation across the breadth of stakeholders above. It is not to say, however, that everything is perfect or indeed that the same approach will work everywhere, but it does throw down the gauntlet to other locations.

The UK has always been respected for the quality of its science and innovation base and the output of its research relative to investment. Sequential UK governments have been supportive of the sector, producing numerous strategies and roadmaps for growth, and the UK remains the leading destination for venture capital investment into life sciences within Europe. Whilst dreaming of investment levels and growth akin to Massachusetts and delivering above expectation returns for those involved, the vision painted for those not in the sector has sometimes been criticised for being out of reach or not delivered. Speakers at Genesis discussed what is aspirational yet achievable for the UK when looking into the future.

The conversation went on a journey looking at what may be holding the UK back in terms of success and growth and what those solutions may be for even greater success. Accepting significant increases of public investment may not be on the horizon; thought was given to how the UK can release the brakes to expedite success as opposed to adding more fuel. The barriers described ranged from needing to change the culture of the UK sector to facilitate and drive greater translation between academia and industry. The increased professionalism of technology transfer offices is seen as being a part of this solution, and impact is happening as the culture is already changing towards an entrepreneurial, commercialisation-driven mindset among emerging scientific talent pools. David Stubbs set out, reaffirmed by Tim Ehrlich, how the culture in locations such as Greater Boston sees much more direct engagement between venture investors and scientists with seemingly a lower barrier to contact. Engaging those investors earlier in the innovation journey, since they will be the ones funding growth later, pays dividends over time.

Unsurprisingly, whilst changing the culture, professionalising the technology transfer interface and a desire for change are all important, it was the availability of investment capital that dominated the perceived challenges. Whilst the UK is the leading life science destination for venture capital in Europe, the sums are dwarfed to some degree by what we see invested in the US. The financial environment discussions had already set out how, particularly later stage funding, originates largely in the US, so engaging with the capital market feels like an imperative. Sarah Haywood explained how, whilst it has been a tough market for financing at all stages, the trickle-down effect to start-

ups and early-stage ventures in the UK has been profound. The later-stage focus of venture funds has meant some are getting funded heavily; there are many missing out. Moreover, the lack of early-stage capital has also influenced business angles in the UK. This key group for start-ups has to some extent retrenched to less risky opportunities, creating a very early-stage gap and hence hindering the start-up creation further. Solutions from further downstream were highlighted by George Freeman MP when considering the challenges of adopting innovation into the UK NHS market. The feeling that the NHS is in many ways broken was accepted, but that creates an opportunity for innovation and technology to be at least part of the cure. There is also a sense that the capital markets in the UK have become a little broken in this arena. Reforms to pension funds may help address this. Addressing the fact that asset managers in such funds have, over the past decade or more, moved away from holding equity investments to bonds and similar. In fact, the share in equities has fallen from approximately 50% to 3-4%. This isn't going to be a sharp switch moment though, even with regulatory reform. The life science sector needs to be able to demonstrate to those fund managers that they are an attractive class of asset here in the UK, given those same fund managers will be reluctant to be restricted on making returns. Mandatory measures by Government could, of course enforce this, but the feeling generally was that Government should set out the goal but not mandate how to get there.

Seeking success, one of the key questions is what that success looks like. The speakers grappled with this in the sense that many of what are believed to be key performance indicators on the journey are difficult to measure and quantify. One could look at the number of successful exited enterprises, volumes of investment raised, and marketed drugs developed in time, but what are the milestones along the way? Building on some of the themes described earlier, one of the key goals is to strengthen the ecosystem of and for entrepreneurs. Looking at previous trends in the US, it was seen that whilst California in the past had seen more or less equal life science investment capital, it had failed to harness life sciences as well as Massachusetts. The result now being that the split is around 70:30 in Massachusetts favour. So, it wasn't just about the quantum of capital. One performance goal to achieve is to see more successful life science companies scale and stay in the UK.

A strong belief that with the right value proposition, leadership team and vision, global investors, including from the US, would happily invest in a UK-based scaling company. This may turn focus to how the UK is developing a talent pool of commercialisation leaders. Noticeable about the success of the Massachusetts cluster was the recycling rate of experience. The serial activity of teams and executives and investment has played a large role in nurturing the cohesiveness, effectiveness, and attractiveness to investors. Returning to the matter of it not just being about the money but the culture and ecosystem, there was a feeling that perhaps the goal could be summed up by needing to make the UK a more sticky location for burgeoning life science companies, and the measurable returns, such as ROI, marketed products, and job creation are simply a return on the human capital present in the ecosystem.

Accessing greater investment was deemed by most, however, to be the critical barrier. It was felt that by securing orders of magnitude, more investment would see the other shortcomings self-resolve to a degree. This perhaps was rooted in having seen the impact of the heavily reported success of the Mass Life Sciences Centre (MLSC) and the initial \$1Bn life science initiative created by the then Governor Deval Patrick. Eric Mayes iterating how he was attracted to stay in the UK by the quality of innovation available and now, as a successfully exited founder, could add significant value as a recycled leader.

The role government can play is thus not insignificant in these matters. Front of mind are the measures such as the proposed changes to UK pension fund regulations as mentioned earlier. What would success look like, then moving the level of pension fund investment into equity from its current low 3-4% base to 10% over the next five years would be a good, and ideally self-

catalysing outcome. The potential trickledown effect of securing that increased investment into the early stages would replenish and grow the pipeline. Caution should be exercised to not only support spinouts arising through the now more professional tech transfer offices, but also be sure to support spinouts arising from outside academia. Tony Hickson compared the UK Government's commitment to this space to that of European peers. Whilst acknowledging the recent UK commitment of £40M over the next five years to the cause was a welcome step, the calculated funding gap and hence need, however, is closer to £600M. The lessons of committing to long-term stable funding of elements of the ecosystem are clear from the technology transfer capability of the UK. In all reports on the subject, the UK technology transfer competence is seen as being at least equal to the US, largely as a result of such long-term government support initiatives. Putting that in the context of funding very early-stage innovation to a point of interest for private investors, a role only governments, charities, and philanthropists can really play, it is compelling to see lessons from locations such as the Netherlands, where they are committing €11Bn and Flanders, where there is five-fold more proof-of-concept funding.

Addressing infrastructure gaps was also seen as a government role. Ensuring the skills agenda, both domestically and in attracting global talent, meets the human capital need of the sector is vital. Moreover, creating the right environment to retain that talent in terms of quality of life, housing, transport, and so on is also pivotal, given clusters only work where people want to live with investment following great people with ideas. Infrastructure can go further in terms of life sciences. A brake on the UK sector's growth frequently reported is the lack of available laboratory space. This may have softened in the short term, where growth in real estate development has coincided with a downturn in funding, but longer term this is an imperative. A stimulant of the Boston cluster was felt to have been a collaborative approach between MIT and the MLSC to provide available and flexible lab space for start-ups. Traditionally lacking, this model is developing momentum in the UK and provides an opportunity for all the key players to congregate in one place, fuelling deal flow, investment, and growth. There was stressing, however, that with the evolution and convergence of the deep tech sectors, that science park development, enabled by improved planning laws, needed to be increasingly sophisticated to ensure the right space is provided in the right place for the right combination of innovators. Connectivity between such clusters of excellence being seen as important; the recent support of the East-West Rail project to connect Oxford and Cambridge clusters was deemed a very positive step by the UK Government.



Exploring the role of government further, a discussion between Mike Ward and David Rosenberg delved deeper into the recent success being seen by Indiana. In his role as Secretary of Commerce for the state, he has overseen record levels of investment, totalling an impressive \$39Bn thus far in 2024 (\$8.7Bn 2021) including over the past three years \$14Bn from life science anchor tenant Eli Lilly. Whilst strong in life sciences, there are also major strengths and clusters in fields such as semiconductors, agtech, EV batteries, and defence. In life sciences, the strengths

are in areas such as radiopharmaceuticals, orthopaedics, and manufacturing, alongside leading universities and colleges to bring the talent. A landscape one could argue that is somewhat similar to the UK in terms of sector diversity, innovation pipeline, and ambition, so there may be lessons to be learned perhaps.

In terms of attracting investment, other than from resident corporates such as Eli Lilly or international, such as Samsung and Himax from South Korea in other industries, Indiana sees that speed of readiness and decision-making is pivotal in the modern world. The role of the state in this case is to be prepared for when that request arrives, partly through aggressive real estate development ensuring that the space and infrastructure are shovel ready, that the onward

planning rules are fit-for-purpose and responsive, and that all stakeholders are on board early. This latter point highlighted the importance of the chain, academia, government, and industry and joint players in such things, so having them all aligned in the collective vision and at the table to meet, court, and convince the inward investor is very important. Considering what incentivises those investors, Indiana publicly states it will not add additional regulations over the federal requirements and remains a low cost, low tax, low regulation destination in that regard. Reading between the lines, it felt that a strong belief here was not to tax companies or individuals more than you have to when they are doing the things you desire.

Considering the aspect of political life cycles and planning with such a vision, there was an echo from the earlier discussions in terms of the operators wanting long-term stability and conviction from their government. David explained how his organisation was there to deliver growth and not get diverted from the goal of meeting the needs of companies. Engaging to create and deliver the vision irrespective of political cycles was acting as a guide to how they operate. Of course, understanding and engaging with the political landscape is coveted, but in a way that protects and leverages the political decisions rather than to challenge. For that reason, they can plan longer term, taking a 30-50 year plan to the table and committing to its delivery in making Indiana an attractive location to live from college through to retirement.

When it comes to what the likely impact of a changing presidential administration on the horizon would have on life sciences in Indiana, David was clear. Their office and the state they serve play a sub-national role, seeking the best possible outcome for Indiana. The state thrived under both administration colours previously, and it plans to do so again. It was notable that Indiana was the first state to sign a Memorandum of Understanding with the UK post-Brexit, and they continue to work with the UK's trade department to leverage the two-way benefits of that relationship. Two-way is important to Indiana; for example, their support and promotion of the Eli Lilly Gateway labs opening in London in 2025 is seen as a promising new development in trading potential between the two nations. The unpredictable nature of what was likely to ensue some six weeks after Genesis really means nobody could predict any impacts with confidence so time will tell.

Creating the optimal environment whilst absolutely key, it should not be forgotten that it is absolutely essential to keep in mind that people are the central tenet of life sciences research and translation into better healthcare. Innovators need to be attracted and retained, deals must be executed and alliance managed, government interventions and incentives need to align with the needs of a sector and nurturing an entrepreneurial and collaborative ecosystem remains pivotal for success but is very difficult to measure. These points have been discussed above in the varying contexts of specific issues, but people do deals and collaborate with people, is the bottom line, so how do we keep the people factor at the centre of the sector's vision?



One part that is only found in those changemakers wanting to be disruptive, innovative, and a positive influence is the personality of a successful entrepreneur. Elin Haf Davies, who successfully started, grew, and exited Aparito over the last decade, set out the key elements of their journey to the company's acquisition by Eli Lilly in 2024 and what reflections were taken away at a personal level that may help guide other such dedicated and tenacious entrepreneurs.

The context here was from Elin Haf working as a nurse around 25 years ago, interacting with young patients and their families and seeing an unmet need. Her experience of seeing how to engage with families and patients and the limitations of the then used measurements to align end points of clinical trials with the outcomes that mattered to patients. Digitisation offered the opportunity to address the misalignment and hence avoid the demoralising effect on patients of seeing inconclusive clinical trial results. And so, Elin Haf's journey continued with the founding of Aparito, summarising reflections from those ten years as follows:

- Timing is everything – the development of their platform (atom5) prior to Covid-19 meant that when the pandemic struck, Aparito was proven and ready to roll.
- LUCK: Labouring Under Correct Knowledge – everyone says luck is necessary, but it is helped by the team making good decisions and choosing to work on the right things at the right time.
- One Stroke at a Time – this was a reflection on Elin Haf and a colleague having previously rowed across the Atlantic, taking 77 days, 7 hours and 37 minutes. In a parallel, the experience mirrored building a med tech company by making sure you focus on one step at a time rather than the whole journey at the outset.
- Keep your north star – even though changing environment from NHS-academia-regulatory into entrepreneurship, it was vital not to lose sight of the focus on the patients and doing right by them.
- People make or break you – finding the best team, getting the right clients, and securing the right investors can be challenging at the early stages without the resources of a major company – choose wisely and develop.
- Cash is king (but a poor ruler) – the company was not an obvious fit for either biotech or tech investors, but don't lose sight of building it your own way, and a fit will come along!
- Time is your greatest asset – use it wisely and learn to say 'no' when you are afraid of missing opportunities, remembering there is space for zebra-type companies as well as unicorns (if they exist).
- Take calculated risks – previous adventures suggested Elin Haf is a risk taker based on rowing across two oceans. Recent research by Coulter Partners analysing personality traits of digital health CEOs has shown that they tend to be different – investors be aware!
- Pressure is a privilege – a quote from Billy Jean King that reflected views that taking part in sport also equipped women for the corporate world in terms of skills and resilience. On the journey, pressure does not always feel like a privilege, but it does in hindsight, so keep going.
- Enjoy the journey (not just the destination) – parallels with the experience of rowing across the Atlantic Ocean, the path is not always smooth, there are headwinds, and it takes longer than you think. Accept this and enjoy the day-to-day activities and challenges; not just focus on the destination.

Elin Haf exemplified what it takes to be a successful entrepreneur, accepting setbacks along the way but being tenacious and determined to succeed in delivering the change she felt passionate about. On the back of hearing about the challenges facing the UK life science sector and the land of opportunity perhaps other locations such as Indiana offer, the conference explored, by Renos Savva and Nara Daubeney, the key UK attraction points to a leading bio-entrepreneur.

There was mention through the day of the change happening in the UK in terms of culture, experience, and support mechanisms for those seeking to start and grow a new enterprise. Looking back, evidence of such change is the now proliferation of accelerator programmes, a more professional technology transfer office system, and a change in attitude among academic peers where starting a company is not now seen as being a sign of failing as an academic. All changes for the good one would feel. There may still be limitations, however. There may still be a persisting perception that bioentrepreneurs need to be located within the Golden Triangle of London-Oxford-Cambridge, for example when start-ups can be born anywhere.

Thinking of locating anywhere, that doesn't have to be within the UK at all, it is a globally competitive market to attract these bioindustry leaders. Considering any location, the keys seem to be in the ability to provide access to great science, brilliant people, effective physical infrastructure, the right business environment, and sufficient capital. The UK can feel confident in much of this list; however two factors stand out. First is the right business environment, which in part is in its own hands in terms of regulation and government funding but in large part is macroeconomics-driven, which is less under direct control and choice. Access to sufficient investment capital is a recurring theme of any debate on growing a life sciences sector or business



not just in the UK but anywhere. When so many locations can offer what appear to be similar positives, the challenge for the UK is to stand out.

Picking up on some earlier themes about attracting the right people, partners, and investors. An entrepreneur will need to identify those backers for whom their proposed plan and risk mitigation strategy work. By their nature, entrepreneurs seek out failure in some ways as a means to take calculated risks, learning from each cycle. For investors, fishing in a pool with a depth of serial exited entrepreneurs can help mitigate risk, but do we discuss failures enough to spread the lessons widely, is a key concern. Speaking about failure feels like a non-British trait, but if serial success is an edge, how should new entrants break through is a concern since this would lead to potentially a smaller than potential pool of talent with which to work.

The UK, whilst having a good CV to attract an entrepreneur, perhaps has some challenges also. The dearth of accepted and broadly appealing meet-and-mingle locations could be one. It was highlighted that in hubs such as Boston, it is far more common to see gatherings of medics, scientific researchers, and senior business executives facilitating cross-pollination of ideas and opportunities. Much is made of the asset that is the NHS in the UK, but accessing and using NHS data is far from easy, and through the eyes of a bioentrepreneur, the NHS itself is not seen as an early adopter, a place to do truly new innovation, or to test ideas out. There is now a plethora of support mechanisms for academics and a growing set for non-academics wishing to be entrepreneurs, although the engagement often arises from within the NHS and not just from doctors but from allied roles frustrated by the system they are working in when wanting to be innovators. So, whilst the NHS is a huge resource and potential asset, it is innovators and private enterprise that are felt to drive growth, change, and success.

In summary, as a bioentrepreneur seeks the right combination of science, people, facilities, business environment, and money, then the UK has a very strong CV in several areas, but like a school report, there is room for improvement. Perhaps in a further nod to school reports, one could say in some areas for the UK to remain competitive, the UK must do better. In short, the UK, like any aspiring life science location, needs to sell itself to the bioentrepreneur community. It has an excellent starting point in terms of great science, brilliant people, improving policy support, and entrepreneurial science parks, for example, but there are gaps to fill.

Exploring the people factor further, it seems fitting that the review of Genesis 2024 should finish by returning to those that are by far the most important stakeholders in the life science sector – the patients. It is unusual to meet anyone active in the sector who is not driven by a desire to improve patient outcomes as their North Star. Achieving success in their own specific roles enables them to play their part in the sector achieving this. The development of new medicines, health technologies, and knowledge that enables better prevention or outcomes for citizens and patients has always been a team sport.

The phrase 'patient-centric' is used ubiquitously among those researching new solutions and delivering healthcare to emphasise how they keep the patient experience in mind whilst developing their approach. It was insightful to hear from Elin Haf Davies and Elaine Warburton OBE, two entrepreneurs who have started and grown companies and are both former nurses, about how and why they have engaged patients in their success journeys. Clear from both was their passion to ensure that the technologies their companies developed addressed a real need and would have an impact. Having an impact, of course, requires that the resultant device or solution be adopted by end users, a point that highlighted one of the first take-home messages. When considering who the end user may be, it absolutely includes patients, but input should also

be sought from those around the patients, such as the physicians, nurses, and other allied health professionals, and the patient's family and carers.



The end user group being engaged at all stages helps to ensure a number of key criteria are met, such as whether the solution is practical to use, addresses a patient need, and whether the clinical trial design is targeting the right endpoints. Involving from the very first ideation stage, right through financing and prototyping of a device, can provide a valuable reality check at each stage of the process as well as help on the regulatory and reimbursement pathways. Innovators and developers need to be humble and listen to their end users through, eg, focus groups in order to drive product acceptance.

In the case of the former, an example detailed from QuantumDx was how developing their diagnostic as a hand-held device, whilst apparently great for patients, was not so practical for the healthcare professionals given the risk of the devices not being returned or used incorrectly, the format being too uncontrollable perhaps. Equally, when designing a clinical trial endpoint, selecting an appropriate clinical endpoint that is meaningful to patients is a must to retain engagement in the trial and to gain a definitive go/no go outcome rather than a somewhat demotivating inconclusive trial result. Inconclusive meaning there is ambiguity on whether the trial failed due to the drug or the wrong endpoint selection.

Difficulty in accessing patients is often a barrier encountered by companies wishing to be more patient-centric. Advice was shared on making the most of your own networks in the field, utilising the NHS England Patient Champions initiative, engaging with the appropriate charities, grant funders usually have links, and of course, patient groups directly.

A word of caution was to be sure to give the patient support groups ample time and consideration to make an impact rather than contacting them at the last minute before a grant application deadline is due and a requirement is a form or letter of support from a patient-led organisation. Firstly, grant reviewers are experienced at spotting this, but more importantly, the groups are often time- and resource-poor, so requesting such input has to be valued. Improvements to a proposed study can reveal real advantages and avoid later pitfalls due to factors such as culture, logistics, or simply ensuring clinical trials are designed with the patient need and quality of life in mind to be meaningful. Real-life examples of such feedback were discussed regarding the appropriate design of a Duchenne Muscular Dystrophy trial as well as an HPV diagnostic trial in Sub-Saharan Africa, highlighting the considerations needed to align with patients' lived experiences and global cultures.

The session finished with an apt quote attributed to many, including Hillary Clinton, Warren Buffet, and others, but most frequently as a translation of an old African proverb, fitting given the example above, 'If you want to go fast, go alone. If you want to go far, go together.'

As we heard throughout the Genesis programme, networking sessions, and Fringe sessions, whilst the change in technology and our generation of data and new information about human disease have never been changing faster, progress in changing the outcome for patients, returns on investment, and deal success is a factor of collaboration.

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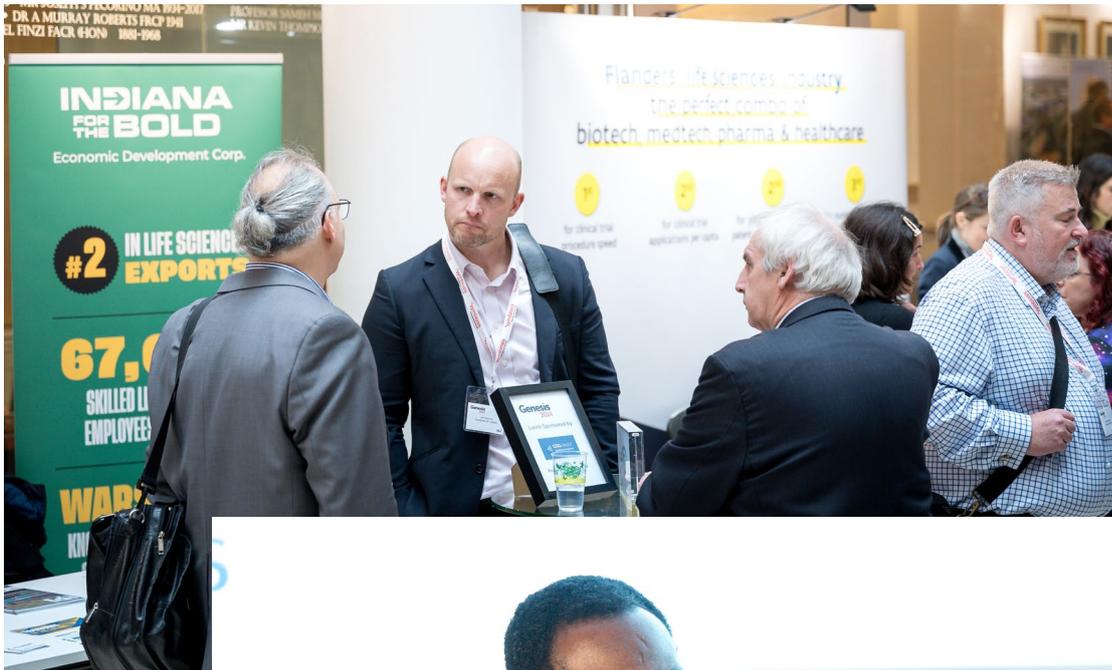
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The Genesis 2024 Experience



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Genesis Fringe

In the same week, London was certainly the place to be, with a fantastic series of Fringe events connecting the ecosystem with life science leaders:

Building a World Class Life Science Ecosystem

Hosted by Mathys & Squire LLP

Accessing US Investors or Exit

Hosted by Taylor Wessing

Navigating the IP Landscape in Advanced Therapy Dealmaking

Hosted by Marks & Clerk

Genesis Welcome Reception

Hosted by CMS UK

UK-EU Networking Reception

Hosted by Flanders Investment & Trade (FIT) & Investment

SCRIP Awards 2024

Hosted by Citeline

Recent Trends in Medicinal Chemistry and Enabling Technologies

Hosted by Society for Medicines Research

Discovery to Commercialisation in Rare Diseases – The Role of Real-World Evidence

Hosted by J A Kemp

See You at the Next **Genesis - 3 December 2025**





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