



# Syncona Corporate Presentation

August 2020

[synconaltd.com](https://synconaltd.com)

*Image Freeline labs, Stevenage*

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# Strategy and vision

# Building the next generation of healthcare leaders

Capturing the out-return from commercialising exceptional science

## Globally significant scientific research base

Leverage the quality of the European life science research base

01

## Focus on products and patients

Select technology that can:

- deliver dramatic efficacy for patients
- credibly be taken to approval by an innovative biotech

02

## Founding companies with strategic ownership

Invest through company life cycle to maintain significant ownership positions, enabling:

- strategic influence; leveraging expertise in Syncona team
- participation in the out return available from taking products to approval

03

## Long-term, ambitious capital

Fund ambitiously over time frames necessary to develop innovative medicines

04

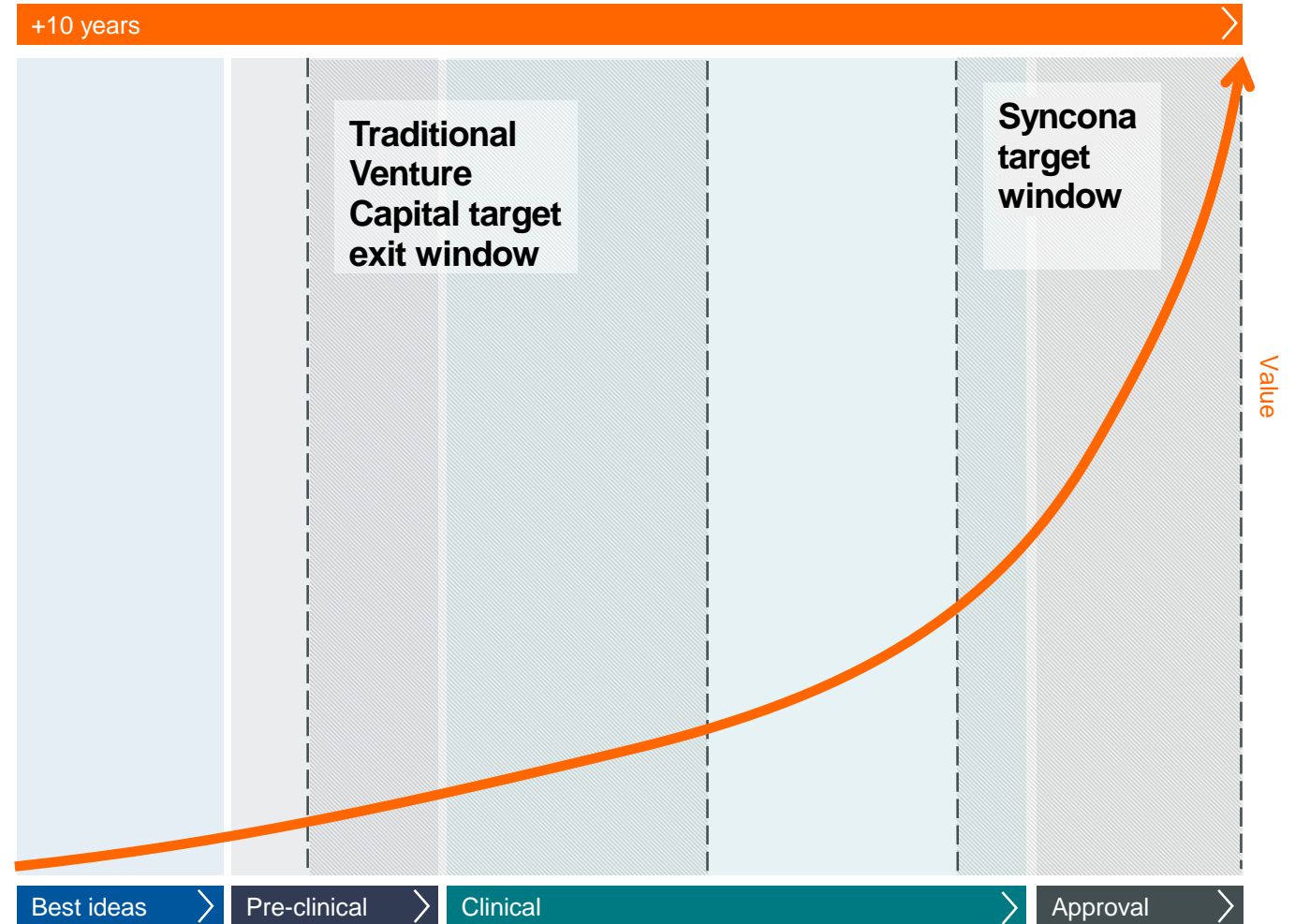


# Capturing the out return in life science

Strategy designed to deliver strong risk adjusted returns for shareholders

**Out return in life science weighted towards late development and product approval:**

- Set companies up with the ambition of taking products to market
- Target the steepest part of the value curve

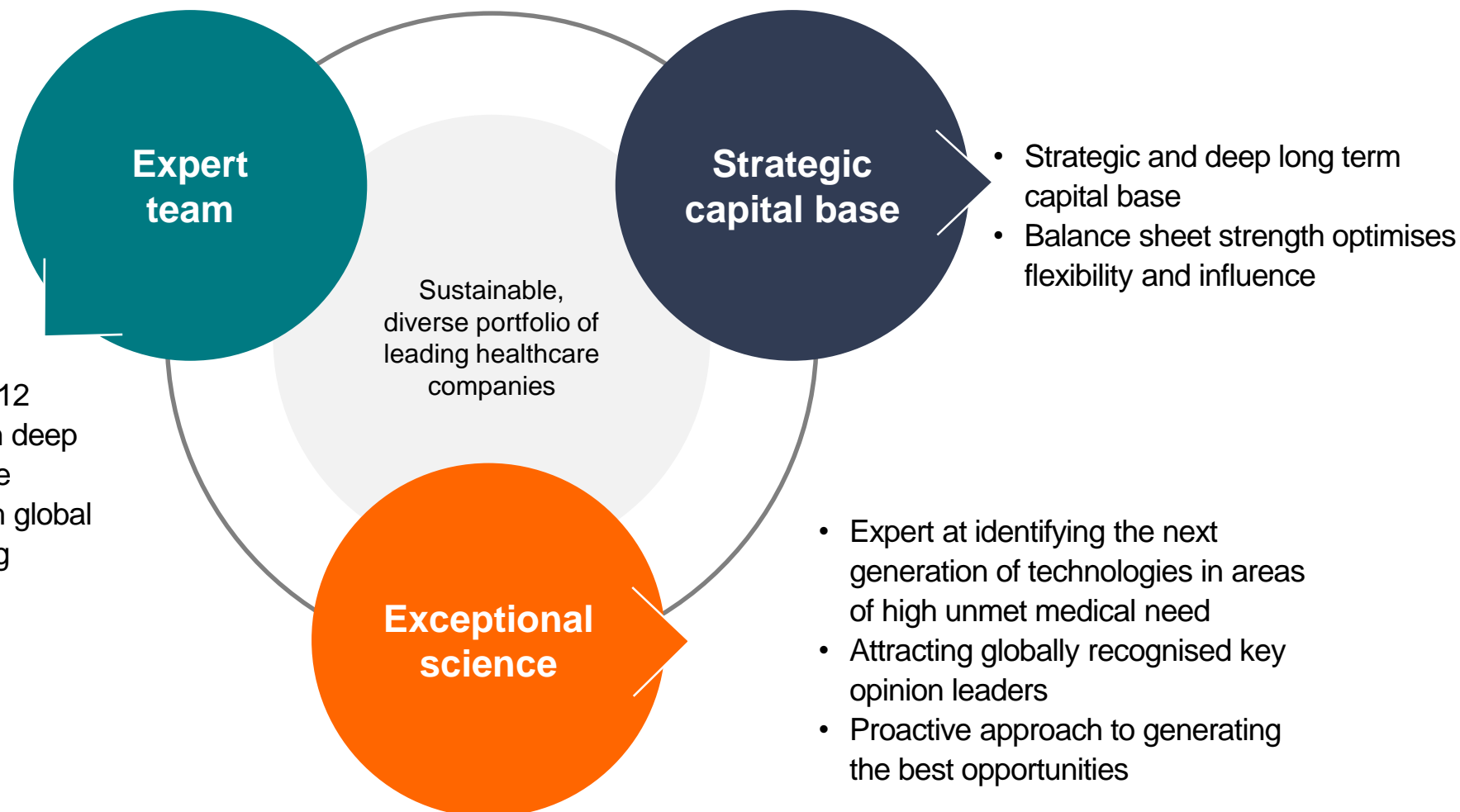


Graph is illustrative and assumes successful clinical development and approval, Syncona team view

# Our differentiated platform

Founding, Building and  
Funding global leaders  
from exceptional science

- Track record of 44% IRR since 2012
- Investment team of 15 people with deep scientific and commercial expertise
- Extensive experience working with global key opinion leaders and appointing leading management teams



The background is a solid teal color with several large, overlapping circles and geometric shapes in varying shades of teal and blue. The shapes create a layered, abstract effect. The text "Found and Build" is centered in the upper left quadrant.

Found and Build

# Focus on founding companies

Optimises strategy, control, ownership and returns

**Strategy:** ensure company targets products that can credibly be taken to approval / market

**Influence:** sole or majority investor position maximises ability to influence company, especially in crucial early years when strategy and management are set

**Ownership and returns:** aim for best cost basis of any investor, supporting opportunity to deliver best returns for shareholders



Company	Founded by Syncona	Syncona majority ownership position
Autolus	✓	Largest investor (27%)
FREELINE	✓	✓
GYROSCOPE	✓	✓
ACHILLES THERAPEUTICS	✓	✓
SwanBio THERAPEUTICS	✓	✓
OMass THERAPEUTICS	OSI (seed)	Largest investor (49%)
ANAVEON	UZH Fund (seed)	✓
QuellTX	✓	✓
AZERIA THERAPEUTICS	CRT Pioneer Fund <sup>1</sup>	✓

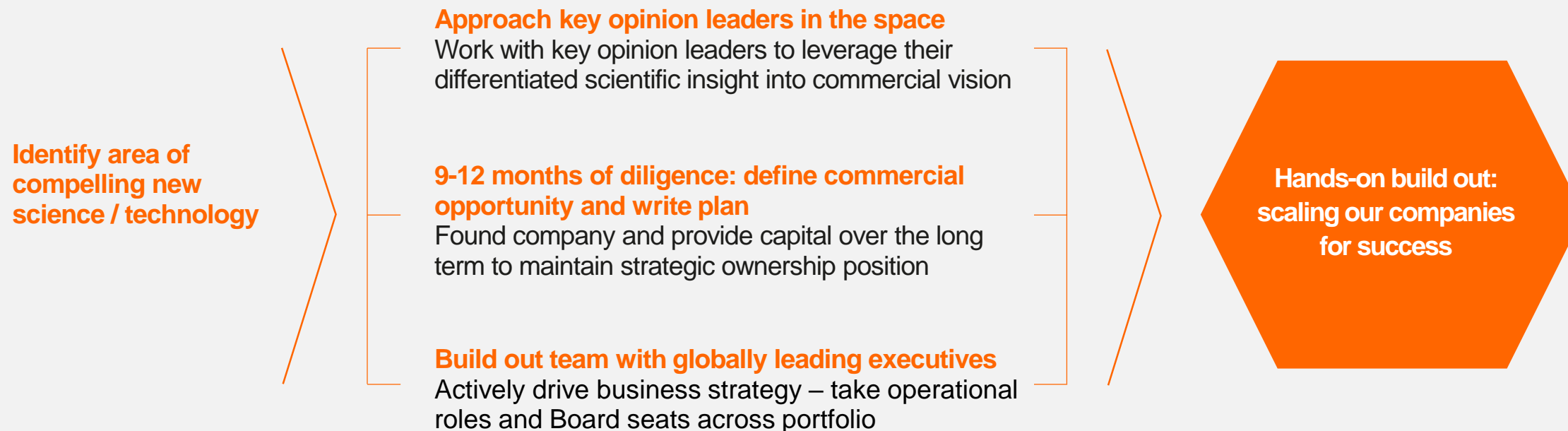
<sup>1</sup> Syncona holds 64% of the CRT Pioneer Fund



# Our approach to company creation and development

Translating technology to products to reach full value potential

## Our partnership approach provides a strategic premium



# Founding Quell Therapeutics

Proactive and creative company creation: proprietary sourcing



## Syncona insight

- Deep Syncona domain expertise in cell therapy; identified T-Regs cells as an area of high interest in 2017
- Sought opportunity to found a company with the potential to be a global leader in an emerging area
- Identified leading academics in T-regs with deep clinical expertise
- Led by Elisa Petris and Freddie Dear

## Company foundation

- Syncona brought together six leading academics from three institutions (KCL, UCL and Hannover) with complementary expertise and technology
- 11 months diligence, developing strategy and licensing key IP
- Focused effort on securing key team members pre Series A closing
- £35 million Series A financing

## Commercial vision

- Syncona team wrote business plan; first candidate in liver transplant setting identified
- Work ongoing on pipeline of further indications to target
- Recruited: Chief Executive Iain McGill, CBO Luke Henry, CMO Berndt Schmidt
- Board: Martin Murphy Chair, Elisa Petris, Director
- Syncona Partner, Freddie Dear, in business as Director of Operations

The background is a solid orange color with several large, overlapping geometric shapes in a darker shade of orange. These shapes include triangles and a large, rounded rectangle, creating a modern, abstract design.

# Fund

# Funding model for our companies



Capital pool provides control and flexibility over the long-term

## Series A

### Investing in

- Pre-clinical trials
- Laboratory and office space
- Attracting global talent

### Typical key risks

- Pre-clinical data outcomes to validate academic discovery in industrial setting

### Typical Syncona financing approach

- Sole institutional investor
- c£20-40m

## Series B

### Investing in

- Clinical trials
- Expanding platform – manufacturing, delivery and further programmes

### Typical key risks

- Safety and efficacy in clinical trials
- Execution risk

### Typical Syncona financing approach

- Typically sole institutional investor
- c£50-100m

## Series C and beyond

### Investing in

- Late stage clinical trials (i.e. approval studies)
- Developing infrastructure to deliver commercial scale and launch

### Typical key risks

- Safety and efficacy in clinical trials
- Execution and regulatory approval

### Typical Syncona financing approach

- Option to fund on sole basis
- c£50-250m, more likely to bring in partners to share risk

# Balance sheet strength is strategic and a key differentiator

Peers demonstrate scale of capital deployed into development stage biotechs

## Syncona capital base

£738m

to fund growing life science portfolio and found new companies

## Syncona FY2021 capital deployment

£150m-250m

based on whether our portfolio companies can access third party capital when appropriate and our investment pipeline

## Strategic capital is central to delivery of strategy

- Founding investors have the best ability to set strategy
- Life science companies require significant capital as they scale; ability to maintain influence through financing rounds essential
- Balance sheet strength provides best negotiating position for external financing rounds or M&A
- Capital to execute ambitious vision optimises ability to attract the best academics, founders, managers and partners

## Disciplined approach

- Each financing dependent on company specifics (scale of opportunity, risk, capital requirement) and size of Syncona's balance sheet
- Funding commitments tranching and based on milestone delivery



# Market Context

# The promise of precision medicine

Enables faster development, smaller, more capital efficient clinical trials and targeted commercial roll-out

- Traditional drug development can lead to ineffective drug development; it assumes all patients respond similarly
- Precision medicine can enable more effective therapies; genetics revolution has enabled greater insight into choosing low risk targets and selecting patients that will respond
- Many chronic diseases impacting millions of patients have genetic sub-drivers, permitting targeted drug development

**30-60%**

A traditional drug may only be 30-60% effective\*

**3x**

Medicines targeted at defined patient groups 3x more likely to succeed than conventional drugs\*\*

**+50%**

Trials initiated in 2018 using some form of genetic based selection\*\*\*

\*<https://www.england.nhs.uk/healthcare-science/personalisedmedicine/>

\*\*Informa Pharma Intelligence's *Biomedtracker* and Amplion Inc.'s *BiomarkerBase*.

\*\*\* According to Informa's Trialrove.

# Third Wave therapies have strong momentum

Syncona has established a leadership position in gene and cell therapy



## “First Wave”

**1950's**

Small Molecule drugs, dominated by large pharmaceutical companies.

01

## “Second Wave”

**1990's**

Large Molecule (antibody therapies, enzyme replacement therapies).

02

## The “Third Wave”

**Today**

Advanced Biologics and genetic medicines such as gene therapy and cell therapy and DNA/RNA medicines.

03

10k

monogenic diseases, less than 50 with treatments

10

'Third Wave' therapies approved in the US

10

'Third Wave' programmes taken into the clinic by Syncona founded companies

6/9

Of Syncona's portfolio companies in Third Wave

+75%




Of Syncona total capital invested in 6 Third Wave companies

2014

Syncona's first Third Wave company founded

# Third Wave commercial context

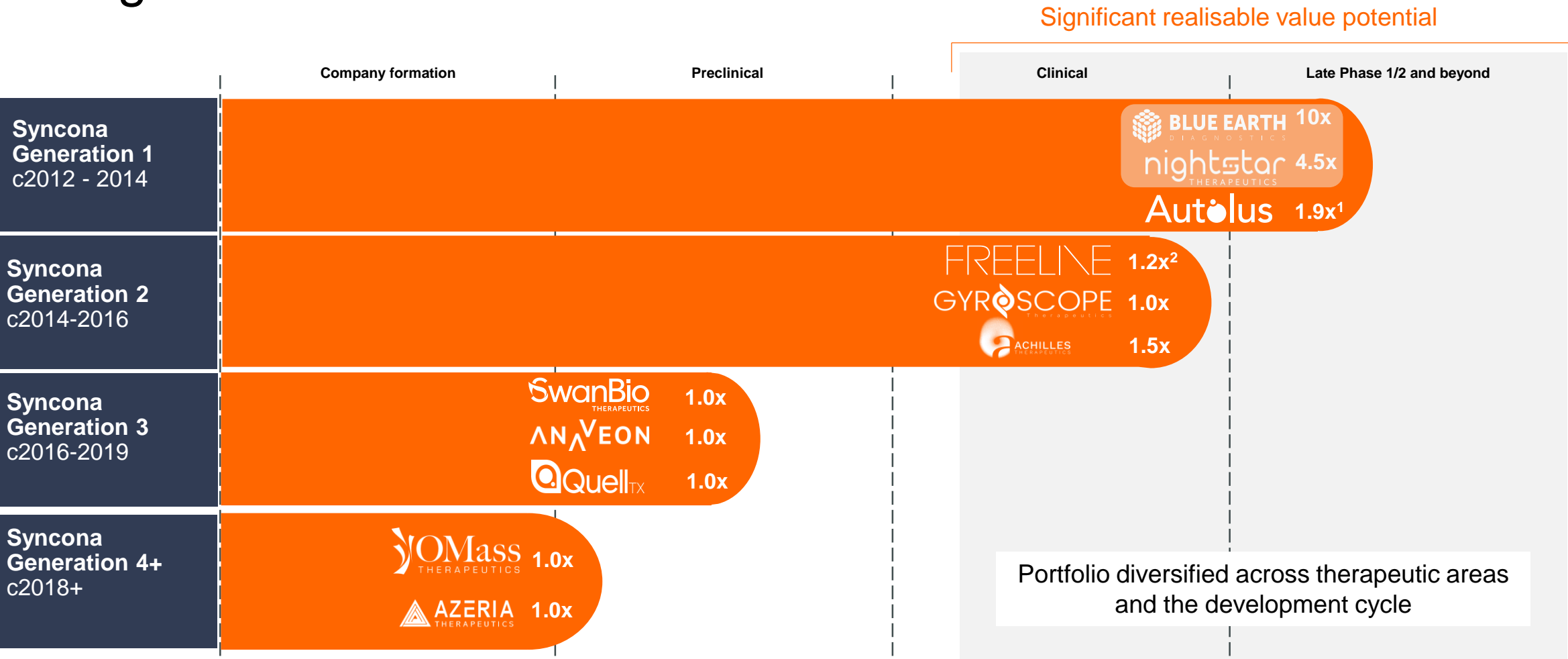
Platforms attract premiums

	Company description and number of clinical programmes	Market size of lead programme on a global basis	Take-out price \$bn	Premium %
	CNS gene therapy company <b>1 clinical programme</b>	Spinal muscular atrophy <b>23,500</b>	<b>\$8.7bn</b>	<b>88%</b>
	Liver gene therapy company <b>3 clinical programmes</b>	Haemophilia A <b>174,000</b>	<b>\$4.3bn</b>	<b>122%</b>
	Neuromuscular gene therapy company <b>1 clinical programme</b>	X-linked Myotubular Myopathy <b>1 in 40,000</b>	<b>\$3.0bn</b>	<b>110%</b>

# Syncona portfolio



# Significant value creation opportunity in the next generation



All data as at 30 June 2020  
Nightstar and Blue Earth realised in 2019

1 Listed on NASDAQ.  
2.On 7 August, Freeline IPO'd on NASDAQ valuing Syncona's holding at £257.7 million, or 1.5x cost

# COVID-19 update

Vision to develop treatments for patients remains of profound importance

## Limited impact to business continuity

- Took immediate measures to protect team and minimise disruption
- Expanded team despite remote working environment
- Continue to take a proactive approach to sourcing new opportunities
- Leveraged core expertise to provide support to The Wellcome Trust and the UK Government
- Annual donation to charities brought forward to June

## Portfolio companies supported to navigate disruption

- Conducted a bottom up analysis across portfolio (cash requirements, milestone delivery)
- Varying impacts on clinical trials; working closely with companies where delays identified
- Initially more limited impact in oncology setting, where the need for treatments is more acute
- Companies developing innovative solutions to manage disruption and majority of trials re-started
- Companies continue to generate data where patients have been treated

Strong capital pool; companies well positioned to manage through disruption

# Lead programme moving to pivotal and positive data in AUTO3

High level of clinical activity in end-stage patients

Value: £206.3m\*

Cell therapy, 27% ownership

## Clinical progress:

- AUTO1 data shows high level of clinical activity in end stage cancer patients, good safety profile and potential for durable responses
- AUTO1 programme has progressed to a pivotal study – IND and CTA approval
- Released positive data in AUTO3 DLBCL programme – favourable safety profile potentially enable for use in outpatient setting; out patient cohort initiated in Q2 CY2020
- AUTO4 potentially delayed by COVID-19 disruption by one quarter, however pre-clinical data expected for T cell lymphoma and solid tumour programs at AACR covering AUTO5, AUTO6NG and AUTO7

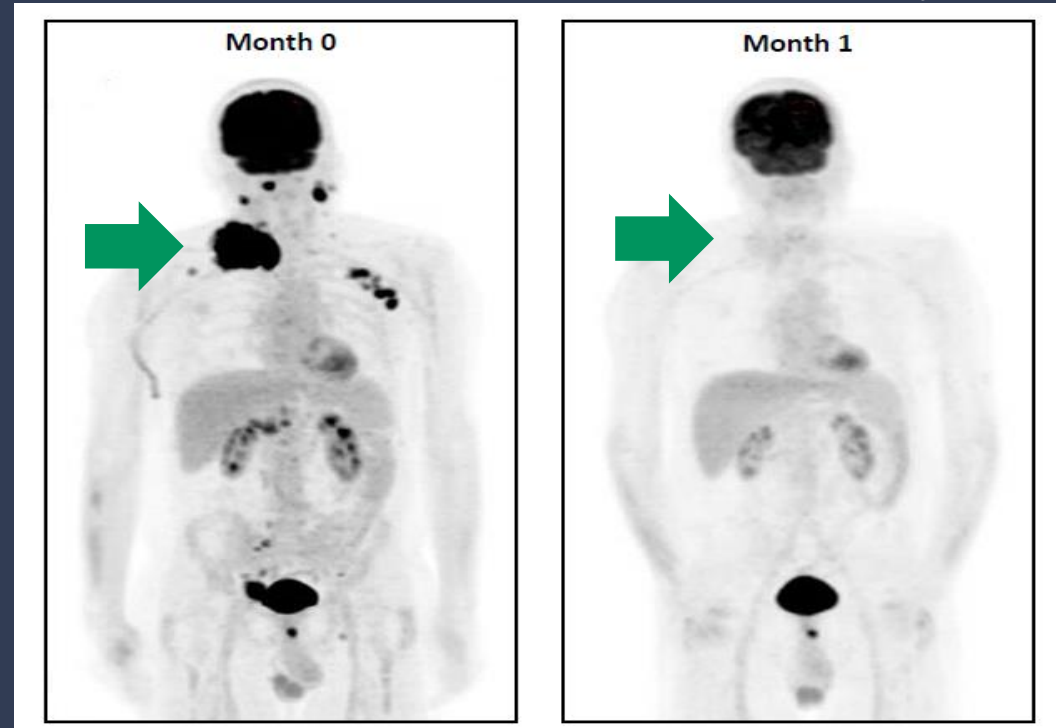
**COVID-19 update:** based on current expectations we anticipate the impact on most operations will be minimal

Autolus

## Complete Responses Seen in bulky tumors with good safety profile

Pre AUTO3

Post AUTO3 Day 28



# Encouraging data in lead programme

Differentiated opportunity to target broad pipeline of systemic disorders

**Value: £180.6m\***

**Gene therapy, 60% ownership**

## Financial progress






- Completed a \$80 million Series C financing, bringing in specialist, long-term investors
- Listed on NASDAQ at the top-end of the range (\$18); upsizing of the deal by 20% with Freeline raising gross proceeds of \$159m
- Syncona invests \$24m; retaining 49% position and total shareholding following the IPO valued at £257.7m, including an increase in the value of £57.7m

## Clinical progress:

- Lead programme in haemophilia B seeking to deliver FIX activity in the normal range (50-150%)
- Highly encouraging data; potential for best-in-class product for patients; seeking to identify optimal dose to move to a pivotal study
- Reported data in its second clinical programme in Fabry's disease, showed that gene therapy can deliver sustained levels of the required enzyme

FREELINE

## Clinical pipeline leveraging the same proprietary platform

Programme	Research	IND enabling studies	Phase 1/2	Next Milestone	Patient No (US & EU5)**
Haemophilia B FLT180a				Dose Selection	9,000
Fabry FLT190 and FLT191				Results from dose escalation	9,000
Gaucher FLT200 and FLT201				CTA/IND	6,000
Haemophilia A FLT210				CTA/IND	38,000
Undisclosed inflammatory disorders				Candidate Selection	50,000 – 200,000

**COVID-19 update:** experienced delays in its second clinical programme in Fabry trial this financial year

\*All data at 30 June 2020

\*\* Refer to footnote 3 on slide 39

# Gyroscope: ongoing operational and clinical progress



Targeting the treatment of dry AMD by using gene therapy to restore balance to the complement system

**Value: £73.0m\***  
**Gene therapy**  
**Ownership: 80%**

**Operational progress**

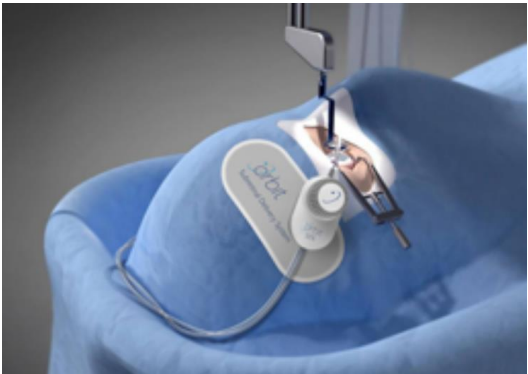
- Appointment of Nadia Waheed as CMO and Jane Hughes as CSO
- Continued to build out manufacturing; commercial scale

**Clinical progress**

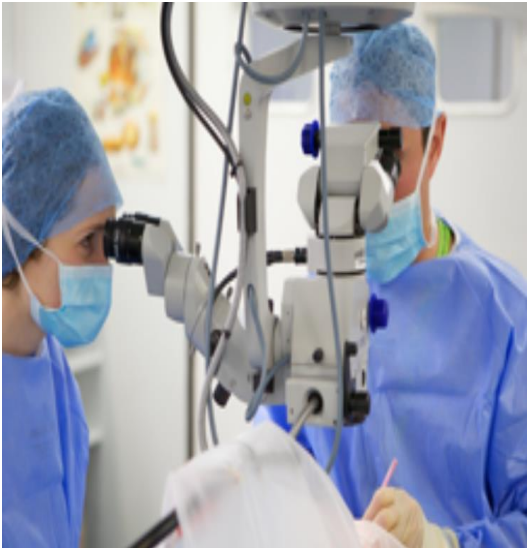
- Ongoing dose escalation in phase I/II trial for treatment of dry AMD
- Initiation of phase II trial for the treatment of dry AMD; first patient treated (August)
- No safety issues seen to date

**COVID-19 update:**

Closely monitoring how to manage elderly patient population treated in trials; expect to report initial data from phase I/II trial in this financial year



The device shown is not approved for human use



Candidate	Indication	Status			
		Research	Target ID	Pre-clinical	Clinical
GT005	Geographic Atrophy (defined sub-set)				
GT005/7	Geographic Atrophy (broad population)				
GT005/7	Other inflammatory retinal disease				

\*All data at 30 June 2020



# Achilles: strong progress with first patient dosing



Developing tumour infiltrating lymphocyte therapies designed to target clonal neoantigens (present on all tumour cells)



**Value: £72.4m\***  
**Cell therapy**  
**Ownership: 44%**

## Operational progress:

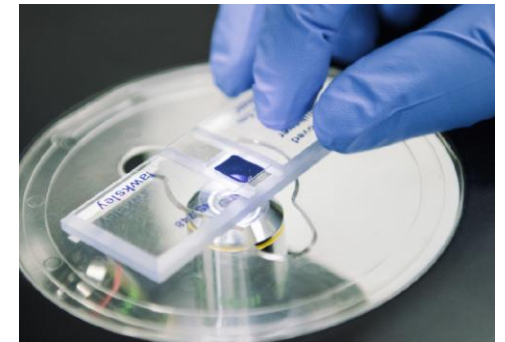
- Appointment of CSO, Sergio Quezada
- Appointment of exceptional Scientific Advisory Board
- Carsten Boess, 30 years financial experience, appointed to Board
- Continued to build out manufacturing; commercial scale

## Clinical progress:

- Enrolling patients in its phase I/II trials in NSCLC and melanoma
- Dosed first patients in melanoma and NSCLC studies
- Expect to report initial data from both trials in H1 CY2021

## COVID-19 update:

Navigating impact well and currently still able to dose patients








Disease	Status		
	Pre-clinical	Phase 1/2	Pivotal
Metastatic/recurrent melanoma	<div></div>		
Advanced non-small cell lung cancer	<div></div>		
Other indications	<div></div>		

\*All data at 30 June 2020

# Strong progress across preclinical companies

Building out management teams and manufacturing capabilities; making strides towards the clinic

Company	Focus	Value	Progress	Clinical progress
 SwanBio THERAPEUTICS	Gene therapy	£34.4m	<ul style="list-style-type: none"> <li>– Team build out</li> <li>– Continuing to develop a scalable manufacturing process for commercial supply</li> </ul>	<ul style="list-style-type: none"> <li>– Pre-clinical development continues with lead programme</li> <li>– Developing pipeline indications</li> </ul>
 OMass THERAPEUTICS	Small molecule	£14.6m	<ul style="list-style-type: none"> <li>– Continue to recruit senior leadership team</li> </ul>	<ul style="list-style-type: none"> <li>– Progressing a pipeline of small molecule therapeutics, including its lead programme into pre-clinical development</li> </ul>
 ANVEON	Biologics	£12.5m	<ul style="list-style-type: none"> <li>– Leadership team build out</li> <li>– Expanding operations</li> </ul>	<ul style="list-style-type: none"> <li>– Clinical candidate nomination</li> </ul>
 QuellTX	Cell therapy	£19.9m	<ul style="list-style-type: none"> <li>– Appointment of CEO</li> <li>– Team and manufacturing build out</li> </ul>	<ul style="list-style-type: none"> <li>– Clinical candidate nomination in lead programme in liver transplant</li> </ul>
 AZERIA THERAPEUTICS	Small molecule	£6.5m	<ul style="list-style-type: none"> <li>– Focused on pre-clinical development of lead programme</li> </ul>	<ul style="list-style-type: none"> <li>– Generating pre-clinical data to test the core technical premise behind our investment</li> </ul>

# Financial performance

# Our approach has delivered significant long term value

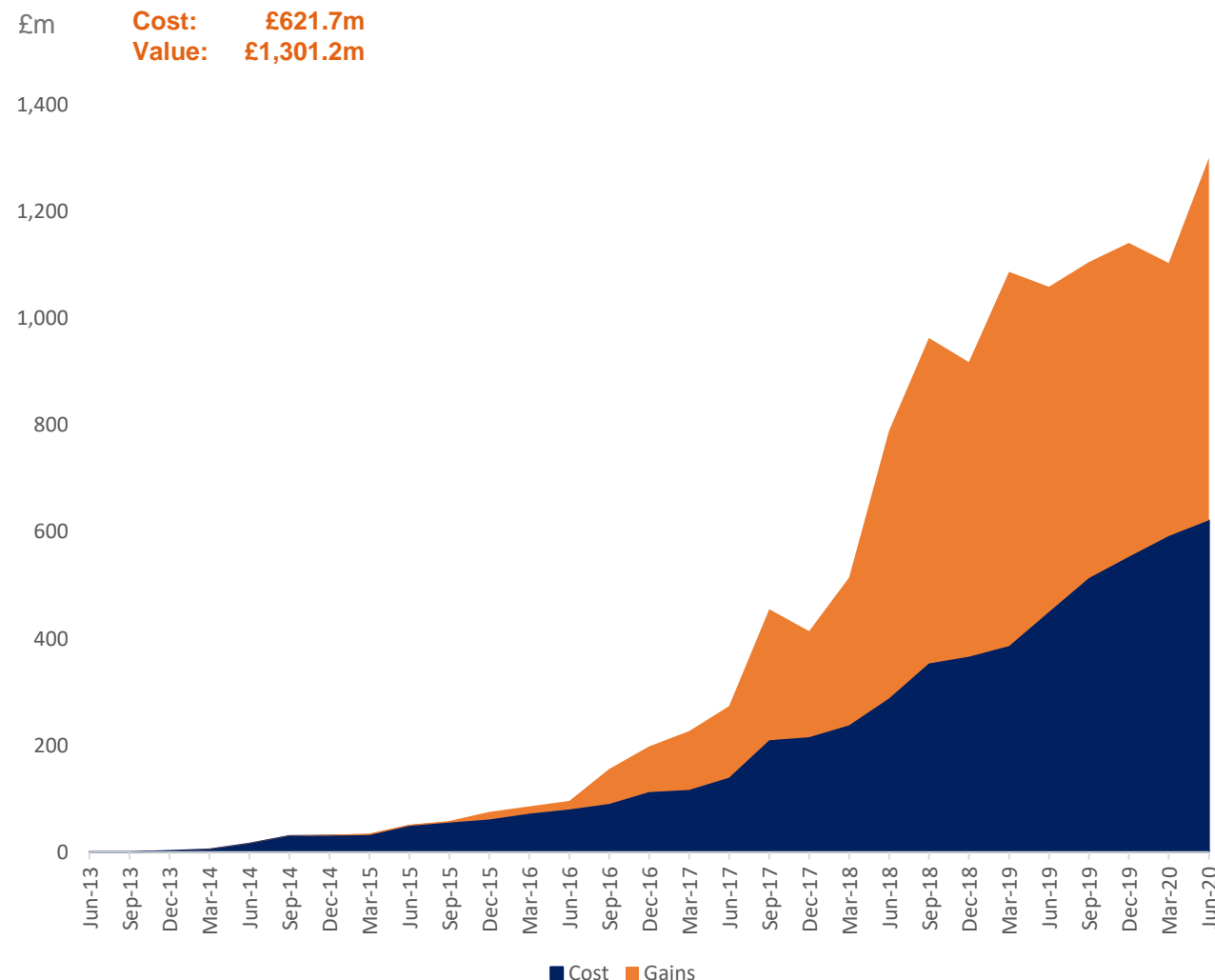
Strong track record; IRR of 44% - 2.1x cost generated on Syncona portfolio since 2012

## Strong risk adjusted returns

- £621.7m capital deployed since 2012
- 13 Syncona portfolio companies founded
- Two companies sold:
  - Nightstar sold to Biogen for \$877m in 2019; 4.5x return (IRR 72%)
  - Blue Earth sold to Bracco Imaging for \$476m in 2019; 10x return (IRR 87%)
- Remaining life science portfolio valued at £677.0m
  - 1.3x capital invested

As at 30 June 2020

Figures reflect Syncona Partners original investment pre merger with BACIT



# Financial review

NAV of £1,414.9m, 210.7p; capital pool of £737.9m

## NAV increase of 13.5% in the three months to 30 June 2020

- Life science portfolio valued at £677.0m, a return of 35.1% in three months
  - Performance driven by the increase in the Autolus share price and the write-up of Freeline in its recent Series C financing
- Capital base of £737.9m as at 30 June 2020; £29.2 million of capital deployed in the quarter
  - Expect to deploy £150 - £250 million in FY 2021
- In August, Freeline IPO'd on NASDAQ, valuing Syncona's holding at £257.7m
  - Uplift of £57.7 million, or 8.6p per share to 30 June value<sup>1</sup>
  - Syncona remains Freeline's largest shareholder with 49% holding

<sup>1</sup> Value at IPO share price (\$18)



- Clinical stage
- Pre-clinical stage
- Drug discovery

Portfolio company	Ownership* %	31 March 2020 value £m	Net invested/returned the period £m	Valuation change in period £m	FX move ment £m	30 June 2020 value £m (Fair value)	Valuation basis (Fair value)**	% of NAV
Autolus	27	77.0	-	129.1	0.2	206.3	Quoted	14.6
FREELINE	60	150.7	-	30.6	(0.7)	180.6	PRI	12.8
GYROSCOPE	80	73.0	-	-	-	73.0	Cost	5.2
ACHILLES THERAPEUTICS	44	72.4	-	-	-	72.4	PRI	5.1
SwanBio THERAPEUTICS	79	18.5	15.8	-	0.1	34.4	Cost	2.4
ANAVEON	51	12.3	-	-	0.2	12.5	Cost	0.9
QuellTX	69	8.3	11.6	-	-	19.9	Cost	1.4
AZERIA THERAPEUTICS	60	6.5	-	-	-	6.5	Cost	0.5
OMass THERAPEUTICS	49	14.6	-	-	-	14.6	Cost	1.0
Syncona Investments	-	46.2	1.8	8.8	-	56.8		4.0
<b>Total</b>		<b>479.5</b>	<b>29.2</b>	<b>168.5</b>	<b>(0.2)</b>	<b>677.0</b>		<b>47.9</b>










\*Percentage holdings reflect Syncona's ownership stake at the point full current commitments are invested  
 \*\*Cost indicates that the fair value has been determined to be equal to the total funding invested by Syncona



# Outlook and summary

# Portfolio company outlook

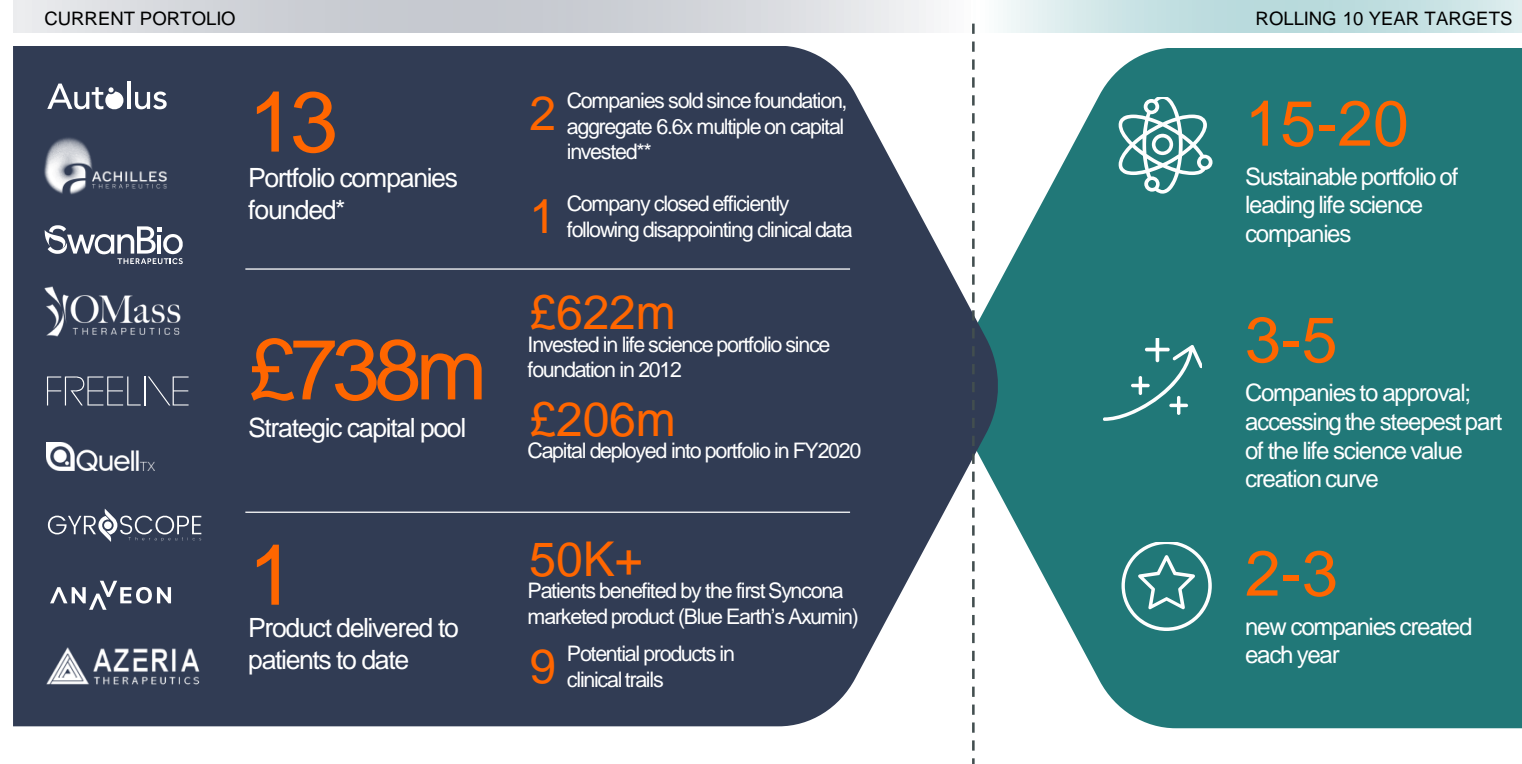
Portfolio well positioned with catalysts ahead

Company	Status of pipeline	Next catalysts
 Autolus	Four programmes in clinical trials	<ul style="list-style-type: none"> <li>– Decision regarding move to Phase II in AUTO3 DLBCL Q3 CY2020</li> <li>– Progression of pivotal study in AUTO1 adult ALL</li> </ul>
 FREELINE	Two lead programmes in Phase I/II clinical trials, pipeline of preclinical programmes	<ul style="list-style-type: none"> <li>– Providing path to pivotal study in haemophilia B study</li> <li>– Dose its next patient in its second programme in Fabry's FY2021</li> </ul>
 GYROSCOPE	Lead programme in Phase I/II clinical trial	<ul style="list-style-type: none"> <li>– Initial data from its lead phase I/II trial targeting dry AMD FY2021</li> </ul>
 ACHILLES THERAPEUTICS	Enrolling patients in Phase I/II clinical trial	<ul style="list-style-type: none"> <li>– Report initial data in H1 CY2021 from its melanoma and NSCLC studies</li> </ul>
 SwanBio THERAPEUTICS	Lead programme in pre clinical development	<ul style="list-style-type: none"> <li>– Complete first clinical manufacturing batch in this financial year</li> <li>– Expand leadership team</li> </ul>
 OMass THERAPEUTICS	Seeking to build pipeline of therapeutics	<ul style="list-style-type: none"> <li>– Initiation of pre-clinical development of lead programme</li> </ul>
 ANA VEON	Nominated clinical candidate in lead programme	<ul style="list-style-type: none"> <li>– Initiation of phase I/II clinical trial FY2022</li> </ul>
 QuellTX	Nominated clinical candidate in lead programme	<ul style="list-style-type: none"> <li>– Initiation of phase I/II clinical trial FY2022</li> </ul>
 AZERIA THERAPEUTICS	Pre-clinical development of lead programme	<ul style="list-style-type: none"> <li>– Further pre-clinical data generated to test technical thesis</li> </ul>

# Summary

Syncona platform creates value from the commercialisation of life science innovation

- Clinical stage companies in a strong position to deliver key milestones in the year ahead
- Excellent progress towards our goal of building a sustainable portfolio of 15-20 companies
- Significant opportunity ahead for Syncona to continue to capitalise on globally differentiated research base in UK/EU
- Strong capital pool provides a strategic advantage; well positioned to navigate current environment
- Strong ongoing support for Syncona Foundation; increased annual donation to 0.35% of NAV



• \*Includes sales of Blue Earth and Nightstar, closure of 14MG and merger of Orbit and GyroScope  
• \*\*Sales of Nightstar and Blue Earth, original Syncona Partners capital invested

# Appendix

# Executing a differentiated strategy



**An expert team with the skill set, track record and strategic capital base to build a sustainable, diverse high quality portfolio**

## Found

Proactively source globally competitive science, leveraging UK opportunity

Focus on products that move the needle for patients; dramatic efficacy in areas of high unmet need

Select products an SME can credibly take to market

## Build

Leverage expertise and track record using Syncona resource to drive success

Take long term decisions consistent with a company taking product to market independently

Attract the best global talent

## Fund

Scale ambitiously, maintain significant ownership positions to product approval; option to fund to market

Ownership position provides strategic influence; flexibility and control

Balance sheet protects against risk of being a forced seller

### 10 year targets



2-3 new portfolio companies p.a.



Build a sustainable portfolio of 15-20 companies



3-5 companies to approval

# Significant opportunity across lead programmes

Potential to deliver multiple approved products which will cornerstone the creation of leading life science companies

Company & investment thesis	Lead programme / disease population p.a	Opportunity in and differentiation of lead programme	Key comparators <sup>2</sup>	Key risks <sup>1</sup>
<b>Autolus</b> Applying a broad range of technologies to build a pipeline of precisely targeted T cell therapies designed to better recognise and attack cancer cells	AUTO1 ALLCAR19 Phase 1/2 in Adult Acute Lymphoblastic Leukaemia 3k <sup>3*</sup>	<ul style="list-style-type: none"> <li>Unmet medical need: only 30-40% of patients with Adult ALL achieve long term remission with combination chemotherapy, the current standard of care<sup>4</sup></li> <li>No CAR-T therapy approved for adult ALL for patients</li> <li>AUTO1 targets a differentiated safety profile (reduce high grade CRS<sup>5</sup>) and improved persistence to address limitations of current T cell therapies</li> </ul>	<ul style="list-style-type: none"> <li>CAR-T active programmes in clinical development for ALL include Gilead<sup>7</sup></li> </ul>	<ul style="list-style-type: none"> <li>Differentiated product required</li> <li>Complex manufacturing</li> </ul>
<b>Freeline</b> Seeking to deliver constant high protein expression levels with curative potential across a broad pipeline of systemic diseases; opportunity to deliver curative gene therapies	B-AMAZE Phase 1/2 in Haemophilia B 9k <sup>8**</sup>	<ul style="list-style-type: none"> <li>Unmet medical need: current standard of care, Enzyme Replacement Therapy (infusions of FIX into the blood), requires regular administration and FIX activity does not remain stable</li> <li>Opportunity to deliver a single dose cure for patients by achieving FIX levels in the 'normal' range in the blood of 50-150%</li> <li>Utilising a novel, proprietary capsid and industrialised proprietary manufacturing platform</li> </ul>	<ul style="list-style-type: none"> <li>Active clinical programmes in gene therapy for Haem B include: Spark/Pfizer<sup>9</sup>, UniQure<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>Highly competitive environment</li> <li>Differentiated product required</li> <li>Manufacturing</li> </ul>
<b>Gyroscope</b> A novel company developing gene therapy beyond rare disease by understanding the immune system and the role genetics play in a patient's risk of developing late stage AMD.	FOCUS Phase 1/2 in Dry Age-Related Macular Degeneration 2m <sup>11**</sup>	<ul style="list-style-type: none"> <li>Unmet medical need: age related macular degeneration is one of the leading causes of permanent vision impairment for people aged 65 and older with no approved treatments<sup>12</sup>.</li> <li>Research suggests that when a part of the immune system, the complement system, is overactive it leads to inflammation that can damage healthy eye tissues</li> <li>Gene therapy may stimulate a patient's cells to produce the proteins needed to restore balance to the complement system</li> <li>Developing a subretinal delivery system to safely, precisely and consistently deliver therapies into the eye and help scale the surgical procedure for larger patient populations.</li> </ul>	<ul style="list-style-type: none"> <li>No directly competitive gene therapy approach targeting complement system</li> <li>Apellis<sup>13</sup>, Gemini<sup>14</sup>, Hemera<sup>15</sup></li> </ul>	<ul style="list-style-type: none"> <li>Highly innovative concept which is currently unsupported by a significant existing data set</li> </ul>
<b>Achilles</b> Differentiated cell therapy approach targeting solid tumours utilising Tumour Infiltrating Lymphocytes & clonal neoantigens to develop personalised treatments	Phase 1/2 Non small cell lung cancer 234k <sup>16*</sup>	<ul style="list-style-type: none"> <li>Unmet medical need: lung cancer, of which NSCLC accounts for approximately 85%<sup>17</sup>, with limited treatment options and is the leading cause of cancer deaths<sup>18</sup>.</li> <li>TILs have shown convincing efficacy in solid tumours<sup>19</sup></li> <li>Achilles' world leading bioinformatics platform, PELEUS™ is built on exclusive access to world largest study of tumour evolution in lung cancer (TRACERx)</li> <li>Achilles process uses the patient's own genomic information to create a truly personalised medicine targeting the clonal neoantigens</li> </ul>	<ul style="list-style-type: none"> <li>Key competitors in the neoantigen/ personalised immunotherapy space include: Iovance<sup>20</sup>, Neon Therapeutics<sup>21</sup>, Gritstone Oncology<sup>22</sup></li> </ul>	<ul style="list-style-type: none"> <li>Highly innovative concept in an emerging space</li> <li>Significant manufacturing challenge</li> <li>Increasing competition</li> </ul>

# Significant opportunity in earlier stage portfolio

Potential to deliver multiple approved products delivering transformational treatment for patients

Company	Investment thesis	Key comparators <sup>2</sup>	Key risks <sup>1</sup>
<b>SwanBio</b> Gene therapy focused on neurological disorders where there is existing proof of concept	<ul style="list-style-type: none"> <li>Unmet medical need: one of the most common monogenic neurological disorders, with no available therapies for severely debilitating progressive movement disorder</li> <li>Gene therapy has the potential to be transformational in neurology<sup>23</sup></li> <li>One-off delivery mechanism and hundreds of single gene disorders</li> <li>First programme in preclinical development for an inherited neurodegenerative disease in which the causative gene is definitively known and well characterized</li> </ul>	Several clinical trials for gene therapy within CNS field, including programmes within Voyager <sup>24</sup> , Uniqure <sup>25</sup> , Prevail Therapeutics <sup>26</sup> and PassageBio <sup>27</sup>	<ul style="list-style-type: none"> <li>Manufacturing and delivery challenges in the CNS (substantial dose required)</li> <li>Clinical endpoints can be challenging to define</li> </ul>
<b>Quell</b> Engineered cell therapy company addressing immune dysregulation	<ul style="list-style-type: none"> <li>Unmet medical need: current standard of care for prevention of solid organ transplant rejection is life-long immunosuppression which results in an array of serious long-term side effects (e.g. renal function, malignancy, infection, cardiovascular disease) materially impacting patient quality of life and long-term survival<sup>28</sup></li> <li>Novel cell therapy approach using T-regulatory cells with a suppressive action to downregulate the immune system to treat conditions including solid organ transplant rejection, autoimmune and inflammatory diseases</li> <li>Potential pipeline to treat serious, chronic conditions mediated by the immune system; in the autoimmune setting alone, there are &gt;70 chronic disorders estimated to affect over 4% of the population<sup>29</sup></li> <li>Pre-clinical stage: first programme to address solid organ transplant</li> </ul>	T Reg field is nascent; TX Cell/Sangamo <sup>30</sup>	<ul style="list-style-type: none"> <li>Highly innovative concept, limited clinical data supporting application of CAR-T technology in Treg cells</li> </ul>
<b>Anaveon</b> Immuno-oncology company developing a selective IL-2 Receptor Agonist	<ul style="list-style-type: none"> <li>Unmet medical need: Human Interleukin 2 "IL-2" approved as a medicine for the treatment of metastatic melanoma and renal cancer, but with a frequent administration schedule and significant toxicity<sup>31</sup></li> <li>Preclinical stage, developing a selective Interleukin 2 ("IL-2) Receptor Agonist with improved administration and tox burden</li> <li>Wide potential utility across multiple oncology indications in large markets<sup>32</sup></li> </ul>	Companies developing products in the IL-2 field include: Nektar <sup>33</sup> , Roche <sup>34</sup> , Alkermes <sup>35</sup> , Synthorx <sup>36</sup> .	<ul style="list-style-type: none"> <li>Highly competitive</li> <li>Technical risk around product</li> </ul>
<b>OMASS</b> Drug Discovery platform with differentiated technology	<ul style="list-style-type: none"> <li>Opportunity to build a drug discovery platform employing a differentiated Modified Mass Spectrometry technology with the potential to yield high quality chemical hits to discover novel small molecule drug therapeutics for a variety of complex targets, including membrane receptors</li> </ul>	N/A	<ul style="list-style-type: none"> <li>Pre clinical and clinical attrition of potential drugs</li> </ul>
<b>Azeria</b> Pioneer factor drug discovery company developing treatments for hormone resistant breast cancer	<ul style="list-style-type: none"> <li>Significant unmet patient need in oestrogen receptor positive breast cancer where c.30% of patients progress to late stage endocrine resistant disease</li> <li>Scientific insights by Azeria's academic founder have led to a new approach to target an essential pioneer factor pivotal in tumour growth, progression and maintenance of oestrogen receptor positive luminal breast cancer</li> </ul>	Companies developing therapies for oestrogen receptor positive luminal breast cancer include Eisai and AstraZeneca	<ul style="list-style-type: none"> <li>Highly innovative concept in emerging space</li> </ul>



# An expert multi-disciplinary team

## Our unique skill set



Scientific



Commercial



Company creation



Investment



A life sciences team with a track record of creating value in the life science sector

**Martin Murphy**  
CEO



**Chris Hollowood**  
CIO



**John Bradshaw**  
CFO



**Danny Bar Zohar**  
Partner



**Lorenz Mayr**  
Entrepreneur  
in Residence



**Elisa Petris**  
Partner



**Edward Hodgkin**  
Partner



**Dominic Schmidt**  
Partner



**Magda Jonikas**  
Partner



**Alex Hamilton**  
Partner



**Freddie Dear**  
Partner



**Michael Kyriakides**  
Partner



**Alice Renard**  
Partner



**Gonzalo Garcia**  
Partner

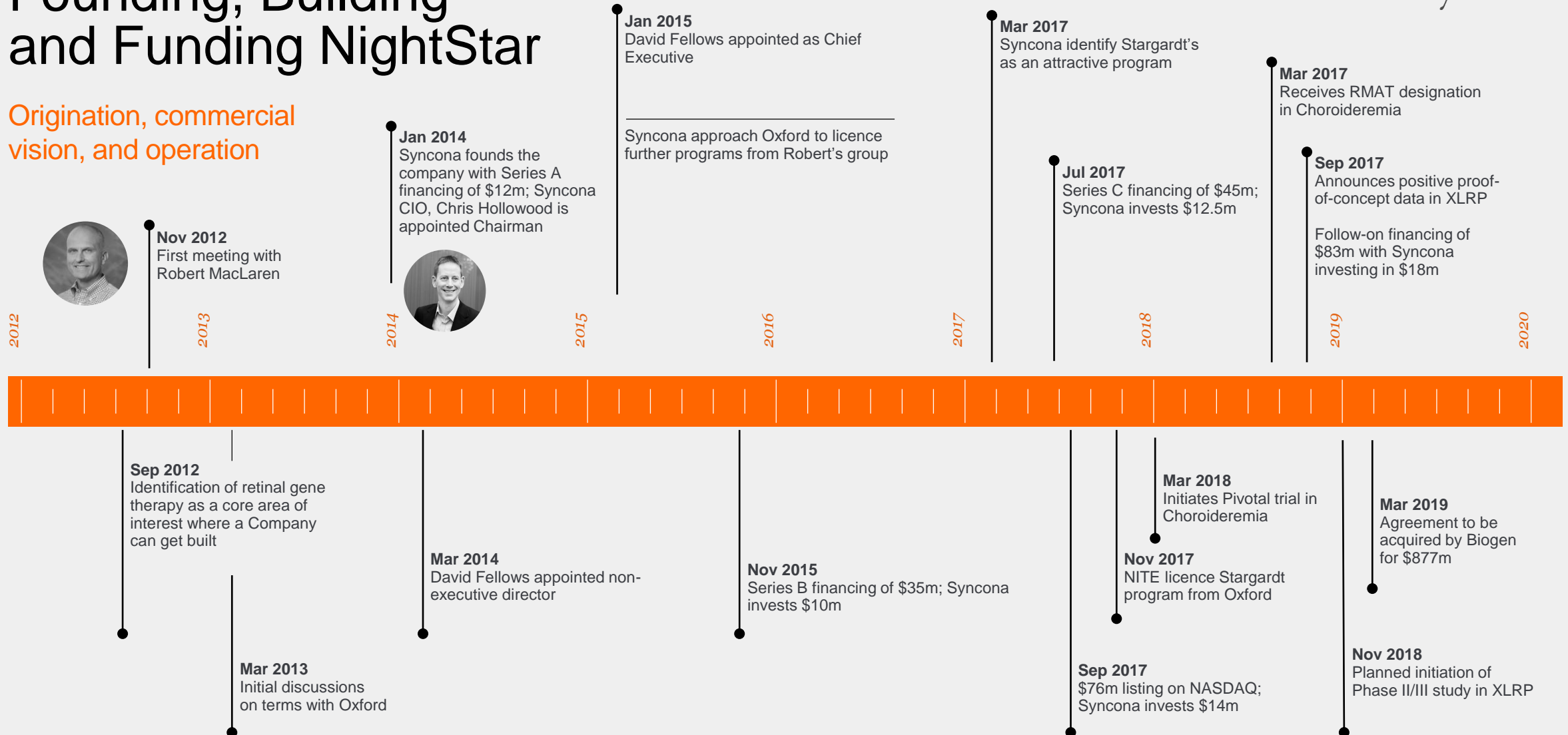


**Hitesh Thakrar**  
Partner



# Founding, Building and Funding NightStar

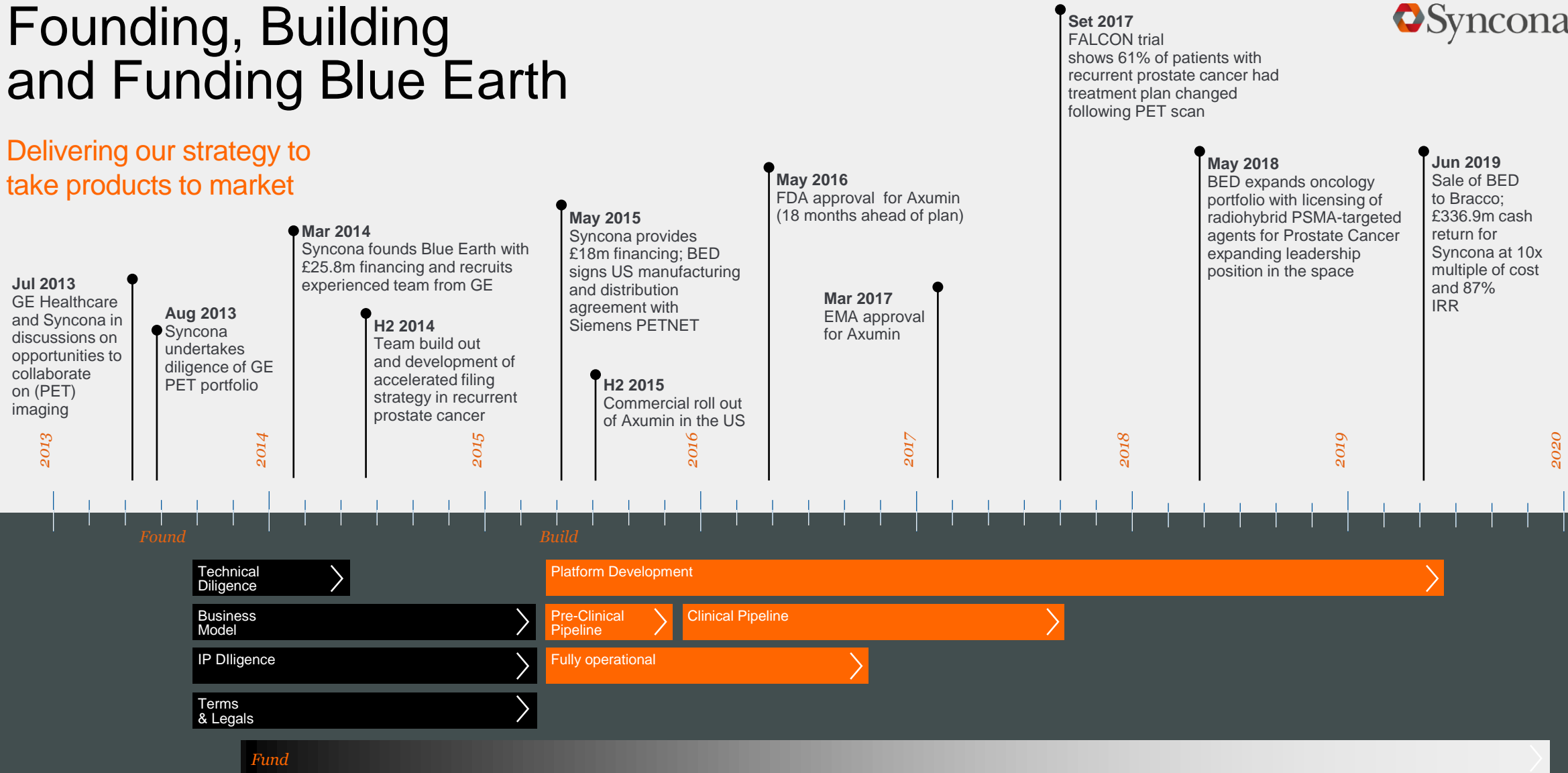
Origination, commercial vision, and operation



# Founding, Building and Funding Blue Earth



Delivering our strategy to take products to market



1. Syncona investment team analysis of key risks facing the companies; the companies are subject to other known and unknown risks, uncertainties and other factors
2. Syncona investment team analysis of lead programmes in this area, indicative only
3. Source: Autolus – see Autolus corporate presentation November 2019 <https://autolus.gcs-web.com/static-files/cd8dc1d9-6a7b-496d-933f-1a3b0bfb56a>. Autolus project the addressable population at 3,000 patients US & EU5
4. Source: Autolus – see Autolus corporate presentation November 2019 <https://autolus.gcs-web.com/static-files/cd8dc1d9-6a7b-496d-933f-1a3b0bfb56a>
5. Cytokine Release Syndrome
6. Source: Autolus – see Autolus corporate presentation November 2019 <https://autolus.gcs-web.com/static-files/cd8dc1d9-6a7b-496d-933f-1a3b0bfb56a>
7. <https://www.gilead.com/science-and-medicine/pipeline>
8. Source: Freeline analysis of prevalence in US and EU5. Analysis is based on World Federation of Haemophilia Global Annual Survey 2017 <http://www1.wfh.org/publications/files/pdf-1714.pdf> and National Haemophilia Foundation; CDC.
9. <https://sparktx.com/scientific-platform-programs/>
10. <http://www.uniquire.com/gene-therapy/hemophilia.php>
11. Source: Gyroscopic estimate. Age related macular degeneration, of which one type is dry AMD, is estimated to affect 195.6 million people globally (<https://www.who.int/publications-detail/world-report-on-vision>). Gyroscopic's estimate is that there is a population of 2 million people in the US & EU5 with geographic atrophy, which is late stage dry AMD.
12. Source: WHO <https://www.who.int/blindness/causes/priority/en/index7.html>
13. <https://www.apellis.com/focus-pipeline.html>
14. <https://www.geminitherapeutics.com/approach-progress/>
15. <https://www.hemerabiosciences.com/clinical-trials/>
16. Source: Achilles calculation of US and UK prevalence. There are 275,000 new cases of lung cancer in US and UK each year, of which 85% are estimated to be NSCLC. US: 228,150 <https://seer.cancer.gov/statfacts/html/lungb.html>; UK: 47,235 <https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/lung-cancer/incidence>.
17. Source: American Cancer Society <https://www.cancer.org/cancer/small-cell-lung-cancer/about/key-statistics.html>
18. Source: American Cancer Society <https://www.cancer.org/cancer/lung-cancer/about/key-statistics.html>
19. Source: Rosenberg et al 2011 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131487/pdf/nihms286994.pdf>
20. <https://www.iovance.com/clinical/pipeline/>
21. <https://neontherapeutics.com/product-pipeline/>
22. <https://gritstoneoncology.com/our-pipeline/>
23. See for example existing approved product Zolgensma for spinal muscular atrophy – <https://www.zolgensma.com/>
24. <https://www.voyagertherapeutics.com/our-approach-programs/gene-therapy/>
25. <http://uniquire.com/gene-therapy/huntingtons-disease.php>
26. <https://www.prevailtherapeutics.com/>
27. Source: <https://www.passagebio.com/company/about-passage-bio/default.aspx>
28. Source: [https://www.ema.europa.eu/en/documents/scientific-guideline/guideline-clinical-investigation-immunosuppressants-solid-organ-transplantation\\_en.pdf](https://www.ema.europa.eu/en/documents/scientific-guideline/guideline-clinical-investigation-immunosuppressants-solid-organ-transplantation_en.pdf)
29. Source: <http://www.autoimmuneregistry.org/autoimmune-statistics>
30. <https://investor.sangamo.com/news-releases/news-release-details/sangamo-and-txcell-announce-completion-acquisition-sangamo>
31. Source: <https://www.cancernetwork.com/renal-cell-carcinoma/managing-toxicities-high-dose-interleukin-2>
32. Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4938354/>
33. <https://www.nektar.com/pipeline/rd-pipeline/nktr-214>
34. [https://www.roche.com/research\\_and\\_development/who\\_we\\_are\\_how\\_we\\_work/pipeline.htm](https://www.roche.com/research_and_development/who_we_are_how_we_work/pipeline.htm): RG7835
35. <https://investor.alkermes.com/news-releases/news-release-details/alkermes-announces-clinical-collaboration-fred-hutchinson-cancer>
36. <https://synthorx.com/therapeutics/>