

Investing to extend and enhance human life

Syncona corporate presentation

September 2022



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#### A long-term vision: 10 years of Syncona



Co-founded in 2012 with The Wellcome Trust, our purpose is to invest to extend and enhance human life

#### A decade of building global leaders

- Built 18 companies since
   foundation with 11 in the portfolio
- Operating in areas of high unmet medical need
- Vision to deliver treatments to patients
- 1,200+ employees across the Syncona portfolio

#### **Portfolio**

#### Our growing track record

- £943.7m deployed since foundation
- 26% IRR and 1.6x multiple on cost across whole portfolio\*
- £932.7m generated from three successful exits
- Exits have delivered a 4.6x
   multiple on cost\*\*

#### Returns

#### 15 programmes taken into the clinic; 1 marketed product

- Three products taken to pivotal trial
- One product to market (Blue Earth's Axumin®)
- Exciting pipeline across our diversified portfolio of 11 companies

#### **Patients**

Vision set out in 2012, to build globally leading life science companies that have the potential to deliver transformational outcomes for patients, further validated with recent milestones

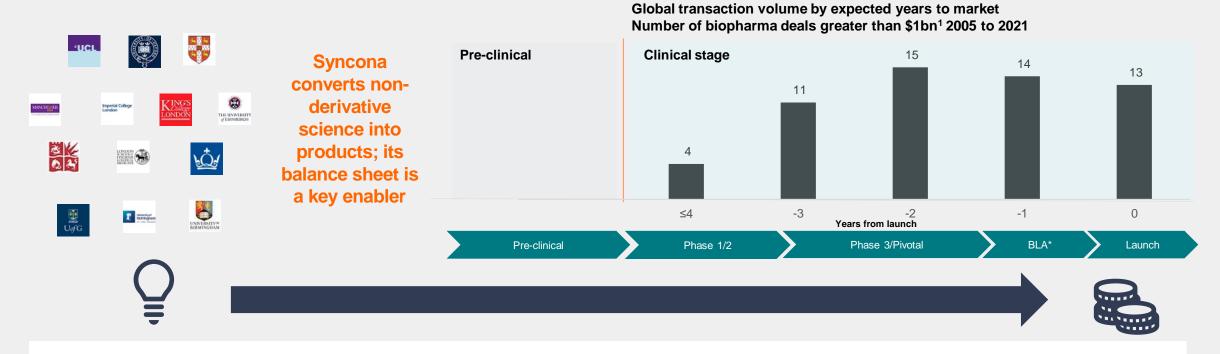
<sup>\*</sup>Includes sales of Nightstar, Blue Earth, upfront proceeds from sale of Gyroscope and closure of 14MG and Azeria, reflects original Syncona Partners capital invested where applicable. All IRR and multiple on cost figures are calculated on a gross basis

<sup>\*\*</sup> Includes sales of Nightstar, Blue Earth, upfront proceeds from sale of Gyroscope, reflects original Syncona Partners capital invested where applicable. All IRR and multiple on cost figures are calculated on a gross basis All financials as of 30 June 2022

#### Capturing value in life science



Syncona utilises its model to capture world leading science and build sustainable companies



- Syncona is located within the one of the world's richest concentrations of life science research universities and has a growing global network
- Syncona's balance sheet enables an investment model which connects foundational science with company building expertise
- Syncona has a demonstrated track record in company building

1 Source Centreview, BCIQ, Syncona analysis

## 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 a 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

## 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<sup>1</sup>

3x

Medicines targeted at defined patient groups 3x more likely to succeed than conventional drugs<sup>2</sup>

46%

Estimated reduction in the cost of the development of a precision medicine versus conventional medicine<sup>3</sup>

<sup>1</sup> https://www.england.nhs.uk/healthcare-science/personalisedmedicing

<sup>2</sup> Informa Pharma Intelligence's Biomedtracker and Amplion Inc.'s BiomarkerBase.

## Syncona continues to identify opportunities across modalities

Genetic medicines are unlocking diseases and streamlining drug development

#### Cell and gene therapies have demonstrated transformative potential; significant opportunity ahead

- Approved products and data to date have shown the transformational impact and potential of these products
- Nine FDA-approved cell and gene therapies to date, with 60 expected to be approved by 2030\*
- Number of products in late stage development, expected to receive regulatory feedback in 2022/3\*\*
- Significant number of diseases where cell and gene therapy are potentially applicable
- Syncona has demonstrable expertise in cell and gene therapy; opportunity to leverage this to treat other conditions

#### Genetic revolution enabling more targeted drug development

Syncona has the expertise to apply the right modality to the relevant disease setting across small molecules, biologics, antibodies, cell therapy, gene therapy and other Third Wave modalities such as nucleic acids

- Antibodies have had great success in immunological and inflammatory diseases new technologies are providing real insight as to how unaddressed conditions could be tackled
- Targeted small molecules have been successful in oncology but are limited by lack of technologies that:
  - Allow identification of the right setting
  - Develop the right molecular therapy for a known cancer target

<sup>\*</sup> https://www.sciencedirect.com/science/article/pii/S2329050121000668, Syncona team analysis

<sup>\*\*</sup> https://payorsolutions.cvshealth.com/sites/default/files/cvs-health-payor-solutions-gene-therapy-pipeline-2021-may.pdf

## Portfolio

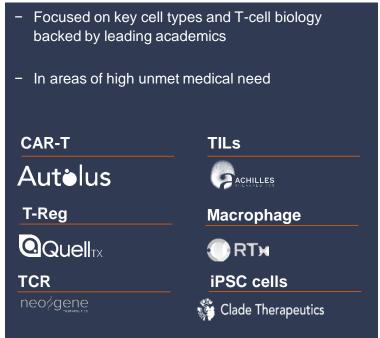
#### A differentiated portfolio

Syncona

Offering the potential for transformational efficacy in areas of high unmet medical need



#### **Engineered**



#### Gene therapy

#### **AAV** gene therapy

Operating in key tissue compartments baked by leading academics
In areas of high unmet medical need
Systemic
FREELINE
Renal
CNS
PURESPRING
SWONBIO
THERAFEUTICS

#### **Biologics**

 T-cell immunotherapy - selective IL-2 agonist, wide potential utility across multiple oncology indications

**Selective IL-2 Agonist** 

 $VN_{\Lambda}$ EON

#### **Small molecule**

 Small molecule and drug discovering platform focused on hard to drug targets in immunological and orphan diseases

**Small molecule therapeutics** 

)OMass

## Diversified portfolio set to deliver key upcoming milestones



11

Four at clinical stage, with a further three expected to enter the clinic in the next 12 months

#### **Upcoming clinical milestones**

**Autolus** – Initial results from obe-cel in r/r adult ALL expected in Q4 CY2022; full data in H1 CY2023

Freeline – Data expected in haemophilia B H2 CY2022, and Fabry and Gaucher Type 1 in H1 CY2023

Achilles – Initial data in higher dose process in NSCLC and melanoma Phase I/II studies expected in Q4 CY2022

**Anaveon** – Further data from ANV419 Phase I/II study expected in H2 CY2022

**Quell** – Expect to dose first patient in H2 CY2022

**SwanBio** – Expect to enter clinic in H2 CY2022

**Neogene** – Expect to enter clinic in H1 CY2023



\*Biologics Licence Application

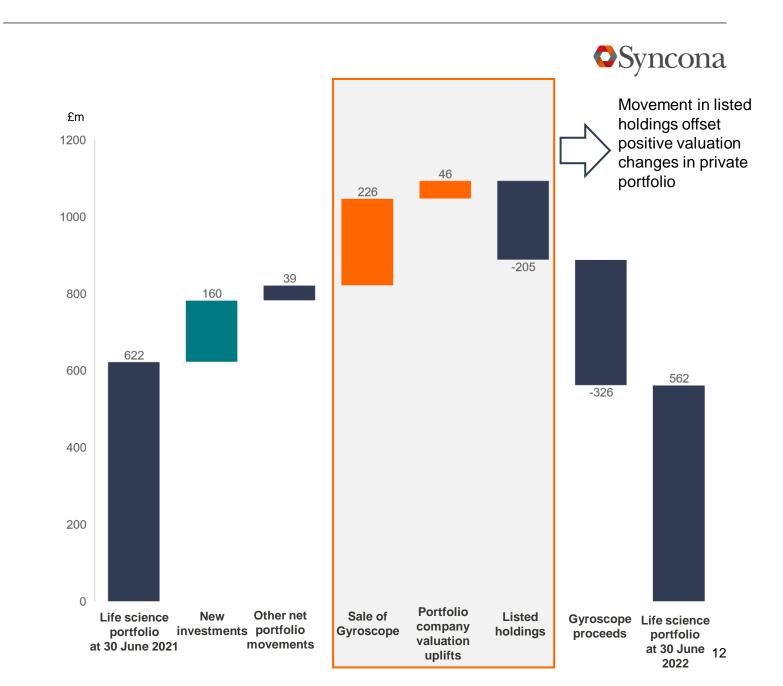
## Positive momentum across a challenging macro backdrop

Sentiment towards cell and gene therapy companies continues to impact listed holdings

#### NAV of £1,331m, with life science portfolio valued at £562m and a capital pool of £769m\*

- Sale of Gyroscope and uplifts from private portfolio drive £272m uplift to NAV in last 12 months
- Negative market sentiment has impacted share prices of listed companies in our portfolio in a period of significant volatility
- On average, share prices of lower 50% of NASDAQ Biotech Index, weighted by market cap, down by 41% during FY2021/2

Syncona companies remain well funded to deliver on key data catalysts in FY2022/3



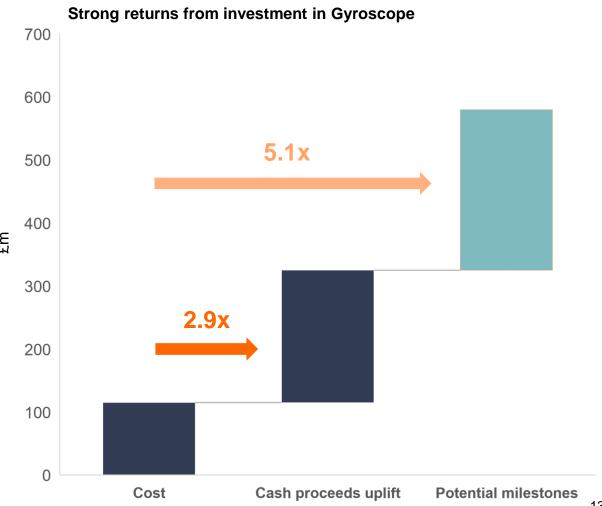
#### Gyroscope is third successful exit for Syncona

Drives significant value for Syncona shareholders; continued interest from pharma for Syncona companies

#### Gyroscope was co-founded by Syncona in 2016

- Novartis agreed to acquire Gyroscope in December 2021 for up to \$1.5bn
- Upfront proceeds of \$800m with a further \$700m linked to milestones
- Upfront proceeds to Syncona of £325.8m; 2.9 multiple of cost and 50% IRR\*
  - Upfront proceeds and discounted risk-adjusted valuation of milestones provide a £225.5m uplift to previous holding value
  - Milestones have potential to deliver a further £255.3m to Syncona
- Realisation of all milestones could lead to an overall 5.1 multiple of original cost\*





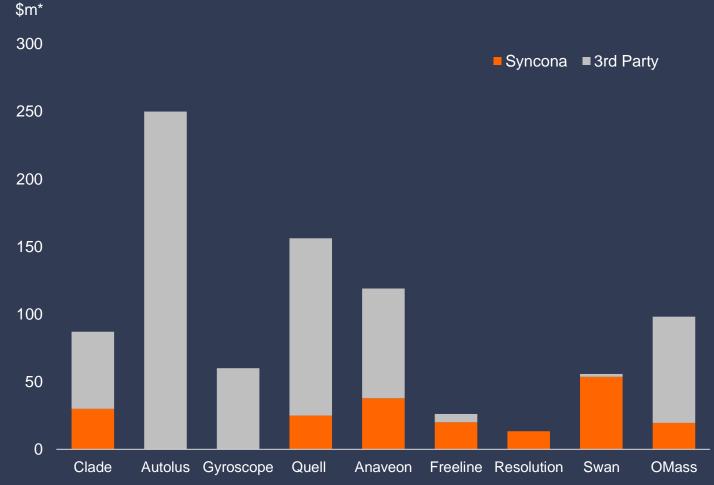
<sup>\*</sup>All IRR and multiple on cost figures are calculated on a gross basis. Includes original Syncona Partners capital invested where applicable

## Capital pool

#### Supporting our portfolio companies as they scale

- Our balance sheet is a strategic and competitive advantage; gives us flexibility to bring in specialist institutional investors at the right time and price
- \$866.2m committed across nine financings since start of FY2021/2, of which \$199.6m was committed by Syncona

#### Money raised by portfolio companies since the beginning of FY2021/2



#### Strengthened capital pool



Our strengthened capital base provides us with a strategic advantage, particularly in the current market environment

#### Capital deployment to increase in FY2022/3

- £123.2m deployed into portfolio in FY2021/2, £38.0m in Q1 FY2022/3
- Expect to deploy £150-£250m of capital in FY2022/3 as we found new companies, invest in our existing portfolio, and hold a select number of companies privately for longer

#### Capital pool asset allocation

- Aim to maintain a minimum of 12-24 months in cash and treasuries
- FX exposure will hold US dollars to match expected future requirements on an ongoing basis
- Selectively introducing a small number of low-risk, multi-asset funds to offer some inflation protection over time

£150-£250m

Expected FY2022/3 capital deployment

£768.7m

Capital pool to fund growing life science portfolio and found new companies

## Outlook

#### Building on our success

Leveraging our successes and applying the lessons of the last 10 years to drive the business forward over the next decade

Where we are today

#### **Operating at scale**

- NAV of £1.3bn
- Capital pool of £769m
- 1,200+ employed at Syncona and its portfolio companies
- Strong pipeline of opportunities

How we got here

#### Leveraging our success

- Core team skill is to identify science and leverage it to create a company that has the potential to deliver transformational treatments
- Demonstrated we can build these businesses and their teams to be globally competitive
- Strength of balance sheet provides a differentiated market position increasingly important in the current market environment

Key learnings

#### **Driving future growth**

- Optimising financing approach to manage risk and reward across diversified portfolio
- Attracting world-class teams to lead our portfolio companies from an early stage
- Continuing to improve execution as companies mature and progress through the clinic

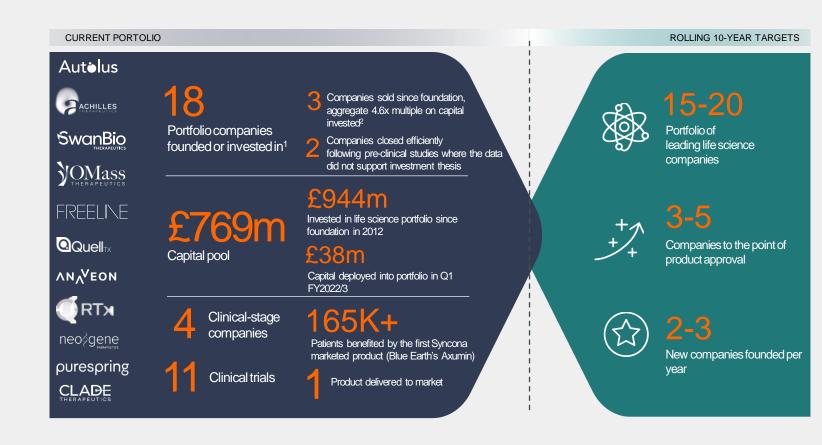
#### Summary

Syncona

Syncona's platform seeks to create value from the commercialisation of life science innovation

Syncona team has shown it can effectively manage the portfolio and deliver a return through the cycle

- Up to \$1.5bn sale of Gyroscope to Novartis further validated the Syncona model
- FY2021/2 NAV return of 0.3% and Q1
   FY2022/3 1.8% NAV return during a period of significant volatility for biotech
- Maturing portfolio well funded to deliver on upcoming key clinical milestones with potential to create value in FY2022/3
- Strengthened capital base of £769m positions
   Syncona for long-term success

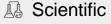


# Appendix 1 – Syncona team

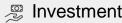
#### An expert multi-disciplinary investment team



Our unique skill set









CEO, SIML PhD

SwanBio





ACHILLES



neogene Autèlus CLADE

21 years' experience YOMass

purespring 20 years' experience

FRFFI I\F

3OMass

RTX

31 years' experience

14 years' experience



nvestment Partner

ANAVEON SwanBio

8 years' experience



Michael Kyriakides





**Y**OMass

11 years' experience



CLADE THERAPEUTICS

6 years' experience





7 years' experience

Alice Renard 2 Investment Partner



3 years' experience



3 years' experience



Hitesh Thakrar **BChem** 



28 years' experience



6 years' experience

#### Investment team supported by experts in life sciences and company building



#### **Markus John**

- Joined in July 2021
- Former Global Medical Affairs Franchise Head at Roche **Lisa Bright**
- Joined in January 2022
- Most recently President International and Chief Commercial and Corporate Affairs Officer for Intercept **Pharmaceuticals**

#### **Gwenaelle Pemberton**

- Joined in July 2022
- Former Vice President of International Regulatory Affairs at Gilead

#### **Ben Woolven**

- Joined in February 2022
- Former Senior Director Medical, Regulatory, and Quality, Global Head of Transformation Operations, GSK

#### Leveraging the strength of clinical and operational experts

A Scientific









## Appendix 2 – Further market context

## Potential to transform the lives of patients

Designed to halt a disease or reverse its progress

Approved products and data to date have shown the transformational impact and potential of these products

#### Cell therapy

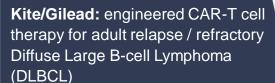
 Potential for profound efficacy – to date mainly oncology focused

#### Gene therapy

 The potential for one-time treatments vs conventional medicines which are taken on a continual basis

#### Significant number of diseases where cell and gene therapy are potentially applicable

- 1 https://lymphoma.org/aboutlymphoma/nhl/dlbcl/
- 2 https://www.yescartahcp.com/large-b-cell-lymphoma/efficacy
- 3 https://www.ncbi.nlm.nih.gov/books/NBK552022/
- 4 https://www.zolgensma-hcp.com/aboutzolgensma/efficacy/str1ve/



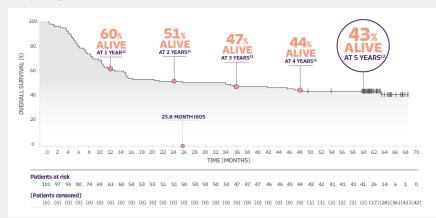
- DLBCL is an aggressive cancer of the lymphatic system
- >18k people diagnosed with DLBCL annually<sup>1</sup>
- Yescarta was approved in 2017 for use in relapse / refractory patients
- Disruptive efficacy seen, with 4x more patients responding to treatment<sup>3</sup>

### **Novartis/AveXis:** one-time therapy addressing spinal muscular atrophy (SMA)

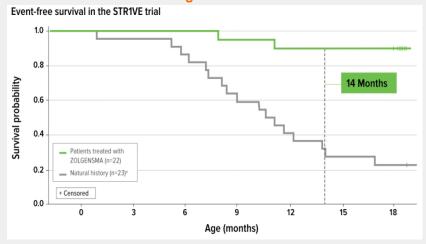
- SMA is a genetic disease caused by a lack of a functional survival motor neuron 1 gene, resulting in the rapid and irreversible loss of motor neurons
- Most often impacts babies and children
- Zolgensma now an approved product based on profound data



43% of patients alive at five years post treatment<sup>2</sup>
3x overall survival rate of current standard of care at 12 months<sup>3</sup>

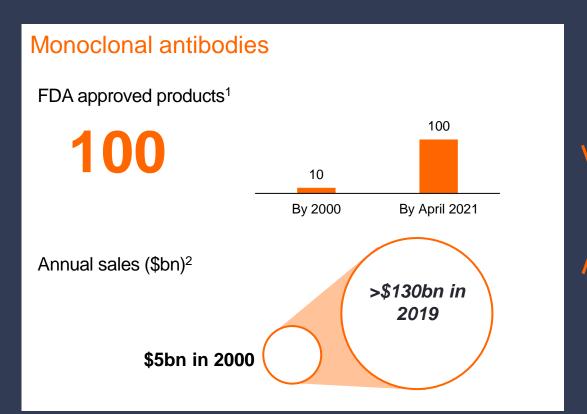


#### 91% (20/22) of patients were alive and free of permanent ventilation at 14 months of age<sup>4</sup>



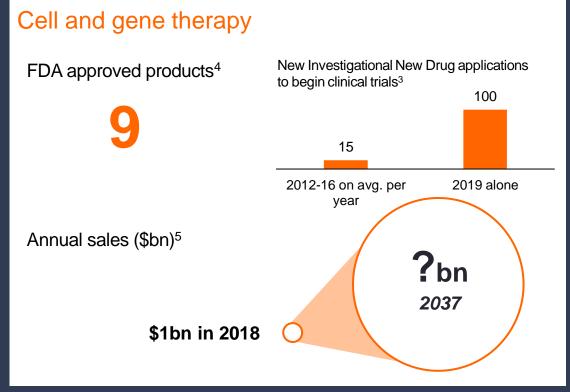
## Cell and gene therapies have the potential to disrupt the market

Approved cell and gene therapies are expected to increase significantly in the coming years, Syncona believes the growth could be similar to antibody therapies



"... By 2025, we predict that the FDA will be approving 10 to 20 cell and gene therapy products a year based on an assessment of the current pipeline and the clinical success rates of these products ..."

Scott Gottlieb, ex-FDA commissioner



# Appendix 3 — Portfolio companies

#### Financial review

☐ Clinical

Pre-clinical

Drug discovery



Portfolio company	Fully diluted ownership %	31 March 2022 value £m (fair value)	Net invested/returned in the period £m	Valuation change	FX movement	30 June 2022 value £m (fair value)	Valuation basis (fair value) <sup>1,2</sup>	% of NAV
∧N <sup>V</sup> EON	37.9%	59.8	-	-	2.5	62.3	PRI	4.7%
Autėlus	18.8%	62.0	-	(19.9)	3.3	45.4	Quoted	3.4%
FREELINE	53.4%	32.3	-	(7.0)	2.0	27.3	Quoted	2.1%
ACHILLES THERAPPOTICS	25.3%	24.8	-	(3.5)	1.7	23.0	Quoted	1.7%
SwanBio	79.9%	75.1	15.6	0.7	5.6	97.0	Cost	7.3%
Quellx	37.4%	81.4	-	-	6.4	87.8	PRI	6.6%
<b>○</b> RTx	81.1%	10.4	12.6	-	-	23.0	Cost	1.7%
purespring	84.0%	18.5	-	-	-	18.5	Cost	1.4%
neo gene	7.9%	14.5	-	-	1.1	15.6	Cost	1.2%
CLADE	22.6%	11.4	-	-	1.0	12.4	Cost	0.9%
YOMass THERAPEUTICS	30.9%	34.7	9.0	_	-	43.7	PRI	3.3%
Investments		100.0	0.8	(0.4)	5.4	105.8		
Total		524.9	38.0	(30.1)	29.0	561.8		

<sup>1</sup> The basis of valuation is stated to be "Cost", this means the primary input to fair value is capital invested (cost) which is then calibrated in accordance with our Valuation Policy 2 The basis of valuation is stated to be "PRI", this means the primary input to fair value is price of recent investment which is then calibrated in accordance with our Valuation Policy

#### Portfolio company outlook



#### Upcoming milestones across the portfolio

opcoming milestones across the portiolio					
Company	Status of pipelines	Next steps			
Autelus	Five ongoing clinical trials	<ul> <li>Progress pivotal study in obe-cel / adult ALL, initial results in Q4 CY2022 with full data expected in H1 CY2023</li> <li>Announce longer-term follow-up data from AUTO1/22 in paediatric ALL and AUTO4 in peripheral T cell lymphoma in H2 CY2022</li> </ul>			
FREELINE	Two lead programmes in Phase I/II clinical trials, first trial site initiated for Phase I/II trial for Gaucher Type 1	<ul> <li>Dosing second cohort in Fabry study in H2 CY2022 and updated safety and efficacy data expected in H1 CY2023</li> <li>Dosing first cohort in Gaucher study in H2 CY2022 and initial data in H1 CY2023</li> <li>Updated safety and efficacy data from haemophilia B in H2 CY2022; company exploring strategic options for programme</li> </ul>			
ACHILLES THERAPEUTICS	Two lead programmes in Phase I/IIa trials	<ul> <li>Expect to publish initial data from VELOS™ Process 2 manufacturing in its Phase I/IIa NSCLC and melanoma therapies in Q4 CY2022</li> </ul>			
VN <sup>A</sup> EON	Nominated lead programme in the clinic	<ul> <li>Publish further data from Phase I/II trial in H2 CY2022</li> </ul>			
Quell <sub>™</sub>	Lead programme in pre-clinical development	<ul> <li>Expect to dose first patient in lead programme targeting liver transplant in H2 CY2022</li> </ul>			
SwanBio THERAPEUTICS	Lead programme in pre-clinical development	- Expects to enter the clinic with lead programme targeting AMN in H2 CY2022			
neo/gene	Lead programme in pre-clinical development	- Expect to enter the clinic in H1 CY2023			
<b>O</b> RTX	Pre-clinical development of lead programme	<ul> <li>Company and leadership team build out</li> </ul>			
purespring	Pre-clinical development	- Company and leadership team build out, identify lead programme			
THERAPEUTICS	Pre-clinical development	- Company and leadership team build out, identifying pipeline targets			
OMass	Five programmes identified for pre-clinical development	<ul> <li>Progress of lead programme into lead optimisation</li> </ul>			

#### **Autolus Therapeutics**

Applying a broad range of technologies to build a pipeline of precisely targeted T cell therapies designed to better recognise and attack cancer

Board Seat		1	
Date of Founding		2014	
Date of Syncona		2014	
Valuation basis		NASDAQ	
Stage			Clinical
Syncona capital i		£124.0m	
No. of employees	3		350+
Competitor Lands			
<b>GILEAD</b>	<b>b</b> novartis	Fete THERAPEUTICS Better Colls For Better Therapies **	

#### Key risks

- Highly competitive environment
- Differentiated product required
- Complex manufacturing and supply chain

## Clinical pipeline Obe-cel – aALL AUTO4 – TCL AUTO1/22 – pALL Obe-cel – B-NHL Obe-cel – PCNSL

#### **Key management team**

**Christian Itin**, Chief Executive Officer (formerly CEO of Micromet)

Martin Pule, Founder and Chief Scientific Officer

**David Brochu**, Chief Technical Officer (formerly VP of Technical Operations at Kedrion SpA)

**Edgar Braendle**, Chief Development Officer (formerly CMO at Sumitomo Dainippon Pharma Oncology)

**Lucinda Crabtree**, Chief Financial Officer (formerly Woodford, Panmure Gordon and Goldman Sachs)

**Brent Rice**, Chief Commercial Officer (formerly Head of Managed Markets at Juno Therapeutics)

Christopher Vann, Chief Operating Officer (formerly Roche)

#### **Founder**

**Martin Pule**, Clinical Senior Lecturer in the Dept. of Haematology at UCL Cancer Institute and Honorary Consultant in Haematology at University College London Hospital

For more information see https://www.autolus.com





#### **Investment thesis**

- Syncona believes obe-cel has a differentiated safety profile and improved persistence to address limitations of current T cell therapies
- AUTO4 targeting T-cell lymphoma, a setting where there are currently no approved T cell therapies and substantial unmet clinical needs

#### **Unmet medical need**

 In lead programme of obe-cel, only 30-40% of patients with adult ALL achieve long-term remission with combination chemotherapy, the current standard of care\*

#### Market opportunity\*

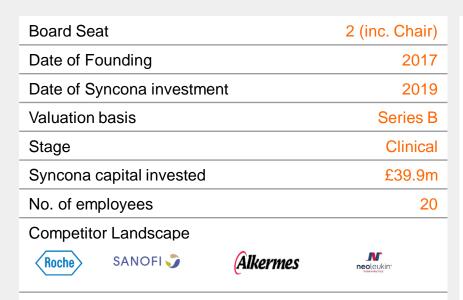
- 8,400 patients p.a. in lead programme of adult ALL (estimated new patients globally diagnosed per annum)
- Estimated relapsed refractory adult ALL patient population, US/EU: 3,000

Unless stated all financials at June 2022

- \* Source: Autolus Corporate Presentation May 2022
- \*\*Key competitors and risks: Syncona team view

#### Anaveon

Exploiting the power of cytokines to orchestrate immune responses by using protein engineering with the potential to create safe and effective treatments for various diseases



#### Key risks

- Multiple players and highly competitive
- Strategy for differentiation and clinical / commercial positioning
- Clinical risk

## Clinical pipeline Research | Target ID | Pre- Clinical | Clinical ANV419 - Multiple tumour types

#### Key management team

Andreas Katopodis, Chief Executive Officer and Founder (formerly Director in the Autoimmunity, Transplantation & Inflammation group at the Novartis Institutes for BioMedical Research)

**Christoph Bucher**, Chief Medical Officer (previously at Roche pRED Immunology, where he led the transition to the late-stage development of Crovalimab)

**Christoph Huber**, Chief Scientific Officer (previously held leadership positions at Roche, Pfizer and COI Pharmaceuticals) **Gary Phillips**, Chief Business Officer (previously President and CEO of OrpoMed)

#### **Co-founder**

Andreas Katopodis (as above)

For more information see: https://anaveon.com

Unless stated all financials at June 2022 Key competitors and risks: Syncona team view

- \* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4938354/
- \*\* https://www.cancernetwork.com/view/managing-toxicities-high-dose-interleukin-2





#### **Investment thesis**

- Developing a selective IL-2 agonist with improved administration and toxicity burden
- Wide potential utility across multiple oncology indications in wider markets\*

#### **Unmet medical need**

 Human Interleukin 2 "IL-2" approved as a medicine for the treatment of metastatic melanoma and renal cancer, but with a cumbersome administration schedule and significant toxicity"

#### Freeline Therapeutics

Seeking to deliver constant high protein expression levels with curative potential across a broad pipeline of systemic diseases; opportunity to deliver curative gene therapy

Board Seat	1 (Chair)
Date of Founding	2015
Date of Syncona investment	2015
Valuation basis	NASDAQ
Stage	Clinical
Syncona capital invested	£183.1m
No. of employees	c.200
Competitor Landscape	

#### Key risks

uniQure

Highly competitive environment

Spark.

- Differentiated product required
- Complex manufacturing



**AVROBIO** 







#### **Key management team**

**Michael Parini**, Chief Executive Officer (formerly Chief Administrative, Legal and Business Development Officer at Vertex) **Pamela Foulds**, Chief Medical Officer (formerly CMO of Aegerion Pharmaceuticals)

**Henning Stennicke**, Chief Scientific Officer (20 years of leadership positions across the R&D value chain at Novo Nordisk)

Markus Hörer, Founder and Chief Technology Officer (over 30 years' experience working in AAV biology, as well as over 23 years' experience in industrial vaccine and biologics development)

James Bircher, Chief Technical Operations Officer (formerly CTO at Abeona Therapeutics Inc.)

**Mark Baldry**, Chief Commercial Officer (formerly Senior VP of Global Marketing & Commercial Operations at Amicus Therapeutics Inc)

**Paul Schneider**, Chief Financial Officer (formerly SVP Finance, Exo Therapeutics)

#### **Founders**

Amit Nathwani, Founder, Clinical and Scientific Adviser and Director, Prof. Nathwani is renowned for his pioneering work on gene therapy for haemophilia B, and was first to show successful correction of bleeding diathesis in patients with severe haemophilia B

**Markus Hörer**, as above, brought the Rentschler manufacturing platform to Freeline

For more information see: https://www.freeline.life

#### Investment thesis

 To deliver therapies for a broad pipeline of systemic diseases which require the delivery of high protein expression levels, with the aim of curing and transforming patients' lives

#### **Unmet medical need**

- Significant number of systemic diseases with genetic drivers which have poor or no treatment options
- Current standard of care in clinical programmes of Haemophilia B and Fabry disease is Enzyme Replacement Therapy (ERT); requires regular administration with protein activity remaining unstable

#### Market opportunity\*

- 15,000 patients in lead programme in haemophilia B
- 16,000 patients in Fabry's disease
- 18,000 patients in Gaucher disease

Unless stated all financials at June 2022

\*Source: Freeline Corporate Presentation August 2022. The seroprevalence of antibodies against the AAV capsid renders approximately 30-50% of patients currently not eligible for gene therapy Key competitors and key risks: Syncona team view

#### **Achilles Therapeutics**

Differentiated cell therapy approach targeting solid tumours utilising AI-enabled bioinformatics and precision tumour infiltrating lymphocytes to target clonal neoantigens for personalised treatments

Board Seat	-			
Date of Founding		2016		
Date of Syncona	investment		2016	
Valuation basis			NASDAQ	
Stage			Clinical	
Syncona capital i	nvested		£60.7m	
No. of employees	3		250+	
Competitor Landscape				
gritstone	<b>IOVANCE</b> BIOTHERAPEUTICS	Instil <b>Bio</b>	TURNST® NE	

#### Key risks

- Highly innovative concept in emerging space
- Complex manufacturing
- Increasing competition

## Clinical pipeline Research | Target ID | Pre- Clinical | Clinical cNeT' - Melanoma cNeT - NSCLC 1 clonal neoantigen-reactive T cell

#### Key management team

Iraj Ali, Chief Executive Officer (formerly Syncona Partner)
Karl Peggs, Founder and Chief Medical Officer
Sergio Quezada, Founder and Chief Scientific Officer
James Taylor, Chief Business Officer
Robert Coutts, Chief Financial Officer

#### **Founders**

Therapy at UCL

Karl Peggs, Professor of Transplant Science and Cancer Immunotherapy at UCL Cancer Institute, Scientific Director of the NIHR Blood and Transplant Research Unit for Stem Cells and Immunotherapies, and Clinical and Scientific Director of the Sir Naim Dangoor Centre for Cellular Immunotherapy at UCLH Mark Lowdell, Director of the Centre for Cell, Gene & Tissue Therapeutics at the Royal Free and Professor of Cell & Tissue

**Charles Swanton**, Royal Society Napier Professor of Cancer and consultant thoracic oncologist at UCL Hospitals, Chief Clinician at Cancer Research UK (CRUK) and Group Leader of the Cancer Evolution and Genome Instability Laboratory at CRUK and the Francis Crick Institute

**Sergio Quezada**, Professor of Cancer Immunology and Immunotherapy at University College London Cancer Institute and CRUK senior research fellow

#### **Scientific Advisory Board**

Dr Elizabeth Jaffee, Dr Scott Antonia, Dr Christopher Klebanoff, Dr Ben Creelan, Dr Alena Gros, Dr Markwin Velders

For more information, please see https://achillestx.com

Unless stated all financials at June 2022 Key competitors and risks: Syncona team view

\* https://www.nature.com/articles/s41416-021-01353-6

\*\*\* https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.odf







#### **Investment thesis**

- TILs have shown convincing efficacy in solid tumours\*
- Leveraging clonal neoantigens to develop patient specific immunotherapies to increase response rates and reduce risk of relapse

#### **Unmet medical need**

 Lung cancer has limited treatment options and is the leading cause of cancer deaths

#### Market opportunity

- 234,000 patient opportunity in nonsmall cell lung cancer\*\*
- In 2022, over 197,000 patients are expected to be diagnosed with melanoma in the US\*\*\*

#### **Quell Therapeutics**

#### Engineered cell therapy company addressing immune dysregulation

Board Seat	2 (inc. Chair)
Date of Founding	2019
Date of Syncona investment	2019
Valuation basis	Series B
Stage	Pre-Clinical
Syncona capital invested	£61.4m
No. of employees	110+

Competitor Landscape











Highly innovative concept in emerging space

Kyverna

Complex manufacturing

#### Key management team

lain McGill, Chief Executive Officer (formerly on the Executive Committee and as Head of Europe and Rest of World for Jazz Pharmaceuticals)

Dominik Hartl, Chief Medical Officer (formerly Therapeutic Area Head at Novartis Institutes for Biomedical Research)

**Tracey Lodie**, Chief Scientific Officer (formerly CSO at Gamida Cell) Nathalie Belmonte, SVP Research & Translation (formerly Chief Operating Officer at Promethera Biosciences)

Luke Henry, Chief Business Officer (formerly Senior Director of Business Development & Strategy at Neon Therapeutics)

Bernd Schmidt, VP Product Delivery (formerly MPD Leader at GSK Stevenage with overall accountability for the CMC development, governance and end to end supply chain)

Marc Martinez-Llordella, Founder and Vice President Biology (formerly Senior Lecturer at King's College London)

#### **Founders**

Giovanna Lombardi, Professor of Human Transplant Immunology at King's College London

Marc Martinez-Llordella (as above)

Alberto Sánchez-Fueyo, Head of the Liver Sciences Department at King's College London

Hans Stauss, Director of the Institute of Immunity & Transplantation at UCL

Emma Morris, Professor of Clinical Cell and Gene Therapy at UCL Elmar Jaeckel, Co-Leader Liver Transplant program MHH and Group Leader "Immune tolerance" in the Department of Gastroenterology, Hepatology and Endocrinology at Hannover Medical School.

For more information see: https://quell-tx.com

#### Unless stated all financials at June 2022 Key competitors and risks: Syncona team view

- \* https://www.ema.europa.eu/en/clinical-investigation-immunosuppressants-solid-organ-transplantation
- \*\* Source: OPTN/SRTR 2016 Annual Data report: Liver; EDQM Volume 20 2015







#### **Investment thesis**

- Potential pipeline to treat serious, chronic conditions mediated by the immune system
- Potential to be first-in-class in CAR-Tregs; an early mover in the space

#### **Unmet medical need**

Current standard of care for prevention of solid organ transplant rejection is lifelong immunosuppression which results in an array of serious long-term side effects significantly impacting patient quality of life'

#### **Market opportunity**

15,000 liver transplants p.a across US and Europe\*\*

#### SwanBio Therapeutics

Developing leading-edge gene therapies to deliver dramatic clinical efficacy for the treatment of neurological diseases

Board Seat	2 (inc. Chair)
Date of Founding	2018
Date of Syncona investment	2018
Valuation basis	Series B
Stage	Pre-Clinical
Syncona capital invested	£90.7m
No. of employees	50+















#### Key risks

- Slowly progressing disease
- Complex manufacturing
- Clinical risk

#### Key management team

Tom Anderson, Chief Executive Officer (formerly Chief Commercial Strategy Officer at Sage Therapeutics) Karen Kozarsky, Chief Scientific Officer and Founder (formerly President of Vector BioPartners and VP of R&D at RegenX) Steven Zelenkofske, Chief Medical Officer (formerly Chief Medical Officer of Achillion Pharmaceuticals and uniQure) Scott McMillan, Chief Technical Officer, (formerly Chief Executive Officer of Saliogen Inc. and Chief Operating Officer at uniQure)

Marita James, Chief Financial Officer

#### **Founders**

Florian Eichler, Director of the Leukodystrophy Service and of the Center for Rare Neurological Diseases at Massachusetts General Hospital and Associate Professor of Neurology, Harvard Medical School

Rachel Salzman, formerly Chief Science Officer of The Stop **ALD** Foundation

Karen Kozarsky (as above)

For more information see: https://www.swanbiotx.com/



#### **Investment thesis**

- Gene therapy has the potential to be transformational in neurology
- Lead programme targeting AMN\*, an inherited neurodegenerative disease in which the causative gene is definitively known and well characterised
- One-off delivery mechanism and multiple tractable pipeline programmes

#### Unmet medical need

- Hundreds of single gene disorders with poor or no treatment options
- Lead programme targeting one of the most common monogenic neurological disorders, a severely debilitating progressive movement disorder with no available therapies

#### Market opportunity\*\*

AMN impacts 8,000-10,000 patients in the US and EU5

Unless stated all financials June 2022

Key competitors and risks: Syncona team view

<sup>\*</sup> Adrenomyeloneuropathy

<sup>\*\*</sup> SwanBio analysis

#### Purespring Therapeutics

Advancing gene therapies for the treatment of chronic renal diseases that are currently poorly addressed with existing treatments

Board Seat	2 (inc. Chair)
Date of Founding	2020
Date of Syncona investment	2020
Valuation basis	Series A
Stage	Pre-clinical
Syncona capital invested	£18.5m
No. of employees	20+
Competitor landscape  calliditas NOVARTIS  REATA	TRAVERE Apellis

#### Key risks

- Highly innovative concept in emerging space
- Clinical risk by addressing non-monogenic disorders

#### University of BRISTOL



#### **Investment thesis**

- A number of chronic kidney diseases are poorly addressed by existing therapies, which are primarily based around the lowering of blood pressure and often progress to dialysis and kidney transplantation
- Purespring is developing diseasemodifying therapies for a number of monogenic and non-monogenic kidney diseases

#### Key management team

**Richard Francis**, Chief Executive Officer (previously CEO of Sandoz, and a member of the Executive Committee of Novartis) **Moin Saleem**, Chief Scientific Advisor and Founder (leader of Bristol Renal, a glomerular research group of approximately 45 researchers)

**Alice Brown**, Chief Scientific Officer (formerly of GammaDelta Therapeutics)

**Julian Hanak**, Chief Development Officer (formerly of Biogen, Nightstar)

#### **Founders**

Moin Saleem (as above)

**Mauro Giacca**, Professor of Cardiovascular Sciences at the School of Cardiovascular Medicine & Sciences, King's College London

For more information see: https://purespringtx.com/

#### Neogene Therapeutics

Pioneering the development of nextgeneration, fully personalised engineered T cell therapies for a broad spectrum of cancers

Board Seat	1
Date of Founding	2018
Date of Syncona investment	2020
Valuation basis	Series A
Stage	Pre-clinical
Syncona capital invested	£14.3m
No. of employees	100+
Competitor landscape  Adaptive	

#### Key risks

- Complex early stage technology
- Complex manufacturing
- Highly competitive field







#### **Investment thesis**

 The company is developing an engineered T Cell Receptor (TCR) therapeutic approach for solid tumours based on a patient's own neoantigens (personalised autologous cell therapy)

#### **Unmet medical need**

- Limited treatment options for relapsed/refractory patients with advanced solid tumours that have progressed through front line therapies
- Cell therapies offer the potential for deep and durable responses in the populations as evidenced by lovance's tumour infiltrating lymphocyte therapy. We believe Neogene's approach should result in a more efficacious product that can address a larger number of patients

#### **Market opportunity**

 The company has not yet announced its target indications within the solid tumour field

#### Key management team

**Carsten Linnemann**, Chief Executive Officer and Founder (formerly co-founder of T-Cell Factory B.V.)

**Christopher Wilfong**, Chief Business Officer (co-founder of Two River Consulting)

**Brent Pfeiffenberger**, Chief Operating Officer (formerly senior Vice President, U.S. Oncology, Bristol Myers Squibb)

**Gavin Bendle**, Senior Vice President, R&D (formerly Senior Director of Cell Therapy at Kite Pharma)

**Mauro Avanzi**, Vice President, Clinical Development (formerly Executive Medical Director, Kite Pharma)

Han Lee, Chief Financial Officer (formerly of Arcellx)

**Raphaël Rousseau**, Chief Medical Officer (formerly CMO at Gritstone bio)

#### **Founders**

**Ton Schumacher**, Principal Investigator at The Netherlands Cancer Institute, Oncode Institute member, and Professor of Immunotechnology at Leiden University Medical Center **Carsten Linnemann** (as above)

For more information see: https://www.neogene.com/

#### Resolution Therapeutics

Developing macrophage cell therapies to repair inflammatory organ damage, including treatment of end-stage chronic liver disease

Board Seat	2 (inc. Chair)
Date of Founding	2020
Date of Syncona investment	2018
Valuation basis	Series A
Stage	Pre-clinical
Syncona capital invested	£23.0m
No. of employees	c.20
Competitor landscape	





#### Key risks

- Highly innovative concept in an emerging space
- Future competition







#### **Key management team**

Edward Hodgkin, Chair & Chief Executive Officer (Syncona Partner)

Amol Ketkar, Chief Development Officer (formerly of GSK) Lara Campana, VP, Macrophage Biology (visiting scientist at the University of Edinburgh)

Alex Armesilla, Director, Cell Engineering (formerly of Censo Biotechnologies and GSK)

Philip Starkey Lewis, Director, Pharmacology (visiting scientist at the University of Edinburgh)

Victor Dillard, VP Corporate Development (founder of Desktop Genetics)

Lorna Peers, VP, Finance (formerly of Censo Biotechnologies)

Evelien Stalmeijer, VP, Translation (Cell Therapy & Business Development Consultant at eXmoor pharma)

#### **Founders**

Stuart Forbes, Professor of Transplantation and Regenerative Medicine at the University of Edinburgh. Professor Forbes has pioneered the research of macrophage cell therapy for liver disease

John Campbell, Director of Tissues, Cells, and Advanced Therapeutics at the Scottish National Blood Transfusion service. Professor Campbell has worked on the therapeutic use of immune cells for 30 years

#### Investment thesis

- An opportunity to create the leading inflammation-focused macrophage cell therapy business, focusing initially on treatment of liver cirrhosis. The goal is to repair the livers of patients sufficiently to reduce the risk of decompensation. Future opportunity lies in lung and kidney repair in chronic fibrotic disease

#### **Unmet medical need**

- Chronic inflammatory organ damage represents a major burden to patients. If left untreated, liver cirrhosis will often progress to decompensation through significant loss of liver function. Today there are no efficacious treatments to prevent deterioration in the latter stages of the disease, thus leaving costly and burdensome liver transplantation often as the only option

#### **Market opportunity**

New diagnoses of liver cirrhosis affect hundreds of individuals per million of population

#### **OMass Therapeutics**

Using novel biochemistry techniques, native mass spectrometry and custom chemistry to deliver novel medicines against highly validated but inadequately drugged targets, with a focus on immunological and rare diseases

Board Seat	2 (inc. Chair)
Date of Founding	2016
Date of Syncona investment	2018
Valuation basis	Series B
Stage	Drug discovery
Syncona capital invested	£35.4m
No. of employees	40+
Competitor landscape Crinetics	
Key risks	

Attrition of potential drugs

#### **Key management team**

**Rosamond Deegan**, Chief Executive Officer (formerly Chief Business Officer at Bicycle Therapeutics, where she established the company's Boston-based subsidiary)

**Ali Jazayeri,** Chief Scientific Officer (previously Chief Technology Officer at Heptares)

Jonathan Hopper, VP, Platforms and Founder; worked with Carol Robinson on developing mass spectrometry Idlir Liko, Director of Technology and Founder; has a wealth of experience in mass spectrometry across biotech and pharma

#### **Founders**

**Professor Dame Carol Robinson**, Founder and Scientific Adviser; recognised for using mass spectrometry to further research into the 3D structure of proteins and their complexes and is the first female Professor in Chemistry at the University of Cambridge

**Hsin Yung Yen**, Principal Investigator at the Institute of Biological Chemistry, Academia Sinica in Taiwan **Jonathan Hopper** (as above)

Idlir Liko (as above)

For more information see: https://www.omass.com



#### Investment thesis

 Opportunity to develop differentiated small molecule drugs leveraging a world-leading Native Mass
 Spectrometry platform which enables unique insights into membrane proteins and protein complexes such as GPCRs and Solute Carriers – classes of targets that have been historically difficult to drug in spite of high clinical relevance and unmet need

#### **Unmet medical need**

- Programmes are all in indications with significant unmet medical need

#### Clade Therapeutics

Harnessing iPSC immune cloaking and differentiation platform technology to deliver 'off-the-shelf' cell therapies

Board Seat	1
Date of Founding	2021
Date of Syncona investment	2021
Valuation basis	Series A
Stage	Pre-clinical
Syncona capital invested	£10.8m
No. of employees	20+
Competitor landscape	CENTURY

#### Key risks

Highly innovative concept in emerging space

#### Key management team

**Chad Cowan**, PhD, Chief Executive Officer, Co-Founder (previously Co-founded and CSO, Sana Biotechnology, Co-Founder, Head of Research CRISPR Therapeutics)

**Jim Glasheen**, PhD, President / Chief Business Officer, Co-Founder (previously, co-founder and founding President and CEO of Atalanta Therapeutics, Executive Vice Chancellor at UMASS Medical School, co-lead of Life Science Practice at Technology Partners Venture Capital)

Leandro Vetcher, Chief Operating Officer, Co-Founder (previously VP of Research Operations at Sana Biotechnologies, business development lead for the Blavatnik Biomedical Accelerator at Harvard University, co-founder of Green Pacific Biologicals and Keclon SA)

Derek Hei, PhD, Chief Technology Officer (previously SVP of Preclinical and Clinical Manufacturing, Cell and Gene Therapies at Vertex Pharmaceuticals, SVP of Manufacturing, Quality, and Regulatory at BlueRock Therapeutics as well as BlueRock's Chief of Manufacturing and Technical Operations)

#### **Founders**

Chad Cowan (as above)

Jim Glasheen (as above)

Leandro Vetcher (as above)

**Deepta Bhattacharya**, PhD, (Professor, Department of Immunobiology, University of Arizona, College of Medicine, Tuscon) **Chris Sturgeon**, PhD, (Associate Professor at the Icahn School of Medicine at Mount Sinai)

**Gustavo Mostoslavsky**, MD PhD (Associate Professor of Medicine in the Section of Gastroenterology in the Department of Medicine at Boston University School of Medicine)



#### **Investment thesis**

 Clade has been established with the aim of discovering and delivering scalable next generation induced pluripotent stem cell (iPSC)-derived medicines

#### Unmet medical need

- Syncona believes Clade's technology has the potential to deliver greater efficacy than the first generation of allogeneic cell therapies
- "Off the shelf" stem cell-based therapies have potential to deliver practical and commercial benefits in cell therapeutics

For more information see: https://cladetx.com/

# Appendix 4 – Sustainability

## Delivering positive and sustainable impact

Our social impact

- £4.2m donated to charity in
- 19 portfolio company clinical trial sites across the UK
- 900+ people employed by Syncona and its portfolio in the UK



Responsible investor and partner

- Became a signatory to the UN Principles for Responsible Investment
- Responsible Investment Policy rolled out to full portfolio
- 9 out of 11 Syncona portfolio companies now reporting Scope 1 to 3 carbon emissions to Syncona



Inspiring and empowering our people

- First Windsor Fellowship intern completes six-month placement at Syncona
- First Generating Genius cohort begin studies
- Developing family-friendly policies



Responsible and ethical business

- First TCFD report
- Net zero aspiration on a full portfolio basis by 2050
- Intend to publish full portfolio carbon footprint in FY2022/3
- Intend to become a signatory to the Net Zero Asset Managers (NZAM) initiative



All stated figures as of 31 March 2022

#### The Syncona Foundation

Supporting excellent charities that are meeting pressing needs within society, particularly those that are related to healthcare systems

Focused on cancer, neuro-degenerative diseases, gene therapy. Alongside other health and society related areas including mental health, bereavement and diversity

"The Syncona Foundation plays an incredibly important role in helping us make discoveries and improve cancer patients' lives."

Professor Kristian Helin CEO of the Institute for Cancer Research (ICR) £40.6m

Donations to charity since 2012<sup>1</sup>

30 Charities supported

0.35%

Of Syncona's NAV donated to charity on an annual basis

