

## Investing to extend and enhance human life

Full year results 2022

synconaltd.com

, Stevenage

## Cautionary statement



This presentation has been prepared and published solely for informational purposes. Nothing contained in this presentation is intended to constitute an offer, invitation or inducement to engage in an investment activity.

In this statement, "presentation" means this document together with any oral presentation, any question or answer session and any written or oral material discussed or distributed alongside or in connection with this document.

In making this presentation available, Syncona Ltd makes no recommendation to purchase, sell or otherwise deal in shares in Syncona Ltd or any other securities or investments and you should neither rely nor act upon, directly or indirectly, any of the information contained in this presentation in respect of such investment activity. This presentation has not been approved by an authorised person or by any supervisory or regulatory authority.

This presentation speaks as of its date and the information and opinions it contains are subject to change without notice. Neither Syncona Ltd nor its affiliates, agents, directors, managers and advisers (together "representatives") are under any obligation to update or keep current the information contained in this presentation.

The information and opinions contained in the presentation do not purport to be comprehensive. This presentation has not been independently verified. No representation, warranty or other assurance, express or implied, is or will be made in relation to, and no responsibility is or will be accepted by Syncona Ltd or its representatives as to the accuracy, correctness, fairness or completeness of, the information or opinions contained in this presentation. Syncona Ltd and its representatives accept no liability whatsoever for any loss or damage howsoever arising from any use of this presentation or its content or otherwise arising in connection with it.

The presentation may contain "forward-looking statements" regarding the belief or current expectations of Syncona Ltd and its representatives about the financial condition, results of operations and business of Syncona Ltd and its portfolio of investments. Such forward-looking statements are not guarantees of future performance. Rather, they speak only as of the date of this presentation, are based on current views and assumptions and involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Syncona Ltd and are difficult to predict, that may cause the actual results, performance, achievements or developments of Syncona Ltd, its current or future investments or the industry in which it operates to differ materially from any future results, performance, achievements or developments expressed or implied from the forward-looking statements. In particular, many companies in the Syncona Ltd portfolio are conducting scientific research and clinical trials where the outcome is inherently uncertain and there is significant risk of negative results or adverse events arising. In addition, many companies in the Syncona Ltd portfolio have yet to commercialise a product and their ability to do so may be affected by operational, commercial and other risks.

Any target return of Syncona Ltd referred to in this presentation is based on performance projections produced by Syncona Ltd and its representatives to the best of their knowledge and belief. It is a target only and therefore subject to change. There is no guarantee that any target return of Syncona Ltd can be achieved and past or targeted performance is no indication of current or future performance or results. There can be no assurance that the strategy described in this presentation will meet its objectives generally, or avoid losses.

This presentation is not for publication, release or distribution, directly or indirectly, in nor should it be taken or transmitted, directly or indirectly into, any other jurisdiction where to do so would constitute a violation of the laws of that jurisdiction. The distribution of this presentation outside the United Kingdom may be restricted by law and therefore persons outside the United Kingdom into whose possession this presentation comes should inform themselves about and observe any such restrictions as to the distribution of this presentation.

## 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

- £905.7m deployed since foundation
- 27% 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<sup>®</sup>)
- 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 during the year

\*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

\*\* 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

## Progress in the year



Delivering a return in a challenging market; growing track record of successfully building globally competitive businesses

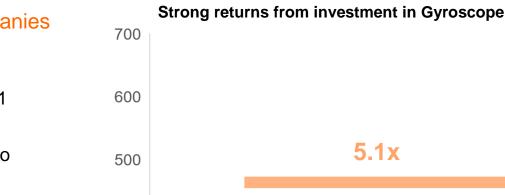
Delivered a return against a challenging market backdrop	<ul> <li>NAV of £1.3bn, 194p per share, return of 0.3%</li> <li>0.8% return from life science portfolio; aggregate uplift in value of private companies of £274.8m, led by uplift from Gyroscope sale, offset by declines in value of listed holdings</li> </ul>
Strong clinical progress across our portfolio	<ul> <li>Four clinical stage companies; 12 clinical data read-outs across portfolio</li> <li>Anaveon entered the clinic and reported promising initial data in April 2022</li> </ul>
Multiple financings ensuring portfolio is funded to deliver on key upcoming milestones	<ul> <li>\$712.2m committed across seven financings; \$126.4m by Syncona</li> <li>Our portfolio companies are well funded in challenging market conditions</li> </ul>
Strengthened capital base provides greater flexibility	<ul> <li>£325.8m received from sale of Gyroscope to Novartis</li> <li>£784.9m capital pool at 31 March 2022</li> </ul>
Progress on sustainability	<ul> <li>£4.2m donated to charity</li> <li>Responsible Investment Policy rolled out across the portfolio</li> <li>Diversity and Inclusion initiatives successfully launched</li> </ul>

### Gyroscope is third successful exit for Syncona

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

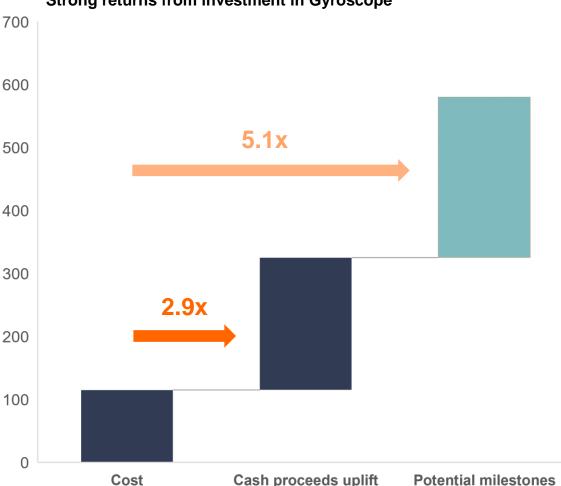
#### Gyroscope was co-founded by Syncona in 2016

- 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\*



£m





5

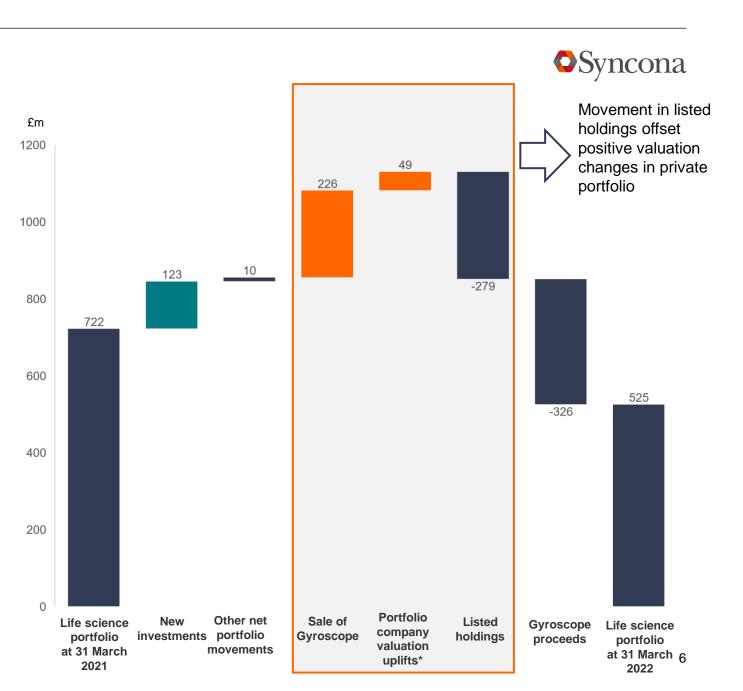
### Challenging market backdrop for listed companies

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

## Public markets continue to be challenging for smaller biotech stocks

- On average, share prices of lower 50% of NASDAQ Biotech Index, weighted by market cap, down by 41% during the year
- Negative market sentiment has impacted share prices of listed companies in our portfolio
- There have been delays to clinical trials and operational challenges at Freeline; new management team in place with renewed focus on clinical and operational execution

## Syncona companies well funded to deliver on key data catalysts in the next 12 months



## Promise of cell and gene therapy remains



Public market sentiment impacted by industry challenges as field matures; field remains exciting with significant untapped potential

#### Curative potential of the products with significant commercial opportunity

- Cell and gene therapies seeking to target diseases in areas of high unmet medical need
- Potential for single dose cure in intractable diseases
- We believe patients will opt for best-in-class products

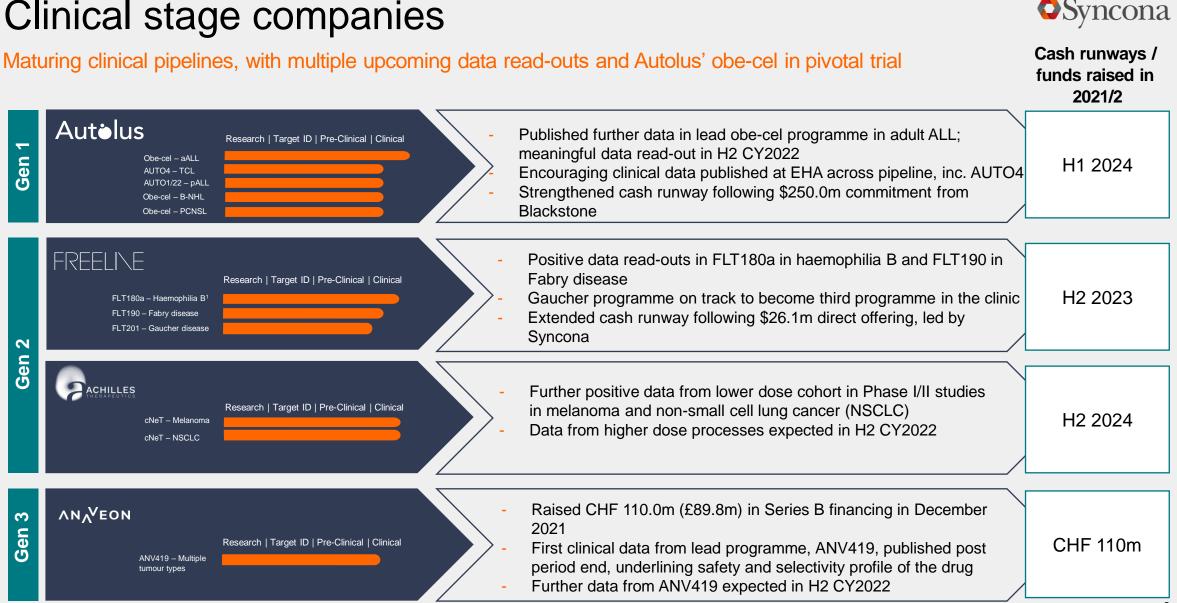
#### Growing understanding of manufacturing process in cell therapy and safety in gene therapy

- Cell therapy companies increasing manufacturing footprints and more local infrastructure available regulators providing more information on manufacturing requirements
- Concerns about dose safety in the gene therapy field; our companies are able to navigate appropriately Syncona gene therapy strategy
  has been to limit potential exposure to toxicity

#### Positive data in the space is translating into product approvals

- 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\*\*

# Portfolio update

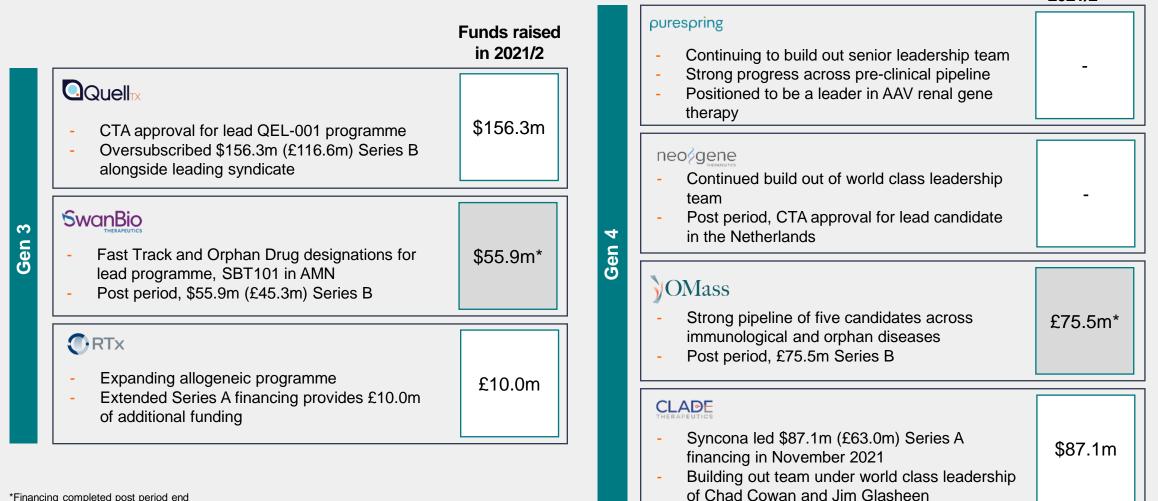


### Clinical stage companies

1 Including B-AMAZE and B-LIEVE trials

## **Pre-clinical companies**

Significant momentum across pre-clinical companies; well funded to deliver key clinical milestones







Funds raised in 2021/2

# Diversified portfolio set to deliver key upcoming milestones

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



#### Upcoming clinical milestones

Autolus – Meaningful read-out from obe-cel in r/r adult ALL expected in H2 CY2022; further data in AUTO1/22

**Freeline** – Data expected across haemophilia B, Fabry, and Gaucher Type 1 programmes in H2 CY2022

Achilles – Interim data in higher dose process in NSCLC and melanoma Phase I/II studies expected in H2 CY2022

Anaveon – Further data from ANV419 Phase I study expected later in 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

Pre-clinical	Phase I/II		Phase III/Pivotal	BL	_A*	L	aunch
			Autelus		CAR-T		
	ACHILLES	Neo-antigens					
Quell <sub>TX</sub>	T-regulatory cells						
RTX Macropha	ge cells						
neogene	T cell receptors						
CLADE THERAPEUTICS IPSC cell therapy							
	FREELINE	Sys	stemic				
SwanBio THERMEDICS	Central nervous system						
purespring Renal							
	Selective IL-2 agonist				Cell therapy		Biologics
Small molecule thera	peutics				Gene therapy		Small molecule

# An exciting pipeline of opportunities

Genetic medicines are unlocking diseases and streamlining drug development

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

#### **Cell therapy**

- Continue to be active within cell therapy, as shown by \$30.0m Series A investment in Clade during the year
- Field has focused on oncology to date, now broadening out to focus on other areas

#### **Gene therapy**

- Currently being applied in small number of diseases, opportunity in chronic degenerative conditions
- Significant expertise and success in gene therapy (Gyroscope and Nightstar); opportunity to leverage this expertise 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

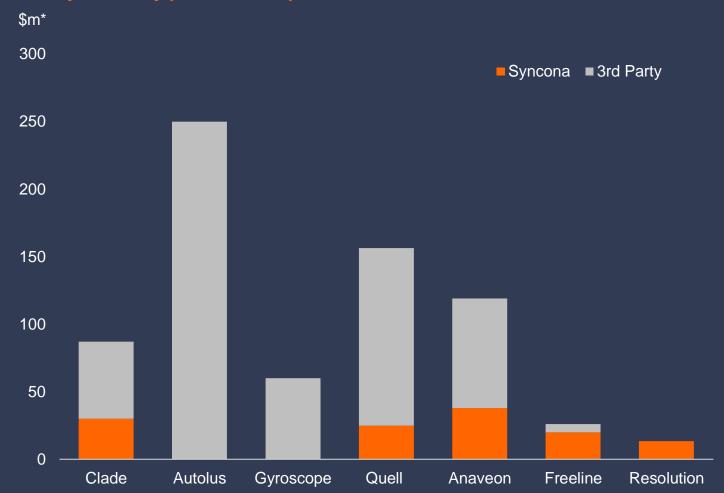
- Antibodies have had great success in immunological and inflammatory diseases new technologies are providing real insight as to how unaddressed conditions could be tackled
- Targeted small molecules have been successful in oncology but are limited by lack of technologies that:
  - Allow identification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

# 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
- \$712.2m committed across seven financings, of which \$126.4m was committed by Syncona

#### Money raised by portfolio companies in 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 the year
- 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



### £150-£250m Expected FY2022/3 capital deployment

#### 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 (current levels ~40% of capital pool)
- Selectively introducing a small number of low-risk, multi-asset funds to offer some inflation protection over time

## £784.9m

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

#### **Operating at scale** - NAV of £1.3bn Where we Capital pool of £785m are today 1,200+ employed at Syncona and its portfolio companies - Strong pipeline of opportunities Leveraging our success Core team skill is to identify science and leverage it to create a company that has the potential to How we got deliver transformational treatments here 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 **Driving future growth** - Optimising financing approach to manage risk and reward across diversified portfolio Key Attracting world-class teams to lead our portfolio companies from an early stage learnings Continuing to improve execution as companies mature and progress through the clinic

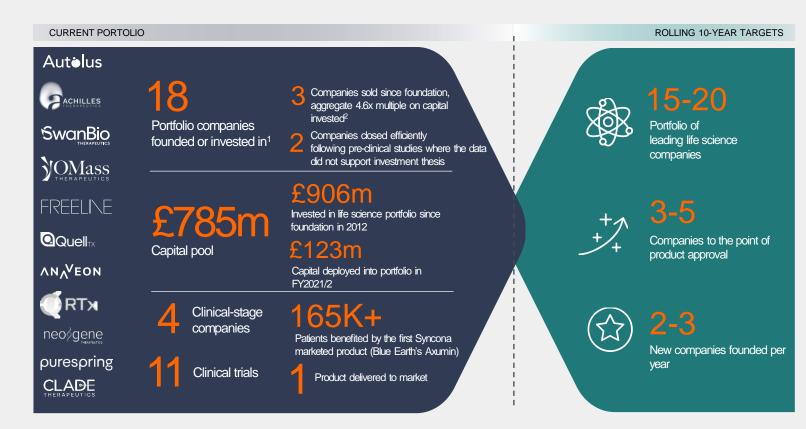
## Summary



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
- 0.8% life science portfolio 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 CY2022
- Strengthened capital base positions Syncona for long-term success

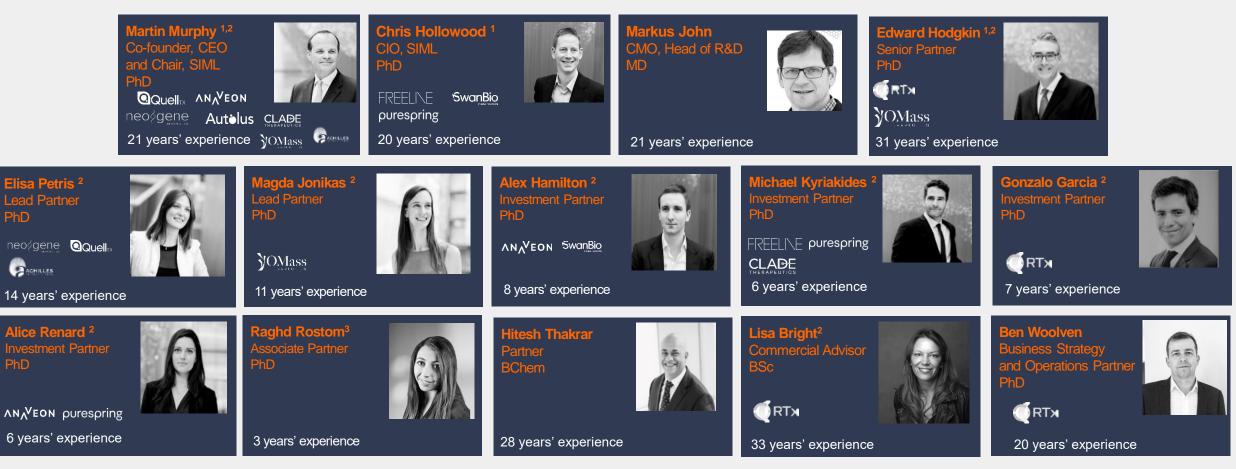


# Appendix 1 – Syncona team

# An expert multi-disciplinary investment team

#### Our unique skill set

🔊 Scientific 🐻 Commercial ា Company creation 🖉 Investment



Full team details: https://www.synconaltd.com/about-us/our-people/

1 Portfolio company chairman, 2 Portfolio company board member/observer 3 - Joined post period end

**O**Syncona

# Appendix 2 – 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

3 https://www.ncbi.nlm.nih.gov/books/NBK552022/

**Kite/Gilead:** engineered CAR-T cell therapy for adult relapse / refractory Diffuse Large B-cell Lymphoma (DLBCL)

- 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)

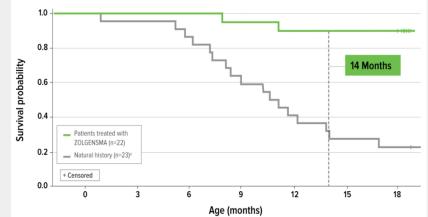
- SMA is a genetic disease caused by a lack of a functional survival motor neuron 1 gene, resulting in the rapid and irreversible loss of motor neurons
- Most often impacts babies and children
- Zolgensma now an approved product based on profound data

#### 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>

Event-free survival in the STR1VE trial



<sup>1</sup> https://lymphoma.org/aboutlymphoma/nhl/dlbcl/

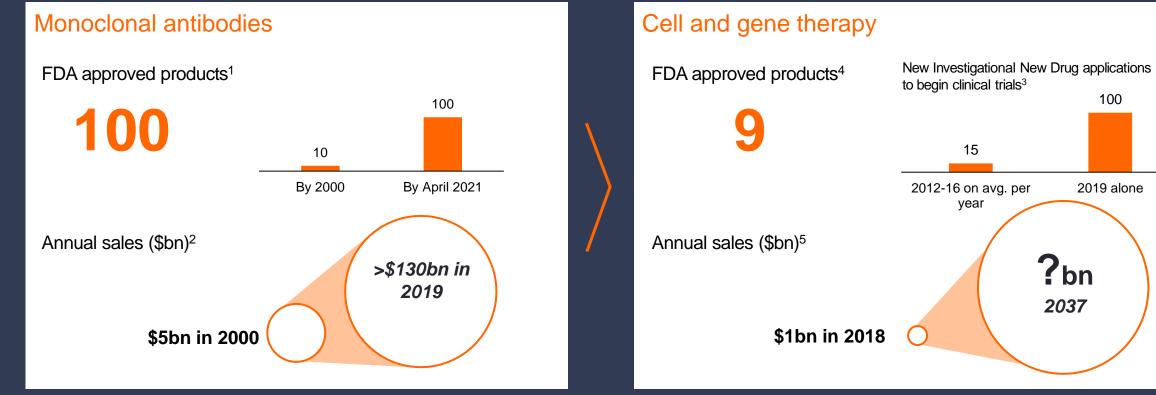
<sup>2</sup> https://www.yescartahcp.com/large-b-cell-lymphoma/efficacy

<sup>4</sup> https://www.zolgensma-hcp.com/aboutzolgensma/efficacy/str1ve/

# 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



1 Nature Reviews Drug Discovery article published on 5 May 2021; 2 Lu, RM., Hwang, YC., Liu, IJ. *et al.* Development of therapeutic antibodies for the treatment of diseases. *J Biomed Sci* **27**, 1 (2020); 3 Lapteva L, Purohit-Sheth T, Serabian M, Puri RK. Clinical Development of Gene Therapies: The First Three Decades and Counting. Mol Ther Methods Clin Dev. 2020 Oct 10;19:387-397; 4 FDA Office of Tissues and Advanced Therapies: Includes engineered cell therapies and gene therapies only, Syncona team analysis; 5 https://bisresearch.com/industry-report/cell-gene-therapy-market.html,

Appendix 3 – Portfolio companies

Financial	l review	Clinical	Pre-clinical		Drug discovery			<b>O</b> Syn
Portfolio company	Fully diluted ownership %	30 March 2021 value £m (fair value)	Net invested/returned in the period £m	Valuation change	FX movement	31 March 2022 value £m (fair value)	Valuation basis (fair value) <sup>1,2</sup>	% of NAV
Autelus	18.8%	81.2	-	(22.1)	2.9	62.0	Quoted	4.7%
<b>NN<sup>V</sup>EON</b>	37.9%	18.5	20.4	17.9	3.0	59.8	PRI	4.6%
FREELINE	53.4%	167.9	15.4	(151.6)	0.6	32.3	Quoted	2.5%
	25.3%	133.1	-	(109.5)	1.2	24.8	Quoted	1.9%
	0.0%	150.1	(325.8)	168.3	7.4	-	Sold	0.0%
	37.4%	35.1	26.3	18.5	1.5	81.4	PRI	6.2%
	75.4%	53.7	17.7	0.5	3.2	75.1	Cost	5.7%
purespring	84.0%	3.9	14.6	-	-	18.5	Cost	1.4%
neogene	7.9%	11.0	2.9	-	0.6	14.5	Cost	1.1%
	22.6%	-	10.8	-	0.6	11.4	Cost	0.9%
<b>O</b> RTx	81.1%	7.4	3.0	-	-	10.4	Cost	0.8%
VOMass THERAPEUTICS	49.3%	16.4	10.0	8.3	-	34.7	PRI	2.6%
Investments		43.8	1.7	54.0	0.5	100.0		
Total		722.1	(203.0)	(15.7)	21.5	524.9		

1 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

Company	Status of pipelines	Next steps
Autolus	Five ongoing clinical trials	<ul> <li>Progress pivotal study in obe-cel / adult ALL, with meaningful data in H2 CY2022 with full data expected in H1 CY2023</li> <li>Publish longer term follow-up data in AUTO1/22 / paediatric ALL 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>Progress haemophilia B study, initial data from dose-confirmation study in July 2022</li> <li>Programme update expected in Fabry study in H2 CY2022</li> <li>Gaucher study to publish initial data in H2 CY2022</li> </ul>
CACHILLES THE RAPEUTICS	Two lead programmes in Phase I/IIa trials	<ul> <li>Expect to publish interim data from VELOS<sup>™</sup> Process 2 manufacturing in its Phase I/IIa NSCLC and melanoma therapies in H2 CY2022</li> </ul>
<b>NN<sub>N</sub>VEON</b>	Nominated lead programme in the clinic	<ul> <li>Publish further data from Phase I trial in H2 CY2022</li> </ul>
	Lead programme in pre-clinical development	<ul> <li>Expect to dose first patient in lead programme targeting liver transplant in H2 CY2022</li> </ul>
	Lead programme in pre-clinical development	<ul> <li>Expects to enter the clinic with lead programme targeting AMN in H2 CY2022</li> </ul>
neogene	Lead programme in pre-clinical development	- Expect to enter the clinic in H1 CY2023
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

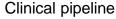
Board Seat	1
Date of Founding	2014
Date of Syncona investment	2014
Valuation basis	NASDAQ
Stage	Clinical
Syncona capital invested	£124.0m
No. of employees	350+
Competitor Landscape	
_	

GILEAD

#### THERAPE Better Cells For Better

#### Key risks

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



Research | Target ID | Pre- Clinical | Clinical



**U** NOVARTIS

#### 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)

 $\label{eq:constraint} \textbf{Edgar Braendle}, \mbox{ Chief Development Officer (formerly CMO at }$ 

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 June Thereneutice)

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

Unless stated all financials at March 2022 \* Source; Autolus Corporate Presentation May 2022 \*\*Key competitors and risks: Syncona team view



#### **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

### 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

Board Seat	2 (inc. Chair)
Date of Founding	2017
Date of Syncona investment	2019
Valuation basis	Series B
Stage	Clinical
Syncona capital invested	£39.9m
No. of employees	20
Competitor Landscape	



SANOFI 🎝



**neo**leukin

Key risks

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

#### Clinical pipeline

ANV419 - Multiple tumour types

Research | Target ID | Pre- Clinical | Clinical

#### 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)

#### **Co-founder**

Andreas Katopodis (as above)

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

Unless stated all financials at March 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	
uniQure Spark Spark	Sonoomen 🐼 c.,11

AVROBIO

Key risks

- Highly competitive environment
- Differentiated product required
- Complex manufacturing

Roche

#### **Clinical pipeline**







ΠZE

#### 1 Including B-AMAZE and B-LIEVE trials

#### 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

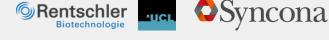
**Amit Nathwani**, Founder, Clinical and Scientific Adviser and Director, Prof. Nathwani is renowned for his pioneering work on gene therapy for haemophilia B, and was first to show successful correction of bleeding diathesis in patients with severe haemophilia B

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

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

Unless stated all financials at March 2022

\*Source: Freeline Corporate Presentation May 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



#### **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

## **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 invested	£60.7m
No. of employees	250+
Competitor Landscape	

Competitor Landscape

gritstone

Instil**Bio TURNSTONE** 

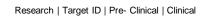
#### Key risks

- Highly innovative concept in emerging space

**IO**VANCE

- Complex manufacturing
- Increasing competition

#### Clinical pipeline





1 clonal neoantigen-reactive T cel

#### 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 Robert Coutts, Chief Financial Officer

#### **Founders**

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 Therapy at UCL

**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 March 2022 Key competitors and risks: Syncona team view \* https://www.nature.com/articles/s41416-021-01353-6 \*\* https://pubmed.ncbi.nlm.nih.gov/33600992/ \*\*\* https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-andfigures/2022/2022-cancer-facts-and-figures.pdf



#### **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<sup>\*\*</sup>
- 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 Foundin	g		2019
Date of Syncona	a investment		2019
Valuation basis			Series B
Stage			Pre-Clinical
Syncona capital	invested		£61.4m
No. of employee	S		110+
Competitor Lance		gentibio	

#### Key risks

- Highly innovative concept in emerging space
- 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)

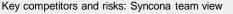
Alberto Sánchez-Fueyo, Head of the Liver Sciences Department at King's College London

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

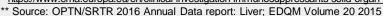
**Emma Morris**, Professor of Clinical Cell and Gene Therapy at UCL **Elmar Jaeckel**, Co-Leader Liver Transplant program MHH and Group Leader "Immune tolerance" in the Department of Gastroenterology, Hepatology and Endocrinology at Hannover Medical School.

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

Unless stated all financials at March 2022



\* https://www.ema.europa.eu/en/clinical-investigation-immunosuppressants-solid-organ-transplantation





#### **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<sup>\*</sup>

#### **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	£75.1m
No. of employees	50+
Competitor Landscape	U NOVARTIS

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/

Unless stated all financials March 2022 \* Adrenomyeloneuropathy \*\* SwanBio analysis Key competitors and risks: Syncona team view



#### **Investment thesis**

- Gene therapy has the potential to be transformational in neurology
- Lead programme targeting AMN<sup>\*</sup>, 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

## **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 Calliditas Calliditas Calliditas Calliditas	OMEROS TRAVERE OMEROS Apellis

Key risks

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

#### 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 Officer and Founder (leader of Bristol Renal, a glomerular research group of approximately 45 researchers)

**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/



#### Syncona

#### **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

## **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	

Key risks

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





#### **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

## **Resolution Therapeutics**

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

2 (inc. Chair)
2020
2018
Series A
Pre-clinical
£10.4m
c.20

SHORELINE

### 

- Key risks - Highly innovative concept in an emerging space
- Future competition

#### Key management team

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

**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)

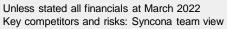
**Evelien Stalmeijer**, VP, Translation (Cell Therapy & Business Development Consultant at eXmoor pharma)

#### 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

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





#### **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	£26.4m
No. of employees	40+
Competitor landscape	

Key risks

Attrition of potential drugs

#### Key management team

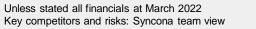
Rosamond Deegan, Chief Executive Officer (formerly Chief Business Officer at Bicycle Therapeutics, where she established the company's Boston-based subsidiary)
Ali Jazayeri, Chief Scientific Officer (previously Chief Technology Officer at Heptares)
Jonathan Hopper, VP, Platforms and Founder; worked with 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	
CRISPR	
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) Syncona

#### **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**

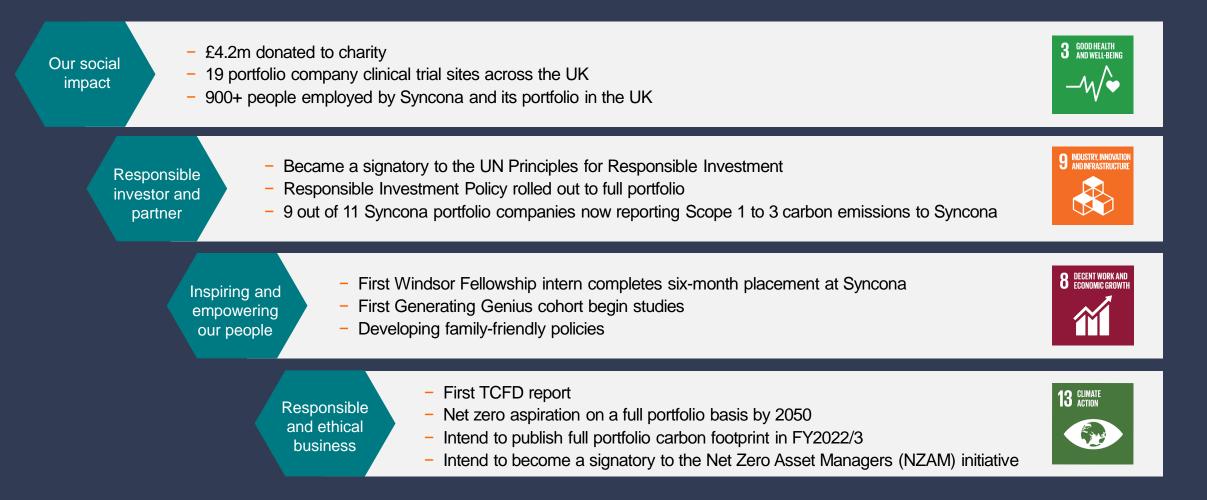
- Syncona believes Clade's technology has the potential to deliver greater efficacy than the first generation of allogeneic cell therapies
- "Off the shelf" stem cell-based therapies have potential to deliver practical and commercial benefits in cell therapeutics

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

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

# Appendix 4 – Sustainability

# Delivering positive and sustainable impact



## 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)

30

Charities supported

0.35%

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

