

Midlands Academics –

IP and Commercialisation Workshop

16 September 2019

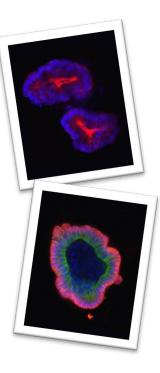


# Cellesce case Study



# Why?

- Over 90% of new cancer drugs fail in clinical trials
- Cancer organoids are miniature, simplified copies of patients' tumours grown from their adult stem cells in the lab
- Organoids recapitulate 3D tissue structure of tumours and their cancer-like pathology more faithfully than conventional 2D cell lines. Tumour organoids mimic the relevant pharmacology of cancer drugs
- Compound and antibody screens often require 100k organoids or more and manual expansion methods cannot meet the growing demand
- Cellesce set out to develop proprietary bioreactor technology to resolve this bottleneck.
- Now pursuing a potential \$1.5bn p.a. market opportunity





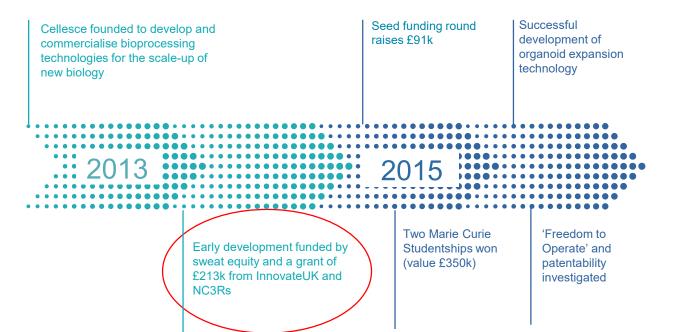
# **Cellesce Value Milestones (1)**

Successful Seed funding round Cellesce founded to develop and raises £91k development of commercialise bioprocessing organoid expansion technologies for the scale-up of technology new biology . . . Two Marie Curie 'Freedom to Early development funded by Studentships won Operate' and sweat equity and a grant of (value £350k) patentability £213k from InnovateUK and investigated



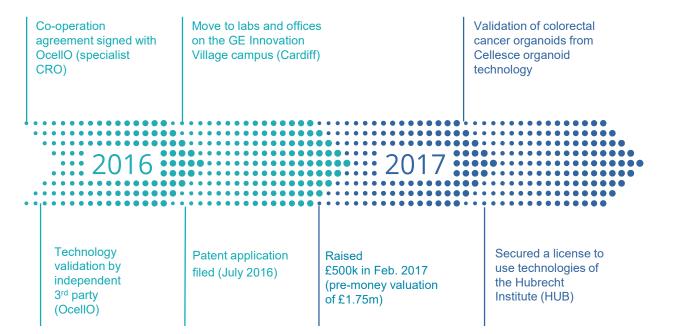
NC3Rs

# **Cellesce Value Milestones (1)**



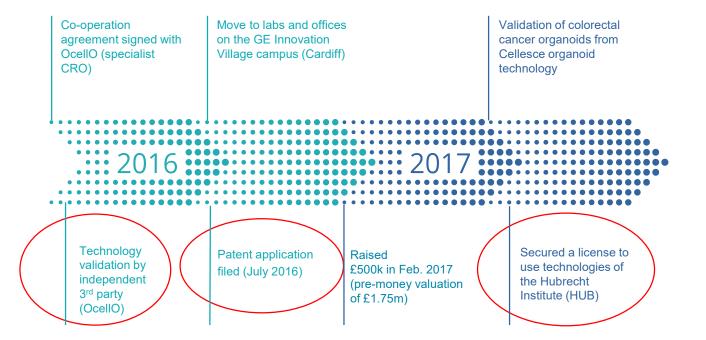


## **Cellesce Value Milestones (2)**





## **Cellesce Value Milestones (2)**



Via<sup>©</sup>

## **Cellesce Value Milestones (3)**

	Raised £600k at a valuation of £3M	Appointed CE pharmaceutic marketing exp and extensive	al perience	Further inv round	vestment	Strong re growth (c and other	olorectal
•	. 2018			20	)19		
	First revenues sec targeted business development, sale pipeline building		Grant funding w develop additior tissues (breast, other)	nal	Larger scale bioprocess (CXP2) secures and protects margins	6	



# **Cellesce Value Milestones (3)**





### **Prioritisation and focus**



**Drug discovery** 



**Personalised Medicine** 



**Regenerative Medicine** 



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### **Business model**



Equipment supplier (bioreactors and consumables)



Contract Research Organisation ('fee for service' to drug discovery industry)



Drug discovery company (high regulatory risk, high potential reward)



### **Build and protect technology**



Patent or trade secret? (investors in life science business will require a patent)



**Know-how** (experience and expertise – at least as important as what is in the patent)



Freedom to operate (operating in 'white space' and licensing in of key inputs)



# **Key milestones**



MVP (focus on what is possible, given time and resources constraints)



Technology validation (proof of technology)



**First revenues** (proof of market)



# **Cellesce Soft Funding**







Founders sweat equity + £11k

#### InnovateUK and NC3Rs £213k

Cardiff University - £125k Cellesce - £93k, + £32k 'matched'

#### Subsequent awards £990k

Marie Curie - £350k Imaging capability - £240k Breast Organoids - £400k



### **Cellesce Fund Raises**







Seed round £91k Friends and Family

#### Second Seed Round £500k Development Bank of Wales, High Net Worth individuals, Angel Investors

#### Third Seed Round £600k

Development Bank of Wales, High Net Work individuals



### Due diligence



**Technical** Company's own data, independent validation by 3<sup>rd</sup> party, patents and licenses



Market Company's own market estimates, market research data, report from independent 3rd party market expert



Financial & Legal Financial plan spreadsheet, contracts, employee biographies – made available to investors and 'warranted'



### **Cellesce cash flow management**



Accountant / bookkeeper part time - claiming grant income, supplier payments, payroll, VAT, annual accounts

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#### **Financial spreadsheet**

calculations for income & expenditure leading to P&L, Balance Sheet, cash flow and future projections

Sunday	Wonday	Tuesday	Wednesday	Thursday	Janua	ry 2019
			2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

#### Monthly reporting

to management team and board, particular focus on cash flow and cash management

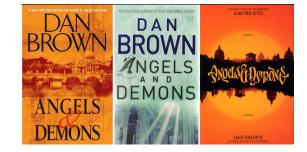


### **People and culture**



Academics in business (& how to make that work)

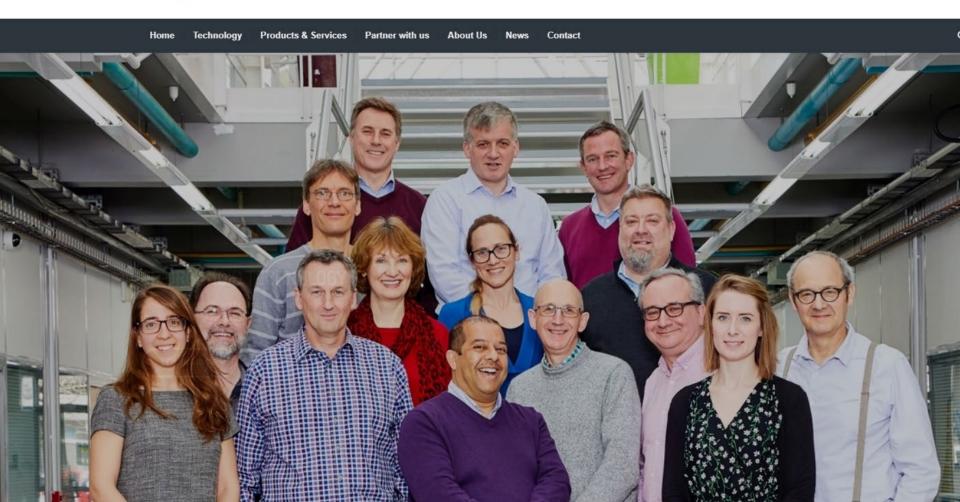




Team dynamic (technocrats working together towards a shared goal) Leadership (the right person at the right time)







# Thank you!

