

CELLICON VALLEY '21 - THE FUTURE OF CELL AND GENE THERAPIES A VIRTUAL SYMPOSIUM

Michael H. May PhD President & CEO



Commercializing Living Therapies

## Canadian Focus: Strategic Investment in Ecosystem Building













## Canadian Landscape – Growing, But...



\$10.6B \$127M

Capital Invested, YTD, 2021 (all figures USD)

#### Notable 2020/2021 Canadian deals



Raised \$85M Series A (Feb 10th, 2021)



Raised \$20M Series A (June 1st, 2020)



Acquired by Century Therapeutics for an undisclosed amount



Raised \$220M in an IPO (June 19th, 2020)



Raised \$8.89M Series A (Nov 10<sup>th</sup>,2020)



Raised \$55M Series A (Aug 27, 2020)





## **CCRM Background**



Established in 2011 \$15M Founding Funding \$100M Raised To-Date



120+ Employees
Global Network of Partners
~10% Funding from Gov't



Six Business Units Specialized Facilities 250+ FFS Projects



500+ Opportunities Assessed25 Tech Dev Projects Ongoing12 Portfolio Companies

























Toronto is home to 40% of Canadian biotech industry

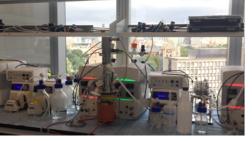
30+ specialized medical and science research centers

Over 140,000 students and researchers

Toronto Biotechnology sector ranks 4<sup>th</sup> in North America

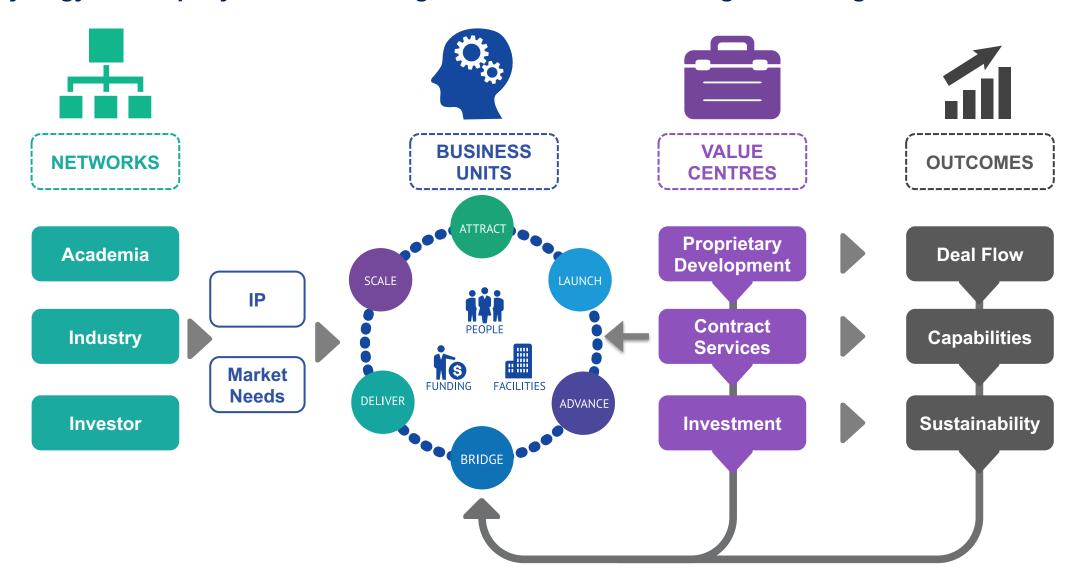




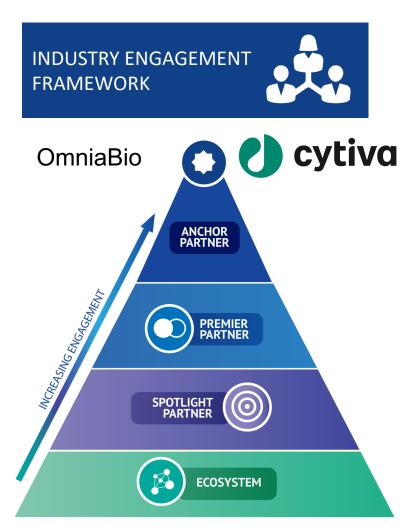


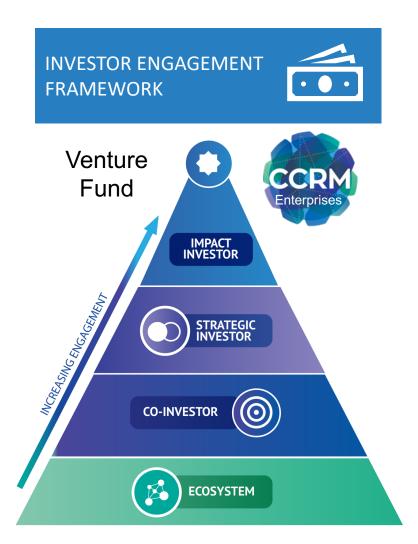
## **CCRM's Ecosystem- Based Business Model**

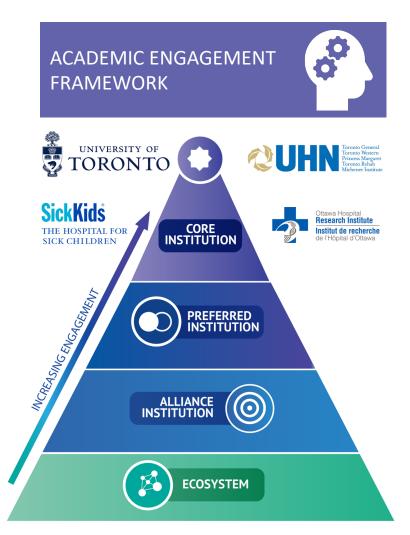
Synergy of Company Creation/Scaling, CDMO Services & Strategic Investing



## Foundational Activity - Stakeholder Engagement







## Focus 1 – Grow a Continuum of Manufacturing Capability





Centre for Advanced Cell Therapy Technologies (CATCT)

- 35 Employees
- Manufacturing Technology Development
- Process Development
- 10,000 sq.ft. laboratory
- Partnership with UofT, Cytiva and Other Tech Companies





Centre for Cell and Vector Production (CCVP)

- 60+ Employees
- 8 Class B Cell Suites
- 2 Viral Vector Suites
- QC/QA Laboratory
- Phase I/II Clinical Scale
- 20,000 sq.ft.
- Partnership with UHN



Future Commercial Scale Manufacturing – OmniaBio





- Scaled launch 2022 and 2024
- 350,000 sq. ft.
- Autologous & Allogeneic
- Modular Design
- Flexible operating/partnership model

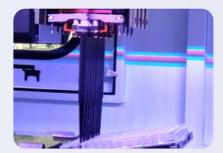
## Integration of CDMO Services & Technology Development



A history of iPSC reprogramming, gene editing, diff., and banking



Automated, closed, integrated T-cell PD and manufacturing



Custom and highthroughput media development



Infrastructure and expertise for viral vector USP and DSP development



A strong emphasis on analytical development



Developing optimal cryopreservation strategies



Highly experienced operations/MSAT staff

10 GMP clean rooms for production of CGT products

Available lab and GMP suite capacity in 2020-2022

Fit-for-purpose, phaseappropriate quality systems



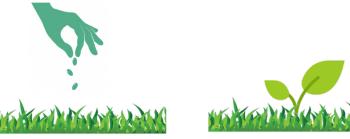




Manufacturing science and technology (MSAT) Cell and gene therapy (CGT)

## Focus 2 – Support a Continuum of Strategic Investment





**CCRM Incubation Teams** 

Discovery, PoC stage \$150-\$500k



**CCRM Enterprises Evergreen Funds** 

Seed stage \$500k - \$1 M



**VC Fund** Catalyze Syndicates

Series A stage \$10M - 20M



**Existing Syndicate New Series B Investors** 

Series B stage \$30M - 50M



Mezzanine Financing M&A or IPO exit

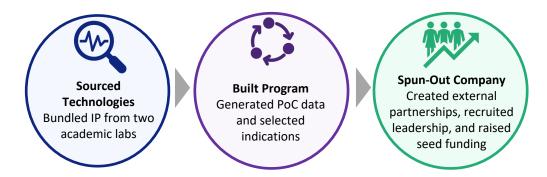
Series C / Exit \$100M +

#### **Recent Success**



Raised \$105M in oversubscribed Series A round

Notch is an immune cell therapy company developing universal, off-the-shelf T cell therapies derived from renewable stem cell sources



## In Nov 2019, Notch announced major deal with Allogene Therapeutics

https://www.globenewswire.com/news-release/2019/11/05/1940970/0/en/Allogene-Therapeutics-and-Notch-Therapeutics-Announce-Collaboration-to-Research-and-Develop-Induced-Pluripotent-Stem-Cell-iPSC-Derived-Allogeneic-Therapies-for-Hematologic-Cancer-I.html

#### The Notch Therapeutics Story

1 Bundling of Technologies & IP Protection

Technologies from the labs of Juan Carlos Zúñiga-Pflücker and Peter Zandstra, CCRM CSO. CCRM led in filing IP and hired student inventor to continue developing IP.

2 Internal Development

CCRM validated the technology and designed PoC studies to demonstrate therapeutic utility.

Company Ideation
CCRM developed the
business plan and secured an
entrepreneur-in-residence
with a track record of
success.

4 External Partnerships & Funding

ccr worked to develop strategic partnerships and built relationships with investors.

5 Company Launch
CCRM co-founded company
with academic institutions and
facilitated licensing of the

technology to newly formed Notch Therapeutics.

6 Continued
Infrastructure &
Manufacturing
Support

CCRM designed a comprehensive support strategy, including ongoing lab contract services.

## Focus 3 – Enhance a Continuum of Talent Development



### **Nurturing Leaders of Tomorrow**

- Innovation & Technical Excellence
- Entrepreneurship
- Access to Network & Opportunities

## **Positive Trends – Focus on Manufacturing, Investment & Talent**

Ecosystem Value	2016 NEWCO	2018 NEWCO	2020 NEWCO	Future Spin-Off 2022
Research Capability	<b>~</b>	<b>~</b>	<b>~</b>	
IP Generation	<b>~</b>	<b>~</b>	<b>~</b>	
Clinical Infrastructure	<b>~</b>	<b>~</b>	<b>~</b>	
Domestic Investment	X	×		>50%
Manufacturing Platforms	X		<b>~</b>	<b>✓</b>
Clinical Manufacturing	X		<b>~</b>	<b>~</b>
Commercial Manufacturing	X	X	X	<b>~</b>
GMP Training	X	X	×	<b>~</b>
Canadian Employment	<5%	~50%	>50%	>90%

## **Strategic Investment is Generating Impact**





EMPIRICA Therapeutics











**Industry Boards & Committees** 

**Industry Initiatives** 















**Therapeutics** 



CCRM





**CATCT** 



**CCVP** 



**OmniaBio** 







Academic, Industry & Investor Networks



Michael H. May President and CEO michael.may@ccrm.ca 647-223-1452

# Thank you