



# Cellular Vehicles

Enabling Next-Gen Cell Therapy

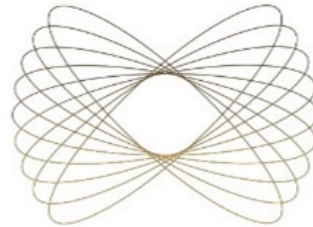
# Our leadership team has a combined two decades of experience in medtech and biotech



Nikhil Joshi  
Co-founder, CEO



Marcus Foley  
Co-founder, CTO



AURIS Robotic Instruments  
Design Team

\$3.4B acquisition



BAROSENSE  
INC.



UC San Diego



COLUMBIA UNIVERSITY  
IN THE CITY OF NEW YORK



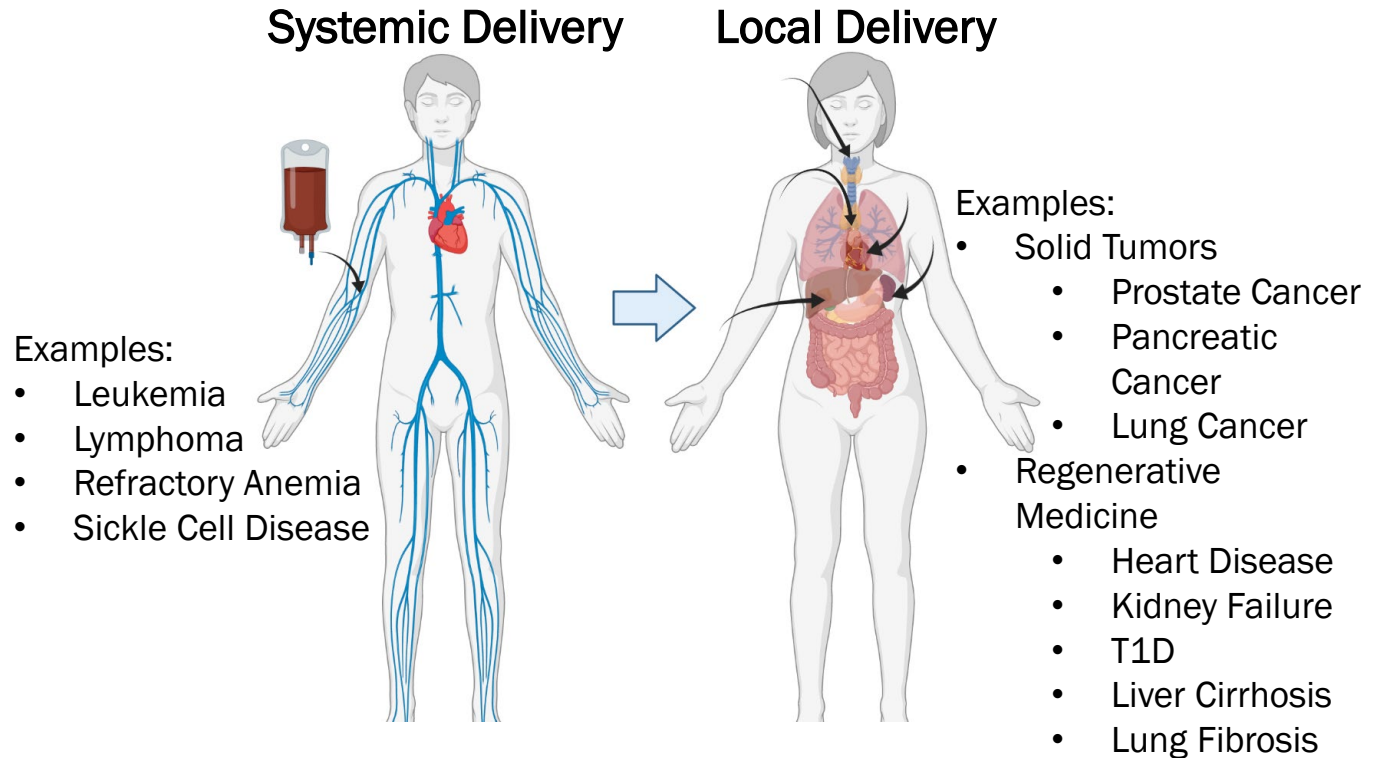
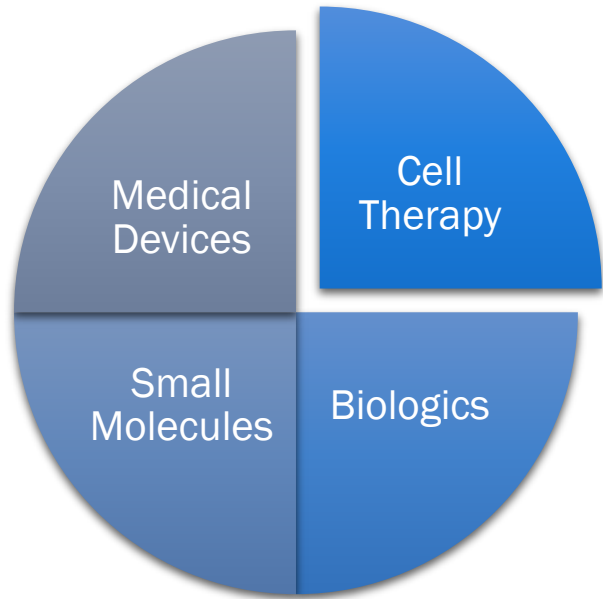
ELECTROLOOM



SADRA  
MEDICAL

CAL POLY  
Biomedical Engineering

# Cell Therapy (CT) as a treatment option has been a game-changer in blood-based diseases



**The CT industry is moving into solid tissue diseases, which require *localized cell delivery***



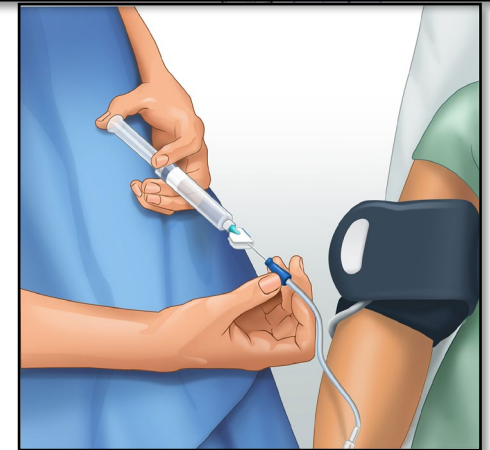
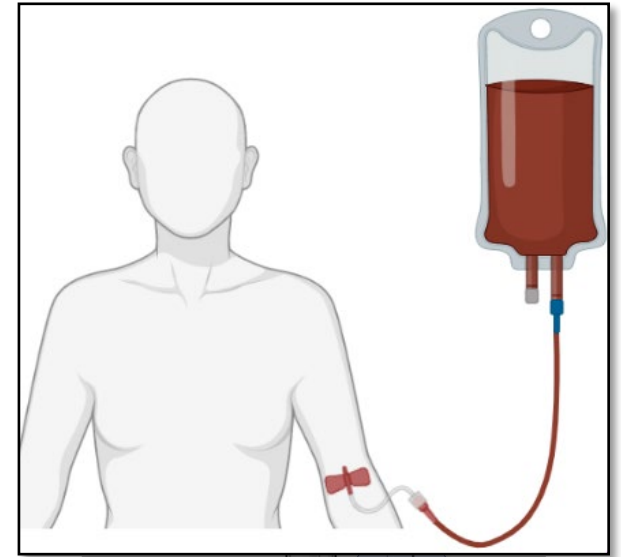
# The delivery tools available today for administration of cells are inadequate

Hospital-side prep lacks control and standardization<sup>1</sup>

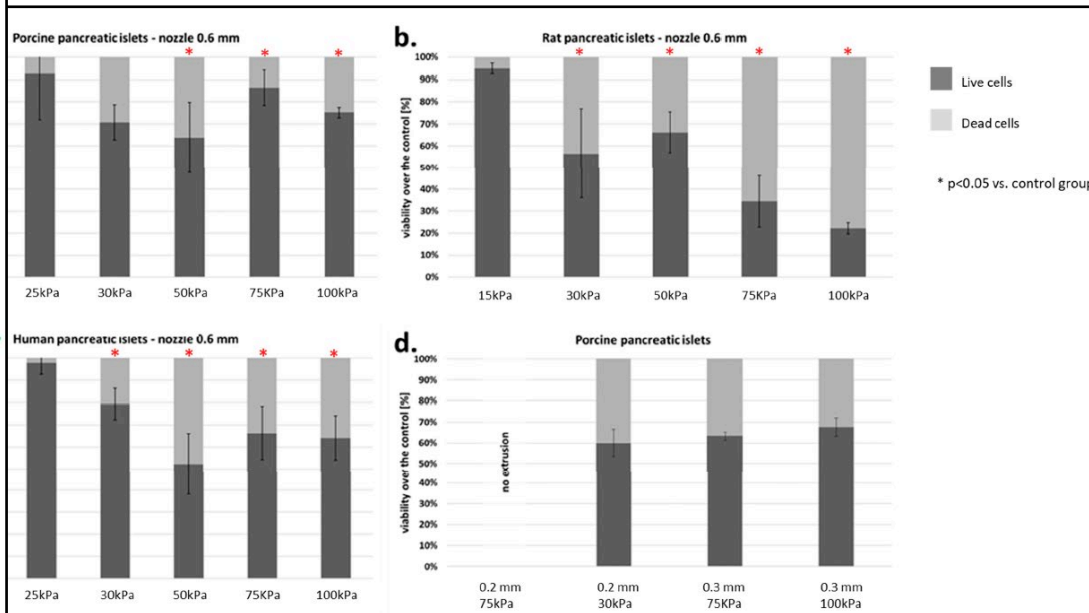
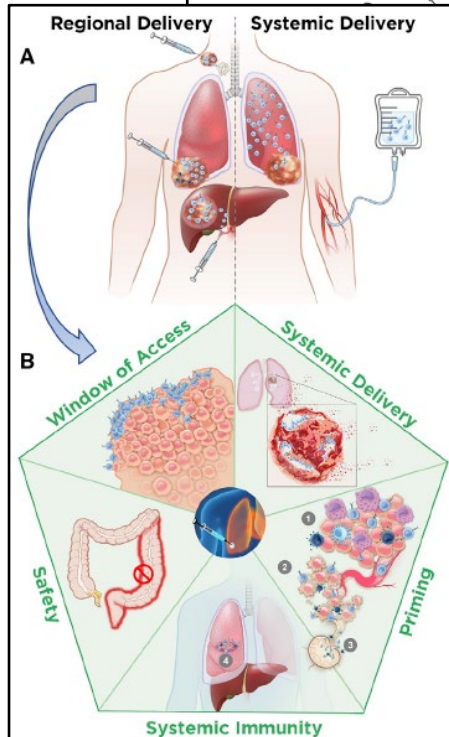
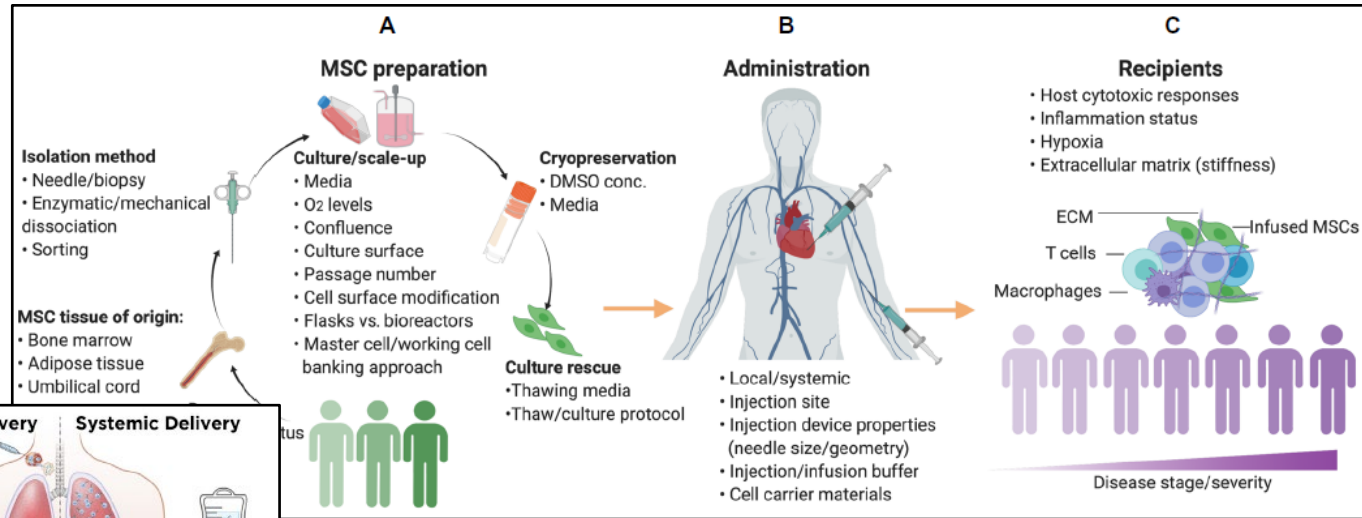
Current devices don't get cells to target tissue<sup>2</sup>

Infusion process kills or damages cells<sup>2</sup>

Low cell product yield<sup>1</sup>  
Poor cell engraftment<sup>1</sup>  
Inflammatory response<sup>1</sup>  
Need for higher/multiple doses<sup>2</sup>



# Researchers have described these problems across multiple contexts



**Cancer Cell** CellPress

Commentary  
**Regional CAR T cell therapy: An ignition key for systemic immunity in solid tumors**

SCIENCE TRANSLATIONAL MEDICINE | REVIEW

**STEM CELLS**

**Locoregional delivery of stem cell-based therapies**

Contents lists available at ScienceDirect

**CYTOTHERAPY** International Society ISCT Cell & Gene Therapy®

ELSEVIER journal homepage: [www.isct-cytotherapy.org](http://www.isct-cytotherapy.org)

Featured Article from the ISCT MSC Scientific Committee

**Mesenchymal stromal cell variables influencing clinical potency: the impact of viability, fitness, route of administration and host predisposition**

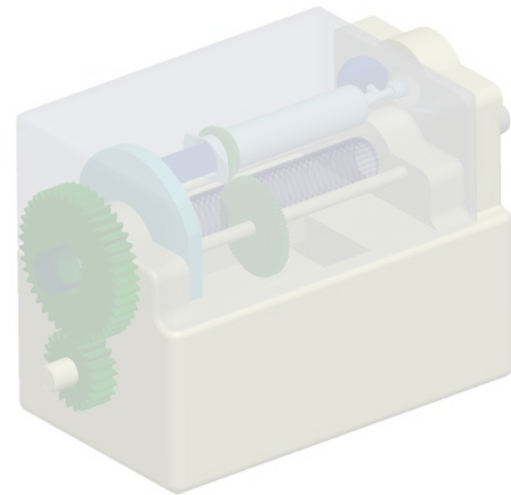
Check for updates

# We are building a modular system specifically designed to deliver cells

Our system:

- Standardizes the tx administration process
- Allows clinicians to deliver cells locally
- Reduces damaging factors during infusion
- Enables intelligent delivery of cells

Odyssey Robotic Infusion System\*



Serene Infusion Kits\*



\*Patents and Trademark Pending

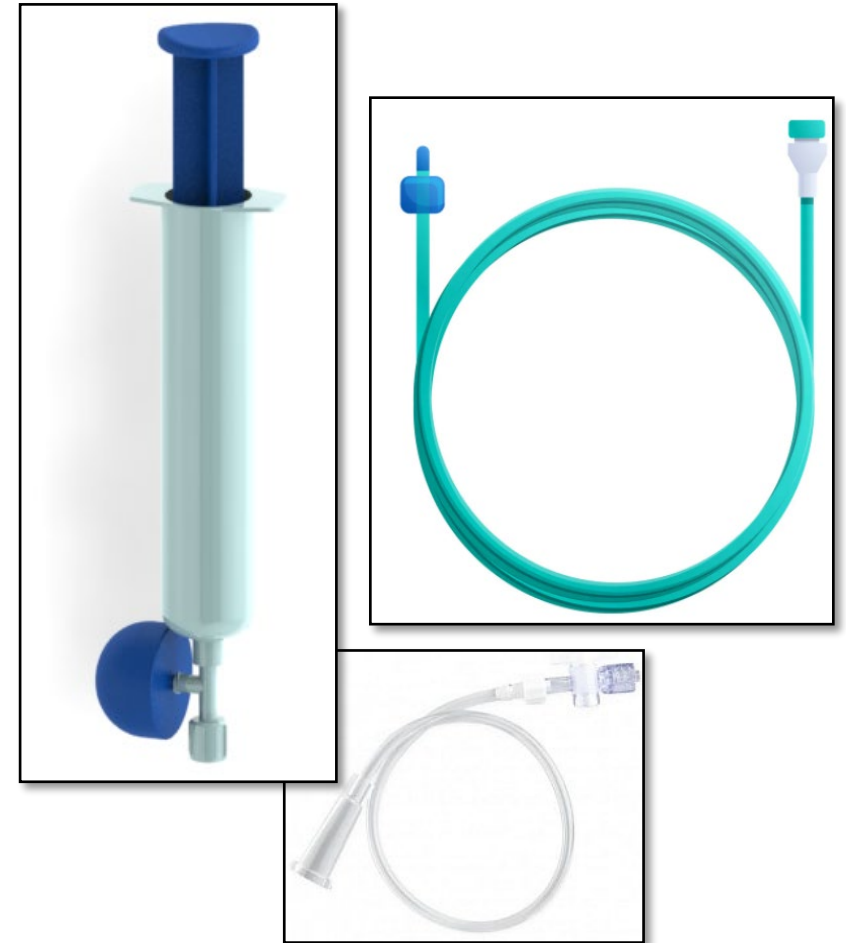




# Our first product is a manual infusion kit for local cell therapy administration

## Serene Infusion Kit\*

- Improve yield of final step of cell therapy delivery
- Improve functionality of cells post-infusion
- Reduce variability of tx administration between providers



\*Includes: syringe, access catheter, and loading accessory

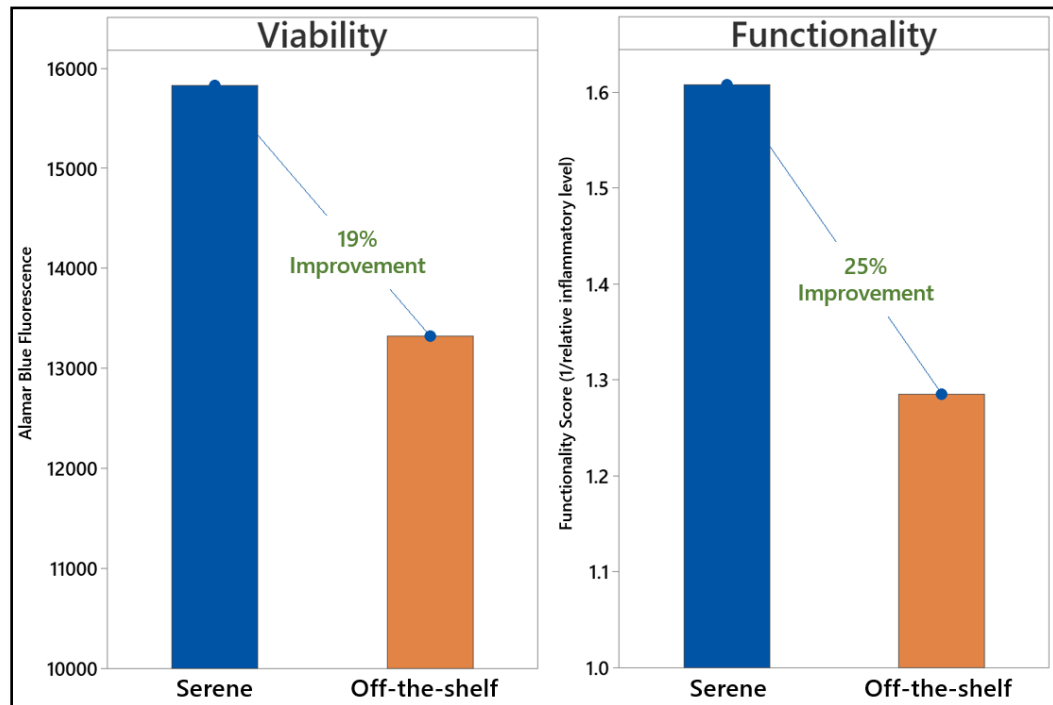
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Thursday, May 26, 2022

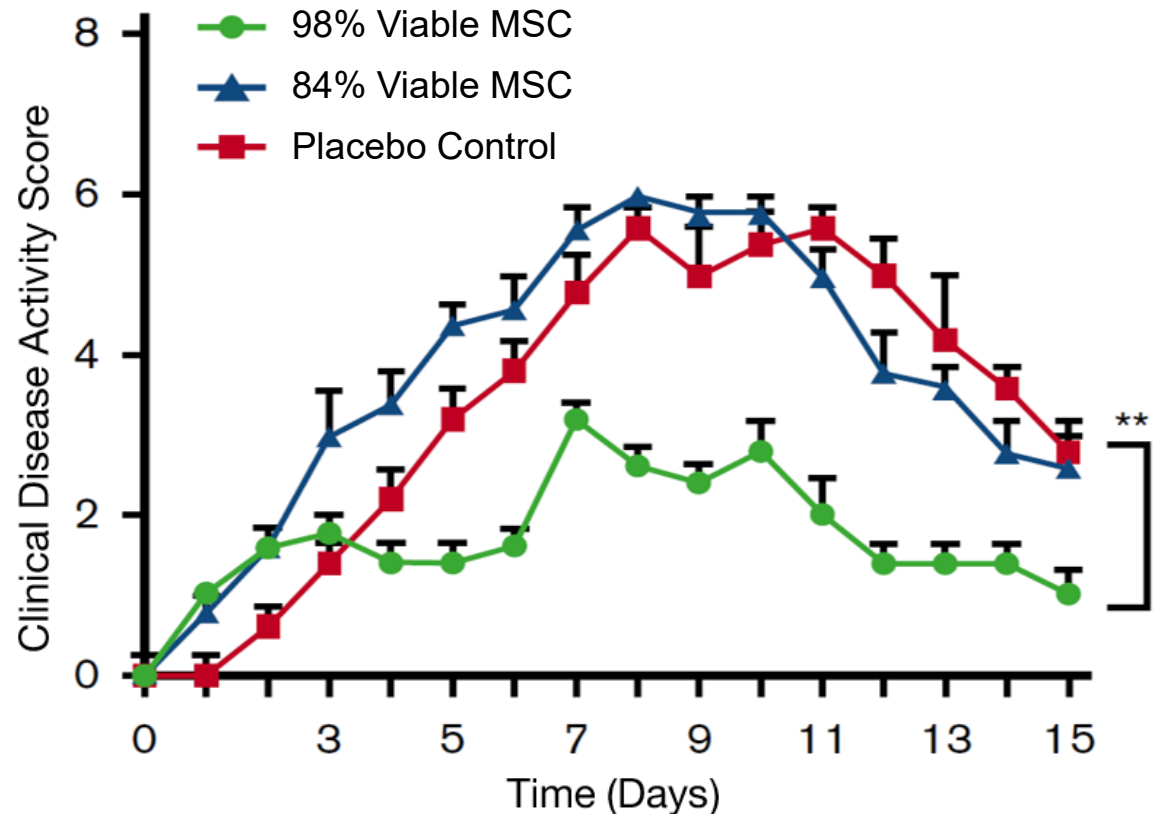


# Preclinical research of the Serene system shows improvement in CT Yield

**CV In-vitro Results:** Infusions through Serene improve MSC viability and functionality compared to off-the-shelf devices



**Therapeutic Impact:** Viability differences of just 14% have significant effects on MSC therapeutic efficacy (University of Wisconsin)





# Cell Therapy Journey



ACORN

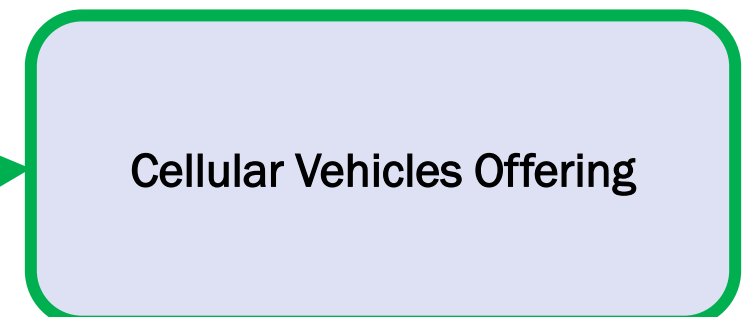


AmerisourceBergen  
World Courier



Combo drug/delivery plays

culture [RESILIENCE



# We are partnering with biotechs developing solid tissue CTs

## ○ Structure

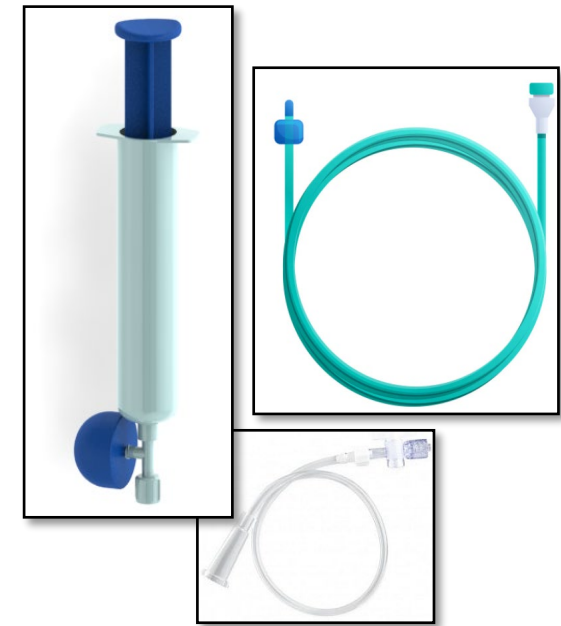
- Co-development deal with biotechs developing *solid-tissue cell therapies*

## ○ CV Offering:

- Infusion kit tailored to CT indication (infusion device + custom access catheter)
- Data package to be plugged into CT IND applications
- CV to pursue 510(k) clearance (in time for CT commercialization)

## ○ Mutual Value of Partnership:

- For biotechs: outsourced development and regulatory approval of delivery device, improved CT viability and functionality vs. status quo/competition, lower dose/doses, *improved last-step yield, lower cost of CT manufacture.*
- For CV: translation of innovation to patient benefit, alternative source of funding, hardware platform validation.

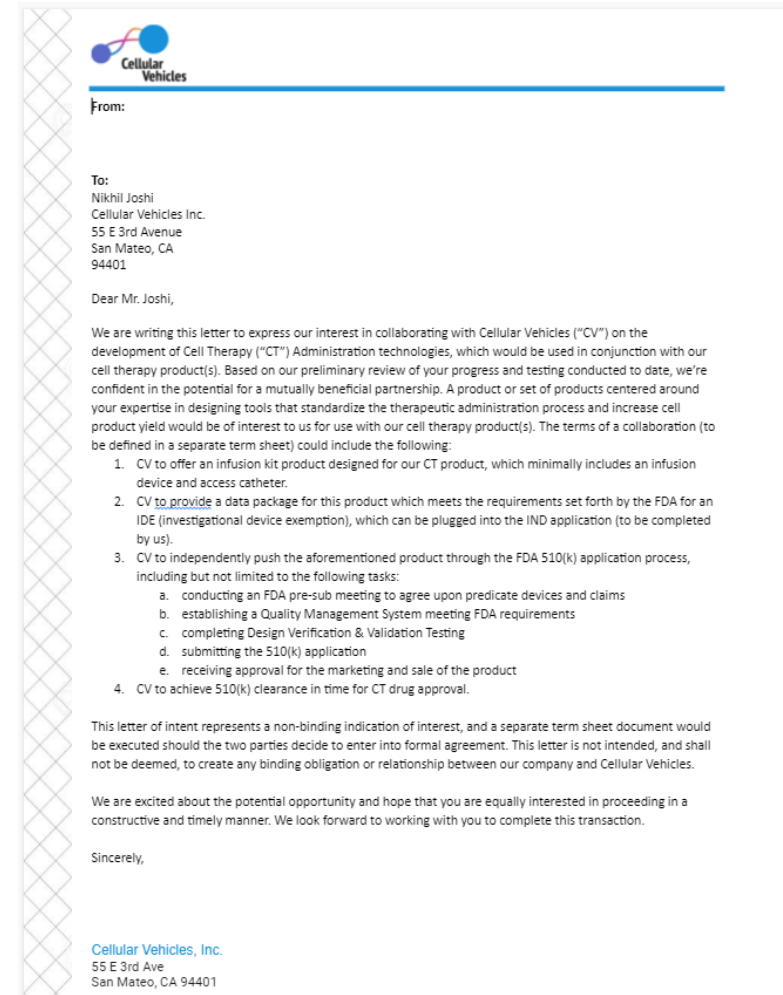


# What we need from you: Letter of Intent towards Exploratory Study

- Establish interest in an exploratory pilot study and future co-development deal
- **Non-binding**

## Pilot Study – Cell Therapy Performance Lab

Cellular Vehicles has built an in vitro “Cell Therapy Performance Lab” - a research model that measures performance of cell therapies across variables like localization, viability, functionality, engraftment, and persistence. We’re offering early partners the chance to conduct pre-IND studies in this model *at cost*. Contact us to learn more.



# Thank you!

Contact us if you're interested: [nikhil@cellularvehicles.com](mailto:nikhil@cellularvehicles.com)

