



## A non-invasive stem cell delivery system using proprietary proteins to repair damaged hearts & control damaging immune responses

### TARGACELL

**TargaCell Corporation**, Chicago-based biotech, is dedicated to repairing organ damage caused by disease to recover function & restore quality of life through **improved, non-invasive, targeted delivery of regenerative cells to specific organs**. Our biologics dampen the concurrent inflammatory immune responses that impede the regenerative process, promoting organ repair. TargaCell de-risked its development with more than \$8.5M in previous investment from federal, private, and academic grants and innovator contributions.

**Problem:** The initial focus is addressing cellular therapy's major impediment to completely repairing damage from a heart attack and preventing progression to heart failure and death: *It is that not enough stem cells are delivered and retained in the heart to make repair efficient!*

**Technology:** TargaCell developed and is refining an efficient stem cell delivery technology using our *proprietary* biologics that deliver 10X the number of stem cells to the heart and retain them long enough to repair damage and restore function. ***TargaCell's compounds are first-in-class, premium biologics.***

**Intellectual Property:** TargaCell owns its intellectual property portfolio for its biologic products consisting of two issued patents, with additional provisional patents being drafted for inflammatory syndrome therapies and in vitro assays. Complementing TargaCell's trade secrets, we are pursuing a biologics regulatory strategy to attain 11-12-year market exclusivity in EU & US.

#### Pipeline:

CANDIDATE	INDICATION	DISCOVERY	PRECLINICAL	PHASE I/II
TCC 100	HEART REPAIR CD34+ STEM CELLS	→		
TCC 200	HEART REPAIR MESENCHYMAL STEM CELLS (MSCs)	→		
TCC 200	LIVER REPAIR CD34+ STEM CELLS	→		
TCC 100	LIVER REPAIR MESENCHYMAL STEM CELLS (MSCs)	→		
TCC 100 TCC 200 (or both)	ARDS, MULTIORGAN INFLAMMATORY FAILURE SYNDROME (with or without COVID-19)	→		
TCC 100 TCC 200	DEVELOPMENT OF A PREDICTIVE STEM CELL BINDING ASSAY WITH <b>TC POLAND TCC</b> (TCC Joint Venture)	→		

#### Market Opportunity: The US Cardiac Market

**Lead application — HEART REPAIR:** Annually, 805,000 people suffer a heart attack, of which 525,000 people are experiencing their first myocardial infarction (MI).

- In Year 1 of an MI, 8% develop heart failure (HF) without previous history; Within 5 years, 18% will develop HF.
- The patient cost of a heart attack over a lifetime will be more than \$1 million.
- The AHA projects that CV disease will rise to 45% of the US population; the total cost will exceed \$1 trillion by 2035.

**IMPERATIVE: Develop curative, not palliative, stem cell therapies to repair heart damage & prevent HF!**

**Bottom-up market projection:** TargaCell projects capturing 5% of the 525,000 first heart attack patients per year, at \$20-\$40K cost per treatment, will yield a revenue post-approval of \$500M - \$1B.

**Competition:** TargaCell has two basic types of competitors that leverage stem cell technology:

- Manufacturers of products that attract stem cells or inject stem cells into the organ, in this case, the heart, to promote their retention — such as an SDF-1 gene therapy vector (Juventas Therapeutics, licensed by Astellas) & Biocardia, Cordis, and other catheter companies.
- Stem cell manufacturing companies vested in delivering stem cells for repair to prove product efficacy include Caladrius, Vericel, Pluristem, Mesoblast, and Athersys. They deliver/inject the stem cells that they manufacture using a catheter.

**Progress:** Proof-of-Concept data in a preclinical model show that our biologic products deliver, direct, and target 10x the number of stem cells to the heart without a catheter and retain these cells to enhance damaged tissue repair and restore function. TargaCell's proof-of-concept data support the following:

#### TargaCell, Corporation

Location: Chicago, IL  
Industry: Biotech  
Founded: 2017

#### Deal Information

Capital Seeking: \$2.5 – 4.0M  
Convertible Note ± Equity

#### Current Stage

Preclinical Proof-of-Concept  
Completed

#### Contact

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***TargaCell completed an informal FDA meeting with Associate Director OTAT for experimental design & Request for Designation with a positive outcome.***



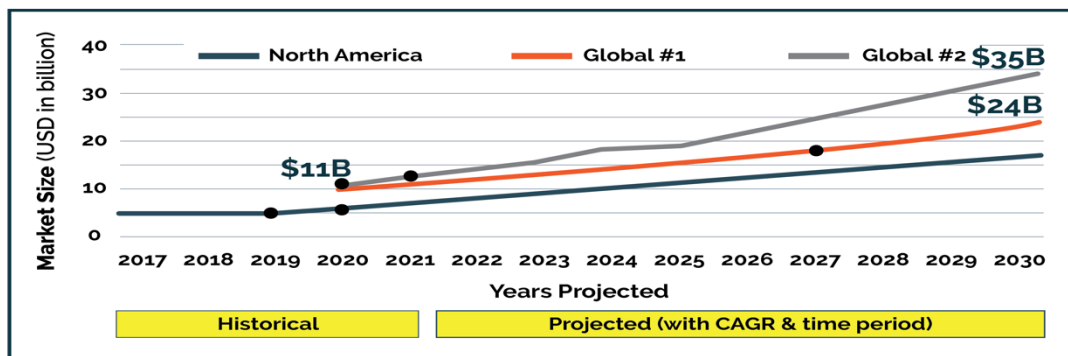
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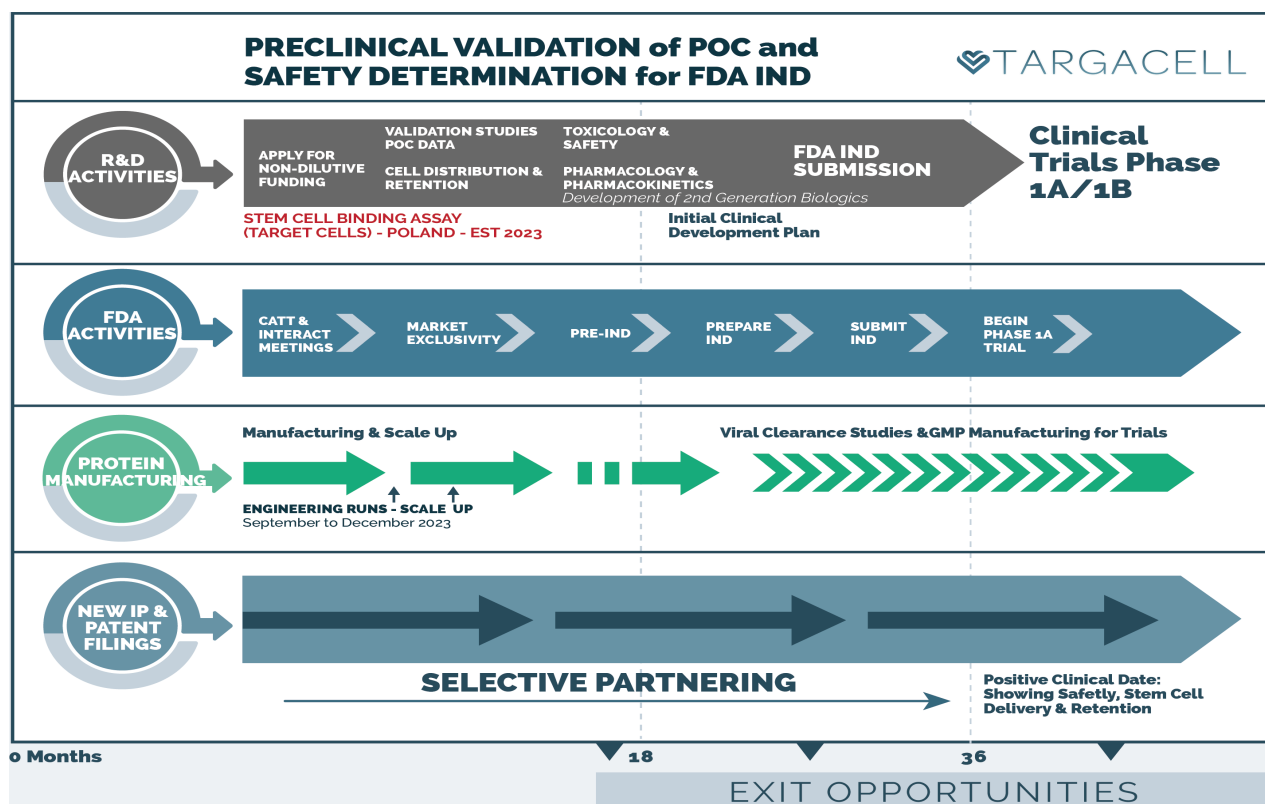
- Enhanced restoration of function will result from increased delivery & retention of cells to the site of damage.
- Our biologics prevent the entrapment of stem cells in unwanted organs not targeted for repair.
- Extending our understanding of the mechanisms & identifying the specific molecules responsible for controlling cells' migration to an organ & preventing their entrapment will yield new intellectual property.

#### The Global Stem Cell Therapy Market<sup>1,2</sup>

We project the total global cardiology stem cell market in 2033 to be >\$6.32 B.



**Development Path:** TargaCell is seeking \$2.5 - \$4M to complete Validation of Proof-of-Concept in mice without & with a surgically-induced heart attack and manufacturing, leading within 20-24 months to IND-enabling safety and toxicology trials.



#### Management & Advisory Team:

- Experienced entrepreneurs and experts in protein characterization & manufacturing, regenerative medicine & stem cells, cardiology, immunology, pathology, toxicology, and FDA regulatory matters.
- Advisory team with significant expertise in legal, financial, patents & licensing, nuclear pharmacy, and imaging in the regenerative medicine space.

*The TargaCell team is dedicated to translating our regenerative medicine technology from proof-of-concept to clinical practice & developing a commercially available biologics portfolio to become the stem cell delivery platform of choice for restoring organ function.*



[WWW.TARGACELL.COM](http://WWW.TARGACELL.COM)



<sup>1</sup> GLOBAL #1 Estimate: <https://www.openpr.com/news/2237654/stem-cell-therapy-market-is-expected-to-see-growth-rate-of-cagr>

<sup>2</sup> GLOBAL #2 Estimate, including NA: <https://www.fortunebusinessinsights.com/stem-cells-market-105138>